

Zoomed Pham 290897

1. AikoCarson_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
2. Agatha_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
3. Bavliard_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
4. McDazzle_15 + 1	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
5. Nodigi_18	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
6. Cozz_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
7. Quasar_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
8. ChocoMunch_16 + 1	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
9. Elliott_16 + 1	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
10. SteamedHarris_18	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
11. Feastonyee_15 + 1	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
12. Amok_15	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
13. Mayweather_17	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
14. Girk_19	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
15. CocoaPuff_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
16. Bubble_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
17. Vine_17	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
18. Elmal_17 + 1	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
19. SweatTea_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
20. Nina_17	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
21. Onia_18	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
22. ChenyonLiu_17	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
23. Lauer_15	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
24. ButtmiKdreams_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
25. Yummy_17 + 1	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
26. Tolls_18	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
27. RSchmail_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
28. Dre3_16 + 1	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
29. Hexbug_18	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
30. ChickenLover_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
31. SheckWes_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
32. Zareel_18	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
33. Jamzy_19	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
34. Carsonalex_17	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
35. Tamish_15	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
36. Balloona_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
37. Starburst_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
38. Biskit_17	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
39. Survivors_18	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
40. Button_17	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
41. RanchParrot_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
42. GoldHunter_17	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
43. SummitAcademy_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
44. PoiPie_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
45. Munkgeer_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
46. HippoPoison_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
47. MAhor_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
48. Cleo_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
49. Typhonom_16	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478
50. Noodles_18	20	20	886	108	1214	1380	151	168	180	190	206	220	237	256	307	313	320	336	446	468	478

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U1: Fal... 1 8 226 8 390 15 1826 896 88 91 106 120 138 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U2: Toas... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U3: Bowser... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U4: Backstage... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U5: Eyes... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U6: GEazy... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U7: BBQVain... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U8: Kiko... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U9: Taronosat... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U10: Schnabel... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U11: ZAYM... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U12: DirtyBoi... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U13: Opie... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U14: Bunker... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U15: Hedwig... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U16: BotCity... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U17: Budski... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U18: Maisha... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U19: Perwink... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U20: Lutum... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U21: Whitney... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U22: Cheese... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U23: Leroy... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U24: Horus... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U25: Getalong... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U26: Littimvic... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U27: ShawBra... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U28: Flickeal... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U29: Kamatu... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U30: Phistory... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U31: Spooky... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U32: Squiddy... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U33: Iwmaek... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489
U34: REQ2... 390 15 1826 896 88 91 106 120 138 141 167 188 195 219 238 250 261 272 293 288 313 314 316 370 319 391 414 410 400 453 465 476 489

Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

Pham 290897 Report

This analysis was run 03/28/26 on database version 641.

Pham number 290897 has 164 members, 30 are drafts.

Phages represented in each track:

- Track 1 : AikoCarson_15
- Track 2 : Agatha_16
- Track 3 : Bavidard_16
- Track 4 : McDazzle_15, ElJefes_15
- Track 5 : Nodigi_18
- Track 6 : Cozz_16
- Track 7 : Quasar_16
- Track 8 : ChocoMunchkin_16, AndPeggy_15, Yarn_15, CanesSauce_16, CaramellLatte_16
- Track 9 : Elliott_16, PsychoKiller_16
- Track 10 : SteamedHams_18
- Track 11 : Feastonyeet_15, BigChungus_15
- Track 12 : Amok_15
- Track 13 : Mayweather_17
- Track 14 : GiKK_19
- Track 15 : CocoaPuff_15
- Track 16 : Bubble_16
- Track 17 : Vine_17
- Track 18 : Elinal_17, KayGee_16
- Track 19 : SweatNTears_18
- Track 20 : Nina_17
- Track 21 : Orla_18
- Track 22 : CherryonLim_17
- Track 23 : Lauer_15
- Track 24 : Buttrmilkdreams_16
- Track 25 : Yummy_17, Horseradish_17
- Track 26 : Tolls_18
- Track 27 : RSchmailzl_17
- Track 28 : Dre3_16, Gibbous_16
- Track 29 : Hexbug_18
- Track 30 : ChickenTender_18
- Track 31 : SheckWes_15
- Track 32 : Zareef_18
- Track 33 : Jamzy_19
- Track 34 : Carsonalex_17
- Track 35 : Tarnish_15
- Track 36 : Balloona_15

- Track 37 : Starburst_17
- Track 38 : Biskit_17, SketchMex_15
- Track 39 : Survivors_18
- Track 40 : Button_17
- Track 41 : RanchParmCat_19
- Track 42 : GoldHunter_17
- Track 43 : SummitAcademy_15
- Track 44 : PotPie_16
- Track 45 : MunkgeeRoachy_16
- Track 46 : HippoPololi_18
- Track 47 : MAnor_16
- Track 48 : Cleo_16
- Track 49 : Typhonomachy_16
- Track 50 : Nibbles_18
- Track 51 : Sopespian_16
- Track 52 : Troje_16
- Track 53 : RADical_17
- Track 54 : RedBaron_17
- Track 55 : Pons_16
- Track 56 : Yucky_16
- Track 57 : Socotra_17, Axym_16
- Track 58 : BillDoor_18
- Track 59 : MaVan_18
- Track 60 : MScarn_18
- Track 61 : Emalyn_15
- Track 62 : GTE2_14
- Track 63 : Margaret_19
- Track 64 : Wolfwood_20
- Track 65 : Burnsey_16
- Track 66 : Azira_18
- Track 67 : Blondies_17
- Track 68 : Fribs8_17
- Track 69 : PhrostedPhlake_18
- Track 70 : Wocket_18
- Track 71 : Malachai_18, Begonia_18
- Track 72 : Murp_17
- Track 73 : MintFen_17, Melba_17, BlingBling_17, Barco_17
- Track 74 : CaptainKirk2_17, Delian_17, UmaThurman_17
- Track 75 : Pipp_17
- Track 76 : Wisp_16
- Track 77 : Mellie_16
- Track 78 : Gambino_19, Blueberry_19, Azula_19, MissRona_19
- Track 79 : Frokostdame_17
- Track 80 : Petra_19
- Track 81 : ZiggyZoo_16, Obliviate_16
- Track 82 : Samba_17
- Track 83 : PrincePatrick_17
- Track 84 : CarolAnn_17
- Track 85 : Walrus_18
- Track 86 : Blino_17
- Track 87 : William_17
- Track 88 : CheeseSpider_20
- Track 89 : Hitter_17

- Track 90 : Jalamah_19
- Track 91 : Guacamole_17, JasperJr_17
- Track 92 : Zilla_17
- Track 93 : Fenry_16
- Track 94 : KappaFarmDelta_17
- Track 95 : JuJu_17
- Track 96 : Lysidious_18
- Track 97 : Utz_17
- Track 98 : Archis_18
- Track 99 : PCoral7_17
- Track 100 : Zarbodnamra_17
- Track 101 : Fairfaxidum_17
- Track 102 : Toast_17
- Track 103 : Bowser_17
- Track 104 : BackstagePass_17
- Track 105 : Eyes_17
- Track 106 : GEazy_17, HannahD_17
- Track 107 : BBQValindra_17
- Track 108 : Kiko_18
- Track 109 : TaronosaurusRx_17
- Track 110 : Schnabeltier_17, MagicMan_17
- Track 111 : ZAYM_17
- Track 112 : DirtyBoi_18
- Track 113 : Opie_17
- Track 114 : Bunker_17
- Track 115 : Hedwig_18
- Track 116 : BotCity_18, BENtherdunthat_18, Asapag_18
- Track 117 : Budski_18
- Track 118 : Malisha_19
- Track 119 : Periwinkle_20
- Track 120 : Lutum_18, Kenna_17
- Track 121 : Whitney_19
- Track 122 : CheeseTouch_18
- Track 123 : Leroy_18
- Track 124 : Horus_18
- Track 125 : Getalong_19
- Track 126 : LitninMcQueen_18, Phabuloso_18
- Track 127 : ShawBrad_18
- Track 128 : Frickyeah_18
- Track 129 : Kamaru_18, Holliday_18
- Track 130 : Phistory_19
- Track 131 : Spooky_18
- Track 132 : Squiddly_20
- Track 133 : Whack_16
- Track 134 : REQ2_18

Summary of Final Annotations (See graph section above for start numbers):

The start number called the most often in the published annotations is 8, it was called in 37 of the 134 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Archis_18, Azula_19, Barco_17, Begonia_18, BlingBling_17, Blino_17, Blueberry_19, CaptainKirk2_17, CarolAnn_17, Delian_17, Fairfaxidum_17, Fenry_16, Gambino_19, Guacamole_17, Hitter_17, Jalammah_19, JasperJr_17, JuJu_17, KappaFarmDelta_17, Lysidious_18, Malachai_18, Melba_17, Mellie_16, MintFen_17, MissRona_19, Murp_17, Obliviate_16, PCoral7_17, PhrostedPhlake_18, PrincePatrick_17, Samba_17, UmaThurman_17, Utz_17, William_17, Wocket_18, Zarbodnamra_17, ZiggyZoo_16,

Genes that have the "Most Annotated" start but do not call it:

- CheeseSpider_20, Frokostdame_17, Petra_19, Pipp_17, Toast_17, Walrus_18, Wisp_16, Zilla_17,

Genes that do not have the "Most Annotated" start:

- Agatha_16, AikoCarson_15, Amok_15, AndPeggy_15, Asapag_18, Axym_16, Azira_18, BBQValindra_17, BENtherdunthat_18, BackstagePass_17, Balloona_15, Bavailard_16, BigChungus_15, BillDoor_18, Biskit_17, Blondies_17, BotCity_18, Bowser_17, Bubble_16, Budski_18, Bunker_17, Burnsey_16, Button_17, Buttrmlkdreams_16, CanesSauce_16, CaramelLatte_16, Carsonalex_17, CheeseTouch_18, CherryonLim_17, ChickenTender_18, ChocoMunchkin_16, Cleo_16, CocoaPuff_15, Cozz_16, DirtyBoi_18, Dre3_16, ElJefes_15, Elinal_17, Elliott_16, Emalyn_15, Eyes_17, Feastonyet_15, Fribs8_17, Frickyeah_18, GEazy_17, GTE2_14, Getalong_19, GiKK_19, Gibbous_16, GoldHunter_17, HannahD_17, Hedwig_18, Hexbug_18, HippoPololi_18, Holliday_18, Horseradish_17, Horus_18, Jamzy_19, Kamaru_18, KayGee_16, Kenna_17, Kiko_18, Lauer_15, Leroy_18, LitninMcQueen_18, Lutum_18, MAnor_16, MScarn_18, MaVan_18, MagicMan_17, Malisha_19, Margaret_19, Mayweather_17, McDazzle_15, MunkgeeRoachy_16, Nibbles_18, Nina_17, Nodigi_18, Opie_17, Orla_18, Periwinkle_20, Phabuloso_18, Phistory_19, Pons_16, PotPie_16, PsychoKiller_16, Quasar_16, RADical_17, REQ2_18, RSchmailz_17, RanchParmCat_19, RedBaron_17, Schnabeltier_17, ShawBrad_18, SheckWes_15, SketchMex_15, Socotra_17, Sopespian_16, Spooky_18, Squiddly_20, Starburst_17, SteamedHams_18, SummitAcademy_15, Survivors_18, SweatNTears_18, Tarnish_15, TaronosaurusRx_17, Tolls_18, Troje_16, Typhonmarchy_16, Vine_17, Whack_16, Whitney_19, Wolfwood_20, Yarn_15, Yucky_16, Yummy_17, ZAYM_17, Zareef_18,

Summary by start number:

Start 1:

- Found in 2 of 164 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 100.0% of time when present
- Phage (with cluster) where this start called: REQ2_18 (singleton), Whack_16 (singleton),

Start 5:

- Found in 1 of 164 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pipp_17 (CV),

Start 7:

- Found in 5 of 164 (3.0%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Toast_17 (CV),

Start 8:

- Found in 45 of 164 (27.4%) of genes in pham
- Manual Annotations of this start: 37 of 134
- Called 82.2% of time when present
- Phage (with cluster) where this start called: Archis_18 (CV), Azula_19 (CV), Barco_17 (CV), Begonia_18 (CV), BlingBling_17 (CV), Blino_17 (CV), Blueberry_19 (CV), CaptainKirk2_17 (CV), CarolAnn_17 (CV), Delian_17 (CV), Fairfaxidum_17 (CV), Fenry_16 (CV), Gambino_19 (CV), Guacamole_17 (CV), Hitter_17 (CV), Jalammah_19 (CV), JasperJr_17 (CV), JuJu_17 (CV), KappaFarmDelta_17 (CV), Lysidious_18 (CV), Malachai_18 (CV), Melba_17 (CV), Mellie_16 (CV), MintFen_17 (CV), MissRona_19 (CV), Murp_17 (CV), Obliviate_16 (CV), PCoral7_17 (CV), PhrostedPhlake_18 (CV), PrincePatrick_17 (CV), Samba_17 (CV), UmaThurman_17 (CV), Utz_17 (CV), William_17 (CV), Wocket_18 (CV), Zarbodnamra_17 (CV), ZiggyZoo_16 (CV),

Start 11:

- Found in 36 of 164 (22.0%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 2.8% of time when present
- Phage (with cluster) where this start called: Frokostdame_17 (CV),

Start 12:

- Found in 37 of 164 (22.6%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 5.4% of time when present
- Phage (with cluster) where this start called: Walrus_18 (CV), Zilla_17 (CV),

Start 14:

- Found in 40 of 164 (24.4%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 7.5% of time when present
- Phage (with cluster) where this start called: CheeseSpider_20 (CV), Petra_19 (CV), Wisp_16 (CV),

Start 19:

- Found in 1 of 164 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phistory_19 (DN1),

Start 20:

- Found in 1 of 164 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Periwinkle_20 (DN1),

Start 21:

- Found in 15 of 164 (9.1%) of genes in pham
- Manual Annotations of this start: 11 of 134
- Called 73.3% of time when present
- Phage (with cluster) where this start called: Asapag_18 (DN1), BENtherdunthat_18 (DN1), BotCity_18 (DN), CheeseTouch_18 (DN1), Holliday_18 (DN1), Kamaru_18 (DN1), Kenna_17 (DN1), Leroy_18 (DN1), LitninMcQueen_18 (DN1), Lutum_18 (DN1), Phabuloso_18 (DN1),

Start 22:

- Found in 24 of 164 (14.6%) of genes in pham
- Manual Annotations of this start: 5 of 134
- Called 20.8% of time when present
- Phage (with cluster) where this start called: Getalong_19 (DN1), Malisha_19 (DN), Spooky_18 (DN2), Squiddly_20 (DN2), Whitney_19 (DN1),

Start 25:

- Found in 15 of 164 (9.1%) of genes in pham
- Manual Annotations of this start: 13 of 134
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BBQValindra_17 (DB), BackstagePass_17 (DB), Bowser_17 (DB), Bunker_17 (DB), DirtyBoi_18 (DB), Eyes_17 (DB), GEazy_17 (DB), HannahD_17 (DB), Hedwig_18 (DB), Kiko_18 (DB), MagicMan_17 (DB), Opie_17 (DB), Schnabeltier_17 (DB), TaronosaurusRx_17 (DB), ZAYM_17 (DB),

Start 28:

- Found in 62 of 164 (37.8%) of genes in pham
- Manual Annotations of this start: 33 of 134
- Called 77.4% of time when present
- Phage (with cluster) where this start called: Agatha_16 (CT), Axym_16 (CT), Azira_18 (CT), Bavidard_16 (CT), BigChungus_15 (CT), Bubble_16 (CT), Burnsey_16 (CT), Carsonalex_17 (CT), CherryonLim_17 (CT), ChickenTender_18 (CT), Cleo_16 (CT), CocoaPuff_15 (CT), Cozz_16 (CT), Dre3_16 (CT), Elinal_17 (CT), Elliott_16 (CT), Feastonyeet_15 (CT), Fribs8_17 (CT), Gibbous_16 (CT), GoldHunter_17 (CT), HippoPololi_18 (CT), KayGee_16 (CT), Lauer_15 (CT), MAnor_16 (CT), MaVan_18 (CT), Mayweather_17 (CT), MunkgeeRoachy_16 (CT), Nibbles_18 (CT), Nina_17 (CT), Pons_16 (CT), PotPie_16 (CT), PsychoKiller_16 (CT), Quasar_16 (CT), RADical_17 (CT), RSchmailzl_17 (CT), RedBaron_17 (CT), SheckWes_15 (CT), Socotra_17 (CT), Sopespian_16 (CT), Starburst_17 (CT), SummitAcademy_15 (CT), Survivors_18 (CT), Tarnish_15 (CT), Typhonmarchy_16 (CT), Vine_17 (CT), Wolfwood_20 (CT), Yucky_16 (CT), Zareef_18 (CT),

Start 31:

- Found in 24 of 164 (14.6%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Frickyeah_18 (DN1), Horus_18 (DN1), ShawBrad_18 (DN1),

Start 42:

- Found in 20 of 164 (12.2%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 5.0% of time when present

- Phage (with cluster) where this start called: Budski_18 (DN),

Start 46:

- Found in 54 of 164 (32.9%) of genes in pham
- No Manual Annotations of this start.
- Called 5.6% of time when present
- Phage (with cluster) where this start called: Balloona_15 (CT), ElJefes_15 (CT), McDazzle_15 (CT),

Start 81:

- Found in 29 of 164 (17.7%) of genes in pham
- Manual Annotations of this start: 23 of 134
- Called 89.7% of time when present
- Phage (with cluster) where this start called: AikoCarson_15 (CT), Amok_15 (CT), AndPeggy_15 (CT), BillDoor_18 (CT), Biskit_17 (CT), Buttrmilkdreams_16 (CT), CanesSauce_16 (CT), CaramelLatte_16 (CT), ChocoMunchkin_16 (CT), Emalyn_15 (CT), GiKK_19 (CT), Hexbug_18 (CT), Horseradish_17 (CT), Jamzy_19 (CT), MScarn_18 (CT), Margaret_19 (CT), Nodigi_18 (CT), Orla_18 (CT), RanchParmCat_19 (CT), SketchMex_15 (CT), SteamedHams_18 (CT), SweatNTears_18 (CT), Tolls_18 (CT), Troje_16 (CT), Yarn_15 (CT), Yummy_17 (CT),

Start 86:

- Found in 28 of 164 (17.1%) of genes in pham
- Manual Annotations of this start: 2 of 134
- Called 7.1% of time when present
- Phage (with cluster) where this start called: Blondies_17 (CT), Button_17 (CT),

Start 108:

- Found in 54 of 164 (32.9%) of genes in pham
- No Manual Annotations of this start.
- Called 1.9% of time when present
- Phage (with cluster) where this start called: GTE2_14 (CT),

Summary by clusters:

There are 7 clusters represented in this pham: DN, singleton, DB, DN1, DN2, CV, CT,

Info for manual annotations of cluster CT:

- Start number 28 was manually annotated 33 times for cluster CT.
- Start number 81 was manually annotated 23 times for cluster CT.
- Start number 86 was manually annotated 2 times for cluster CT.

Info for manual annotations of cluster CV:

- Start number 5 was manually annotated 1 time for cluster CV.
- Start number 7 was manually annotated 1 time for cluster CV.
- Start number 8 was manually annotated 37 times for cluster CV.
- Start number 11 was manually annotated 1 time for cluster CV.
- Start number 12 was manually annotated 1 time for cluster CV.
- Start number 14 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster DB:

- Start number 25 was manually annotated 13 times for cluster DB.

Info for manual annotations of cluster DN:

- Start number 21 was manually annotated 1 time for cluster DN.
- Start number 22 was manually annotated 1 time for cluster DN.
- Start number 42 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 19 was manually annotated 1 time for cluster DN1.
- Start number 20 was manually annotated 1 time for cluster DN1.
- Start number 21 was manually annotated 10 times for cluster DN1.
- Start number 22 was manually annotated 2 times for cluster DN1.
- Start number 31 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 22 was manually annotated 2 times for cluster DN2.

Gene Information:

Gene: Agatha_16 Start: 9629, Stop: 14767, Start Num: 28

Candidate Starts for Agatha_16:

(Start: 22 @9605 has 5 MA's), (Start: 28 @9629 has 33 MA's), (32, 9656), (46, 9785), (49, 9860), (77, 10013), (78, 10016), (94, 10112), (97, 10121), (103, 10151), (105, 10157), (107, 10172), (108, 10175), (112, 10196), (122, 10268), (125, 10289), (136, 10355), (138, 10376), (155, 10493), (182, 10655), (189, 10694), (198, 10769), (215, 10928), (219, 10940), (223, 10967), (228, 11012), (230, 11024), (245, 11114), (248, 11132), (252, 11153), (255, 11183), (261, 11207), (264, 11219), (267, 11258), (271, 11291), (288, 11393), (289, 11396), (293, 11420), (304, 11513), (307, 11528), (311, 11567), (324, 11663), (333, 11705), (340, 11735), (341, 11738), (351, 11846), (352, 11849), (357, 11900), (371, 11975), (382, 12077), (390, 12122), (395, 12143), (396, 12146), (397, 12149), (414, 12224), (424, 12257), (428, 12278), (432, 12308), (440, 12356), (442, 12362), (446, 12389), (466, 12524), (481, 12641), (484, 12674), (486, 12695), (487, 12698), (501, 12764), (502, 12770), (504, 12785), (527, 12905), (529, 12914), (544, 12998), (608, 13319), (646, 13538), (653, 13574), (685, 13787), (725, 13979), (734, 14027), (743, 14048), (757, 14156), (774, 14222), (776, 14240), (788, 14345), (795, 14375), (796, 14384), (801, 14414), (812, 14480), (817, 14528), (824, 14588), (837, 14675), (848, 14738),

Gene: AikoCarson_15 Start: 9357, Stop: 14072, Start Num: 81

Candidate Starts for AikoCarson_15:

(Start: 81 @9357 has 23 MA's), (Start: 86 @9384 has 2 MA's), (108, 9513), (121, 9600), (124, 9615), (129, 9660), (132, 9672), (136, 9690), (139, 9717), (151, 9789), (156, 9831), (158, 9846), (159, 9849), (165, 9873), (168, 9891), (171, 9909), (178, 9954), (180, 9963), (187, 9990), (191, 10023), (201, 10083), (205, 10122), (208, 10161), (210, 10176), (223, 10245), (227, 10272), (243, 10368), (246, 10386), (258, 10449), (286, 10617), (288, 10623), (302, 10737), (304, 10743), (307, 10758), (337, 10947), (341, 10968), (344, 10986), (345, 10995), (357, 11130), (371, 11205), (373, 11241), (378, 11280), (379, 11283), (382, 11307), (386, 11337), (390, 11352), (396, 11376), (408, 11415), (414, 11454), (416, 11460), (446, 11619), (480, 11868), (481, 11871), (484, 11904), (486, 11925), (501, 11994), (502, 12000), (516, 12099), (529, 12144), (544, 12231), (575, 12366), (608, 12558), (622, 12627), (626, 12651), (650, 12792), (682, 13005), (685, 13026), (696, 13083), (750, 13386), (755, 13443), (757, 13461), (774, 13527), (781, 13599), (788, 13650), (794, 13674), (795, 13680), (796, 13689), (801, 13719), (812, 13785), (817, 13833), (824, 13893), (838, 13983), (848, 14043),

Gene: Amok_15 Start: 9357, Stop: 14069, Start Num: 81

Candidate Starts for Amok_15:

(Start: 81 @9357 has 23 MA's), (Start: 86 @9384 has 2 MA's), (108, 9513), (121, 9600), (124, 9615), (129, 9660), (132, 9672), (136, 9690), (139, 9717), (151, 9789), (156, 9831), (158, 9846), (159, 9849), (165, 9873), (168, 9891), (171, 9909), (175, 9930), (178, 9954), (180, 9963), (187, 9990), (191, 10023), (192, 10032), (205, 10122), (208, 10161), (210, 10176), (223, 10245), (227, 10272), (243, 10368), (246, 10386), (258, 10449), (286, 10617), (288, 10623), (302, 10737), (304, 10743), (307, 10758), (337, 10947), (341, 10968), (344, 10986), (345, 10995), (357, 11130), (366, 11184), (371, 11205), (373, 11241), (378, 11280), (379, 11283), (382, 11307), (386, 11337), (390, 11352), (396, 11376), (408, 11415), (414, 11454), (416, 11460), (440, 11586), (445, 11616), (446, 11619), (448, 11637), (449, 11640), (480, 11868), (481, 11871), (484, 11904), (486, 11925), (501, 11994), (502, 12000), (544, 12231), (575, 12366), (608, 12558), (622, 12627), (626, 12651), (650, 12792), (682, 13005), (685, 13026), (696, 13080), (750, 13383), (755, 13440), (757, 13458), (774, 13524), (781, 13596), (788, 13647), (795, 13677), (796, 13686), (801, 13716), (812, 13782), (817, 13830), (824, 13890), (838, 13980), (848, 14040),

Gene: AndPeggy_15 Start: 9645, Stop: 14432, Start Num: 81

Candidate Starts for AndPeggy_15:

(Start: 81 @9645 has 23 MA's), (Start: 86 @9672 has 2 MA's), (99, 9750), (108, 9801), (121, 9888), (124, 9903), (132, 9960), (136, 9978), (139, 10005), (140, 10008), (151, 10077), (158, 10134), (168, 10179), (171, 10197), (178, 10242), (187, 10278), (191, 10311), (199, 10359), (200, 10362), (205, 10410), (208, 10449), (210, 10464), (243, 10656), (246, 10674), (262, 10758), (286, 10905), (292, 10932), (302, 11025), (304, 11031), (307, 11046), (311, 11085), (312, 11097), (321, 11163), (337, 11235), (340, 11253), (341, 11256), (345, 11283), (373, 11529), (382, 11595), (390, 11640), (395, 11661), (396, 11664), (397, 11667), (408, 11703), (414, 11742), (416, 11748), (424, 11775), (445, 11904), (446, 11907), (448, 11925), (467, 12048), (469, 12063), (484, 12192), (486, 12213), (495, 12255), (501, 12282), (502, 12288), (525, 12420), (529, 12432), (544, 12519), (553, 12561), (563, 12597), (590, 12723), (596, 12762), (617, 12891), (627, 12948), (633, 12990), (650, 13083), (660, 13158), (669, 13221), (682, 13302), (685, 13323), (710, 13500), (712, 13506), (747, 13725), (755, 13803), (757, 13821), (759, 13827), (774, 13887), (776, 13905), (779, 13938), (788, 14010), (796, 14049), (801, 14079), (812, 14145), (817, 14193), (824, 14253), (838, 14343), (848, 14403),

Gene: Archis_18 Start: 10485, Stop: 16007, Start Num: 8

Candidate Starts for Archis_18:

(Start: 8 @10485 has 37 MA's), (Start: 11 @10500 has 1 MA's), (Start: 12 @10506 has 1 MA's), (Start: 14 @10536 has 1 MA's), (15, 10545), (16, 10548), (18, 10590), (38, 10701), (40, 10722), (47, 10842), (54, 10884), (65, 10950), (68, 10968), (72, 10989), (73, 10992), (76, 11010), (82, 11034), (95, 11118), (97, 11124), (105, 11160), (107, 11175), (109, 11184), (135, 11352), (138, 11379), (155, 11496), (184, 11667), (189, 11697), (211, 11901), (219, 11946), (223, 11973), (224, 11985), (240, 12075), (245, 12120), (250, 12147), (254, 12177), (267, 12264), (268, 12267), (272, 12306), (285, 12390), (293, 12426), (297, 12468), (302, 12513), (304, 12519), (306, 12531), (307, 12534), (313, 12588), (317, 12627), (320, 12648), (321, 12651), (324, 12669), (325, 12678), (330, 12696), (335, 12717), (337, 12723), (341, 12744), (345, 12771), (350, 12849), (389, 13038), (398, 13062), (404, 13074), (405, 13077), (418, 13092), (423, 13107), (424, 13110), (432, 13161), (445, 13242), (446, 13245), (452, 13278), (455, 13308), (457, 13332), (505, 13665), (514, 13713), (518, 13758), (519, 13761), (522, 13776), (531, 13821), (532, 13830), (533, 13839), (543, 13890), (557, 13962), (562, 13980), (571, 14001), (582, 14100), (583, 14103), (592, 14136), (600, 14202), (601, 14220), (604, 14235), (611, 14268), (619, 14319), (628, 14370), (635, 14418), (664, 14613), (665, 14616), (674, 14688), (675, 14691), (684, 14757), (685, 14760), (688, 14778), (697, 14838), (703, 14895), (704, 14913), (716, 14994), (717, 14997), (721, 15012), (743, 15171), (754, 15225), (758, 15291), (772, 15345), (773, 15357), (774, 15363), (778, 15393), (788, 15486), (794, 15510), (798, 15528), (801, 15552), (802, 15558), (805, 15579), (812, 15618), (826, 15759), (839, 15822), (841, 15840), (850, 15897), (860, 15990),

Gene: Asapag_18 Start: 9881, Stop: 15508, Start Num: 21

Candidate Starts for Asapag_18:

(Start: 21 @9881 has 11 MA's), (Start: 31 @9926 has 1 MA's), (33, 9947), (37, 9968), (41, 10013), (Start: 42 @10028 has 1 MA's), (48, 10112), (56, 10154), (57, 10166), (68, 10229), (71, 10244), (73, 10253), (76, 10271), (77, 10277), (88, 10325), (112, 10460), (134, 10610), (138, 10640), (189, 10964), (202, 11060), (211, 11168), (218, 11210), (219, 11213), (220, 11219), (223, 11240), (235, 11321), (245, 11387), (250, 11414), (252, 11426), (254, 11444), (255, 11456), (261, 11480), (264, 11492), (267, 11531), (268, 11534), (269, 11543), (272, 11573), (290, 11678), (293, 11693), (296, 11723), (297, 11735), (302, 11780), (304, 11786), (307, 11801), (310, 11831), (312, 11852), (313, 11855), (321, 11918), (325, 11945), (326, 11948), (327, 11951), (328, 11957), (334, 11981), (335, 11984), (337, 11990), (339, 11996), (341, 12011), (344, 12029), (346, 12074), (355, 12158), (356, 12164), (360, 12191), (373, 12284), (374, 12293), (382, 12350), (383, 12362), (391, 12398), (392, 12404), (404, 12446), (407, 12458), (414, 12497), (416, 12503), (417, 12506), (422, 12524), (423, 12527), (424, 12530), (429, 12554), (440, 12629), (447, 12668), (451, 12692), (455, 12725), (465, 12836), (468, 12869), (473, 12932), (478, 12968), (482, 12998), (493, 13076), (494, 13079), (496, 13088), (500, 13112), (512, 13193), (514, 13199), (518, 13244), (519, 13247), (522, 13262), (531, 13307), (532, 13316), (533, 13325), (534, 13328), (555, 13433), (568, 13481), (569, 13484), (571, 13487), (582, 13586), (583, 13589), (589, 13601), (604, 13718), (611, 13751), (619, 13802), (625, 13832), (634, 13892), (647, 13973), (651, 13994), (654, 14027), (667, 14099), (668, 14108), (685, 14222), (690, 14252), (693, 14261), (698, 14300), (699, 14303), (702, 14333), (703, 14354), (730, 14552), (739, 14615), (742, 14621), (751, 14672), (777, 14858), (786, 14945), (791, 14972), (792, 14975), (806, 15050), (810, 15074), (816, 15113), (818, 15149), (823, 15170), (832, 15257), (837, 15299), (843, 15332), (845, 15344), (857, 15422), (861, 15488),

Gene: Axym_16 Start: 9629, Stop: 14767, Start Num: 28

Candidate Starts for Axym_16:

(Start: 22 @9605 has 5 MA's), (Start: 28 @9629 has 33 MA's), (32, 9656), (46, 9785), (49, 9860), (77, 10013), (78, 10016), (94, 10112), (97, 10121), (103, 10151), (105, 10157), (107, 10172), (108, 10175), (112, 10196), (122, 10268), (125, 10289), (136, 10355), (138, 10376), (155, 10493), (182, 10655), (189, 10694), (198, 10769), (215, 10928), (219, 10940), (223, 10967), (228, 11012), (230, 11024), (245, 11114), (248, 11132), (252, 11153), (255, 11183), (261, 11207), (264, 11219), (267, 11258), (271, 11291), (288, 11393), (289, 11396), (293, 11420), (304, 11513), (307, 11528), (311, 11567), (317, 11621), (324, 11663), (326, 11675), (333, 11705), (340, 11735), (341, 11738), (351, 11846), (352, 11849), (357, 11900), (371, 11975), (380, 12065), (382, 12077), (390, 12122), (395, 12143), (396, 12146), (397, 12149), (414, 12224), (424, 12257), (428, 12278), (432, 12308), (440, 12356), (442, 12362), (446, 12389), (466, 12524), (481, 12641), (484, 12674), (486, 12695), (487, 12698), (501, 12764), (502, 12770), (504, 12785), (527, 12905), (529, 12914), (544, 12998), (608, 13319), (646, 13538), (653, 13574), (685, 13787), (725, 13979), (734, 14027), (743, 14048), (757, 14156), (774, 14222), (776, 14240), (782, 14300), (788, 14345), (795, 14375), (796, 14384), (801, 14414), (812, 14480), (817, 14528), (824, 14588), (837, 14675), (848, 14738),

Gene: Azira_18 Start: 10619, Stop: 15748, Start Num: 28

Candidate Starts for Azira_18:

(23, 10598), (Start: 28 @10619 has 33 MA's), (32, 10646), (46, 10775), (54, 10871), (62, 10922), (74, 10979), (79, 11012), (80, 11015), (94, 11102), (98, 11114), (107, 11162), (108, 11165), (109, 11171), (116, 11225), (118, 11231), (125, 11279), (136, 11345), (138, 11366), (198, 11759), (199, 11762), (208, 11864), (219, 11930), (220, 11936), (223, 11957), (254, 12161), (256, 12179), (259, 12185), (261, 12197), (264, 12209), (267, 12248), (269, 12260), (274, 12296), (281, 12353), (286, 12377), (288, 12383), (304, 12503), (307, 12518), (311, 12557), (320, 12632), (326, 12665), (330, 12680), (331, 12686), (332, 12692), (341, 12728), (351, 12836), (360, 12908), (370, 12962), (382, 13067), (390, 13112), (396, 13136), (411, 13196), (412, 13208), (414, 13214), (422, 13241), (423, 13244), (424, 13247), (438, 13340), (440, 13346), (448, 13397), (457, 13466), (463, 13499), (466, 13514), (467, 13520), (473, 13577), (475, 13589), (480, 13628), (481, 13631), (483, 13652), (484, 13664),

(486, 13685), (487, 13688), (495, 13727), (498, 13739), (501, 13754), (527, 13895), (544, 13991), (556, 14057), (566, 14078), (570, 14084), (608, 14321), (616, 14351), (622, 14390), (643, 14525), (650, 14555), (653, 14576), (678, 14735), (682, 14768), (725, 14981), (733, 14999), (734, 15005), (757, 15134), (774, 15200), (779, 15251), (788, 15323), (796, 15362), (801, 15392), (807, 15425), (812, 15458), (822, 15530), (827, 15602), (837, 15656), (839, 15662), (848, 15719),

Gene: Azula_19 Start: 10619, Stop: 16108, Start Num: 8

Candidate Starts for Azula_19:

(Start: 8 @10619 has 37 MA's), (Start: 11 @10634 has 1 MA's), (Start: 12 @10640 has 1 MA's), (Start: 14 @10670 has 1 MA's), (15, 10679), (16, 10682), (18, 10724), (38, 10835), (40, 10856), (47, 10976), (54, 11018), (65, 11084), (68, 11102), (72, 11123), (73, 11126), (76, 11144), (82, 11168), (95, 11252), (105, 11294), (107, 11309), (109, 11318), (135, 11486), (138, 11513), (155, 11630), (184, 11801), (189, 11831), (211, 12035), (219, 12080), (223, 12107), (224, 12119), (226, 12131), (240, 12209), (245, 12254), (250, 12281), (254, 12311), (267, 12398), (268, 12401), (272, 12440), (281, 12503), (283, 12512), (293, 12560), (297, 12602), (302, 12647), (304, 12653), (307, 12668), (313, 12722), (317, 12761), (320, 12782), (321, 12785), (324, 12803), (330, 12830), (335, 12851), (337, 12857), (341, 12878), (344, 12896), (345, 12905), (385, 13178), (405, 13232), (423, 13262), (424, 13265), (432, 13316), (445, 13397), (446, 13400), (452, 13433), (455, 13463), (457, 13487), (468, 13553), (505, 13820), (514, 13868), (516, 13901), (518, 13913), (519, 13916), (531, 13976), (532, 13985), (533, 13994), (543, 14045), (557, 14117), (562, 14135), (571, 14156), (582, 14255), (583, 14258), (592, 14291), (600, 14357), (601, 14375), (604, 14390), (611, 14423), (619, 14474), (628, 14525), (639, 14594), (664, 14768), (665, 14771), (674, 14843), (675, 14846), (684, 14912), (685, 14915), (688, 14933), (697, 14993), (703, 15050), (704, 15068), (716, 15149), (717, 15152), (721, 15167), (743, 15338), (754, 15392), (766, 15464), (769, 15473), (775, 15509), (783, 15569), (785, 15587), (789, 15605), (800, 15650), (804, 15683), (821, 15794), (826, 15863), (839, 15926), (841, 15944), (860, 16094),

Gene: BBQValindra_17 Start: 10583, Stop: 15709, Start Num: 25

Candidate Starts for BBQValindra_17:

(Start: 25 @10583 has 13 MA's), (Start: 28 @10592 has 33 MA's), (57, 10865), (59, 10874), (63, 10904), (76, 10970), (106, 11126), (109, 11144), (131, 11297), (138, 11339), (152, 11426), (182, 11618), (199, 11735), (204, 11774), (211, 11858), (214, 11867), (215, 11891), (218, 11900), (220, 11909), (224, 11942), (226, 11954), (229, 11978), (238, 12023), (240, 12032), (244, 12068), (250, 12104), (252, 12116), (254, 12134), (261, 12170), (276, 12293), (283, 12335), (289, 12359), (302, 12470), (303, 12473), (304, 12476), (307, 12491), (313, 12545), (317, 12584), (332, 12665), (337, 12680), (341, 12701), (343, 12716), (345, 12728), (346, 12764), (349, 12800), (374, 12962), (406, 13019), (413, 13031), (414, 13034), (424, 13067), (425, 13073), (427, 13085), (438, 13160), (440, 13166), (442, 13172), (444, 13193), (445, 13196), (446, 13199), (455, 13262), (459, 13298), (462, 13313), (467, 13337), (469, 13352), (470, 13355), (477, 13415), (489, 13514), (497, 13556), (510, 13634), (520, 13703), (526, 13721), (545, 13829), (547, 13832), (549, 13838), (552, 13856), (553, 13859), (558, 13880), (564, 13898), (565, 13901), (569, 13910), (584, 14015), (592, 14045), (594, 14063), (595, 14069), (603, 14129), (616, 14189), (624, 14237), (630, 14267), (640, 14315), (642, 14327), (653, 14387), (661, 14444), (664, 14462), (670, 14507), (675, 14534), (679, 14552), (682, 14582), (683, 14591), (689, 14630), (691, 14636), (694, 14645), (713, 14804), (718, 14846), (751, 15038), (752, 15041), (756, 15098), (760, 15107), (763, 15119), (770, 15140), (803, 15353), (810, 15392), (822, 15461), (825, 15515), (853, 15668), (855, 15692),

Gene: BENtherdunthat_18 Start: 9881, Stop: 15508, Start Num: 21

Candidate Starts for BENtherdunthat_18:

(Start: 21 @9881 has 11 MA's), (Start: 31 @9926 has 1 MA's), (33, 9947), (37, 9968), (41, 10013), (Start: 42 @10028 has 1 MA's), (48, 10112), (56, 10154), (57, 10166), (68, 10229), (71, 10244), (73, 10253), (76, 10271), (77, 10277), (88, 10325), (112, 10460), (134, 10610), (138, 10640), (189, 10964), (202, 11060), (211, 11168), (218, 11210), (219, 11213), (220, 11219), (223, 11240), (235, 11321),

(245, 11387), (250, 11414), (252, 11426), (254, 11444), (255, 11456), (261, 11480), (264, 11492), (267, 11531), (268, 11534), (269, 11543), (272, 11573), (290, 11678), (293, 11693), (296, 11723), (297, 11735), (302, 11780), (304, 11786), (307, 11801), (310, 11831), (312, 11852), (313, 11855), (321, 11918), (325, 11945), (326, 11948), (327, 11951), (328, 11957), (334, 11981), (335, 11984), (337, 11990), (339, 11996), (341, 12011), (344, 12029), (346, 12074), (355, 12158), (356, 12164), (360, 12191), (373, 12284), (374, 12293), (382, 12350), (383, 12362), (391, 12398), (392, 12404), (404, 12446), (407, 12458), (414, 12497), (416, 12503), (417, 12506), (422, 12524), (423, 12527), (424, 12530), (429, 12554), (440, 12629), (447, 12668), (451, 12692), (455, 12725), (465, 12836), (468, 12869), (473, 12932), (478, 12968), (482, 12998), (493, 13076), (494, 13079), (496, 13088), (500, 13112), (512, 13193), (514, 13199), (518, 13244), (519, 13247), (522, 13262), (531, 13307), (532, 13316), (533, 13325), (534, 13328), (555, 13433), (568, 13481), (569, 13484), (571, 13487), (582, 13586), (583, 13589), (589, 13601), (604, 13718), (611, 13751), (619, 13802), (625, 13832), (634, 13892), (647, 13973), (651, 13994), (654, 14027), (667, 14099), (668, 14108), (685, 14222), (690, 14252), (693, 14261), (698, 14300), (699, 14303), (702, 14333), (703, 14354), (730, 14552), (739, 14615), (742, 14621), (751, 14672), (777, 14858), (786, 14945), (791, 14972), (792, 14975), (806, 15050), (810, 15074), (816, 15113), (818, 15149), (823, 15170), (832, 15257), (837, 15299), (843, 15332), (845, 15344), (857, 15422), (861, 15488),

Gene: BackstagePass_17 Start: 10561, Stop: 15849, Start Num: 25

Candidate Starts for BackstagePass_17:

(Start: 25 @10561 has 13 MA's), (Start: 28 @10570 has 33 MA's), (57, 10843), (59, 10852), (63, 10882), (75, 10945), (78, 10957), (82, 10972), (87, 10999), (101, 11083), (106, 11104), (111, 11131), (113, 11143), (131, 11275), (138, 11317), (147, 11371), (152, 11404), (184, 11605), (194, 11683), (211, 11836), (215, 11869), (218, 11878), (220, 11887), (224, 11920), (226, 11932), (229, 11956), (238, 12001), (245, 12055), (249, 12079), (250, 12082), (252, 12094), (254, 12112), (261, 12148), (276, 12271), (283, 12313), (302, 12448), (304, 12454), (307, 12469), (316, 12559), (317, 12562), (321, 12586), (325, 12613), (333, 12646), (337, 12658), (341, 12679), (345, 12706), (349, 12778), (375, 12949), (376, 12952), (377, 12964), (379, 12973), (393, 13057), (407, 13102), (424, 13174), (427, 13192), (432, 13225), (434, 13237), (440, 13273), (446, 13306), (453, 13357), (459, 13405), (467, 13444), (469, 13459), (470, 13462), (471, 13468), (475, 13513), (489, 13621), (497, 13663), (510, 13741), (514, 13765), (520, 13810), (545, 13933), (547, 13936), (553, 13963), (558, 13984), (564, 14002), (565, 14005), (569, 14014), (584, 14119), (595, 14173), (631, 14398), (637, 14434), (653, 14524), (656, 14566), (670, 14647), (675, 14674), (679, 14692), (683, 14731), (689, 14770), (691, 14776), (694, 14785), (713, 14944), (718, 14986), (751, 15178), (752, 15181), (760, 15247), (763, 15259), (770, 15280), (772, 15283), (803, 15493), (810, 15532), (822, 15601), (825, 15655), (853, 15808),

Gene: Balloona_15 Start: 9534, Stop: 14471, Start Num: 46

Candidate Starts for Balloona_15:

(Start: 28 @9378 has 33 MA's), (46, 9534), (60, 9663), (64, 9693), (77, 9762), (80, 9774), (88, 9810), (94, 9861), (97, 9870), (105, 9906), (109, 9930), (118, 9990), (127, 10044), (131, 10083), (133, 10089), (136, 10104), (138, 10125), (164, 10296), (175, 10359), (182, 10404), (193, 10485), (211, 10644), (215, 10677), (219, 10689), (223, 10716), (230, 10773), (236, 10803), (239, 10815), (253, 10917), (254, 10920), (267, 11007), (274, 11055), (293, 11169), (304, 11262), (307, 11277), (309, 11298), (313, 11331), (315, 11361), (318, 11373), (324, 11412), (329, 11436), (330, 11439), (336, 11463), (341, 11487), (350, 11592), (363, 11670), (370, 11700), (371, 11703), (373, 11739), (379, 11781), (382, 11805), (384, 11820), (386, 11835), (390, 11850), (396, 11874), (408, 11913), (410, 11928), (411, 11934), (422, 11979), (424, 11985), (444, 12111), (450, 12141), (456, 12192), (461, 12228), (465, 12249), (466, 12252), (474, 12324), (481, 12369), (484, 12402), (486, 12423), (498, 12477), (509, 12552), (529, 12636), (544, 12723), (588, 12909), (608, 13041), (616, 13071), (638, 13209), (648, 13260), (653, 13290), (678, 13455), (682, 13485), (720, 13665), (726, 13716), (734, 13743), (743, 13764), (757, 13860), (769, 13908), (774, 13926), (788, 14049), (794, 14073), (796, 14088), (801, 14118), (805, 14145), (807, 14151), (812, 14184), (820, 14253), (822, 14256), (824, 14292),

(838, 14382),

Gene: Barco_17 Start: 10274, Stop: 15796, Start Num: 8

Candidate Starts for Barco_17:

(Start: 8 @10274 has 37 MA's), (Start: 11 @10289 has 1 MA's), (Start: 12 @10295 has 1 MA's), (Start: 14 @10325 has 1 MA's), (15, 10334), (16, 10337), (18, 10379), (38, 10490), (40, 10511), (47, 10631), (54, 10673), (65, 10739), (68, 10757), (72, 10778), (73, 10781), (76, 10799), (82, 10823), (95, 10907), (96, 10910), (105, 10949), (107, 10964), (109, 10973), (135, 11141), (138, 11168), (155, 11285), (184, 11456), (189, 11486), (211, 11690), (219, 11735), (223, 11762), (224, 11774), (240, 11864), (245, 11909), (250, 11936), (254, 11966), (267, 12053), (268, 12056), (272, 12095), (285, 12179), (293, 12215), (297, 12257), (302, 12302), (304, 12308), (306, 12320), (307, 12323), (313, 12377), (317, 12416), (320, 12437), (321, 12440), (324, 12458), (325, 12467), (330, 12485), (335, 12506), (337, 12512), (341, 12533), (345, 12560), (350, 12638), (389, 12827), (398, 12851), (404, 12863), (405, 12866), (418, 12881), (423, 12896), (424, 12899), (432, 12950), (445, 13031), (446, 13034), (452, 13067), (455, 13097), (457, 13121), (505, 13454), (514, 13502), (518, 13547), (519, 13550), (522, 13565), (531, 13610), (532, 13619), (533, 13628), (543, 13679), (557, 13751), (562, 13769), (571, 13790), (582, 13889), (583, 13892), (592, 13925), (600, 13991), (601, 14009), (604, 14024), (611, 14057), (619, 14108), (628, 14159), (635, 14207), (664, 14402), (665, 14405), (674, 14477), (675, 14480), (684, 14546), (685, 14549), (688, 14567), (697, 14627), (703, 14684), (704, 14702), (716, 14783), (717, 14786), (721, 14801), (754, 15014), (758, 15080), (772, 15134), (773, 15146), (774, 15152), (788, 15275), (794, 15299), (798, 15317), (801, 15341), (802, 15347), (805, 15368), (812, 15407), (826, 15548), (829, 15560), (839, 15611), (841, 15629), (860, 15779),

Gene: Bavilard_16 Start: 10158, Stop: 15257, Start Num: 28

Candidate Starts for Bavilard_16:

(Start: 28 @10158 has 33 MA's), (46, 10314), (60, 10443), (64, 10473), (72, 10515), (77, 10542), (88, 10590), (94, 10641), (97, 10650), (105, 10686), (109, 10710), (118, 10770), (127, 10824), (131, 10863), (133, 10869), (136, 10884), (138, 10905), (161, 11064), (164, 11076), (175, 11139), (182, 11184), (193, 11265), (211, 11424), (215, 11457), (219, 11469), (223, 11496), (230, 11553), (236, 11583), (239, 11595), (253, 11697), (254, 11700), (267, 11787), (273, 11832), (274, 11835), (293, 11949), (304, 12042), (307, 12057), (309, 12078), (313, 12111), (315, 12141), (318, 12153), (324, 12192), (329, 12216), (330, 12219), (336, 12243), (341, 12267), (350, 12372), (359, 12420), (363, 12450), (367, 12465), (370, 12480), (373, 12519), (379, 12561), (382, 12585), (384, 12600), (386, 12615), (390, 12630), (396, 12654), (408, 12693), (410, 12708), (411, 12714), (415, 12735), (422, 12759), (424, 12765), (444, 12891), (450, 12921), (454, 12957), (455, 12960), (461, 13008), (465, 13029), (466, 13032), (474, 13104), (481, 13149), (484, 13182), (486, 13203), (498, 13257), (509, 13332), (529, 13416), (544, 13503), (588, 13689), (608, 13821), (616, 13851), (638, 13989), (648, 14040), (653, 14070), (668, 14175), (678, 14226), (682, 14256), (720, 14436), (726, 14487), (734, 14529), (743, 14550), (757, 14646), (774, 14712), (788, 14835), (794, 14859), (796, 14874), (801, 14904), (805, 14931), (807, 14937), (812, 14970), (820, 15039), (822, 15042), (824, 15078), (838, 15168),

Gene: Begonia_18 Start: 10785, Stop: 16274, Start Num: 8

Candidate Starts for Begonia_18:

(Start: 8 @10785 has 37 MA's), (13, 10824), (Start: 14 @10836 has 1 MA's), (15, 10845), (16, 10848), (18, 10890), (38, 11001), (40, 11022), (47, 11142), (54, 11184), (65, 11250), (68, 11268), (71, 11283), (72, 11289), (73, 11292), (76, 11310), (82, 11334), (95, 11418), (105, 11460), (107, 11475), (109, 11484), (135, 11652), (138, 11679), (149, 11754), (155, 11796), (163, 11844), (184, 11967), (189, 11997), (211, 12201), (219, 12246), (223, 12273), (224, 12285), (240, 12375), (245, 12420), (250, 12447), (254, 12477), (267, 12564), (272, 12606), (293, 12726), (297, 12768), (302, 12813), (304, 12819), (306, 12831), (307, 12834), (313, 12888), (317, 12927), (320, 12948), (321, 12951), (324, 12969), (330, 12996), (337, 13023), (341, 13044), (345, 13071), (349, 13143), (385, 13344), (389, 13359), (398, 13383), (405, 13398), (423, 13428), (424, 13431), (432, 13482), (445, 13563), (446,

13566), (452, 13599), (455, 13629), (457, 13653), (468, 13719), (505, 13986), (514, 14034), (518, 14079), (519, 14082), (522, 14097), (531, 14142), (532, 14151), (533, 14160), (543, 14211), (557, 14283), (562, 14301), (571, 14322), (582, 14421), (583, 14424), (592, 14457), (600, 14523), (601, 14541), (604, 14556), (611, 14589), (619, 14640), (628, 14691), (664, 14934), (665, 14937), (675, 15012), (684, 15078), (685, 15081), (688, 15099), (697, 15159), (716, 15315), (717, 15318), (721, 15333), (754, 15552), (762, 15609), (766, 15624), (775, 15672), (780, 15717), (803, 15837), (804, 15846), (811, 15885), (821, 15957), (826, 16026), (829, 16038), (839, 16089), (841, 16107), (850, 16164), (860, 16257),

Gene: BigChungus_15 Start: 9403, Stop: 14511, Start Num: 28

Candidate Starts for BigChungus_15:

(Start: 28 @9403 has 33 MA's), (46, 9559), (60, 9688), (64, 9718), (77, 9787), (80, 9799), (88, 9835), (94, 9886), (97, 9895), (105, 9931), (109, 9955), (118, 10015), (127, 10069), (131, 10108), (133, 10114), (136, 10129), (138, 10150), (164, 10321), (175, 10384), (182, 10429), (193, 10510), (211, 10669), (215, 10702), (219, 10714), (223, 10741), (230, 10798), (236, 10828), (239, 10840), (253, 10942), (254, 10945), (267, 11032), (274, 11080), (293, 11194), (304, 11287), (307, 11302), (309, 11323), (313, 11356), (315, 11386), (318, 11398), (324, 11437), (329, 11461), (330, 11464), (336, 11488), (341, 11512), (350, 11617), (363, 11695), (370, 11725), (371, 11728), (373, 11764), (379, 11806), (382, 11830), (384, 11845), (386, 11860), (390, 11875), (396, 11899), (408, 11938), (410, 11953), (411, 11959), (422, 12004), (424, 12010), (444, 12136), (450, 12166), (454, 12202), (455, 12205), (461, 12253), (465, 12274), (466, 12277), (474, 12349), (481, 12394), (484, 12427), (486, 12448), (498, 12502), (509, 12577), (529, 12661), (544, 12748), (608, 13066), (616, 13096), (638, 13234), (648, 13285), (653, 13315), (678, 13480), (682, 13510), (720, 13690), (726, 13741), (734, 13783), (743, 13804), (757, 13900), (769, 13948), (774, 13966), (788, 14089), (794, 14113), (796, 14128), (801, 14158), (805, 14185), (807, 14191), (812, 14224), (820, 14293), (822, 14296), (824, 14332), (838, 14422),

Gene: BillDoor_18 Start: 9610, Stop: 14400, Start Num: 81

Candidate Starts for BillDoor_18:

(Start: 81 @9610 has 23 MA's), (Start: 86 @9637 has 2 MA's), (99, 9715), (108, 9766), (121, 9853), (124, 9868), (132, 9925), (136, 9943), (139, 9970), (140, 9973), (151, 10042), (158, 10099), (168, 10144), (171, 10162), (178, 10207), (187, 10243), (191, 10276), (199, 10324), (200, 10327), (205, 10375), (208, 10414), (210, 10429), (243, 10621), (246, 10639), (262, 10723), (286, 10870), (292, 10897), (302, 10990), (304, 10996), (307, 11011), (311, 11050), (312, 11062), (321, 11128), (337, 11200), (340, 11218), (341, 11221), (345, 11248), (357, 11383), (371, 11458), (373, 11494), (382, 11560), (390, 11605), (395, 11626), (396, 11629), (397, 11632), (408, 11668), (414, 11707), (416, 11713), (424, 11740), (445, 11869), (446, 11872), (448, 11890), (467, 12013), (469, 12028), (484, 12157), (486, 12178), (495, 12220), (501, 12247), (502, 12253), (525, 12385), (529, 12397), (544, 12484), (553, 12526), (563, 12562), (590, 12688), (596, 12727), (617, 12856), (627, 12913), (633, 12958), (650, 13051), (660, 13126), (669, 13189), (682, 13270), (685, 13291), (710, 13468), (712, 13474), (747, 13693), (755, 13771), (757, 13789), (759, 13795), (774, 13855), (776, 13873), (779, 13906), (788, 13978), (796, 14017), (801, 14047), (812, 14113), (817, 14161), (824, 14221), (838, 14311), (848, 14371),

Gene: Biskit_17 Start: 9616, Stop: 14415, Start Num: 81

Candidate Starts for Biskit_17:

(Start: 81 @9616 has 23 MA's), (Start: 86 @9643 has 2 MA's), (108, 9772), (124, 9874), (129, 9919), (132, 9931), (136, 9949), (139, 9976), (140, 9979), (142, 9994), (150, 10045), (151, 10048), (158, 10105), (159, 10108), (168, 10150), (171, 10168), (178, 10213), (187, 10249), (191, 10282), (196, 10315), (197, 10327), (205, 10381), (208, 10420), (210, 10435), (213, 10444), (217, 10471), (225, 10522), (233, 10564), (236, 10582), (239, 10591), (246, 10645), (258, 10708), (261, 10723), (269, 10786), (286, 10876), (292, 10903), (302, 10996), (304, 11002), (307, 11017), (311, 11056), (321, 11134), (327, 11167), (337, 11206), (340, 11224), (341, 11227), (345, 11254), (348, 11311), (350,

11332), (358, 11395), (363, 11431), (366, 11443), (371, 11464), (373, 11500), (379, 11542), (380, 11554), (382, 11566), (390, 11611), (391, 11614), (395, 11632), (396, 11635), (397, 11638), (414, 11713), (416, 11719), (424, 11746), (433, 11806), (436, 11821), (444, 11872), (445, 11875), (446, 11878), (448, 11896), (462, 11995), (465, 12010), (466, 12013), (484, 12163), (486, 12184), (495, 12226), (501, 12253), (502, 12259), (525, 12391), (529, 12403), (544, 12490), (553, 12532), (563, 12568), (580, 12643), (590, 12694), (596, 12733), (606, 12811), (617, 12862), (627, 12919), (650, 13057), (660, 13132), (682, 13276), (685, 13297), (710, 13474), (712, 13480), (757, 13804), (759, 13810), (774, 13870), (776, 13888), (779, 13921), (788, 13993), (796, 14032), (801, 14062), (812, 14128), (817, 14176), (824, 14236), (838, 14326), (848, 14386),

Gene: BlingBling_17 Start: 10274, Stop: 15796, Start Num: 8

Candidate Starts for BlingBling_17:

(Start: 8 @10274 has 37 MA's), (Start: 11 @10289 has 1 MA's), (Start: 12 @10295 has 1 MA's), (Start: 14 @10325 has 1 MA's), (15, 10334), (16, 10337), (18, 10379), (38, 10490), (40, 10511), (47, 10631), (54, 10673), (65, 10739), (68, 10757), (72, 10778), (73, 10781), (76, 10799), (82, 10823), (95, 10907), (96, 10910), (105, 10949), (107, 10964), (109, 10973), (135, 11141), (138, 11168), (155, 11285), (184, 11456), (189, 11486), (211, 11690), (219, 11735), (223, 11762), (224, 11774), (240, 11864), (245, 11909), (250, 11936), (254, 11966), (267, 12053), (268, 12056), (272, 12095), (285, 12179), (293, 12215), (297, 12257), (302, 12302), (304, 12308), (306, 12320), (307, 12323), (313, 12377), (317, 12416), (320, 12437), (321, 12440), (324, 12458), (325, 12467), (330, 12485), (335, 12506), (337, 12512), (341, 12533), (345, 12560), (350, 12638), (389, 12827), (398, 12851), (404, 12863), (405, 12866), (418, 12881), (423, 12896), (424, 12899), (432, 12950), (445, 13031), (446, 13034), (452, 13067), (455, 13097), (457, 13121), (505, 13454), (514, 13502), (518, 13547), (519, 13550), (522, 13565), (531, 13610), (532, 13619), (533, 13628), (543, 13679), (557, 13751), (562, 13769), (571, 13790), (582, 13889), (583, 13892), (592, 13925), (600, 13991), (601, 14009), (604, 14024), (611, 14057), (619, 14108), (628, 14159), (635, 14207), (664, 14402), (665, 14405), (674, 14477), (675, 14480), (684, 14546), (685, 14549), (688, 14567), (697, 14627), (703, 14684), (704, 14702), (716, 14783), (717, 14786), (721, 14801), (754, 15014), (758, 15080), (772, 15134), (773, 15146), (774, 15152), (788, 15275), (794, 15299), (798, 15317), (801, 15341), (802, 15347), (805, 15368), (812, 15407), (826, 15548), (829, 15560), (839, 15611), (841, 15629), (860, 15779),

Gene: Blino_17 Start: 10173, Stop: 15764, Start Num: 8

Candidate Starts for Blino_17:

(Start: 8 @10173 has 37 MA's), (Start: 11 @10188 has 1 MA's), (Start: 14 @10224 has 1 MA's), (15, 10233), (16, 10236), (18, 10278), (38, 10389), (40, 10410), (47, 10530), (65, 10638), (68, 10656), (72, 10677), (73, 10680), (76, 10698), (97, 10812), (105, 10848), (107, 10863), (109, 10872), (135, 11040), (138, 11067), (155, 11184), (184, 11355), (189, 11385), (211, 11589), (219, 11634), (245, 11808), (250, 11835), (254, 11865), (267, 11952), (268, 11955), (272, 11994), (281, 12057), (293, 12114), (297, 12156), (302, 12201), (304, 12207), (306, 12219), (307, 12222), (313, 12276), (317, 12315), (320, 12336), (321, 12339), (324, 12357), (330, 12384), (335, 12405), (337, 12411), (341, 12432), (345, 12459), (347, 12507), (350, 12537), (374, 12693), (377, 12717), (379, 12726), (381, 12747), (399, 12828), (423, 12924), (424, 12927), (425, 12933), (431, 12975), (432, 12978), (435, 12999), (445, 13059), (446, 13062), (452, 13095), (455, 13125), (468, 13215), (505, 13482), (514, 13530), (518, 13575), (519, 13578), (522, 13593), (531, 13638), (532, 13647), (533, 13656), (543, 13707), (557, 13779), (562, 13797), (571, 13818), (582, 13917), (583, 13920), (592, 13953), (600, 14019), (601, 14037), (604, 14052), (611, 14085), (619, 14136), (628, 14187), (635, 14235), (664, 14430), (665, 14433), (674, 14505), (675, 14508), (684, 14574), (685, 14577), (688, 14595), (697, 14655), (704, 14730), (717, 14814), (721, 14829), (754, 15042), (762, 15099), (766, 15114), (775, 15162), (780, 15207), (803, 15327), (804, 15336), (811, 15375), (821, 15447), (826, 15516), (839, 15579), (841, 15597), (850, 15654), (860, 15747),

Gene: Blondies_17 Start: 9629, Stop: 14398, Start Num: 86

Candidate Starts for Blondies_17:

(Start: 81 @9602 has 23 MA's), (Start: 86 @9629 has 2 MA's), (88, 9635), (108, 9758), (124, 9860), (129, 9905), (132, 9917), (136, 9935), (139, 9962), (140, 9965), (142, 9980), (150, 10031), (151, 10034), (158, 10091), (159, 10094), (160, 10097), (168, 10136), (171, 10154), (178, 10199), (187, 10235), (191, 10268), (196, 10301), (197, 10313), (205, 10367), (208, 10406), (210, 10421), (213, 10430), (217, 10457), (225, 10508), (236, 10568), (239, 10577), (246, 10631), (258, 10694), (261, 10709), (269, 10772), (286, 10862), (292, 10889), (302, 10982), (304, 10988), (307, 11003), (311, 11042), (321, 11120), (327, 11153), (337, 11192), (340, 11210), (341, 11213), (345, 11240), (348, 11297), (350, 11318), (358, 11381), (366, 11429), (371, 11450), (373, 11486), (379, 11528), (382, 11552), (390, 11597), (391, 11600), (395, 11618), (396, 11621), (397, 11624), (414, 11699), (416, 11705), (424, 11732), (433, 11792), (444, 11858), (445, 11861), (446, 11864), (448, 11882), (462, 11981), (465, 11996), (466, 11999), (484, 12149), (486, 12170), (495, 12212), (501, 12239), (502, 12245), (525, 12377), (529, 12389), (544, 12476), (553, 12518), (563, 12554), (580, 12629), (590, 12680), (596, 12719), (617, 12848), (627, 12905), (650, 13043), (660, 13118), (682, 13262), (685, 13283), (710, 13457), (712, 13463), (757, 13787), (759, 13793), (774, 13853), (776, 13871), (779, 13904), (788, 13976), (796, 14015), (801, 14045), (812, 14111), (817, 14159), (824, 14219), (838, 14309), (848, 14369),

Gene: Blueberry_19 Start: 10619, Stop: 16108, Start Num: 8

Candidate Starts for Blueberry_19:

(Start: 8 @10619 has 37 MA's), (Start: 11 @10634 has 1 MA's), (Start: 12 @10640 has 1 MA's), (Start: 14 @10670 has 1 MA's), (15, 10679), (16, 10682), (18, 10724), (38, 10835), (40, 10856), (47, 10976), (54, 11018), (65, 11084), (68, 11102), (72, 11123), (73, 11126), (76, 11144), (82, 11168), (95, 11252), (105, 11294), (107, 11309), (109, 11318), (135, 11486), (138, 11513), (155, 11630), (184, 11801), (189, 11831), (211, 12035), (219, 12080), (223, 12107), (224, 12119), (226, 12131), (240, 12209), (245, 12254), (250, 12281), (254, 12311), (267, 12398), (268, 12401), (272, 12440), (281, 12503), (283, 12512), (293, 12560), (297, 12602), (302, 12647), (304, 12653), (307, 12668), (313, 12722), (317, 12761), (320, 12782), (321, 12785), (324, 12803), (330, 12830), (335, 12851), (337, 12857), (341, 12878), (344, 12896), (345, 12905), (385, 13178), (405, 13232), (423, 13262), (424, 13265), (432, 13316), (445, 13397), (446, 13400), (452, 13433), (455, 13463), (457, 13487), (468, 13553), (505, 13820), (514, 13868), (516, 13901), (518, 13913), (519, 13916), (531, 13976), (532, 13985), (533, 13994), (543, 14045), (557, 14117), (562, 14135), (571, 14156), (582, 14255), (583, 14258), (592, 14291), (600, 14357), (601, 14375), (604, 14390), (611, 14423), (619, 14474), (628, 14525), (639, 14594), (664, 14768), (665, 14771), (674, 14843), (675, 14846), (684, 14912), (685, 14915), (688, 14933), (697, 14993), (703, 15050), (704, 15068), (716, 15149), (717, 15152), (721, 15167), (743, 15338), (754, 15392), (766, 15464), (769, 15473), (775, 15509), (783, 15569), (785, 15587), (789, 15605), (800, 15650), (804, 15683), (821, 15794), (826, 15863), (839, 15926), (841, 15944), (860, 16094),

Gene: BotCity_18 Start: 9879, Stop: 15506, Start Num: 21

Candidate Starts for BotCity_18:

(Start: 21 @9879 has 11 MA's), (Start: 31 @9924 has 1 MA's), (33, 9945), (37, 9966), (41, 10011), (Start: 42 @10026 has 1 MA's), (48, 10110), (56, 10152), (57, 10164), (68, 10227), (71, 10242), (73, 10251), (76, 10269), (77, 10275), (88, 10323), (112, 10458), (134, 10608), (138, 10638), (189, 10962), (202, 11058), (211, 11166), (218, 11208), (219, 11211), (220, 11217), (223, 11238), (235, 11319), (245, 11385), (250, 11412), (252, 11424), (254, 11442), (255, 11454), (261, 11478), (264, 11490), (267, 11529), (268, 11532), (269, 11541), (272, 11571), (290, 11676), (293, 11691), (296, 11721), (297, 11733), (302, 11778), (304, 11784), (307, 11799), (310, 11829), (312, 11850), (313, 11853), (321, 11916), (325, 11943), (326, 11946), (327, 11949), (328, 11955), (334, 11979), (335, 11982), (337, 11988), (339, 11994), (341, 12009), (344, 12027), (346, 12072), (355, 12156), (356, 12162), (360, 12189), (373, 12282), (374, 12291), (382, 12348), (383, 12360), (391, 12396), (392, 12402), (404, 12444), (407, 12456), (414, 12495), (416, 12501), (417, 12504), (422, 12522), (423, 12525), (424, 12528), (429, 12552), (440, 12627), (447, 12666), (451, 12690), (455, 12723), (465, 12834), (468, 12867), (473, 12930), (478, 12966), (482, 12996), (493, 13074), (494, 13077), (496, 13086),

(500, 13110), (512, 13191), (514, 13197), (518, 13242), (519, 13245), (522, 13260), (531, 13305), (532, 13314), (533, 13323), (534, 13326), (555, 13431), (568, 13479), (569, 13482), (571, 13485), (582, 13584), (583, 13587), (589, 13599), (604, 13716), (611, 13749), (619, 13800), (625, 13830), (634, 13890), (647, 13971), (651, 13992), (654, 14025), (667, 14097), (668, 14106), (685, 14220), (690, 14250), (693, 14259), (698, 14298), (699, 14301), (702, 14331), (703, 14352), (730, 14550), (739, 14613), (742, 14619), (751, 14670), (777, 14856), (786, 14943), (791, 14970), (792, 14973), (806, 15048), (810, 15072), (816, 15111), (818, 15147), (823, 15168), (832, 15255), (837, 15297), (843, 15330), (845, 15342), (857, 15420), (861, 15486),

Gene: Bowser_17 Start: 10588, Stop: 15702, Start Num: 25

Candidate Starts for Bowser_17:

(Start: 25 @10588 has 13 MA's), (Start: 28 @10597 has 33 MA's), (57, 10870), (59, 10879), (63, 10909), (66, 10918), (76, 10975), (90, 11038), (101, 11110), (106, 11131), (109, 11149), (131, 11302), (138, 11344), (147, 11398), (183, 11626), (199, 11740), (204, 11779), (211, 11863), (215, 11896), (218, 11905), (220, 11914), (224, 11947), (226, 11959), (229, 11983), (238, 12028), (244, 12073), (250, 12109), (252, 12121), (254, 12139), (261, 12175), (276, 12298), (280, 12322), (283, 12340), (302, 12475), (304, 12481), (306, 12493), (307, 12496), (313, 12550), (317, 12589), (320, 12610), (321, 12613), (324, 12631), (325, 12640), (337, 12685), (341, 12706), (345, 12733), (350, 12811), (374, 12967), (406, 13024), (413, 13036), (414, 13039), (424, 13072), (427, 13090), (438, 13165), (440, 13171), (442, 13177), (444, 13198), (445, 13201), (446, 13204), (455, 13267), (459, 13303), (462, 13318), (467, 13342), (469, 13357), (470, 13360), (471, 13366), (475, 13411), (477, 13420), (489, 13519), (497, 13561), (511, 13645), (520, 13708), (526, 13726), (545, 13834), (549, 13843), (552, 13861), (553, 13864), (564, 13903), (565, 13906), (569, 13915), (592, 14050), (595, 14074), (616, 14194), (623, 14239), (630, 14272), (640, 14320), (642, 14332), (653, 14392), (670, 14512), (675, 14539), (679, 14557), (689, 14635), (691, 14641), (694, 14650), (705, 14770), (713, 14809), (718, 14851), (732, 14944), (751, 15037), (752, 15040), (756, 15097), (760, 15106), (763, 15118), (770, 15139), (784, 15244), (803, 15352), (810, 15391), (822, 15460), (825, 15514), (853, 15664),

Gene: Bubble_16 Start: 9629, Stop: 14767, Start Num: 28

Candidate Starts for Bubble_16:

(Start: 22 @9605 has 5 MA's), (Start: 28 @9629 has 33 MA's), (32, 9656), (46, 9785), (49, 9860), (77, 10013), (78, 10016), (94, 10112), (97, 10121), (103, 10151), (105, 10157), (107, 10172), (108, 10175), (112, 10196), (122, 10268), (125, 10289), (136, 10355), (138, 10376), (155, 10493), (182, 10655), (189, 10694), (198, 10769), (215, 10928), (219, 10940), (223, 10967), (228, 11012), (230, 11024), (245, 11114), (248, 11132), (252, 11153), (255, 11183), (261, 11207), (264, 11219), (267, 11258), (271, 11291), (288, 11393), (289, 11396), (293, 11420), (294, 11426), (304, 11513), (307, 11528), (311, 11567), (317, 11621), (333, 11705), (340, 11735), (341, 11738), (351, 11846), (352, 11849), (357, 11900), (371, 11975), (382, 12077), (390, 12122), (395, 12143), (396, 12146), (397, 12149), (414, 12224), (424, 12257), (428, 12278), (432, 12308), (440, 12356), (442, 12362), (446, 12389), (466, 12524), (481, 12641), (484, 12674), (486, 12695), (501, 12764), (502, 12770), (504, 12785), (527, 12905), (529, 12914), (544, 12998), (608, 13319), (646, 13538), (653, 13574), (685, 13787), (725, 13979), (734, 14027), (743, 14048), (757, 14156), (774, 14222), (776, 14240), (782, 14300), (788, 14345), (795, 14375), (796, 14384), (801, 14414), (812, 14480), (817, 14528), (824, 14588), (837, 14675), (848, 14738),

Gene: Budski_18 Start: 10015, Stop: 15501, Start Num: 42

Candidate Starts for Budski_18:

(Start: 21 @9868 has 11 MA's), (29, 9895), (Start: 31 @9913 has 1 MA's), (33, 9934), (37, 9955), (41, 10000), (Start: 42 @10015 has 1 MA's), (48, 10099), (56, 10141), (57, 10153), (68, 10216), (71, 10231), (73, 10240), (76, 10258), (77, 10264), (88, 10312), (112, 10447), (134, 10597), (138, 10627), (171, 10846), (184, 10921), (189, 10951), (211, 11155), (218, 11197), (219, 11200), (220, 11206), (223, 11227), (235, 11308), (245, 11374), (250, 11401), (252, 11413), (254, 11431), (255, 11443), (261, 11467), (264, 11479), (267, 11518), (268, 11521), (269, 11530), (272, 11560), (278, 11605),

(290, 11665), (293, 11680), (296, 11710), (297, 11722), (302, 11767), (304, 11773), (307, 11788), (310, 11818), (312, 11839), (313, 11842), (321, 11905), (325, 11932), (326, 11935), (327, 11938), (328, 11944), (334, 11968), (335, 11971), (337, 11977), (339, 11983), (341, 11998), (344, 12016), (349, 12097), (355, 12145), (356, 12151), (360, 12178), (382, 12337), (383, 12349), (391, 12385), (407, 12445), (414, 12484), (416, 12490), (417, 12493), (423, 12514), (424, 12517), (440, 12616), (447, 12655), (451, 12679), (455, 12712), (458, 12757), (464, 12811), (472, 12898), (473, 12919), (478, 12955), (482, 12985), (493, 13063), (494, 13066), (496, 13075), (500, 13099), (512, 13180), (514, 13186), (518, 13231), (519, 13234), (522, 13249), (531, 13294), (532, 13303), (533, 13312), (534, 13315), (555, 13420), (568, 13468), (571, 13474), (582, 13573), (583, 13576), (589, 13588), (604, 13705), (611, 13738), (619, 13789), (620, 13801), (625, 13819), (634, 13879), (647, 13960), (651, 13981), (654, 14014), (666, 14077), (668, 14095), (685, 14209), (690, 14239), (693, 14248), (698, 14287), (699, 14290), (702, 14320), (703, 14341), (722, 14494), (730, 14545), (739, 14608), (742, 14614), (751, 14665), (777, 14851), (786, 14938), (791, 14965), (792, 14968), (806, 15043), (810, 15067), (816, 15106), (818, 15142), (823, 15163), (832, 15250), (837, 15292), (843, 15325), (845, 15337), (857, 15415), (861, 15481),

Gene: Bunker_17 Start: 10580, Stop: 15829, Start Num: 25

Candidate Starts for Bunker_17:

(Start: 25 @10580 has 13 MA's), (Start: 28 @10589 has 33 MA's), (45, 10736), (57, 10862), (59, 10871), (70, 10934), (71, 10940), (72, 10946), (76, 10967), (82, 10991), (88, 11021), (90, 11030), (106, 11123), (108, 11135), (109, 11141), (131, 11294), (138, 11336), (147, 11390), (152, 11423), (184, 11624), (211, 11855), (215, 11888), (218, 11897), (220, 11906), (224, 11939), (226, 11951), (229, 11975), (238, 12020), (240, 12029), (250, 12101), (252, 12113), (254, 12131), (261, 12167), (276, 12290), (280, 12314), (299, 12431), (302, 12467), (304, 12473), (307, 12488), (313, 12542), (317, 12581), (320, 12602), (321, 12605), (324, 12623), (325, 12632), (337, 12677), (340, 12695), (341, 12698), (345, 12725), (350, 12803), (375, 12968), (377, 12983), (379, 12992), (393, 13076), (422, 13187), (424, 13193), (425, 13199), (432, 13244), (434, 13256), (440, 13292), (442, 13298), (444, 13319), (446, 13325), (447, 13331), (453, 13376), (455, 13388), (459, 13424), (467, 13463), (469, 13478), (470, 13481), (471, 13487), (475, 13532), (497, 13682), (510, 13760), (511, 13766), (520, 13832), (526, 13850), (545, 13958), (547, 13961), (552, 13985), (553, 13988), (564, 14027), (565, 14030), (569, 14039), (575, 14087), (592, 14174), (595, 14198), (603, 14258), (616, 14318), (630, 14396), (640, 14444), (642, 14456), (653, 14516), (670, 14633), (675, 14660), (689, 14756), (691, 14762), (694, 14771), (713, 14930), (718, 14972), (760, 15230), (763, 15242), (770, 15263), (772, 15266), (774, 15284), (803, 15476), (810, 15515), (825, 15638), (853, 15788), (855, 15812),

Gene: Burnsey_16 Start: 9630, Stop: 14768, Start Num: 28

Candidate Starts for Burnsey_16:

(Start: 22 @9606 has 5 MA's), (Start: 28 @9630 has 33 MA's), (32, 9657), (46, 9786), (49, 9861), (77, 10014), (78, 10017), (94, 10113), (97, 10122), (103, 10152), (105, 10158), (107, 10173), (108, 10176), (112, 10197), (125, 10290), (136, 10356), (138, 10377), (155, 10494), (182, 10656), (189, 10695), (198, 10770), (215, 10929), (219, 10941), (223, 10968), (228, 11013), (230, 11025), (245, 11115), (248, 11133), (252, 11154), (255, 11184), (261, 11208), (264, 11220), (267, 11259), (271, 11292), (288, 11394), (289, 11397), (293, 11421), (304, 11514), (307, 11529), (311, 11568), (324, 11664), (332, 11703), (333, 11706), (341, 11739), (351, 11847), (352, 11850), (357, 11901), (371, 11976), (382, 12078), (390, 12123), (395, 12144), (396, 12147), (397, 12150), (414, 12225), (424, 12258), (428, 12279), (432, 12309), (440, 12357), (442, 12363), (446, 12390), (466, 12525), (481, 12642), (484, 12675), (486, 12696), (487, 12699), (501, 12765), (502, 12771), (504, 12786), (527, 12906), (529, 12915), (544, 12999), (608, 13320), (646, 13539), (653, 13575), (685, 13788), (725, 13980), (734, 14028), (743, 14049), (757, 14157), (774, 14223), (776, 14241), (782, 14301), (788, 14346), (795, 14376), (796, 14385), (801, 14415), (812, 14481), (817, 14529), (824, 14589), (837, 14676), (848, 14739),

Gene: Button_17 Start: 9644, Stop: 13834, Start Num: 86

Candidate Starts for Button_17:

(Start: 81 @9617 has 23 MA's), (Start: 86 @9644 has 2 MA's), (126, 9890), (136, 9953), (143, 10010), (148, 10037), (153, 10079), (162, 10142), (166, 10157), (169, 10175), (171, 10193), (173, 10205), (177, 10238), (185, 10280), (188, 10295), (203, 10400), (205, 10424), (207, 10463), (214, 10487), (217, 10514), (222, 10544), (225, 10565), (235, 10619), (239, 10634), (259, 10763), (277, 10895), (279, 10904), (286, 10940), (307, 11081), (309, 11102), (313, 11135), (314, 11153), (316, 11171), (324, 11216), (337, 11270), (341, 11291), (352, 11354), (368, 11402), (370, 11414), (373, 11453), (402, 11507), (414, 11534), (416, 11540), (423, 11564), (424, 11567), (433, 11627), (438, 11660), (446, 11699), (448, 11717), (449, 11720), (455, 11762), (456, 11774), (460, 11807), (465, 11831), (469, 11855), (470, 11858), (483, 11972), (484, 11984), (488, 12014), (490, 12023), (492, 12029), (517, 12182), (536, 12242), (537, 12251), (539, 12257), (548, 12293), (587, 12425), (608, 12563), (614, 12587), (644, 12785), (646, 12788), (672, 12950), (677, 12974), (678, 12977), (716, 13079), (753, 13184), (762, 13256), (769, 13280), (773, 13292), (776, 13316), (778, 13328), (787, 13412), (788, 13418), (798, 13460), (801, 13481), (807, 13514), (812, 13547), (815, 13568), (817, 13595), (824, 13655), (826, 13682), (828, 13691), (830, 13703), (848, 13805),

Gene: Buttrmilkdreams_16 Start: 9601, Stop: 14397, Start Num: 81

Candidate Starts for Buttrmilkdreams_16:

(Start: 81 @9601 has 23 MA's), (Start: 86 @9628 has 2 MA's), (88, 9634), (108, 9757), (124, 9859), (129, 9904), (132, 9916), (136, 9934), (139, 9961), (140, 9964), (142, 9979), (150, 10030), (151, 10033), (158, 10090), (159, 10093), (168, 10135), (171, 10153), (178, 10198), (187, 10234), (191, 10267), (196, 10300), (197, 10312), (205, 10366), (208, 10405), (210, 10420), (213, 10429), (217, 10456), (225, 10507), (236, 10567), (239, 10576), (246, 10630), (258, 10693), (261, 10708), (286, 10861), (292, 10888), (300, 10969), (302, 10981), (304, 10987), (307, 11002), (310, 11032), (311, 11041), (321, 11119), (327, 11152), (337, 11191), (340, 11209), (341, 11212), (345, 11239), (348, 11296), (350, 11317), (358, 11380), (366, 11428), (371, 11449), (373, 11485), (379, 11527), (382, 11551), (390, 11596), (391, 11599), (395, 11617), (396, 11620), (397, 11623), (414, 11698), (416, 11704), (424, 11731), (433, 11791), (444, 11857), (445, 11860), (446, 11863), (448, 11881), (462, 11980), (465, 11995), (466, 11998), (484, 12148), (486, 12169), (495, 12211), (501, 12238), (502, 12244), (529, 12388), (544, 12475), (553, 12517), (563, 12553), (580, 12628), (590, 12679), (596, 12718), (617, 12847), (627, 12904), (650, 13042), (660, 13117), (682, 13261), (685, 13282), (710, 13456), (712, 13462), (757, 13786), (759, 13792), (774, 13852), (779, 13903), (788, 13975), (796, 14014), (801, 14044), (812, 14110), (817, 14158), (824, 14218), (838, 14308), (848, 14368),

Gene: CanesSauce_16 Start: 9646, Stop: 14433, Start Num: 81

Candidate Starts for CanesSauce_16:

(Start: 81 @9646 has 23 MA's), (Start: 86 @9673 has 2 MA's), (99, 9751), (108, 9802), (121, 9889), (124, 9904), (132, 9961), (136, 9979), (139, 10006), (140, 10009), (151, 10078), (158, 10135), (168, 10180), (171, 10198), (178, 10243), (187, 10279), (191, 10312), (199, 10360), (200, 10363), (205, 10411), (208, 10450), (210, 10465), (243, 10657), (246, 10675), (262, 10759), (286, 10906), (292, 10933), (302, 11026), (304, 11032), (307, 11047), (311, 11086), (312, 11098), (321, 11164), (337, 11236), (340, 11254), (341, 11257), (345, 11284), (373, 11530), (382, 11596), (390, 11641), (395, 11662), (396, 11665), (397, 11668), (408, 11704), (414, 11743), (416, 11749), (424, 11776), (445, 11905), (446, 11908), (448, 11926), (467, 12049), (469, 12064), (484, 12193), (486, 12214), (495, 12256), (501, 12283), (502, 12289), (525, 12421), (529, 12433), (544, 12520), (553, 12562), (563, 12598), (590, 12724), (596, 12763), (617, 12892), (627, 12949), (633, 12991), (650, 13084), (660, 13159), (669, 13222), (682, 13303), (685, 13324), (710, 13501), (712, 13507), (747, 13726), (755, 13804), (757, 13822), (759, 13828), (774, 13888), (776, 13906), (779, 13939), (788, 14011), (796, 14050), (801, 14080), (812, 14146), (817, 14194), (824, 14254), (838, 14344), (848, 14404),

Gene: CaptainKirk2_17 Start: 10277, Stop: 15820, Start Num: 8

Candidate Starts for CaptainKirk2_17:

(Start: 8 @10277 has 37 MA's), (Start: 11 @10292 has 1 MA's), (Start: 12 @10298 has 1 MA's), (Start: 14 @10328 has 1 MA's), (15, 10337), (16, 10340), (18, 10382), (38, 10493), (40, 10514), (65, 10742), (68, 10760), (71, 10775), (72, 10781), (73, 10784), (76, 10802), (82, 10826), (95, 10910), (96, 10913), (105, 10952), (107, 10967), (109, 10976), (135, 11144), (138, 11171), (189, 11489), (211, 11693), (219, 11738), (220, 11744), (223, 11765), (224, 11777), (240, 11867), (245, 11912), (250, 11939), (254, 11969), (267, 12056), (268, 12059), (272, 12098), (293, 12218), (297, 12260), (302, 12305), (304, 12311), (307, 12326), (313, 12380), (317, 12419), (320, 12440), (321, 12443), (324, 12461), (325, 12470), (335, 12509), (337, 12515), (341, 12536), (345, 12563), (370, 12770), (385, 12836), (398, 12875), (405, 12890), (423, 12920), (424, 12923), (432, 12974), (445, 13055), (446, 13058), (452, 13091), (455, 13121), (457, 13145), (505, 13478), (514, 13526), (518, 13571), (519, 13574), (522, 13589), (531, 13634), (532, 13643), (533, 13652), (543, 13703), (557, 13775), (562, 13793), (571, 13814), (582, 13913), (583, 13916), (592, 13949), (600, 14015), (601, 14033), (604, 14048), (611, 14081), (619, 14132), (628, 14183), (635, 14231), (664, 14426), (665, 14429), (674, 14501), (675, 14504), (684, 14570), (685, 14573), (688, 14591), (697, 14651), (703, 14708), (704, 14726), (716, 14807), (717, 14810), (721, 14825), (743, 14984), (754, 15038), (758, 15104), (772, 15158), (773, 15170), (774, 15176), (788, 15299), (794, 15323), (798, 15341), (801, 15365), (802, 15371), (805, 15392), (812, 15431), (826, 15572), (829, 15584), (839, 15635), (841, 15653), (860, 15803),

Gene: CaramellLatte_16 Start: 9646, Stop: 14433, Start Num: 81

Candidate Starts for CaramellLatte_16:

(Start: 81 @9646 has 23 MA's), (Start: 86 @9673 has 2 MA's), (99, 9751), (108, 9802), (121, 9889), (124, 9904), (132, 9961), (136, 9979), (139, 10006), (140, 10009), (151, 10078), (158, 10135), (168, 10180), (171, 10198), (178, 10243), (187, 10279), (191, 10312), (199, 10360), (200, 10363), (205, 10411), (208, 10450), (210, 10465), (243, 10657), (246, 10675), (262, 10759), (286, 10906), (292, 10933), (302, 11026), (304, 11032), (307, 11047), (311, 11086), (312, 11098), (321, 11164), (337, 11236), (340, 11254), (341, 11257), (345, 11284), (373, 11530), (382, 11596), (390, 11641), (395, 11662), (396, 11665), (397, 11668), (408, 11704), (414, 11743), (416, 11749), (424, 11776), (445, 11905), (446, 11908), (448, 11926), (467, 12049), (469, 12064), (484, 12193), (486, 12214), (495, 12256), (501, 12283), (502, 12289), (525, 12421), (529, 12433), (544, 12520), (553, 12562), (563, 12598), (590, 12724), (596, 12763), (617, 12892), (627, 12949), (633, 12991), (650, 13084), (660, 13159), (669, 13222), (682, 13303), (685, 13324), (710, 13501), (712, 13507), (747, 13726), (755, 13804), (757, 13822), (759, 13828), (774, 13888), (776, 13906), (779, 13939), (788, 14011), (796, 14050), (801, 14080), (812, 14146), (817, 14194), (824, 14254), (838, 14344), (848, 14404),

Gene: CarolAnn_17 Start: 10172, Stop: 15763, Start Num: 8

Candidate Starts for CarolAnn_17:

(Start: 8 @10172 has 37 MA's), (Start: 11 @10187 has 1 MA's), (Start: 14 @10223 has 1 MA's), (15, 10232), (16, 10235), (18, 10277), (38, 10388), (40, 10409), (47, 10529), (65, 10637), (68, 10655), (72, 10676), (73, 10679), (76, 10697), (97, 10811), (105, 10847), (107, 10862), (109, 10871), (135, 11039), (138, 11066), (155, 11183), (184, 11354), (189, 11384), (211, 11588), (219, 11633), (245, 11807), (250, 11834), (254, 11864), (258, 11885), (267, 11951), (268, 11954), (272, 11993), (281, 12056), (293, 12113), (297, 12155), (302, 12200), (304, 12206), (306, 12218), (307, 12221), (313, 12275), (317, 12314), (320, 12335), (321, 12338), (324, 12356), (330, 12383), (335, 12404), (337, 12410), (341, 12431), (345, 12458), (347, 12506), (350, 12536), (374, 12692), (377, 12716), (379, 12725), (381, 12746), (399, 12827), (423, 12923), (424, 12926), (425, 12932), (431, 12974), (432, 12977), (435, 12998), (445, 13058), (446, 13061), (452, 13094), (455, 13124), (468, 13214), (505, 13481), (514, 13529), (518, 13574), (519, 13577), (522, 13592), (531, 13637), (532, 13646), (533, 13655), (543, 13706), (557, 13778), (562, 13796), (571, 13817), (582, 13916), (583, 13919), (592, 13952), (600, 14018), (601, 14036), (604, 14051), (611, 14084), (619, 14135), (628, 14186), (635, 14234), (664, 14429), (665, 14432), (674, 14504), (675, 14507), (684, 14573), (685, 14576), (688, 14594), (697, 14654), (704, 14729), (717, 14813), (721, 14828), (754, 15041), (762, 15098), (766, 15113), (775, 15161), (780, 15206), (803, 15326), (804, 15335), (811, 15374), (821, 15446), (826, 15515), (839, 15578), (841, 15596), (850, 15653), (860, 15746),

Gene: Carsonalex_17 Start: 9687, Stop: 14825, Start Num: 28

Candidate Starts for Carsonalex_17:

(Start: 22 @9663 has 5 MA's), (Start: 28 @9687 has 33 MA's), (32, 9714), (46, 9843), (49, 9918), (77, 10071), (78, 10074), (94, 10170), (97, 10179), (103, 10209), (105, 10215), (107, 10230), (108, 10233), (112, 10254), (122, 10326), (125, 10347), (136, 10413), (138, 10434), (155, 10551), (182, 10713), (189, 10752), (198, 10827), (223, 11025), (241, 11133), (252, 11211), (254, 11229), (256, 11247), (267, 11316), (269, 11328), (273, 11361), (292, 11472), (293, 11478), (304, 11571), (307, 11586), (324, 11721), (331, 11754), (341, 11796), (351, 11904), (357, 11958), (370, 12030), (371, 12033), (382, 12135), (390, 12180), (392, 12189), (395, 12201), (396, 12204), (397, 12207), (414, 12282), (415, 12285), (416, 12288), (419, 12300), (422, 12309), (424, 12315), (430, 12357), (432, 12366), (440, 12414), (446, 12447), (466, 12582), (481, 12699), (484, 12732), (486, 12753), (501, 12822), (502, 12828), (527, 12963), (529, 12972), (544, 13056), (608, 13377), (646, 13596), (653, 13632), (685, 13845), (725, 14037), (734, 14085), (743, 14106), (757, 14214), (774, 14280), (776, 14298), (782, 14358), (788, 14403), (795, 14433), (796, 14442), (801, 14472), (812, 14538), (817, 14586), (824, 14646), (837, 14733), (848, 14796),

Gene: CheeseSpider_20 Start: 10667, Stop: 16162, Start Num: 14

Candidate Starts for CheeseSpider_20:

(Start: 8 @10616 has 37 MA's), (10, 10628), (Start: 11 @10631 has 1 MA's), (Start: 14 @10667 has 1 MA's), (15, 10676), (16, 10679), (18, 10721), (38, 10832), (40, 10853), (65, 11081), (68, 11099), (72, 11120), (73, 11123), (76, 11141), (82, 11165), (95, 11249), (97, 11255), (105, 11291), (107, 11306), (109, 11315), (135, 11483), (138, 11510), (155, 11627), (184, 11798), (189, 11828), (211, 12032), (219, 12077), (223, 12104), (224, 12116), (240, 12206), (245, 12251), (250, 12278), (254, 12308), (267, 12395), (272, 12437), (274, 12443), (293, 12557), (297, 12599), (302, 12644), (304, 12650), (307, 12665), (313, 12719), (317, 12758), (320, 12779), (321, 12782), (324, 12800), (330, 12827), (337, 12854), (341, 12875), (345, 12902), (385, 13175), (398, 13214), (405, 13229), (423, 13259), (424, 13262), (432, 13313), (446, 13397), (452, 13430), (455, 13460), (457, 13484), (468, 13550), (493, 13739), (505, 13817), (514, 13865), (516, 13898), (518, 13910), (519, 13913), (522, 13928), (523, 13937), (531, 13973), (532, 13982), (533, 13991), (543, 14042), (557, 14114), (562, 14132), (571, 14153), (582, 14252), (583, 14255), (592, 14288), (600, 14354), (601, 14372), (604, 14387), (611, 14420), (619, 14471), (628, 14522), (664, 14765), (665, 14768), (669, 14801), (674, 14840), (675, 14843), (684, 14909), (685, 14912), (697, 14990), (703, 15047), (704, 15065), (716, 15146), (721, 15164), (754, 15377), (758, 15443), (773, 15509), (774, 15515), (788, 15638), (794, 15662), (798, 15680), (801, 15704), (802, 15710), (805, 15731), (812, 15770), (826, 15911), (839, 15974), (850, 16052),

Gene: CheeseTouch_18 Start: 9868, Stop: 15501, Start Num: 21

Candidate Starts for CheeseTouch_18:

(Start: 21 @9868 has 11 MA's), (Start: 31 @9913 has 1 MA's), (33, 9934), (37, 9955), (41, 10000), (Start: 42 @10015 has 1 MA's), (48, 10099), (56, 10141), (57, 10153), (68, 10216), (71, 10231), (73, 10240), (76, 10258), (77, 10264), (88, 10312), (112, 10447), (134, 10597), (138, 10627), (184, 10921), (189, 10951), (208, 11134), (211, 11155), (219, 11200), (220, 11206), (223, 11227), (235, 11308), (245, 11374), (250, 11401), (252, 11413), (254, 11431), (255, 11443), (261, 11467), (264, 11479), (267, 11518), (269, 11530), (272, 11560), (278, 11605), (290, 11665), (293, 11680), (296, 11710), (297, 11722), (302, 11767), (304, 11773), (306, 11785), (307, 11788), (309, 11809), (312, 11839), (313, 11842), (321, 11905), (325, 11932), (326, 11935), (327, 11938), (328, 11944), (334, 11968), (335, 11971), (337, 11977), (339, 11983), (341, 11998), (344, 12016), (349, 12097), (355, 12145), (356, 12151), (360, 12178), (382, 12337), (383, 12349), (391, 12385), (392, 12391), (404, 12433), (407, 12445), (414, 12484), (416, 12490), (417, 12493), (422, 12511), (423, 12514), (424, 12517), (429, 12541), (440, 12616), (447, 12655), (451, 12679), (455, 12712), (465, 12823), (468, 12856), (473, 12919), (478, 12955), (482, 12985), (493, 13063), (494, 13066), (496, 13075), (500, 13099), (514, 13186), (518, 13231), (519, 13234), (522, 13249), (531, 13294), (532, 13303), (533, 13312),

(534, 13315), (555, 13420), (568, 13468), (571, 13474), (582, 13573), (583, 13576), (589, 13588), (604, 13705), (611, 13738), (619, 13789), (625, 13819), (634, 13879), (647, 13960), (651, 13981), (652, 13984), (654, 14014), (666, 14077), (667, 14086), (668, 14095), (685, 14209), (690, 14239), (698, 14287), (699, 14290), (702, 14320), (703, 14341), (730, 14539), (739, 14602), (742, 14608), (751, 14659), (777, 14851), (786, 14938), (791, 14965), (792, 14968), (806, 15043), (810, 15067), (816, 15106), (818, 15142), (823, 15163), (832, 15250), (837, 15292), (843, 15325), (845, 15337), (857, 15415), (861, 15481),

Gene: CherryonLim_17 Start: 10133, Stop: 15220, Start Num: 28

Candidate Starts for CherryonLim_17:

(Start: 28 @10133 has 33 MA's), (46, 10289), (60, 10418), (72, 10490), (77, 10517), (88, 10565), (90, 10574), (94, 10616), (96, 10622), (97, 10625), (105, 10661), (109, 10685), (114, 10712), (127, 10799), (131, 10838), (133, 10844), (136, 10859), (138, 10880), (147, 10934), (164, 11051), (175, 11114), (182, 11159), (193, 11240), (211, 11402), (214, 11411), (215, 11435), (219, 11447), (223, 11474), (224, 11486), (230, 11531), (236, 11561), (239, 11573), (253, 11675), (254, 11678), (267, 11765), (270, 11792), (284, 11882), (289, 11903), (293, 11927), (299, 11978), (304, 12020), (307, 12035), (308, 12044), (309, 12056), (313, 12089), (318, 12131), (328, 12191), (329, 12194), (330, 12197), (331, 12203), (336, 12221), (341, 12245), (346, 12308), (348, 12329), (350, 12350), (359, 12398), (363, 12428), (369, 12455), (370, 12458), (379, 12539), (380, 12551), (382, 12563), (384, 12578), (390, 12608), (395, 12629), (396, 12632), (411, 12692), (415, 12713), (422, 12737), (424, 12743), (437, 12827), (444, 12869), (450, 12899), (455, 12938), (461, 12986), (465, 13007), (466, 13010), (467, 13016), (474, 13082), (481, 13127), (484, 13160), (486, 13181), (498, 13235), (527, 13385), (529, 13394), (544, 13481), (586, 13658), (608, 13799), (616, 13829), (638, 13967), (653, 14048), (678, 14201), (682, 14231), (723, 14441), (725, 14450), (726, 14456), (734, 14492), (757, 14609), (759, 14615), (769, 14657), (774, 14675), (788, 14798), (794, 14822), (796, 14837), (801, 14867), (805, 14894), (807, 14900), (812, 14933), (820, 15002), (822, 15005), (824, 15041), (833, 15113), (838, 15131),

Gene: ChickenTender_18 Start: 9679, Stop: 14817, Start Num: 28

Candidate Starts for ChickenTender_18:

(Start: 28 @9679 has 33 MA's), (32, 9706), (46, 9835), (49, 9910), (77, 10063), (78, 10066), (94, 10162), (97, 10171), (103, 10201), (105, 10207), (107, 10222), (108, 10225), (112, 10246), (122, 10318), (125, 10339), (136, 10405), (138, 10426), (155, 10543), (182, 10705), (189, 10744), (215, 10978), (219, 10990), (223, 11017), (245, 11164), (252, 11203), (261, 11257), (264, 11269), (267, 11308), (271, 11341), (288, 11443), (289, 11446), (293, 11470), (299, 11521), (304, 11563), (307, 11578), (311, 11617), (324, 11713), (333, 11755), (341, 11788), (351, 11896), (357, 11950), (371, 12025), (382, 12127), (390, 12172), (396, 12196), (397, 12199), (411, 12256), (414, 12274), (424, 12307), (428, 12328), (432, 12358), (440, 12406), (442, 12412), (446, 12439), (466, 12574), (481, 12691), (484, 12724), (486, 12745), (501, 12814), (502, 12820), (529, 12964), (544, 13048), (608, 13369), (646, 13588), (650, 13603), (653, 13624), (683, 13825), (685, 13837), (734, 14077), (743, 14098), (757, 14206), (774, 14272), (776, 14290), (788, 14395), (794, 14419), (795, 14425), (796, 14434), (801, 14464), (812, 14530), (817, 14578), (824, 14638), (837, 14725), (848, 14788),

Gene: ChocoMunchkin_16 Start: 9646, Stop: 14433, Start Num: 81

Candidate Starts for ChocoMunchkin_16:

(Start: 81 @9646 has 23 MA's), (Start: 86 @9673 has 2 MA's), (99, 9751), (108, 9802), (121, 9889), (124, 9904), (132, 9961), (136, 9979), (139, 10006), (140, 10009), (151, 10078), (158, 10135), (168, 10180), (171, 10198), (178, 10243), (187, 10279), (191, 10312), (199, 10360), (200, 10363), (205, 10411), (208, 10450), (210, 10465), (243, 10657), (246, 10675), (262, 10759), (286, 10906), (292, 10933), (302, 11026), (304, 11032), (307, 11047), (311, 11086), (312, 11098), (321, 11164), (337, 11236), (340, 11254), (341, 11257), (345, 11284), (373, 11530), (382, 11596), (390, 11641), (395, 11662), (396, 11665), (397, 11668), (408, 11704), (414, 11743), (416, 11749), (424, 11776), (445, 11905), (446, 11908), (448, 11926), (467, 12049), (469, 12064), (484, 12193), (486, 12214), (495,

12256), (501, 12283), (502, 12289), (525, 12421), (529, 12433), (544, 12520), (553, 12562), (563, 12598), (590, 12724), (596, 12763), (617, 12892), (627, 12949), (633, 12991), (650, 13084), (660, 13159), (669, 13222), (682, 13303), (685, 13324), (710, 13501), (712, 13507), (747, 13726), (755, 13804), (757, 13822), (759, 13828), (774, 13888), (776, 13906), (779, 13939), (788, 14011), (796, 14050), (801, 14080), (812, 14146), (817, 14194), (824, 14254), (838, 14344), (848, 14404),

Gene: Cleo_16 Start: 9909, Stop: 15023, Start Num: 28

Candidate Starts for Cleo_16:

(23, 9888), (Start: 28 @9909 has 33 MA's), (32, 9936), (46, 10065), (51, 10149), (54, 10161), (62, 10212), (69, 10245), (74, 10269), (79, 10302), (94, 10392), (107, 10452), (108, 10455), (118, 10521), (123, 10557), (125, 10569), (134, 10626), (136, 10635), (138, 10656), (190, 10995), (199, 11052), (208, 11154), (219, 11220), (220, 11226), (223, 11247), (245, 11394), (254, 11451), (256, 11469), (260, 11484), (264, 11499), (267, 11538), (281, 11643), (286, 11667), (288, 11673), (301, 11784), (304, 11793), (307, 11808), (311, 11847), (324, 11943), (330, 11970), (331, 11976), (332, 11982), (340, 12015), (341, 12018), (351, 12126), (355, 12165), (360, 12198), (364, 12228), (365, 12231), (370, 12252), (371, 12255), (382, 12357), (390, 12402), (396, 12426), (397, 12429), (422, 12531), (423, 12534), (424, 12537), (432, 12588), (440, 12636), (442, 12642), (448, 12687), (466, 12804), (467, 12810), (473, 12867), (481, 12921), (483, 12942), (484, 12954), (486, 12975), (487, 12978), (501, 13044), (502, 13050), (527, 13185), (538, 13251), (544, 13278), (563, 13356), (608, 13596), (616, 13626), (643, 13800), (650, 13830), (653, 13851), (668, 13959), (674, 13995), (682, 14043), (734, 14280), (755, 14391), (757, 14409), (774, 14475), (779, 14526), (788, 14598), (795, 14628), (796, 14637), (797, 14640), (801, 14667), (805, 14694), (812, 14733), (817, 14781), (824, 14841), (827, 14877), (837, 14931),

Gene: CocoaPuff_15 Start: 9378, Stop: 14465, Start Num: 28

Candidate Starts for CocoaPuff_15:

(Start: 28 @9378 has 33 MA's), (46, 9534), (60, 9663), (64, 9693), (77, 9762), (80, 9774), (88, 9810), (90, 9819), (94, 9861), (97, 9870), (105, 9906), (109, 9930), (118, 9990), (127, 10044), (131, 10083), (133, 10089), (136, 10104), (138, 10125), (161, 10284), (164, 10296), (175, 10359), (182, 10404), (193, 10485), (211, 10644), (215, 10677), (219, 10689), (223, 10716), (230, 10773), (236, 10803), (239, 10815), (253, 10917), (254, 10920), (267, 11007), (274, 11055), (293, 11169), (304, 11262), (307, 11277), (309, 11298), (313, 11331), (315, 11361), (318, 11373), (324, 11412), (329, 11436), (330, 11439), (336, 11463), (341, 11487), (350, 11592), (359, 11640), (363, 11670), (367, 11685), (370, 11700), (373, 11739), (379, 11781), (382, 11805), (384, 11820), (386, 11835), (390, 11850), (396, 11874), (408, 11913), (410, 11928), (411, 11934), (415, 11955), (422, 11979), (424, 11985), (444, 12111), (450, 12141), (455, 12180), (461, 12228), (465, 12249), (466, 12252), (474, 12324), (481, 12369), (484, 12402), (486, 12423), (498, 12477), (509, 12552), (529, 12636), (544, 12723), (608, 13041), (616, 13071), (638, 13209), (648, 13260), (653, 13290), (678, 13449), (682, 13479), (720, 13659), (726, 13710), (734, 13737), (743, 13758), (757, 13854), (769, 13902), (774, 13920), (788, 14043), (794, 14067), (796, 14082), (801, 14112), (805, 14139), (807, 14145), (812, 14178), (820, 14247), (822, 14250), (824, 14286), (838, 14376),

Gene: Cozz_16 Start: 9630, Stop: 14768, Start Num: 28

Candidate Starts for Cozz_16:

(Start: 22 @9606 has 5 MA's), (Start: 28 @9630 has 33 MA's), (32, 9657), (46, 9786), (49, 9861), (77, 10014), (78, 10017), (94, 10113), (97, 10122), (103, 10152), (105, 10158), (107, 10173), (108, 10176), (112, 10197), (122, 10269), (125, 10290), (136, 10356), (138, 10377), (155, 10494), (182, 10656), (189, 10695), (198, 10770), (215, 10929), (219, 10941), (223, 10968), (228, 11013), (230, 11025), (245, 11115), (248, 11133), (252, 11154), (255, 11184), (261, 11208), (264, 11220), (267, 11259), (271, 11292), (288, 11394), (289, 11397), (293, 11421), (304, 11514), (307, 11529), (311, 11568), (324, 11664), (332, 11703), (333, 11706), (341, 11739), (351, 11847), (352, 11850), (357, 11901), (371, 11976), (382, 12078), (390, 12123), (395, 12144), (396, 12147), (397, 12150), (414, 12225), (424, 12258), (428, 12279), (440, 12357), (442, 12363), (446, 12390), (466, 12525), (481, 12642),

(484, 12675), (486, 12696), (501, 12765), (502, 12771), (504, 12786), (527, 12906), (529, 12915), (544, 12999), (608, 13320), (646, 13539), (653, 13575), (685, 13788), (725, 13980), (734, 14028), (743, 14049), (757, 14157), (774, 14223), (776, 14241), (782, 14301), (788, 14346), (795, 14376), (796, 14385), (801, 14415), (812, 14481), (817, 14529), (824, 14589), (837, 14676), (848, 14739),

Gene: Delian_17 Start: 10277, Stop: 15820, Start Num: 8

Candidate Starts for Delian_17:

(Start: 8 @10277 has 37 MA's), (Start: 11 @10292 has 1 MA's), (Start: 12 @10298 has 1 MA's), (Start: 14 @10328 has 1 MA's), (15, 10337), (16, 10340), (18, 10382), (38, 10493), (40, 10514), (65, 10742), (68, 10760), (71, 10775), (72, 10781), (73, 10784), (76, 10802), (82, 10826), (95, 10910), (96, 10913), (105, 10952), (107, 10967), (109, 10976), (135, 11144), (138, 11171), (189, 11489), (211, 11693), (219, 11738), (220, 11744), (223, 11765), (224, 11777), (240, 11867), (245, 11912), (250, 11939), (254, 11969), (267, 12056), (268, 12059), (272, 12098), (293, 12218), (297, 12260), (302, 12305), (304, 12311), (307, 12326), (313, 12380), (317, 12419), (320, 12440), (321, 12443), (324, 12461), (325, 12470), (335, 12509), (337, 12515), (341, 12536), (345, 12563), (370, 12770), (385, 12836), (398, 12875), (405, 12890), (423, 12920), (424, 12923), (432, 12974), (445, 13055), (446, 13058), (452, 13091), (455, 13121), (457, 13145), (505, 13478), (514, 13526), (518, 13571), (519, 13574), (522, 13589), (531, 13634), (532, 13643), (533, 13652), (543, 13703), (557, 13775), (562, 13793), (571, 13814), (582, 13913), (583, 13916), (592, 13949), (600, 14015), (601, 14033), (604, 14048), (611, 14081), (619, 14132), (628, 14183), (635, 14231), (664, 14426), (665, 14429), (674, 14501), (675, 14504), (684, 14570), (685, 14573), (688, 14591), (697, 14651), (703, 14708), (704, 14726), (716, 14807), (717, 14810), (721, 14825), (743, 14984), (754, 15038), (758, 15104), (772, 15158), (773, 15170), (774, 15176), (788, 15299), (794, 15323), (798, 15341), (801, 15365), (802, 15371), (805, 15392), (812, 15431), (826, 15572), (829, 15584), (839, 15635), (841, 15653), (860, 15803),

Gene: DirtyBoi_18 Start: 11005, Stop: 16017, Start Num: 25

Candidate Starts for DirtyBoi_18:

(Start: 25 @11005 has 13 MA's), (Start: 31 @11035 has 1 MA's), (33, 11056), (39, 11092), (59, 11296), (63, 11326), (78, 11401), (97, 11506), (109, 11566), (119, 11644), (120, 11647), (131, 11719), (138, 11761), (152, 11848), (211, 12277), (215, 12310), (220, 12328), (226, 12373), (229, 12397), (238, 12442), (240, 12451), (244, 12487), (245, 12496), (249, 12520), (252, 12535), (254, 12553), (267, 12640), (275, 12694), (276, 12712), (290, 12787), (295, 12817), (302, 12889), (304, 12895), (307, 12910), (313, 12964), (321, 13027), (324, 13045), (330, 13072), (332, 13084), (337, 13099), (341, 13120), (353, 13240), (355, 13267), (360, 13300), (367, 13339), (370, 13354), (374, 13402), (377, 13426), (381, 13456), (393, 13519), (407, 13564), (409, 13567), (424, 13636), (435, 13708), (438, 13729), (440, 13735), (442, 13741), (445, 13765), (446, 13768), (449, 13789), (453, 13819), (455, 13831), (459, 13867), (469, 13921), (470, 13924), (471, 13930), (475, 13975), (477, 13984), (497, 14125), (503, 14158), (510, 14203), (511, 14209), (512, 14221), (520, 14272), (542, 14356), (547, 14380), (552, 14404), (553, 14407), (569, 14458), (575, 14506), (592, 14593), (595, 14617), (597, 14629), (599, 14650), (603, 14677), (623, 14782), (630, 14815), (640, 14863), (642, 14875), (655, 14947), (658, 14956), (697, 15112), (707, 15142), (748, 15334), (770, 15454), (772, 15457), (793, 15601), (803, 15664), (825, 15826), (826, 15838), (840, 15895), (851, 15970), (853, 15976), (856, 16006), (858, 16009),

Gene: Dre3_16 Start: 9856, Stop: 14970, Start Num: 28

Candidate Starts for Dre3_16:

(23, 9835), (Start: 28 @9856 has 33 MA's), (32, 9883), (46, 10012), (51, 10096), (54, 10108), (62, 10159), (69, 10192), (74, 10216), (79, 10249), (94, 10339), (107, 10399), (108, 10402), (118, 10468), (123, 10504), (125, 10516), (134, 10573), (136, 10582), (138, 10603), (190, 10942), (199, 10999), (208, 11101), (219, 11167), (220, 11173), (223, 11194), (245, 11341), (254, 11398), (256, 11416), (260, 11431), (264, 11446), (267, 11485), (281, 11590), (286, 11614), (288, 11620), (301, 11731), (304, 11740), (307, 11755), (311, 11794), (324, 11890), (330, 11917), (331, 11923), (332, 11929), (340, 11962), (341, 11965), (351, 12073), (355, 12112), (360, 12145), (364, 12175), (365, 12178),

(370, 12199), (371, 12202), (382, 12304), (390, 12349), (396, 12373), (397, 12376), (415, 12454), (422, 12478), (423, 12481), (424, 12484), (432, 12535), (440, 12583), (442, 12589), (448, 12634), (466, 12751), (467, 12757), (473, 12814), (481, 12868), (483, 12889), (484, 12901), (486, 12922), (487, 12925), (501, 12991), (502, 12997), (527, 13132), (538, 13198), (544, 13225), (563, 13303), (608, 13543), (616, 13573), (643, 13747), (650, 13777), (653, 13798), (668, 13906), (682, 13990), (734, 14227), (755, 14338), (757, 14356), (774, 14422), (779, 14473), (788, 14545), (796, 14584), (797, 14587), (801, 14614), (805, 14641), (812, 14680), (817, 14728), (824, 14788), (827, 14824), (837, 14878),

Gene: ElJefes_15 Start: 10009, Stop: 14943, Start Num: 46

Candidate Starts for ElJefes_15:

(Start: 28 @9853 has 33 MA's), (46, 10009), (56, 10114), (60, 10138), (68, 10189), (77, 10237), (88, 10285), (90, 10294), (94, 10336), (96, 10342), (97, 10345), (105, 10381), (109, 10405), (114, 10432), (127, 10519), (131, 10558), (133, 10564), (136, 10579), (138, 10600), (147, 10654), (164, 10771), (175, 10834), (182, 10879), (189, 10918), (193, 10960), (211, 11122), (214, 11131), (215, 11155), (219, 11167), (223, 11194), (224, 11206), (230, 11251), (236, 11281), (239, 11293), (253, 11395), (254, 11398), (267, 11485), (270, 11512), (278, 11572), (284, 11602), (289, 11623), (293, 11647), (299, 11698), (304, 11740), (307, 11755), (308, 11764), (309, 11776), (313, 11809), (318, 11851), (328, 11911), (329, 11914), (330, 11917), (336, 11941), (341, 11965), (350, 12070), (359, 12118), (370, 12178), (371, 12181), (373, 12217), (382, 12283), (384, 12298), (386, 12313), (390, 12328), (395, 12349), (396, 12352), (408, 12391), (410, 12406), (411, 12412), (415, 12433), (422, 12457), (424, 12463), (444, 12589), (450, 12619), (455, 12658), (461, 12706), (465, 12727), (466, 12730), (467, 12736), (474, 12802), (481, 12847), (484, 12880), (486, 12901), (498, 12955), (527, 13105), (529, 13114), (544, 13201), (586, 13378), (608, 13519), (616, 13549), (638, 13687), (653, 13768), (678, 13921), (682, 13951), (723, 14173), (725, 14182), (726, 14188), (734, 14215), (757, 14332), (759, 14338), (769, 14380), (774, 14398), (788, 14521), (794, 14545), (796, 14560), (801, 14590), (805, 14617), (807, 14623), (812, 14656), (820, 14725), (822, 14728), (824, 14764), (833, 14836), (838, 14854),

Gene: Elinal_17 Start: 9384, Stop: 14468, Start Num: 28

Candidate Starts for Elinal_17:

(Start: 28 @9384 has 33 MA's), (46, 9540), (60, 9669), (64, 9699), (77, 9768), (80, 9780), (90, 9825), (94, 9867), (97, 9876), (105, 9912), (109, 9936), (127, 10050), (131, 10089), (133, 10095), (134, 10101), (136, 10110), (138, 10131), (164, 10302), (175, 10365), (182, 10410), (193, 10491), (211, 10650), (215, 10683), (219, 10695), (223, 10722), (230, 10779), (236, 10809), (239, 10821), (253, 10923), (254, 10926), (267, 11013), (274, 11061), (293, 11175), (304, 11268), (307, 11283), (309, 11304), (313, 11337), (315, 11367), (318, 11379), (324, 11418), (329, 11442), (330, 11445), (336, 11469), (341, 11493), (350, 11598), (359, 11646), (363, 11676), (367, 11691), (370, 11706), (373, 11745), (379, 11787), (380, 11799), (382, 11811), (384, 11826), (386, 11841), (390, 11856), (396, 11880), (408, 11919), (410, 11934), (411, 11940), (415, 11961), (422, 11985), (424, 11991), (444, 12117), (450, 12147), (456, 12198), (461, 12234), (465, 12255), (466, 12258), (474, 12330), (481, 12375), (484, 12408), (486, 12429), (498, 12483), (509, 12558), (529, 12642), (544, 12729), (588, 12915), (608, 13047), (616, 13077), (638, 13215), (648, 13266), (653, 13296), (678, 13452), (682, 13482), (720, 13662), (726, 13713), (734, 13740), (743, 13761), (757, 13857), (769, 13905), (774, 13923), (788, 14046), (794, 14070), (796, 14085), (801, 14115), (805, 14142), (807, 14148), (812, 14181), (820, 14250), (822, 14253), (824, 14289), (838, 14379),

Gene: Elliott_16 Start: 9629, Stop: 14767, Start Num: 28

Candidate Starts for Elliott_16:

(Start: 22 @9605 has 5 MA's), (Start: 28 @9629 has 33 MA's), (32, 9656), (46, 9785), (49, 9860), (77, 10013), (78, 10016), (94, 10112), (97, 10121), (103, 10151), (105, 10157), (107, 10172), (108, 10175), (112, 10196), (122, 10268), (125, 10289), (136, 10355), (138, 10376), (155, 10493), (182, 10655), (189, 10694), (198, 10769), (215, 10928), (219, 10940), (223, 10967), (228, 11012), (230, 11024),

(245, 11114), (248, 11132), (252, 11153), (255, 11183), (261, 11207), (264, 11219), (267, 11258), (271, 11291), (288, 11393), (289, 11396), (293, 11420), (304, 11513), (307, 11528), (311, 11567), (332, 11702), (333, 11705), (341, 11738), (351, 11846), (352, 11849), (357, 11900), (371, 11975), (382, 12077), (390, 12122), (395, 12143), (396, 12146), (397, 12149), (414, 12224), (424, 12257), (428, 12278), (432, 12308), (440, 12356), (442, 12362), (446, 12389), (466, 12524), (481, 12641), (484, 12674), (486, 12695), (501, 12764), (502, 12770), (504, 12785), (527, 12905), (529, 12914), (544, 12998), (608, 13319), (646, 13538), (653, 13574), (685, 13787), (725, 13979), (734, 14027), (743, 14048), (757, 14156), (774, 14222), (776, 14240), (788, 14345), (795, 14375), (796, 14384), (801, 14414), (812, 14480), (817, 14528), (824, 14588), (837, 14675), (848, 14738),

Gene: Emalyn_15 Start: 9356, Stop: 14068, Start Num: 81

Candidate Starts for Emalyn_15:

(Start: 81 @9356 has 23 MA's), (108, 9512), (121, 9599), (124, 9614), (129, 9659), (132, 9671), (136, 9689), (139, 9716), (151, 9788), (156, 9830), (158, 9845), (159, 9848), (165, 9872), (168, 9890), (171, 9908), (175, 9929), (178, 9953), (180, 9962), (187, 9989), (191, 10022), (192, 10031), (205, 10121), (208, 10160), (210, 10175), (223, 10244), (227, 10271), (243, 10367), (246, 10385), (258, 10448), (286, 10616), (288, 10622), (302, 10736), (304, 10742), (307, 10757), (337, 10946), (341, 10967), (344, 10985), (345, 10994), (357, 11129), (371, 11204), (373, 11240), (378, 11279), (379, 11282), (382, 11306), (386, 11336), (390, 11351), (396, 11375), (408, 11414), (414, 11453), (416, 11459), (446, 11618), (480, 11867), (481, 11870), (484, 11903), (486, 11924), (501, 11993), (502, 11999), (544, 12230), (575, 12365), (608, 12557), (622, 12626), (626, 12650), (650, 12791), (682, 13004), (685, 13025), (696, 13079), (750, 13382), (755, 13439), (757, 13457), (774, 13523), (781, 13595), (788, 13646), (794, 13670), (795, 13676), (796, 13685), (801, 13715), (812, 13781), (817, 13829), (824, 13889), (838, 13979), (848, 14039),

Gene: Eyes_17 Start: 10596, Stop: 15716, Start Num: 25

Candidate Starts for Eyes_17:

(Start: 25 @10596 has 13 MA's), (Start: 28 @10605 has 33 MA's), (52, 10848), (57, 10878), (59, 10887), (63, 10917), (71, 10956), (76, 10983), (106, 11139), (109, 11157), (131, 11310), (138, 11352), (147, 11406), (182, 11631), (183, 11634), (189, 11670), (199, 11748), (204, 11787), (211, 11871), (215, 11904), (218, 11913), (220, 11922), (224, 11955), (226, 11967), (229, 11991), (238, 12036), (240, 12045), (244, 12081), (250, 12117), (252, 12129), (254, 12147), (261, 12183), (263, 12192), (276, 12306), (283, 12348), (302, 12483), (303, 12486), (304, 12489), (307, 12504), (313, 12558), (317, 12597), (332, 12678), (337, 12693), (341, 12714), (346, 12777), (349, 12813), (374, 12975), (406, 13032), (413, 13044), (414, 13047), (424, 13080), (427, 13098), (438, 13173), (440, 13179), (442, 13185), (444, 13206), (445, 13209), (446, 13212), (455, 13275), (459, 13311), (462, 13326), (467, 13350), (469, 13365), (470, 13368), (471, 13374), (477, 13428), (489, 13527), (497, 13569), (510, 13647), (520, 13716), (526, 13734), (545, 13842), (547, 13845), (552, 13869), (553, 13872), (558, 13893), (565, 13914), (569, 13923), (592, 14058), (595, 14082), (603, 14142), (616, 14202), (623, 14247), (630, 14280), (640, 14328), (642, 14340), (653, 14400), (675, 14550), (679, 14568), (689, 14646), (691, 14652), (694, 14661), (695, 14688), (705, 14781), (713, 14820), (718, 14862), (744, 15015), (751, 15048), (752, 15051), (756, 15108), (760, 15117), (763, 15129), (770, 15150), (774, 15171), (803, 15363), (810, 15402), (822, 15471), (825, 15525), (853, 15678),

Gene: Fairfaxidum_17 Start: 10343, Stop: 15964, Start Num: 8

Candidate Starts for Fairfaxidum_17:

(Start: 7 @10307 has 1 MA's), (Start: 8 @10343 has 37 MA's), (Start: 12 @10364 has 1 MA's), (13, 10382), (16, 10406), (18, 10448), (36, 10547), (38, 10559), (40, 10580), (45, 10637), (48, 10709), (51, 10730), (56, 10751), (59, 10772), (60, 10775), (67, 10823), (68, 10826), (73, 10850), (76, 10868), (88, 10922), (97, 10982), (105, 11018), (106, 11024), (138, 11237), (167, 11423), (184, 11525), (186, 11540), (189, 11555), (195, 11612), (219, 11804), (238, 11924), (250, 12005), (254, 12035), (261, 12071), (267, 12122), (272, 12164), (293, 12284), (299, 12335), (302, 12371), (304, 12377), (307, 12392), (313, 12446), (317, 12485), (321, 12509), (324, 12527), (331, 12560), (335, 12575), (337,

12581), (340, 12599), (341, 12602), (345, 12629), (346, 12665), (379, 12896), (383, 12932), (384, 12935), (391, 12968), (415, 13070), (424, 13103), (434, 13166), (440, 13202), (446, 13238), (450, 13262), (453, 13289), (465, 13370), (473, 13436), (476, 13454), (489, 13559), (496, 13592), (505, 13658), (506, 13667), (514, 13706), (516, 13739), (518, 13751), (519, 13754), (522, 13769), (523, 13778), (531, 13814), (532, 13823), (533, 13832), (552, 13928), (568, 13988), (569, 13991), (571, 13994), (572, 14015), (583, 14096), (593, 14138), (604, 14225), (611, 14258), (613, 14267), (619, 14309), (639, 14423), (664, 14597), (674, 14672), (675, 14675), (680, 14705), (681, 14708), (683, 14732), (684, 14741), (685, 14744), (697, 14822), (703, 14879), (721, 14996), (727, 15047), (754, 15185), (758, 15251), (773, 15317), (774, 15323), (776, 15341), (786, 15434), (788, 15446), (799, 15494), (801, 15512), (802, 15518), (805, 15539), (812, 15578), (826, 15719), (839, 15782), (850, 15857), (860, 15950),

Gene: Feastonyeet_15 Start: 9403, Stop: 14511, Start Num: 28

Candidate Starts for Feastonyeet_15:

(Start: 28 @9403 has 33 MA's), (46, 9559), (60, 9688), (64, 9718), (77, 9787), (80, 9799), (88, 9835), (94, 9886), (97, 9895), (105, 9931), (109, 9955), (118, 10015), (127, 10069), (131, 10108), (133, 10114), (136, 10129), (138, 10150), (164, 10321), (175, 10384), (182, 10429), (193, 10510), (211, 10669), (215, 10702), (219, 10714), (223, 10741), (230, 10798), (236, 10828), (239, 10840), (253, 10942), (254, 10945), (267, 11032), (274, 11080), (293, 11194), (304, 11287), (307, 11302), (309, 11323), (313, 11356), (315, 11386), (318, 11398), (324, 11437), (329, 11461), (330, 11464), (336, 11488), (341, 11512), (350, 11617), (363, 11695), (370, 11725), (371, 11728), (373, 11764), (379, 11806), (382, 11830), (384, 11845), (386, 11860), (390, 11875), (396, 11899), (408, 11938), (410, 11953), (411, 11959), (422, 12004), (424, 12010), (444, 12136), (450, 12166), (454, 12202), (455, 12205), (461, 12253), (465, 12274), (466, 12277), (474, 12349), (481, 12394), (484, 12427), (486, 12448), (498, 12502), (509, 12577), (529, 12661), (544, 12748), (608, 13066), (616, 13096), (638, 13234), (648, 13285), (653, 13315), (678, 13480), (682, 13510), (720, 13690), (726, 13741), (734, 13783), (743, 13804), (757, 13900), (769, 13948), (774, 13966), (788, 14089), (794, 14113), (796, 14128), (801, 14158), (805, 14185), (807, 14191), (812, 14224), (820, 14293), (822, 14296), (824, 14332), (838, 14422),

Gene: Ferry_16 Start: 10023, Stop: 15515, Start Num: 8

Candidate Starts for Ferry_16:

(Start: 8 @10023 has 37 MA's), (Start: 11 @10038 has 1 MA's), (Start: 12 @10044 has 1 MA's), (Start: 14 @10074 has 1 MA's), (15, 10083), (16, 10086), (18, 10128), (38, 10239), (40, 10260), (47, 10380), (65, 10488), (68, 10506), (71, 10521), (72, 10527), (73, 10530), (76, 10548), (82, 10572), (95, 10656), (97, 10662), (105, 10698), (107, 10713), (109, 10722), (135, 10890), (138, 10917), (171, 11130), (189, 11235), (211, 11439), (219, 11484), (223, 11511), (224, 11523), (240, 11613), (245, 11658), (250, 11685), (254, 11715), (267, 11802), (268, 11805), (272, 11844), (293, 11964), (297, 12006), (302, 12051), (304, 12057), (306, 12069), (307, 12072), (313, 12126), (317, 12165), (320, 12186), (321, 12189), (324, 12207), (335, 12255), (337, 12261), (341, 12282), (345, 12309), (349, 12381), (370, 12516), (387, 12588), (389, 12597), (393, 12609), (398, 12621), (405, 12636), (423, 12666), (424, 12669), (432, 12720), (445, 12801), (446, 12804), (452, 12837), (455, 12867), (457, 12891), (468, 12957), (499, 13173), (505, 13224), (514, 13272), (518, 13317), (519, 13320), (522, 13335), (531, 13380), (532, 13389), (533, 13398), (543, 13449), (557, 13521), (562, 13539), (571, 13560), (582, 13659), (583, 13662), (592, 13695), (600, 13761), (601, 13779), (604, 13794), (611, 13827), (619, 13878), (628, 13929), (664, 14172), (665, 14175), (674, 14247), (675, 14250), (684, 14316), (685, 14319), (688, 14337), (697, 14397), (716, 14553), (717, 14556), (721, 14571), (743, 14742), (754, 14796), (762, 14853), (766, 14868), (775, 14916), (780, 14961), (803, 15081), (804, 15090), (811, 15129), (821, 15201), (826, 15270), (829, 15282), (839, 15333), (841, 15351), (860, 15501),

Gene: Fribs8_17 Start: 10424, Stop: 15559, Start Num: 28

Candidate Starts for Fribs8_17:

(Start: 28 @10424 has 33 MA's), (32, 10451), (46, 10580), (54, 10676), (62, 10727), (69, 10760), (74, 10784), (79, 10817), (94, 10907), (107, 10967), (108, 10970), (116, 11030), (118, 11036), (125, 11084), (136, 11150), (138, 11171), (145, 11207), (199, 11567), (208, 11669), (215, 11723), (216, 11726), (219, 11735), (220, 11741), (223, 11762), (245, 11909), (254, 11966), (256, 11984), (261, 12002), (264, 12014), (267, 12053), (274, 12101), (281, 12158), (286, 12182), (288, 12188), (301, 12299), (304, 12308), (307, 12323), (311, 12362), (320, 12437), (330, 12485), (331, 12491), (341, 12533), (351, 12641), (355, 12680), (360, 12713), (382, 12872), (390, 12917), (396, 12941), (415, 13022), (422, 13046), (423, 13049), (424, 13052), (427, 13070), (432, 13103), (438, 13145), (446, 13184), (453, 13235), (466, 13319), (467, 13325), (473, 13382), (475, 13394), (481, 13436), (483, 13457), (484, 13469), (486, 13490), (487, 13493), (501, 13559), (504, 13580), (527, 13700), (538, 13766), (544, 13793), (554, 13838), (556, 13859), (566, 13880), (608, 14123), (616, 14153), (622, 14192), (643, 14327), (650, 14357), (653, 14378), (682, 14570), (725, 14783), (729, 14801), (734, 14816), (755, 14927), (757, 14945), (774, 15011), (779, 15062), (786, 15122), (788, 15134), (796, 15173), (797, 15176), (801, 15203), (807, 15236), (812, 15269), (837, 15467), (839, 15473), (848, 15530),

Gene: Frickyeah_18 Start: 9926, Stop: 15508, Start Num: 31

Candidate Starts for Frickyeah_18:

(Start: 21 @9881 has 11 MA's), (Start: 31 @9926 has 1 MA's), (33, 9947), (37, 9968), (41, 10013), (Start: 42 @10028 has 1 MA's), (48, 10112), (56, 10154), (57, 10166), (68, 10229), (71, 10244), (73, 10253), (76, 10271), (77, 10277), (88, 10325), (112, 10460), (134, 10610), (138, 10640), (189, 10964), (202, 11060), (211, 11168), (219, 11213), (220, 11219), (223, 11240), (235, 11321), (245, 11387), (250, 11414), (252, 11426), (254, 11444), (255, 11456), (261, 11480), (264, 11492), (267, 11531), (268, 11534), (269, 11543), (272, 11573), (278, 11618), (290, 11678), (293, 11693), (296, 11723), (297, 11735), (302, 11780), (304, 11786), (307, 11801), (310, 11831), (312, 11852), (313, 11855), (321, 11918), (325, 11945), (326, 11948), (327, 11951), (328, 11957), (334, 11981), (335, 11984), (337, 11990), (339, 11996), (341, 12011), (344, 12029), (346, 12074), (355, 12158), (356, 12164), (360, 12191), (373, 12284), (374, 12293), (382, 12350), (383, 12362), (391, 12398), (392, 12404), (404, 12446), (407, 12458), (414, 12497), (416, 12503), (417, 12506), (422, 12524), (423, 12527), (424, 12530), (429, 12554), (440, 12629), (447, 12668), (451, 12692), (455, 12725), (465, 12836), (468, 12869), (473, 12932), (478, 12968), (482, 12998), (493, 13076), (494, 13079), (496, 13088), (500, 13112), (512, 13193), (514, 13199), (518, 13244), (519, 13247), (522, 13262), (531, 13307), (532, 13316), (533, 13325), (534, 13328), (555, 13433), (568, 13481), (569, 13484), (571, 13487), (582, 13586), (583, 13589), (589, 13601), (604, 13718), (611, 13751), (619, 13802), (625, 13832), (634, 13892), (647, 13973), (651, 13994), (654, 14027), (667, 14099), (668, 14108), (685, 14222), (690, 14252), (693, 14261), (698, 14300), (699, 14303), (702, 14333), (703, 14354), (730, 14552), (739, 14615), (742, 14621), (751, 14672), (777, 14858), (786, 14945), (791, 14972), (792, 14975), (806, 15050), (810, 15074), (816, 15113), (818, 15149), (823, 15170), (832, 15257), (837, 15299), (843, 15332), (845, 15344), (857, 15422), (861, 15488),

Gene: Frokostdame_17 Start: 10288, Stop: 15762, Start Num: 11

Candidate Starts for Frokostdame_17:

(Start: 8 @10273 has 37 MA's), (10, 10285), (Start: 11 @10288 has 1 MA's), (Start: 12 @10294 has 1 MA's), (Start: 14 @10324 has 1 MA's), (15, 10333), (18, 10378), (38, 10489), (40, 10510), (47, 10630), (54, 10672), (65, 10738), (68, 10756), (72, 10777), (73, 10780), (76, 10798), (82, 10822), (95, 10906), (105, 10948), (107, 10963), (109, 10972), (135, 11140), (138, 11167), (155, 11284), (164, 11338), (171, 11380), (189, 11485), (211, 11689), (219, 11734), (220, 11740), (223, 11761), (224, 11773), (240, 11863), (245, 11908), (250, 11935), (254, 11965), (267, 12052), (268, 12055), (272, 12094), (281, 12157), (283, 12166), (293, 12214), (297, 12256), (304, 12307), (307, 12322), (313, 12376), (317, 12415), (320, 12436), (321, 12439), (324, 12457), (330, 12484), (335, 12505), (337, 12511), (341, 12532), (344, 12550), (345, 12559), (385, 12832), (393, 12859), (398, 12871), (405, 12886), (423, 12916), (424, 12919), (432, 12970), (438, 13012), (445, 13051), (446, 13054), (452, 13087), (455, 13117), (457, 13141), (468, 13207), (505, 13474), (514, 13522), (516, 13555), (518, 13567),

(519, 13570), (522, 13585), (531, 13630), (532, 13639), (533, 13648), (543, 13699), (557, 13771), (562, 13789), (571, 13810), (582, 13909), (583, 13912), (592, 13945), (600, 14011), (601, 14029), (604, 14044), (611, 14077), (619, 14128), (628, 14179), (664, 14422), (665, 14425), (674, 14497), (675, 14500), (684, 14566), (685, 14569), (688, 14587), (697, 14647), (703, 14704), (704, 14722), (716, 14803), (717, 14806), (721, 14821), (743, 14992), (754, 15046), (766, 15118), (769, 15127), (775, 15163), (783, 15223), (785, 15241), (789, 15259), (800, 15304), (804, 15337), (821, 15448), (826, 15517), (839, 15580), (841, 15598), (860, 15748),

Gene: GEazy_17 Start: 10605, Stop: 15728, Start Num: 25

Candidate Starts for GEazy_17:

(Start: 25 @10605 has 13 MA's), (Start: 28 @10614 has 33 MA's), (57, 10887), (59, 10896), (63, 10926), (90, 11055), (109, 11166), (117, 11223), (138, 11361), (147, 11415), (152, 11448), (184, 11649), (189, 11679), (199, 11757), (202, 11775), (204, 11796), (211, 11880), (215, 11913), (218, 11922), (220, 11931), (224, 11964), (226, 11976), (229, 12000), (238, 12045), (240, 12054), (244, 12090), (245, 12099), (250, 12126), (252, 12138), (254, 12156), (261, 12192), (276, 12315), (283, 12357), (302, 12492), (303, 12495), (304, 12498), (307, 12513), (313, 12567), (317, 12606), (332, 12687), (337, 12702), (341, 12723), (343, 12738), (345, 12750), (346, 12786), (349, 12822), (374, 12984), (406, 13041), (413, 13053), (414, 13056), (424, 13089), (427, 13107), (438, 13182), (440, 13188), (442, 13194), (444, 13215), (445, 13218), (446, 13221), (455, 13284), (459, 13320), (462, 13335), (467, 13359), (469, 13374), (470, 13377), (477, 13437), (489, 13536), (497, 13578), (510, 13656), (520, 13725), (526, 13743), (545, 13851), (552, 13878), (553, 13881), (564, 13920), (565, 13923), (569, 13932), (575, 13980), (592, 14067), (595, 14091), (603, 14151), (616, 14211), (630, 14289), (640, 14337), (642, 14349), (653, 14409), (656, 14451), (670, 14532), (675, 14559), (679, 14577), (682, 14607), (689, 14655), (691, 14661), (694, 14670), (700, 14718), (705, 14790), (713, 14829), (718, 14871), (751, 15057), (752, 15060), (756, 15117), (760, 15126), (763, 15138), (770, 15159), (803, 15372), (810, 15411), (822, 15480), (825, 15534), (840, 15606), (853, 15687), (855, 15711),

Gene: GTE2_14 Start: 9463, Stop: 14106, Start Num: 108

Candidate Starts for GTE2_14:

(Start: 81 @9307 has 23 MA's), (Start: 86 @9334 has 2 MA's), (99, 9412), (108, 9463), (121, 9550), (124, 9565), (132, 9622), (136, 9640), (139, 9667), (140, 9670), (151, 9739), (158, 9796), (168, 9841), (171, 9859), (178, 9904), (187, 9940), (191, 9973), (199, 10021), (200, 10024), (205, 10072), (208, 10111), (210, 10126), (243, 10318), (246, 10336), (262, 10420), (286, 10567), (292, 10594), (302, 10687), (304, 10693), (307, 10708), (311, 10747), (321, 10825), (337, 10897), (340, 10915), (341, 10918), (357, 11080), (371, 11155), (373, 11191), (382, 11257), (390, 11302), (395, 11323), (396, 11326), (397, 11329), (408, 11365), (414, 11404), (416, 11410), (422, 11431), (424, 11437), (433, 11497), (445, 11566), (446, 11569), (448, 11587), (467, 11710), (469, 11725), (484, 11854), (486, 11875), (493, 11908), (501, 11944), (502, 11950), (525, 12082), (529, 12094), (544, 12181), (580, 12334), (590, 12385), (596, 12424), (617, 12553), (627, 12610), (633, 12655), (650, 12748), (660, 12823), (669, 12886), (682, 12967), (685, 12988), (710, 13174), (712, 13180), (747, 13399), (755, 13477), (757, 13495), (759, 13501), (774, 13561), (776, 13579), (779, 13612), (788, 13684), (796, 13723), (801, 13753), (812, 13819), (817, 13867), (824, 13927), (838, 14017), (848, 14077),

Gene: Gambino_19 Start: 10619, Stop: 16108, Start Num: 8

Candidate Starts for Gambino_19:

(Start: 8 @10619 has 37 MA's), (Start: 11 @10634 has 1 MA's), (Start: 12 @10640 has 1 MA's), (Start: 14 @10670 has 1 MA's), (15, 10679), (16, 10682), (18, 10724), (38, 10835), (40, 10856), (47, 10976), (54, 11018), (65, 11084), (68, 11102), (72, 11123), (73, 11126), (76, 11144), (82, 11168), (95, 11252), (105, 11294), (107, 11309), (109, 11318), (135, 11486), (138, 11513), (155, 11630), (184, 11801), (189, 11831), (211, 12035), (219, 12080), (223, 12107), (224, 12119), (226, 12131), (240, 12209), (245, 12254), (250, 12281), (254, 12311), (267, 12398), (268, 12401), (272, 12440), (281, 12503), (283, 12512), (293, 12560), (297, 12602), (302, 12647), (304, 12653), (307, 12668), (313, 12722),

(317, 12761), (320, 12782), (321, 12785), (324, 12803), (330, 12830), (335, 12851), (337, 12857), (341, 12878), (344, 12896), (345, 12905), (385, 13178), (405, 13232), (423, 13262), (424, 13265), (432, 13316), (445, 13397), (446, 13400), (452, 13433), (455, 13463), (457, 13487), (468, 13553), (505, 13820), (514, 13868), (516, 13901), (518, 13913), (519, 13916), (531, 13976), (532, 13985), (533, 13994), (543, 14045), (557, 14117), (562, 14135), (571, 14156), (582, 14255), (583, 14258), (592, 14291), (600, 14357), (601, 14375), (604, 14390), (611, 14423), (619, 14474), (628, 14525), (639, 14594), (664, 14768), (665, 14771), (674, 14843), (675, 14846), (684, 14912), (685, 14915), (688, 14933), (697, 14993), (703, 15050), (704, 15068), (716, 15149), (717, 15152), (721, 15167), (743, 15338), (754, 15392), (766, 15464), (769, 15473), (775, 15509), (783, 15569), (785, 15587), (789, 15605), (800, 15650), (804, 15683), (821, 15794), (826, 15863), (839, 15926), (841, 15944), (860, 16094),

Gene: Getalong_19 Start: 10672, Stop: 16305, Start Num: 22

Candidate Starts for Getalong_19:

(Start: 22 @10672 has 5 MA's), (Start: 31 @10717 has 1 MA's), (33, 10738), (37, 10759), (41, 10804), (Start: 42 @10819 has 1 MA's), (48, 10903), (56, 10945), (57, 10957), (68, 11020), (71, 11035), (73, 11044), (76, 11062), (77, 11068), (88, 11116), (112, 11251), (134, 11401), (138, 11431), (171, 11650), (184, 11725), (189, 11755), (211, 11959), (219, 12004), (220, 12010), (223, 12031), (226, 12055), (235, 12112), (245, 12178), (250, 12205), (252, 12217), (254, 12235), (255, 12247), (261, 12271), (264, 12283), (267, 12322), (268, 12325), (269, 12334), (272, 12364), (278, 12409), (290, 12469), (293, 12484), (296, 12514), (297, 12526), (302, 12571), (304, 12577), (307, 12592), (310, 12622), (312, 12643), (313, 12646), (321, 12709), (325, 12736), (326, 12739), (327, 12742), (328, 12748), (334, 12772), (335, 12775), (337, 12781), (339, 12787), (341, 12802), (344, 12820), (346, 12865), (355, 12949), (356, 12955), (360, 12982), (373, 13075), (374, 13084), (382, 13141), (383, 13153), (391, 13189), (392, 13195), (404, 13237), (407, 13249), (414, 13288), (416, 13294), (417, 13297), (422, 13315), (423, 13318), (424, 13321), (440, 13420), (447, 13459), (451, 13483), (455, 13516), (465, 13627), (468, 13660), (473, 13723), (478, 13759), (482, 13789), (493, 13867), (494, 13870), (496, 13879), (500, 13903), (514, 13990), (518, 14035), (519, 14038), (522, 14053), (531, 14098), (532, 14107), (533, 14116), (534, 14119), (555, 14224), (568, 14272), (571, 14278), (582, 14377), (583, 14380), (589, 14392), (604, 14509), (611, 14542), (619, 14593), (625, 14623), (634, 14683), (647, 14764), (651, 14785), (652, 14788), (654, 14818), (666, 14881), (667, 14890), (668, 14899), (685, 15013), (690, 15043), (698, 15091), (699, 15094), (702, 15124), (703, 15145), (730, 15343), (739, 15406), (742, 15412), (751, 15463), (777, 15655), (786, 15742), (791, 15769), (792, 15772), (806, 15847), (810, 15871), (816, 15910), (818, 15946), (823, 15967), (832, 16054), (837, 16096), (843, 16129), (845, 16141), (861, 16285),

Gene: GiKK_19 Start: 9920, Stop: 14137, Start Num: 81

Candidate Starts for GiKK_19:

(Start: 81 @9920 has 23 MA's), (Start: 86 @9947 has 2 MA's), (126, 10193), (136, 10256), (143, 10313), (148, 10340), (153, 10382), (162, 10445), (166, 10460), (169, 10478), (171, 10496), (173, 10508), (177, 10541), (185, 10583), (188, 10598), (202, 10694), (203, 10703), (207, 10766), (209, 10781), (217, 10817), (225, 10868), (231, 10901), (233, 10910), (247, 10991), (257, 11057), (259, 11066), (260, 11075), (265, 11096), (284, 11231), (286, 11243), (307, 11384), (309, 11405), (313, 11438), (314, 11456), (316, 11474), (324, 11519), (337, 11573), (339, 11579), (341, 11594), (352, 11657), (368, 11705), (371, 11720), (373, 11756), (402, 11810), (414, 11837), (415, 11840), (416, 11843), (423, 11867), (424, 11870), (433, 11930), (445, 11999), (446, 12002), (448, 12020), (453, 12053), (459, 12104), (465, 12134), (469, 12158), (470, 12161), (484, 12287), (486, 12308), (488, 12317), (490, 12326), (492, 12332), (517, 12485), (537, 12554), (539, 12560), (548, 12596), (586, 12725), (608, 12866), (614, 12890), (622, 12935), (644, 13088), (646, 13091), (678, 13283), (682, 13313), (753, 13487), (762, 13559), (773, 13595), (776, 13619), (778, 13631), (781, 13673), (787, 13715), (788, 13721), (794, 13745), (798, 13763), (801, 13784), (805, 13811), (807, 13817), (812, 13850), (815, 13871), (817, 13898), (822, 13922), (824, 13958), (830, 14006), (848, 14108),

Gene: Gibbous_16 Start: 9856, Stop: 14970, Start Num: 28

Candidate Starts for Gibbous_16:

(23, 9835), (Start: 28 @9856 has 33 MA's), (32, 9883), (46, 10012), (51, 10096), (54, 10108), (62, 10159), (69, 10192), (74, 10216), (79, 10249), (94, 10339), (107, 10399), (108, 10402), (118, 10468), (123, 10504), (125, 10516), (134, 10573), (136, 10582), (138, 10603), (190, 10942), (199, 10999), (208, 11101), (219, 11167), (220, 11173), (223, 11194), (245, 11341), (254, 11398), (256, 11416), (260, 11431), (264, 11446), (267, 11485), (281, 11590), (286, 11614), (288, 11620), (301, 11731), (304, 11740), (307, 11755), (311, 11794), (324, 11890), (330, 11917), (331, 11923), (332, 11929), (340, 11962), (341, 11965), (351, 12073), (355, 12112), (360, 12145), (364, 12175), (365, 12178), (370, 12199), (371, 12202), (382, 12304), (390, 12349), (396, 12373), (397, 12376), (415, 12454), (422, 12478), (423, 12481), (424, 12484), (432, 12535), (440, 12583), (442, 12589), (448, 12634), (466, 12751), (467, 12757), (473, 12814), (481, 12868), (483, 12889), (484, 12901), (486, 12922), (487, 12925), (501, 12991), (502, 12997), (527, 13132), (538, 13198), (544, 13225), (563, 13303), (608, 13543), (616, 13573), (643, 13747), (650, 13777), (653, 13798), (668, 13906), (682, 13990), (734, 14227), (755, 14338), (757, 14356), (774, 14422), (779, 14473), (788, 14545), (796, 14584), (797, 14587), (801, 14614), (805, 14641), (812, 14680), (817, 14728), (824, 14788), (827, 14824), (837, 14878),

Gene: GoldHunter_17 Start: 9630, Stop: 14768, Start Num: 28

Candidate Starts for GoldHunter_17:

(Start: 22 @9606 has 5 MA's), (Start: 28 @9630 has 33 MA's), (32, 9657), (46, 9786), (49, 9861), (77, 10014), (78, 10017), (94, 10113), (97, 10122), (103, 10152), (105, 10158), (107, 10173), (108, 10176), (112, 10197), (122, 10269), (125, 10290), (136, 10356), (138, 10377), (155, 10494), (182, 10656), (189, 10695), (198, 10770), (215, 10929), (219, 10941), (223, 10968), (228, 11013), (230, 11025), (245, 11115), (248, 11133), (252, 11154), (255, 11184), (261, 11208), (264, 11220), (267, 11259), (271, 11292), (288, 11394), (289, 11397), (293, 11421), (304, 11514), (307, 11529), (311, 11568), (317, 11622), (324, 11664), (333, 11706), (340, 11736), (341, 11739), (351, 11847), (352, 11850), (357, 11901), (371, 11976), (380, 12066), (382, 12078), (390, 12123), (395, 12144), (396, 12147), (397, 12150), (414, 12225), (424, 12258), (428, 12279), (432, 12309), (440, 12357), (442, 12363), (446, 12390), (466, 12525), (481, 12642), (484, 12675), (486, 12696), (487, 12699), (501, 12765), (502, 12771), (504, 12786), (527, 12906), (529, 12915), (544, 12999), (608, 13320), (646, 13539), (653, 13575), (685, 13788), (725, 13980), (734, 14028), (743, 14049), (757, 14157), (774, 14223), (776, 14241), (782, 14301), (788, 14346), (795, 14376), (796, 14385), (801, 14415), (812, 14481), (817, 14529), (824, 14589), (837, 14676), (848, 14739),

Gene: Guacamole_17 Start: 10278, Stop: 15800, Start Num: 8

Candidate Starts for Guacamole_17:

(Start: 8 @10278 has 37 MA's), (Start: 11 @10293 has 1 MA's), (Start: 12 @10299 has 1 MA's), (Start: 14 @10329 has 1 MA's), (15, 10338), (16, 10341), (18, 10383), (38, 10494), (40, 10515), (47, 10635), (54, 10677), (65, 10743), (68, 10761), (72, 10782), (73, 10785), (76, 10803), (82, 10827), (95, 10911), (96, 10914), (105, 10953), (107, 10968), (109, 10977), (135, 11145), (138, 11172), (155, 11289), (163, 11337), (184, 11460), (189, 11490), (211, 11694), (219, 11739), (223, 11766), (224, 11778), (240, 11868), (245, 11913), (250, 11940), (254, 11970), (267, 12057), (268, 12060), (272, 12099), (285, 12183), (293, 12219), (297, 12261), (302, 12306), (304, 12312), (306, 12324), (307, 12327), (313, 12381), (317, 12420), (320, 12441), (321, 12444), (324, 12462), (325, 12471), (330, 12489), (335, 12510), (337, 12516), (341, 12537), (345, 12564), (350, 12642), (389, 12831), (398, 12855), (404, 12867), (405, 12870), (418, 12885), (423, 12900), (424, 12903), (432, 12954), (445, 13035), (446, 13038), (452, 13071), (455, 13101), (457, 13125), (479, 13284), (505, 13458), (514, 13506), (518, 13551), (519, 13554), (522, 13569), (531, 13614), (532, 13623), (533, 13632), (543, 13683), (557, 13755), (562, 13773), (571, 13794), (582, 13893), (583, 13896), (592, 13929), (600, 13995), (601, 14013), (604, 14028), (611, 14061), (619, 14112), (628, 14163), (635, 14211), (664, 14406), (665, 14409), (674, 14481), (675, 14484), (684, 14550), (685, 14553), (688, 14571), (697, 14631), (703, 14688), (704, 14706), (716, 14787), (717, 14790), (721, 14805), (754, 15018), (758, 15084), (772,

15138), (773, 15150), (774, 15156), (788, 15279), (794, 15303), (798, 15321), (801, 15345), (802, 15351), (805, 15372), (812, 15411), (826, 15552), (829, 15564), (839, 15615), (841, 15633), (860, 15783),

Gene: HannahD_17 Start: 10605, Stop: 15728, Start Num: 25

Candidate Starts for HannahD_17:

(Start: 25 @10605 has 13 MA's), (Start: 28 @10614 has 33 MA's), (57, 10887), (59, 10896), (63, 10926), (90, 11055), (109, 11166), (117, 11223), (138, 11361), (147, 11415), (152, 11448), (184, 11649), (189, 11679), (199, 11757), (202, 11775), (204, 11796), (211, 11880), (215, 11913), (218, 11922), (220, 11931), (224, 11964), (226, 11976), (229, 12000), (238, 12045), (240, 12054), (244, 12090), (245, 12099), (250, 12126), (252, 12138), (254, 12156), (261, 12192), (276, 12315), (283, 12357), (302, 12492), (303, 12495), (304, 12498), (307, 12513), (313, 12567), (317, 12606), (332, 12687), (337, 12702), (341, 12723), (343, 12738), (345, 12750), (346, 12786), (349, 12822), (374, 12984), (406, 13041), (413, 13053), (414, 13056), (424, 13089), (427, 13107), (438, 13182), (440, 13188), (442, 13194), (444, 13215), (445, 13218), (446, 13221), (455, 13284), (459, 13320), (462, 13335), (467, 13359), (469, 13374), (470, 13377), (477, 13437), (489, 13536), (497, 13578), (510, 13656), (520, 13725), (526, 13743), (545, 13851), (552, 13878), (553, 13881), (564, 13920), (565, 13923), (569, 13932), (575, 13980), (592, 14067), (595, 14091), (603, 14151), (616, 14211), (630, 14289), (640, 14337), (642, 14349), (653, 14409), (656, 14451), (670, 14532), (675, 14559), (679, 14577), (682, 14607), (689, 14655), (691, 14661), (694, 14670), (700, 14718), (705, 14790), (713, 14829), (718, 14871), (751, 15057), (752, 15060), (756, 15117), (760, 15126), (763, 15138), (770, 15159), (803, 15372), (810, 15411), (822, 15480), (825, 15534), (840, 15606), (853, 15687), (855, 15711),

Gene: Hedwig_18 Start: 11001, Stop: 16013, Start Num: 25

Candidate Starts for Hedwig_18:

(Start: 25 @11001 has 13 MA's), (Start: 31 @11031 has 1 MA's), (33, 11052), (39, 11088), (59, 11292), (63, 11322), (78, 11397), (97, 11502), (109, 11562), (119, 11640), (120, 11643), (131, 11715), (138, 11757), (152, 11844), (211, 12273), (214, 12282), (215, 12306), (220, 12324), (226, 12369), (229, 12393), (238, 12438), (240, 12447), (244, 12483), (245, 12492), (249, 12516), (252, 12531), (254, 12549), (259, 12573), (267, 12636), (275, 12690), (276, 12708), (290, 12783), (295, 12813), (302, 12885), (304, 12891), (307, 12906), (309, 12927), (313, 12960), (321, 13023), (324, 13041), (330, 13068), (332, 13080), (337, 13095), (341, 13116), (353, 13236), (355, 13263), (360, 13296), (367, 13335), (370, 13350), (374, 13398), (377, 13422), (381, 13452), (393, 13515), (407, 13560), (409, 13563), (424, 13632), (435, 13704), (438, 13725), (440, 13731), (442, 13737), (445, 13761), (446, 13764), (449, 13785), (453, 13815), (455, 13827), (459, 13863), (469, 13917), (470, 13920), (471, 13926), (475, 13971), (477, 13980), (497, 14121), (503, 14154), (510, 14199), (511, 14205), (512, 14217), (520, 14268), (542, 14352), (547, 14376), (552, 14400), (553, 14403), (569, 14454), (575, 14502), (592, 14589), (595, 14613), (597, 14625), (599, 14646), (603, 14673), (623, 14778), (630, 14811), (640, 14859), (642, 14871), (655, 14943), (658, 14952), (697, 15108), (707, 15138), (748, 15330), (770, 15450), (772, 15453), (793, 15597), (803, 15660), (825, 15822), (826, 15834), (840, 15891), (851, 15966), (853, 15972), (856, 16002), (858, 16005),

Gene: Hexbug_18 Start: 10603, Stop: 14823, Start Num: 81

Candidate Starts for Hexbug_18:

(Start: 81 @10603 has 23 MA's), (Start: 86 @10630 has 2 MA's), (136, 10939), (143, 10996), (147, 11020), (153, 11065), (154, 11068), (157, 11110), (162, 11128), (166, 11143), (169, 11161), (170, 11170), (177, 11224), (188, 11281), (200, 11362), (205, 11410), (207, 11449), (209, 11464), (214, 11473), (217, 11500), (222, 11530), (223, 11533), (225, 11551), (247, 11674), (257, 11740), (266, 11803), (279, 11890), (293, 11959), (306, 12064), (307, 12067), (309, 12088), (313, 12121), (314, 12139), (316, 12157), (320, 12181), (324, 12202), (325, 12211), (337, 12256), (338, 12259), (341, 12277), (368, 12388), (370, 12400), (371, 12403), (373, 12439), (389, 12481), (402, 12493), (414, 12520), (424, 12553), (436, 12628), (445, 12682), (446, 12685), (448, 12703), (455, 12748), (459,

12787), (460, 12793), (465, 12817), (468, 12838), (469, 12841), (470, 12844), (484, 12970), (486, 12991), (488, 13000), (490, 13009), (492, 13015), (517, 13168), (530, 13213), (537, 13237), (539, 13243), (548, 13279), (555, 13312), (560, 13336), (579, 13387), (587, 13432), (608, 13570), (616, 13600), (678, 13981), (753, 14173), (762, 14245), (773, 14281), (776, 14305), (778, 14317), (781, 14359), (788, 14407), (801, 14470), (807, 14503), (812, 14536), (815, 14557), (817, 14584), (822, 14608), (824, 14644), (826, 14671), (828, 14680), (830, 14692), (848, 14794),

Gene: HippoPololi_18 Start: 10513, Stop: 15630, Start Num: 28

Candidate Starts for HippoPololi_18:

(23, 10492), (Start: 28 @10513 has 33 MA's), (32, 10540), (46, 10669), (51, 10753), (58, 10792), (62, 10816), (74, 10873), (78, 10900), (79, 10906), (94, 10996), (107, 11056), (108, 11059), (118, 11125), (125, 11173), (136, 11239), (138, 11260), (190, 11599), (198, 11653), (199, 11656), (208, 11758), (216, 11815), (218, 11821), (219, 11824), (220, 11830), (223, 11851), (240, 11953), (254, 12055), (256, 12073), (267, 12142), (274, 12190), (281, 12247), (286, 12271), (288, 12277), (304, 12397), (307, 12412), (311, 12451), (320, 12526), (324, 12547), (330, 12574), (331, 12580), (340, 12619), (341, 12622), (351, 12730), (360, 12802), (370, 12856), (382, 12961), (390, 13006), (396, 13030), (415, 13111), (423, 13138), (424, 13141), (432, 13192), (440, 13240), (442, 13246), (448, 13291), (466, 13408), (467, 13414), (473, 13471), (481, 13525), (483, 13546), (484, 13558), (486, 13579), (487, 13582), (501, 13648), (502, 13654), (527, 13789), (529, 13798), (538, 13855), (544, 13882), (570, 13975), (608, 14203), (613, 14224), (616, 14233), (643, 14407), (650, 14437), (653, 14458), (682, 14650), (709, 14740), (734, 14887), (743, 14908), (757, 15016), (764, 15049), (774, 15082), (779, 15133), (788, 15205), (796, 15244), (797, 15247), (801, 15274), (807, 15307), (812, 15340), (815, 15361), (817, 15388), (827, 15484), (837, 15538),

Gene: Hitter_17 Start: 10274, Stop: 15796, Start Num: 8

Candidate Starts for Hitter_17:

(Start: 8 @10274 has 37 MA's), (Start: 11 @10289 has 1 MA's), (Start: 12 @10295 has 1 MA's), (Start: 14 @10325 has 1 MA's), (15, 10334), (16, 10337), (18, 10379), (38, 10490), (40, 10511), (65, 10739), (68, 10757), (71, 10772), (72, 10778), (73, 10781), (76, 10799), (82, 10823), (95, 10907), (97, 10913), (105, 10949), (107, 10964), (109, 10973), (135, 11141), (138, 11168), (155, 11285), (184, 11456), (189, 11486), (211, 11690), (219, 11735), (245, 11909), (250, 11936), (254, 11966), (267, 12053), (272, 12095), (285, 12179), (293, 12215), (297, 12257), (302, 12302), (304, 12308), (306, 12320), (307, 12323), (313, 12377), (317, 12416), (320, 12437), (321, 12440), (324, 12458), (325, 12467), (330, 12485), (335, 12506), (337, 12512), (341, 12533), (345, 12560), (350, 12638), (389, 12827), (398, 12851), (404, 12863), (405, 12866), (418, 12881), (423, 12896), (424, 12899), (432, 12950), (445, 13031), (446, 13034), (452, 13067), (455, 13097), (457, 13121), (505, 13454), (514, 13502), (518, 13547), (519, 13550), (522, 13565), (531, 13610), (532, 13619), (533, 13628), (543, 13679), (557, 13751), (562, 13769), (571, 13790), (582, 13889), (583, 13892), (592, 13925), (600, 13991), (601, 14009), (604, 14024), (611, 14057), (619, 14108), (628, 14159), (664, 14402), (665, 14405), (674, 14477), (675, 14480), (684, 14546), (685, 14549), (688, 14567), (697, 14627), (703, 14684), (704, 14702), (716, 14783), (717, 14786), (721, 14801), (754, 15014), (758, 15080), (759, 15086), (773, 15146), (774, 15152), (788, 15275), (794, 15299), (798, 15317), (801, 15341), (802, 15347), (805, 15368), (812, 15407), (826, 15548), (829, 15560), (839, 15611), (841, 15629), (860, 15779),

Gene: Holliday_18 Start: 9868, Stop: 15501, Start Num: 21

Candidate Starts for Holliday_18:

(Start: 21 @9868 has 11 MA's), (29, 9895), (Start: 31 @9913 has 1 MA's), (33, 9934), (37, 9955), (41, 10000), (Start: 42 @10015 has 1 MA's), (48, 10099), (56, 10141), (57, 10153), (68, 10216), (71, 10231), (73, 10240), (76, 10258), (77, 10264), (88, 10312), (112, 10447), (134, 10597), (138, 10627), (171, 10846), (184, 10921), (189, 10951), (211, 11155), (218, 11197), (219, 11200), (220, 11206), (223, 11227), (235, 11308), (245, 11374), (250, 11401), (252, 11413), (254, 11431), (255, 11443), (261, 11467), (264, 11479), (267, 11518), (268, 11521), (269, 11530), (272, 11560), (278, 11605), (290, 11665), (293, 11680), (296, 11710), (297, 11722), (302, 11767), (304, 11773), (307, 11788),

(310, 11818), (312, 11839), (313, 11842), (321, 11905), (325, 11932), (326, 11935), (327, 11938), (328, 11944), (334, 11968), (335, 11971), (337, 11977), (339, 11983), (341, 11998), (344, 12016), (349, 12097), (355, 12145), (356, 12151), (360, 12178), (382, 12337), (383, 12349), (391, 12385), (407, 12445), (414, 12484), (416, 12490), (417, 12493), (423, 12514), (424, 12517), (440, 12616), (447, 12655), (451, 12679), (455, 12712), (458, 12757), (464, 12811), (472, 12898), (473, 12919), (478, 12955), (482, 12985), (493, 13063), (494, 13066), (496, 13075), (500, 13099), (512, 13180), (514, 13186), (518, 13231), (519, 13234), (522, 13249), (531, 13294), (532, 13303), (533, 13312), (534, 13315), (555, 13420), (568, 13468), (571, 13474), (582, 13573), (583, 13576), (589, 13588), (604, 13705), (611, 13738), (619, 13789), (620, 13801), (625, 13819), (634, 13879), (647, 13960), (651, 13981), (654, 14014), (666, 14077), (668, 14095), (685, 14209), (690, 14239), (693, 14248), (698, 14287), (699, 14290), (702, 14320), (703, 14341), (722, 14494), (730, 14545), (739, 14608), (742, 14614), (751, 14665), (777, 14851), (786, 14938), (791, 14965), (792, 14968), (806, 15043), (810, 15067), (816, 15106), (818, 15142), (823, 15163), (832, 15250), (837, 15292), (843, 15325), (845, 15337), (857, 15415), (861, 15481),

Gene: Horseradish_17 Start: 9515, Stop: 14311, Start Num: 81

Candidate Starts for Horseradish_17:

(Start: 81 @9515 has 23 MA's), (Start: 86 @9542 has 2 MA's), (88, 9548), (108, 9671), (124, 9773), (129, 9818), (132, 9830), (136, 9848), (139, 9875), (140, 9878), (142, 9893), (150, 9944), (151, 9947), (158, 10004), (159, 10007), (160, 10010), (168, 10049), (171, 10067), (178, 10112), (187, 10148), (191, 10181), (196, 10214), (197, 10226), (205, 10280), (208, 10319), (210, 10334), (213, 10343), (217, 10370), (225, 10421), (236, 10481), (239, 10490), (246, 10544), (258, 10607), (261, 10622), (269, 10685), (286, 10775), (292, 10802), (302, 10895), (304, 10901), (307, 10916), (311, 10955), (321, 11033), (327, 11066), (337, 11105), (340, 11123), (341, 11126), (345, 11153), (348, 11210), (350, 11231), (366, 11342), (371, 11363), (373, 11399), (379, 11441), (380, 11453), (382, 11465), (390, 11510), (391, 11513), (395, 11531), (396, 11534), (397, 11537), (414, 11612), (424, 11645), (433, 11705), (444, 11771), (445, 11774), (446, 11777), (448, 11795), (462, 11894), (465, 11909), (466, 11912), (484, 12062), (486, 12083), (495, 12125), (501, 12152), (502, 12158), (525, 12290), (529, 12302), (544, 12389), (553, 12431), (563, 12467), (573, 12503), (580, 12542), (590, 12593), (596, 12632), (606, 12710), (617, 12761), (627, 12818), (650, 12956), (660, 13028), (682, 13172), (685, 13193), (710, 13370), (712, 13376), (757, 13700), (759, 13706), (774, 13766), (776, 13784), (779, 13817), (788, 13889), (796, 13928), (801, 13958), (812, 14024), (814, 14042), (817, 14072), (824, 14132), (838, 14222), (848, 14282),

Gene: Horus_18 Start: 9926, Stop: 15514, Start Num: 31

Candidate Starts for Horus_18:

(Start: 21 @9881 has 11 MA's), (Start: 31 @9926 has 1 MA's), (33, 9947), (37, 9968), (41, 10013), (Start: 42 @10028 has 1 MA's), (48, 10112), (56, 10154), (57, 10166), (68, 10229), (71, 10244), (73, 10253), (76, 10271), (77, 10277), (88, 10325), (112, 10460), (134, 10610), (138, 10640), (189, 10964), (202, 11060), (211, 11168), (218, 11210), (219, 11213), (220, 11219), (223, 11240), (235, 11321), (245, 11387), (250, 11414), (252, 11426), (254, 11444), (255, 11456), (261, 11480), (264, 11492), (267, 11531), (268, 11534), (269, 11543), (272, 11573), (290, 11678), (293, 11693), (296, 11723), (297, 11735), (302, 11780), (304, 11786), (307, 11801), (310, 11831), (312, 11852), (313, 11855), (321, 11918), (325, 11945), (326, 11948), (327, 11951), (328, 11957), (334, 11981), (335, 11984), (337, 11990), (339, 11996), (341, 12011), (344, 12029), (346, 12074), (355, 12158), (356, 12164), (360, 12191), (373, 12284), (374, 12293), (382, 12350), (383, 12362), (391, 12398), (404, 12446), (407, 12458), (414, 12497), (416, 12503), (417, 12506), (422, 12524), (423, 12527), (424, 12530), (429, 12554), (440, 12629), (451, 12692), (455, 12725), (459, 12800), (464, 12824), (465, 12836), (468, 12869), (473, 12932), (478, 12968), (482, 12998), (493, 13076), (494, 13079), (496, 13088), (514, 13199), (518, 13244), (519, 13247), (522, 13262), (531, 13307), (532, 13316), (533, 13325), (534, 13328), (555, 13433), (568, 13481), (571, 13487), (582, 13586), (583, 13589), (589, 13601), (604, 13718), (611, 13751), (619, 13802), (625, 13832), (634, 13892), (647, 13973), (651, 13994), (652, 13997), (654, 14027), (666, 14090), (667, 14099), (668, 14108), (685, 14222), (690, 14252),

(698, 14300), (699, 14303), (702, 14333), (703, 14354), (730, 14552), (739, 14615), (742, 14621), (751, 14672), (777, 14864), (786, 14951), (791, 14978), (792, 14981), (806, 15056), (810, 15080), (816, 15119), (818, 15155), (823, 15176), (832, 15263), (837, 15305), (843, 15338), (845, 15350), (861, 15494),

Gene: Jalammah_19 Start: 11050, Stop: 16590, Start Num: 8

Candidate Starts for Jalammah_19:

(Start: 8 @11050 has 37 MA's), (Start: 14 @11101 has 1 MA's), (15, 11110), (16, 11113), (18, 11155), (38, 11266), (40, 11287), (47, 11407), (54, 11449), (65, 11515), (68, 11533), (72, 11554), (73, 11557), (76, 11575), (82, 11599), (95, 11683), (105, 11725), (107, 11740), (109, 11749), (135, 11917), (138, 11944), (155, 12061), (184, 12232), (189, 12262), (211, 12466), (219, 12511), (223, 12538), (224, 12550), (240, 12640), (245, 12685), (250, 12712), (254, 12742), (267, 12829), (268, 12832), (272, 12871), (285, 12955), (293, 12991), (297, 13033), (302, 13078), (304, 13084), (306, 13096), (307, 13099), (313, 13153), (317, 13192), (320, 13213), (321, 13216), (324, 13234), (330, 13261), (335, 13282), (337, 13288), (341, 13309), (345, 13336), (371, 13546), (389, 13624), (398, 13648), (404, 13660), (405, 13663), (418, 13678), (423, 13693), (424, 13696), (432, 13747), (445, 13828), (446, 13831), (452, 13864), (455, 13894), (457, 13918), (468, 13984), (505, 14251), (514, 14299), (518, 14344), (519, 14347), (522, 14362), (531, 14407), (532, 14416), (533, 14425), (543, 14476), (557, 14548), (562, 14566), (571, 14587), (582, 14686), (583, 14689), (592, 14722), (600, 14788), (601, 14806), (604, 14821), (611, 14854), (619, 14905), (628, 14956), (664, 15199), (665, 15202), (674, 15274), (675, 15277), (684, 15343), (685, 15346), (688, 15364), (697, 15424), (703, 15481), (704, 15499), (716, 15580), (717, 15583), (721, 15598), (743, 15757), (754, 15811), (758, 15877), (759, 15883), (773, 15943), (774, 15949), (778, 15979), (788, 16072), (794, 16096), (798, 16114), (801, 16138), (802, 16144), (805, 16165), (812, 16204), (826, 16345), (829, 16357), (839, 16408), (841, 16426), (860, 16576),

Gene: Jamzy_19 Start: 9930, Stop: 14147, Start Num: 81

Candidate Starts for Jamzy_19:

(Start: 81 @9930 has 23 MA's), (Start: 86 @9957 has 2 MA's), (126, 10203), (136, 10266), (143, 10323), (148, 10350), (153, 10392), (162, 10455), (166, 10470), (169, 10488), (171, 10506), (173, 10518), (177, 10551), (185, 10593), (188, 10608), (202, 10704), (203, 10713), (207, 10776), (209, 10791), (217, 10827), (225, 10878), (231, 10911), (233, 10920), (247, 11001), (257, 11067), (259, 11076), (260, 11085), (265, 11106), (284, 11241), (286, 11253), (307, 11394), (309, 11415), (313, 11448), (314, 11466), (316, 11484), (324, 11529), (337, 11583), (341, 11604), (352, 11667), (368, 11715), (371, 11730), (373, 11766), (402, 11820), (414, 11847), (416, 11853), (423, 11877), (424, 11880), (433, 11940), (438, 11973), (446, 12012), (448, 12030), (449, 12033), (455, 12075), (456, 12087), (460, 12120), (461, 12123), (465, 12144), (469, 12168), (470, 12171), (481, 12264), (483, 12285), (484, 12297), (486, 12318), (488, 12327), (490, 12336), (492, 12342), (517, 12495), (536, 12555), (537, 12564), (539, 12570), (548, 12606), (587, 12738), (608, 12876), (614, 12900), (644, 13098), (646, 13101), (672, 13263), (677, 13287), (678, 13290), (716, 13392), (753, 13497), (762, 13569), (769, 13593), (773, 13605), (776, 13629), (778, 13641), (787, 13725), (788, 13731), (798, 13773), (801, 13794), (807, 13827), (812, 13860), (815, 13881), (817, 13908), (824, 13968), (826, 13995), (828, 14004), (830, 14016), (848, 14118),

Gene: JasperJr_17 Start: 10278, Stop: 15800, Start Num: 8

Candidate Starts for JasperJr_17:

(Start: 8 @10278 has 37 MA's), (Start: 11 @10293 has 1 MA's), (Start: 12 @10299 has 1 MA's), (Start: 14 @10329 has 1 MA's), (15, 10338), (16, 10341), (18, 10383), (38, 10494), (40, 10515), (47, 10635), (54, 10677), (65, 10743), (68, 10761), (72, 10782), (73, 10785), (76, 10803), (82, 10827), (95, 10911), (96, 10914), (105, 10953), (107, 10968), (109, 10977), (135, 11145), (138, 11172), (155, 11289), (163, 11337), (184, 11460), (189, 11490), (211, 11694), (219, 11739), (223, 11766), (224, 11778), (240, 11868), (245, 11913), (250, 11940), (254, 11970), (267, 12057), (268, 12060), (272, 12099), (285, 12183), (293, 12219), (297, 12261), (302, 12306), (304, 12312), (306, 12324), (307, 12327), (313,

12381), (317, 12420), (320, 12441), (321, 12444), (324, 12462), (325, 12471), (330, 12489), (335, 12510), (337, 12516), (341, 12537), (345, 12564), (350, 12642), (389, 12831), (398, 12855), (404, 12867), (405, 12870), (418, 12885), (423, 12900), (424, 12903), (432, 12954), (445, 13035), (446, 13038), (452, 13071), (455, 13101), (457, 13125), (479, 13284), (505, 13458), (514, 13506), (518, 13551), (519, 13554), (522, 13569), (531, 13614), (532, 13623), (533, 13632), (543, 13683), (557, 13755), (562, 13773), (571, 13794), (582, 13893), (583, 13896), (592, 13929), (600, 13995), (601, 14013), (604, 14028), (611, 14061), (619, 14112), (628, 14163), (635, 14211), (664, 14406), (665, 14409), (674, 14481), (675, 14484), (684, 14550), (685, 14553), (688, 14571), (697, 14631), (703, 14688), (704, 14706), (716, 14787), (717, 14790), (721, 14805), (754, 15018), (758, 15084), (772, 15138), (773, 15150), (774, 15156), (788, 15279), (794, 15303), (798, 15321), (801, 15345), (802, 15351), (805, 15372), (812, 15411), (826, 15552), (829, 15564), (839, 15615), (841, 15633), (860, 15783),

Gene: JuJu_17 Start: 10202, Stop: 15721, Start Num: 8

Candidate Starts for JuJu_17:

(Start: 8 @10202 has 37 MA's), (Start: 11 @10217 has 1 MA's), (Start: 12 @10223 has 1 MA's), (Start: 14 @10253 has 1 MA's), (15, 10262), (16, 10265), (18, 10307), (38, 10418), (40, 10439), (68, 10685), (72, 10706), (73, 10709), (76, 10727), (82, 10751), (95, 10835), (97, 10841), (105, 10877), (107, 10892), (109, 10901), (112, 10916), (118, 10961), (135, 11069), (138, 11096), (144, 11129), (189, 11414), (211, 11618), (219, 11663), (245, 11837), (250, 11864), (254, 11894), (267, 11981), (272, 12023), (283, 12095), (293, 12143), (297, 12185), (302, 12230), (304, 12236), (306, 12248), (307, 12251), (313, 12305), (317, 12344), (320, 12365), (321, 12368), (324, 12386), (325, 12395), (330, 12413), (335, 12434), (337, 12440), (341, 12461), (345, 12488), (350, 12566), (370, 12674), (385, 12740), (398, 12779), (423, 12824), (424, 12827), (432, 12878), (445, 12959), (446, 12962), (452, 12995), (455, 13025), (468, 13115), (478, 13196), (496, 13316), (505, 13382), (514, 13430), (518, 13475), (519, 13478), (522, 13493), (523, 13502), (531, 13538), (532, 13547), (533, 13556), (557, 13679), (571, 13718), (582, 13817), (583, 13820), (600, 13919), (601, 13937), (604, 13952), (611, 13985), (619, 14036), (628, 14087), (639, 14156), (664, 14330), (665, 14333), (673, 14399), (674, 14405), (675, 14408), (684, 14474), (685, 14477), (688, 14495), (697, 14555), (703, 14612), (704, 14630), (716, 14711), (721, 14729), (727, 14780), (743, 14888), (754, 14942), (758, 15008), (772, 15062), (773, 15074), (774, 15080), (778, 15110), (788, 15203), (794, 15227), (798, 15245), (801, 15269), (802, 15275), (805, 15296), (812, 15335), (826, 15476), (839, 15539), (841, 15557), (850, 15614), (860, 15707),

Gene: Kamaru_18 Start: 9868, Stop: 15501, Start Num: 21

Candidate Starts for Kamaru_18:

(Start: 21 @9868 has 11 MA's), (29, 9895), (Start: 31 @9913 has 1 MA's), (33, 9934), (37, 9955), (41, 10000), (Start: 42 @10015 has 1 MA's), (48, 10099), (56, 10141), (57, 10153), (68, 10216), (71, 10231), (73, 10240), (76, 10258), (77, 10264), (88, 10312), (112, 10447), (134, 10597), (138, 10627), (171, 10846), (184, 10921), (189, 10951), (211, 11155), (218, 11197), (219, 11200), (220, 11206), (223, 11227), (235, 11308), (245, 11374), (250, 11401), (252, 11413), (254, 11431), (255, 11443), (261, 11467), (264, 11479), (267, 11518), (268, 11521), (269, 11530), (272, 11560), (278, 11605), (290, 11665), (293, 11680), (296, 11710), (297, 11722), (302, 11767), (304, 11773), (307, 11788), (310, 11818), (312, 11839), (313, 11842), (321, 11905), (325, 11932), (326, 11935), (327, 11938), (328, 11944), (334, 11968), (335, 11971), (337, 11977), (339, 11983), (341, 11998), (344, 12016), (349, 12097), (355, 12145), (356, 12151), (360, 12178), (382, 12337), (383, 12349), (391, 12385), (407, 12445), (414, 12484), (416, 12490), (417, 12493), (423, 12514), (424, 12517), (440, 12616), (447, 12655), (451, 12679), (455, 12712), (458, 12757), (464, 12811), (472, 12898), (473, 12919), (478, 12955), (482, 12985), (493, 13063), (494, 13066), (496, 13075), (500, 13099), (512, 13180), (514, 13186), (518, 13231), (519, 13234), (522, 13249), (531, 13294), (532, 13303), (533, 13312), (534, 13315), (555, 13420), (568, 13468), (571, 13474), (582, 13573), (583, 13576), (589, 13588), (604, 13705), (611, 13738), (619, 13789), (620, 13801), (625, 13819), (634, 13879), (647, 13960), (651, 13981), (654, 14014), (666, 14077), (668, 14095), (685, 14209), (690, 14239), (693, 14248),

(698, 14287), (699, 14290), (702, 14320), (703, 14341), (722, 14494), (730, 14545), (739, 14608), (742, 14614), (751, 14665), (777, 14851), (786, 14938), (791, 14965), (792, 14968), (806, 15043), (810, 15067), (816, 15106), (818, 15142), (823, 15163), (832, 15250), (837, 15292), (843, 15325), (845, 15337), (857, 15415), (861, 15481),

Gene: KappaFarmDelta_17 Start: 10424, Stop: 15964, Start Num: 8

Candidate Starts for KappaFarmDelta_17:

(Start: 8 @10424 has 37 MA's), (Start: 11 @10439 has 1 MA's), (Start: 12 @10445 has 1 MA's), (Start: 14 @10475 has 1 MA's), (15, 10484), (16, 10487), (18, 10529), (38, 10640), (40, 10661), (65, 10889), (68, 10907), (72, 10928), (73, 10931), (76, 10949), (82, 10973), (95, 11057), (97, 11063), (105, 11099), (107, 11114), (109, 11123), (135, 11291), (138, 11318), (155, 11435), (184, 11606), (189, 11636), (211, 11840), (219, 11885), (223, 11912), (245, 12059), (250, 12086), (254, 12116), (267, 12203), (268, 12206), (272, 12245), (274, 12251), (293, 12365), (297, 12407), (302, 12452), (304, 12458), (306, 12470), (307, 12473), (313, 12527), (317, 12566), (320, 12587), (321, 12590), (324, 12608), (330, 12635), (335, 12656), (337, 12662), (341, 12683), (345, 12710), (349, 12782), (385, 12983), (389, 12998), (398, 13022), (405, 13037), (423, 13067), (424, 13070), (432, 13121), (446, 13205), (452, 13238), (457, 13292), (493, 13547), (505, 13625), (514, 13673), (516, 13706), (518, 13718), (519, 13721), (522, 13736), (523, 13745), (531, 13781), (532, 13790), (533, 13799), (555, 13907), (568, 13955), (569, 13958), (571, 13961), (572, 13982), (583, 14063), (584, 14066), (604, 14192), (611, 14225), (618, 14273), (619, 14276), (621, 14291), (628, 14327), (664, 14570), (665, 14573), (674, 14645), (675, 14648), (684, 14714), (685, 14717), (688, 14735), (697, 14795), (703, 14852), (704, 14870), (716, 14951), (721, 14969), (754, 15182), (758, 15248), (773, 15314), (774, 15320), (778, 15350), (788, 15443), (794, 15467), (801, 15509), (805, 15536), (812, 15575), (826, 15716), (839, 15779), (841, 15797), (850, 15854),

Gene: KayGee_16 Start: 9384, Stop: 14468, Start Num: 28

Candidate Starts for KayGee_16:

(Start: 28 @9384 has 33 MA's), (46, 9540), (60, 9669), (64, 9699), (77, 9768), (80, 9780), (90, 9825), (94, 9867), (97, 9876), (105, 9912), (109, 9936), (127, 10050), (131, 10089), (133, 10095), (134, 10101), (136, 10110), (138, 10131), (164, 10302), (175, 10365), (182, 10410), (193, 10491), (211, 10650), (215, 10683), (219, 10695), (223, 10722), (230, 10779), (236, 10809), (239, 10821), (253, 10923), (254, 10926), (267, 11013), (274, 11061), (293, 11175), (304, 11268), (307, 11283), (309, 11304), (313, 11337), (315, 11367), (318, 11379), (324, 11418), (329, 11442), (330, 11445), (336, 11469), (341, 11493), (350, 11598), (359, 11646), (363, 11676), (367, 11691), (370, 11706), (373, 11745), (379, 11787), (380, 11799), (382, 11811), (384, 11826), (386, 11841), (390, 11856), (396, 11880), (408, 11919), (410, 11934), (411, 11940), (415, 11961), (422, 11985), (424, 11991), (444, 12117), (450, 12147), (456, 12198), (461, 12234), (465, 12255), (466, 12258), (474, 12330), (481, 12375), (484, 12408), (486, 12429), (498, 12483), (509, 12558), (529, 12642), (544, 12729), (588, 12915), (608, 13047), (616, 13077), (638, 13215), (648, 13266), (653, 13296), (678, 13452), (682, 13482), (720, 13662), (726, 13713), (734, 13740), (743, 13761), (757, 13857), (769, 13905), (774, 13923), (788, 14046), (794, 14070), (796, 14085), (801, 14115), (805, 14142), (807, 14148), (812, 14181), (820, 14250), (822, 14253), (824, 14289), (838, 14379),

Gene: Kenna_17 Start: 9881, Stop: 15508, Start Num: 21

Candidate Starts for Kenna_17:

(Start: 21 @9881 has 11 MA's), (29, 9908), (Start: 31 @9926 has 1 MA's), (33, 9947), (37, 9968), (41, 10013), (Start: 42 @10028 has 1 MA's), (48, 10112), (56, 10154), (57, 10166), (68, 10229), (71, 10244), (73, 10253), (76, 10271), (77, 10277), (88, 10325), (112, 10460), (134, 10610), (138, 10640), (189, 10964), (202, 11060), (211, 11168), (219, 11213), (220, 11219), (223, 11240), (226, 11264), (235, 11321), (245, 11387), (250, 11414), (252, 11426), (254, 11444), (255, 11456), (261, 11480), (264, 11492), (267, 11531), (268, 11534), (269, 11543), (272, 11573), (278, 11618), (290, 11678), (293, 11693), (296, 11723), (297, 11735), (302, 11780), (304, 11786), (307, 11801), (310, 11831), (312, 11852), (313, 11855), (321, 11918), (325, 11945), (326, 11948), (327, 11951), (328, 11957),

(334, 11981), (335, 11984), (337, 11990), (339, 11996), (341, 12011), (344, 12029), (346, 12074), (355, 12158), (356, 12164), (360, 12191), (373, 12284), (374, 12293), (382, 12350), (383, 12362), (391, 12398), (392, 12404), (404, 12446), (407, 12458), (414, 12497), (416, 12503), (417, 12506), (422, 12524), (423, 12527), (424, 12530), (429, 12554), (440, 12629), (447, 12668), (451, 12692), (455, 12725), (465, 12836), (468, 12869), (473, 12932), (478, 12968), (482, 12998), (493, 13076), (494, 13079), (496, 13088), (500, 13112), (512, 13193), (514, 13199), (518, 13244), (519, 13247), (522, 13262), (531, 13307), (532, 13316), (533, 13325), (534, 13328), (555, 13433), (568, 13481), (569, 13484), (571, 13487), (582, 13586), (583, 13589), (589, 13601), (604, 13718), (611, 13751), (619, 13802), (625, 13832), (634, 13892), (647, 13973), (651, 13994), (654, 14027), (667, 14099), (668, 14108), (685, 14222), (690, 14252), (693, 14261), (698, 14300), (699, 14303), (702, 14333), (703, 14354), (730, 14552), (739, 14615), (742, 14621), (751, 14672), (777, 14858), (786, 14945), (791, 14972), (792, 14975), (806, 15050), (810, 15074), (816, 15113), (818, 15149), (823, 15170), (832, 15257), (837, 15299), (843, 15332), (845, 15344), (857, 15422), (861, 15488),

Gene: Kiko_18 Start: 10875, Stop: 15764, Start Num: 25

Candidate Starts for Kiko_18:

(Start: 25 @10875 has 13 MA's), (30, 10899), (39, 10962), (43, 11019), (49, 11115), (52, 11127), (55, 11142), (59, 11166), (63, 11196), (85, 11307), (87, 11313), (88, 11316), (89, 11322), (90, 11325), (91, 11337), (97, 11376), (106, 11418), (108, 11430), (116, 11490), (122, 11523), (131, 11589), (136, 11610), (138, 11631), (147, 11685), (152, 11718), (170, 11835), (182, 11910), (184, 11919), (189, 11949), (199, 12027), (211, 12147), (218, 12189), (220, 12198), (224, 12231), (226, 12243), (229, 12267), (230, 12276), (240, 12321), (244, 12357), (245, 12366), (248, 12384), (254, 12423), (261, 12459), (263, 12468), (267, 12510), (276, 12582), (288, 12645), (299, 12723), (301, 12756), (302, 12759), (304, 12765), (307, 12780), (309, 12801), (312, 12831), (313, 12834), (318, 12876), (325, 12924), (330, 12942), (331, 12948), (335, 12963), (337, 12969), (340, 12987), (341, 12990), (345, 13017), (347, 13065), (348, 13074), (353, 13110), (354, 13113), (360, 13170), (364, 13200), (370, 13224), (374, 13272), (377, 13296), (379, 13305), (381, 13326), (403, 13416), (422, 13500), (424, 13506), (453, 13557), (459, 13605), (462, 13620), (467, 13644), (468, 13656), (469, 13659), (470, 13662), (471, 13668), (475, 13713), (477, 13722), (497, 13863), (503, 13896), (510, 13941), (545, 14136), (547, 14139), (549, 14145), (564, 14205), (569, 14217), (584, 14322), (595, 14376), (600, 14412), (603, 14436), (641, 14637), (659, 14727), (687, 14844), (697, 14886), (749, 15093), (752, 15102), (760, 15168), (770, 15201), (803, 15411), (825, 15573), (826, 15585), (840, 15642), (854, 15726), (856, 15753),

Gene: Lauer_15 Start: 9433, Stop: 14517, Start Num: 28

Candidate Starts for Lauer_15:

(Start: 28 @9433 has 33 MA's), (46, 9589), (60, 9718), (64, 9748), (77, 9817), (80, 9829), (94, 9916), (97, 9925), (105, 9961), (109, 9985), (118, 10045), (127, 10099), (131, 10138), (133, 10144), (136, 10159), (138, 10180), (164, 10351), (175, 10414), (182, 10459), (193, 10540), (211, 10699), (215, 10732), (219, 10744), (223, 10771), (230, 10828), (236, 10858), (239, 10870), (253, 10972), (254, 10975), (267, 11062), (274, 11110), (293, 11224), (304, 11317), (307, 11332), (309, 11353), (313, 11386), (315, 11416), (318, 11428), (324, 11467), (329, 11491), (330, 11494), (336, 11518), (341, 11542), (350, 11647), (363, 11725), (370, 11755), (371, 11758), (373, 11794), (379, 11836), (382, 11860), (384, 11875), (386, 11890), (390, 11905), (396, 11929), (408, 11968), (410, 11983), (411, 11989), (415, 12010), (422, 12034), (424, 12040), (444, 12166), (450, 12196), (455, 12235), (461, 12283), (465, 12304), (466, 12307), (474, 12379), (481, 12424), (484, 12457), (486, 12478), (498, 12532), (509, 12607), (529, 12691), (544, 12778), (588, 12964), (608, 13096), (616, 13126), (638, 13264), (648, 13315), (653, 13345), (678, 13501), (682, 13531), (720, 13711), (726, 13762), (734, 13789), (743, 13810), (757, 13906), (769, 13954), (774, 13972), (788, 14095), (794, 14119), (796, 14134), (801, 14164), (805, 14191), (807, 14197), (812, 14230), (820, 14299), (822, 14302), (824, 14338), (838, 14428),

Gene: Leroy_18 Start: 9882, Stop: 15515, Start Num: 21

Candidate Starts for Leroy_18:

(Start: 21 @9882 has 11 MA's), (Start: 31 @9927 has 1 MA's), (33, 9948), (37, 9969), (41, 10014), (Start: 42 @10029 has 1 MA's), (48, 10113), (56, 10155), (57, 10167), (68, 10230), (71, 10245), (73, 10254), (76, 10272), (77, 10278), (88, 10326), (112, 10461), (134, 10611), (138, 10641), (184, 10935), (189, 10965), (211, 11169), (218, 11211), (219, 11214), (220, 11220), (223, 11241), (226, 11265), (235, 11322), (245, 11388), (250, 11415), (252, 11427), (254, 11445), (255, 11457), (261, 11481), (264, 11493), (267, 11532), (268, 11535), (269, 11544), (272, 11574), (274, 11580), (290, 11679), (293, 11694), (296, 11724), (297, 11736), (302, 11781), (304, 11787), (307, 11802), (310, 11832), (312, 11853), (313, 11856), (321, 11919), (325, 11946), (327, 11952), (334, 11982), (335, 11985), (337, 11991), (339, 11997), (341, 12012), (344, 12030), (349, 12111), (355, 12159), (356, 12165), (358, 12180), (360, 12192), (382, 12351), (383, 12363), (391, 12399), (392, 12405), (407, 12459), (414, 12498), (416, 12504), (417, 12507), (422, 12525), (423, 12528), (424, 12531), (429, 12555), (440, 12630), (451, 12693), (455, 12726), (458, 12771), (464, 12825), (465, 12837), (472, 12912), (473, 12933), (478, 12969), (482, 12999), (494, 13080), (496, 13089), (500, 13113), (514, 13200), (518, 13245), (519, 13248), (531, 13308), (532, 13317), (533, 13326), (555, 13434), (568, 13482), (571, 13488), (582, 13587), (583, 13590), (589, 13602), (604, 13719), (611, 13752), (619, 13803), (625, 13833), (634, 13893), (647, 13974), (651, 13995), (654, 14028), (667, 14100), (668, 14109), (685, 14223), (690, 14253), (693, 14262), (698, 14301), (699, 14304), (702, 14334), (703, 14355), (730, 14553), (739, 14616), (742, 14622), (751, 14673), (777, 14865), (786, 14952), (791, 14979), (792, 14982), (806, 15057), (810, 15081), (816, 15120), (818, 15156), (823, 15177), (832, 15264), (837, 15306), (843, 15339), (845, 15351), (861, 15495),

Gene: LitninMcQueen_18 Start: 9869, Stop: 15502, Start Num: 21

Candidate Starts for LitninMcQueen_18:

(Start: 21 @9869 has 11 MA's), (29, 9896), (Start: 31 @9914 has 1 MA's), (33, 9935), (37, 9956), (41, 10001), (Start: 42 @10016 has 1 MA's), (48, 10100), (56, 10142), (57, 10154), (68, 10217), (71, 10232), (73, 10241), (76, 10259), (77, 10265), (88, 10313), (112, 10448), (134, 10598), (138, 10628), (171, 10847), (184, 10922), (189, 10952), (211, 11156), (218, 11198), (219, 11201), (220, 11207), (223, 11228), (235, 11309), (245, 11375), (250, 11402), (252, 11414), (254, 11432), (255, 11444), (261, 11468), (264, 11480), (267, 11519), (268, 11522), (269, 11531), (272, 11561), (278, 11606), (290, 11666), (293, 11681), (296, 11711), (297, 11723), (302, 11768), (304, 11774), (307, 11789), (310, 11819), (312, 11840), (313, 11843), (321, 11906), (325, 11933), (326, 11936), (327, 11939), (328, 11945), (334, 11969), (335, 11972), (337, 11978), (339, 11984), (341, 11999), (344, 12017), (349, 12098), (355, 12146), (356, 12152), (360, 12179), (382, 12338), (383, 12350), (391, 12386), (407, 12446), (414, 12485), (416, 12491), (417, 12494), (423, 12515), (424, 12518), (440, 12617), (447, 12656), (451, 12680), (455, 12713), (458, 12758), (464, 12812), (472, 12899), (473, 12920), (478, 12956), (482, 12986), (493, 13064), (494, 13067), (496, 13076), (500, 13100), (512, 13181), (514, 13187), (518, 13232), (519, 13235), (522, 13250), (531, 13295), (532, 13304), (533, 13313), (534, 13316), (555, 13421), (568, 13469), (571, 13475), (582, 13574), (583, 13577), (589, 13589), (604, 13706), (611, 13739), (619, 13790), (625, 13820), (634, 13880), (647, 13961), (651, 13982), (654, 14015), (666, 14078), (668, 14096), (685, 14210), (690, 14240), (693, 14249), (698, 14288), (699, 14291), (702, 14321), (703, 14342), (722, 14495), (730, 14546), (739, 14609), (742, 14615), (751, 14666), (777, 14852), (786, 14939), (791, 14966), (792, 14969), (806, 15044), (810, 15068), (816, 15107), (818, 15143), (823, 15164), (832, 15251), (837, 15293), (843, 15326), (845, 15338), (857, 15416), (861, 15482),

Gene: Lutum_18 Start: 9881, Stop: 15508, Start Num: 21

Candidate Starts for Lutum_18:

(Start: 21 @9881 has 11 MA's), (29, 9908), (Start: 31 @9926 has 1 MA's), (33, 9947), (37, 9968), (41, 10013), (Start: 42 @10028 has 1 MA's), (48, 10112), (56, 10154), (57, 10166), (68, 10229), (71, 10244), (73, 10253), (76, 10271), (77, 10277), (88, 10325), (112, 10460), (134, 10610), (138, 10640), (189, 10964), (202, 11060), (211, 11168), (219, 11213), (220, 11219), (223, 11240), (226, 11264), (235, 11321), (245, 11387), (250, 11414), (252, 11426), (254, 11444), (255, 11456), (261, 11480),

(264, 11492), (267, 11531), (268, 11534), (269, 11543), (272, 11573), (278, 11618), (290, 11678), (293, 11693), (296, 11723), (297, 11735), (302, 11780), (304, 11786), (307, 11801), (310, 11831), (312, 11852), (313, 11855), (321, 11918), (325, 11945), (326, 11948), (327, 11951), (328, 11957), (334, 11981), (335, 11984), (337, 11990), (339, 11996), (341, 12011), (344, 12029), (346, 12074), (355, 12158), (356, 12164), (360, 12191), (373, 12284), (374, 12293), (382, 12350), (383, 12362), (391, 12398), (392, 12404), (404, 12446), (407, 12458), (414, 12497), (416, 12503), (417, 12506), (422, 12524), (423, 12527), (424, 12530), (429, 12554), (440, 12629), (447, 12668), (451, 12692), (455, 12725), (465, 12836), (468, 12869), (473, 12932), (478, 12968), (482, 12998), (493, 13076), (494, 13079), (496, 13088), (500, 13112), (512, 13193), (514, 13199), (518, 13244), (519, 13247), (522, 13262), (531, 13307), (532, 13316), (533, 13325), (534, 13328), (555, 13433), (568, 13481), (569, 13484), (571, 13487), (582, 13586), (583, 13589), (589, 13601), (604, 13718), (611, 13751), (619, 13802), (625, 13832), (634, 13892), (647, 13973), (651, 13994), (654, 14027), (667, 14099), (668, 14108), (685, 14222), (690, 14252), (693, 14261), (698, 14300), (699, 14303), (702, 14333), (703, 14354), (730, 14552), (739, 14615), (742, 14621), (751, 14672), (777, 14858), (786, 14945), (791, 14972), (792, 14975), (806, 15050), (810, 15074), (816, 15113), (818, 15149), (823, 15170), (832, 15257), (837, 15299), (843, 15332), (845, 15344), (857, 15422), (861, 15488),

Gene: Lysidious_18 Start: 10777, Stop: 16320, Start Num: 8

Candidate Starts for Lysidious_18:

(Start: 8 @10777 has 37 MA's), (Start: 14 @10828 has 1 MA's), (15, 10837), (16, 10840), (18, 10882), (38, 10993), (40, 11014), (47, 11134), (54, 11176), (65, 11242), (68, 11260), (72, 11281), (73, 11284), (76, 11302), (82, 11326), (95, 11410), (97, 11416), (105, 11452), (107, 11467), (109, 11476), (135, 11644), (138, 11671), (155, 11788), (184, 11959), (189, 11989), (211, 12193), (219, 12238), (223, 12265), (224, 12277), (240, 12367), (245, 12412), (250, 12439), (254, 12469), (267, 12556), (268, 12559), (272, 12598), (293, 12718), (297, 12760), (302, 12805), (304, 12811), (306, 12823), (307, 12826), (313, 12880), (317, 12919), (320, 12940), (321, 12943), (324, 12961), (325, 12970), (330, 12988), (335, 13009), (337, 13015), (341, 13036), (345, 13063), (370, 13270), (389, 13351), (398, 13375), (404, 13387), (405, 13390), (418, 13405), (423, 13420), (424, 13423), (432, 13474), (445, 13555), (446, 13558), (452, 13591), (455, 13621), (457, 13645), (468, 13711), (505, 13978), (514, 14026), (518, 14071), (519, 14074), (522, 14089), (531, 14134), (532, 14143), (533, 14152), (543, 14203), (557, 14275), (562, 14293), (571, 14314), (582, 14413), (583, 14416), (592, 14449), (600, 14515), (601, 14533), (604, 14548), (611, 14581), (619, 14632), (628, 14683), (664, 14926), (665, 14929), (674, 15001), (675, 15004), (684, 15070), (685, 15073), (688, 15091), (697, 15151), (703, 15208), (704, 15226), (716, 15307), (717, 15310), (721, 15325), (743, 15484), (754, 15538), (758, 15604), (759, 15610), (773, 15670), (774, 15676), (788, 15799), (794, 15823), (798, 15841), (801, 15865), (802, 15871), (805, 15892), (812, 15931), (826, 16072), (829, 16084), (839, 16135), (841, 16153), (850, 16210), (860, 16303),

Gene: MAnor_16 Start: 9376, Stop: 14475, Start Num: 28

Candidate Starts for MAnor_16:

(Start: 28 @9376 has 33 MA's), (46, 9532), (56, 9637), (60, 9661), (68, 9712), (77, 9760), (88, 9808), (90, 9817), (94, 9859), (96, 9865), (97, 9868), (105, 9904), (109, 9928), (114, 9955), (127, 10042), (131, 10081), (133, 10087), (136, 10102), (138, 10123), (164, 10294), (175, 10357), (182, 10402), (189, 10441), (193, 10483), (211, 10645), (214, 10654), (215, 10678), (219, 10690), (223, 10717), (224, 10729), (230, 10774), (236, 10804), (239, 10816), (253, 10918), (254, 10921), (267, 11008), (270, 11035), (278, 11095), (284, 11125), (289, 11146), (293, 11170), (304, 11263), (307, 11278), (308, 11287), (309, 11299), (313, 11332), (318, 11374), (328, 11434), (329, 11437), (330, 11440), (331, 11446), (336, 11464), (341, 11488), (350, 11593), (370, 11701), (371, 11704), (373, 11740), (382, 11806), (384, 11821), (386, 11836), (390, 11851), (395, 11872), (396, 11875), (397, 11878), (408, 11914), (410, 11929), (411, 11935), (415, 11956), (422, 11980), (424, 11986), (444, 12112), (450, 12142), (455, 12181), (461, 12229), (465, 12250), (466, 12253), (467, 12259), (474, 12325), (481, 12370), (484, 12403), (486, 12424), (498, 12478), (527, 12628), (529, 12637), (544, 12724), (586, 12901), (608, 13042), (616, 13072), (638, 13210), (653, 13291), (678, 13444), (682, 13474),

(723, 13696), (725, 13705), (726, 13711), (734, 13747), (757, 13864), (769, 13912), (774, 13930), (788, 14053), (794, 14077), (796, 14092), (801, 14122), (805, 14149), (807, 14155), (812, 14188), (820, 14257), (822, 14260), (824, 14296), (833, 14368), (834, 14371), (838, 14386),

Gene: MScarn_18 Start: 9601, Stop: 14400, Start Num: 81

Candidate Starts for MScarn_18:

(Start: 81 @9601 has 23 MA's), (Start: 86 @9628 has 2 MA's), (88, 9634), (108, 9757), (124, 9859), (129, 9904), (132, 9916), (136, 9934), (139, 9961), (140, 9964), (142, 9979), (150, 10030), (151, 10033), (158, 10090), (159, 10093), (168, 10135), (171, 10153), (178, 10198), (187, 10234), (191, 10267), (196, 10300), (197, 10312), (205, 10366), (208, 10405), (210, 10420), (213, 10429), (217, 10456), (225, 10507), (236, 10567), (239, 10576), (246, 10630), (258, 10693), (261, 10708), (286, 10861), (292, 10888), (302, 10981), (304, 10987), (307, 11002), (311, 11041), (321, 11119), (327, 11152), (337, 11191), (340, 11209), (341, 11212), (345, 11239), (348, 11296), (350, 11317), (366, 11428), (371, 11449), (373, 11485), (379, 11527), (380, 11539), (382, 11551), (390, 11596), (391, 11599), (395, 11617), (396, 11620), (397, 11623), (414, 11698), (424, 11731), (433, 11791), (444, 11857), (445, 11860), (446, 11863), (448, 11881), (462, 11980), (465, 11995), (466, 11998), (484, 12148), (486, 12169), (495, 12211), (501, 12238), (502, 12244), (529, 12388), (544, 12475), (553, 12517), (563, 12553), (580, 12628), (590, 12679), (596, 12718), (598, 12742), (617, 12847), (627, 12904), (650, 13042), (660, 13117), (682, 13261), (685, 13282), (710, 13459), (712, 13465), (757, 13789), (759, 13795), (774, 13855), (779, 13906), (788, 13978), (796, 14017), (801, 14047), (812, 14113), (817, 14161), (824, 14221), (838, 14311), (848, 14371),

Gene: MaVan_18 Start: 10619, Stop: 15748, Start Num: 28

Candidate Starts for MaVan_18:

(23, 10598), (Start: 28 @10619 has 33 MA's), (32, 10646), (46, 10775), (54, 10871), (62, 10922), (74, 10979), (79, 11012), (80, 11015), (94, 11102), (98, 11114), (107, 11162), (108, 11165), (109, 11171), (116, 11225), (118, 11231), (125, 11279), (136, 11345), (138, 11366), (198, 11759), (199, 11762), (208, 11864), (219, 11930), (220, 11936), (223, 11957), (254, 12161), (256, 12179), (261, 12197), (264, 12209), (267, 12248), (269, 12260), (274, 12296), (281, 12353), (286, 12377), (288, 12383), (304, 12503), (307, 12518), (311, 12557), (320, 12632), (326, 12665), (330, 12680), (331, 12686), (332, 12692), (341, 12728), (351, 12836), (360, 12908), (370, 12962), (372, 12968), (390, 13112), (396, 13136), (411, 13196), (412, 13208), (414, 13214), (422, 13241), (423, 13244), (424, 13247), (438, 13340), (440, 13346), (448, 13397), (457, 13466), (463, 13499), (466, 13514), (467, 13520), (473, 13577), (475, 13589), (480, 13628), (481, 13631), (483, 13652), (484, 13664), (486, 13685), (487, 13688), (495, 13727), (498, 13739), (501, 13754), (527, 13895), (544, 13991), (556, 14057), (566, 14078), (570, 14084), (608, 14321), (616, 14351), (622, 14390), (643, 14525), (650, 14555), (653, 14576), (678, 14735), (682, 14768), (725, 14981), (733, 14999), (734, 15005), (757, 15134), (774, 15200), (779, 15251), (788, 15323), (796, 15362), (801, 15392), (807, 15425), (812, 15458), (822, 15530), (827, 15602), (837, 15656), (839, 15662), (848, 15719),

Gene: MagicMan_17 Start: 10932, Stop: 16046, Start Num: 25

Candidate Starts for MagicMan_17:

(Start: 25 @10932 has 13 MA's), (Start: 28 @10941 has 33 MA's), (57, 11214), (59, 11223), (63, 11253), (66, 11262), (76, 11319), (90, 11382), (101, 11454), (106, 11475), (109, 11493), (131, 11646), (138, 11688), (147, 11742), (152, 11775), (182, 11967), (183, 11970), (189, 12006), (199, 12084), (204, 12123), (211, 12207), (215, 12240), (218, 12249), (220, 12258), (224, 12291), (226, 12303), (229, 12327), (238, 12372), (240, 12381), (244, 12417), (245, 12426), (250, 12453), (252, 12465), (254, 12483), (261, 12519), (276, 12642), (283, 12684), (302, 12819), (303, 12822), (304, 12825), (307, 12840), (313, 12894), (317, 12933), (330, 13002), (332, 13014), (337, 13029), (341, 13050), (343, 13065), (345, 13077), (346, 13113), (349, 13149), (374, 13311), (406, 13368), (413, 13380), (414, 13383), (424, 13416), (438, 13509), (440, 13515), (442, 13521), (444, 13542), (445, 13545), (446, 13548), (455, 13611), (459, 13647), (462, 13662), (467, 13686), (469, 13701), (470, 13704), (471, 13710), (477, 13764), (489, 13863), (497, 13905), (510, 13983), (514, 14007), (520, 14052),

(545, 14178), (549, 14187), (552, 14205), (553, 14208), (564, 14247), (565, 14250), (569, 14259), (595, 14418), (616, 14538), (630, 14616), (640, 14664), (642, 14676), (653, 14736), (670, 14853), (675, 14880), (679, 14898), (689, 14976), (691, 14982), (694, 14991), (695, 15018), (705, 15111), (713, 15150), (718, 15192), (744, 15345), (751, 15378), (752, 15381), (756, 15438), (760, 15447), (763, 15459), (770, 15480), (774, 15501), (803, 15693), (810, 15732), (822, 15801), (825, 15855), (853, 16008),

Gene: Malachai_18 Start: 10785, Stop: 16274, Start Num: 8

Candidate Starts for Malachai_18:

(Start: 8 @10785 has 37 MA's), (13, 10824), (Start: 14 @10836 has 1 MA's), (15, 10845), (16, 10848), (18, 10890), (38, 11001), (40, 11022), (47, 11142), (54, 11184), (65, 11250), (68, 11268), (71, 11283), (72, 11289), (73, 11292), (76, 11310), (82, 11334), (95, 11418), (105, 11460), (107, 11475), (109, 11484), (135, 11652), (138, 11679), (149, 11754), (155, 11796), (163, 11844), (184, 11967), (189, 11997), (211, 12201), (219, 12246), (223, 12273), (224, 12285), (240, 12375), (245, 12420), (250, 12447), (254, 12477), (267, 12564), (272, 12606), (293, 12726), (297, 12768), (302, 12813), (304, 12819), (306, 12831), (307, 12834), (313, 12888), (317, 12927), (320, 12948), (321, 12951), (324, 12969), (330, 12996), (337, 13023), (341, 13044), (345, 13071), (349, 13143), (385, 13344), (389, 13359), (398, 13383), (405, 13398), (423, 13428), (424, 13431), (432, 13482), (445, 13563), (446, 13566), (452, 13599), (455, 13629), (457, 13653), (468, 13719), (505, 13986), (514, 14034), (518, 14079), (519, 14082), (522, 14097), (531, 14142), (532, 14151), (533, 14160), (543, 14211), (557, 14283), (562, 14301), (571, 14322), (582, 14421), (583, 14424), (592, 14457), (600, 14523), (601, 14541), (604, 14556), (611, 14589), (619, 14640), (628, 14691), (664, 14934), (665, 14937), (675, 15012), (684, 15078), (685, 15081), (688, 15099), (697, 15159), (716, 15315), (717, 15318), (721, 15333), (754, 15552), (762, 15609), (766, 15624), (775, 15672), (780, 15717), (803, 15837), (804, 15846), (811, 15885), (821, 15957), (826, 16026), (829, 16038), (839, 16089), (841, 16107), (850, 16164), (860, 16257),

Gene: Malisha_19 Start: 11668, Stop: 17280, Start Num: 22

Candidate Starts for Malisha_19:

(Start: 22 @11668 has 5 MA's), (26, 11686), (29, 11695), (Start: 31 @11713 has 1 MA's), (33, 11734), (35, 11746), (41, 11800), (Start: 42 @11815 has 1 MA's), (63, 11992), (68, 12016), (73, 12040), (76, 12058), (85, 12103), (96, 12169), (97, 12172), (109, 12232), (134, 12397), (138, 12427), (159, 12583), (184, 12721), (202, 12847), (211, 12955), (215, 12988), (219, 13000), (223, 13027), (245, 13174), (250, 13201), (254, 13231), (261, 13267), (267, 13318), (268, 13321), (269, 13330), (274, 13366), (283, 13432), (293, 13480), (295, 13495), (296, 13510), (301, 13564), (302, 13567), (304, 13573), (306, 13585), (307, 13588), (312, 13639), (313, 13642), (317, 13681), (337, 13777), (341, 13798), (363, 14002), (370, 14032), (379, 14113), (382, 14137), (383, 14149), (391, 14185), (407, 14245), (414, 14284), (417, 14293), (423, 14314), (424, 14317), (440, 14416), (447, 14455), (451, 14479), (455, 14512), (458, 14557), (464, 14611), (465, 14623), (472, 14698), (473, 14719), (478, 14755), (482, 14785), (494, 14866), (496, 14875), (500, 14899), (512, 14980), (514, 14986), (518, 15031), (519, 15034), (531, 15094), (532, 15103), (533, 15112), (555, 15220), (568, 15268), (571, 15274), (582, 15373), (583, 15376), (589, 15388), (604, 15505), (611, 15538), (618, 15586), (619, 15589), (625, 15619), (634, 15679), (647, 15760), (651, 15781), (652, 15784), (666, 15877), (667, 15886), (682, 15988), (685, 16009), (690, 16039), (693, 16048), (698, 16087), (699, 16090), (700, 16093), (702, 16120), (708, 16174), (722, 16291), (736, 16375), (737, 16387), (739, 16399), (742, 16405), (746, 16432), (751, 16456), (777, 16633), (786, 16720), (790, 16738), (791, 16747), (806, 16825), (808, 16840), (810, 16849), (818, 16924), (819, 16933), (823, 16945), (832, 17032), (837, 17074), (843, 17107), (845, 17119), (857, 17194), (861, 17260),

Gene: Margaret_19 Start: 10311, Stop: 14516, Start Num: 81

Candidate Starts for Margaret_19:

(Start: 81 @10311 has 23 MA's), (Start: 86 @10338 has 2 MA's), (131, 10626), (136, 10647), (137, 10653), (141, 10686), (143, 10704), (147, 10728), (157, 10818), (160, 10827), (162, 10836), (169,

10869), (172, 10896), (174, 10905), (176, 10929), (203, 11082), (207, 11145), (209, 11160), (217, 11196), (222, 11226), (225, 11247), (233, 11289), (247, 11370), (259, 11445), (260, 11454), (265, 11475), (286, 11622), (307, 11763), (309, 11784), (313, 11817), (314, 11835), (317, 11856), (320, 11877), (324, 11898), (336, 11949), (337, 11952), (338, 11955), (341, 11973), (361, 12054), (368, 12084), (373, 12135), (402, 12189), (414, 12216), (424, 12249), (433, 12309), (445, 12378), (446, 12381), (459, 12483), (460, 12489), (465, 12513), (469, 12537), (470, 12540), (481, 12633), (484, 12666), (486, 12687), (488, 12696), (490, 12705), (492, 12711), (517, 12864), (537, 12933), (539, 12939), (548, 12975), (586, 13104), (608, 13245), (614, 13269), (622, 13314), (644, 13467), (646, 13470), (678, 13659), (682, 13689), (753, 13866), (762, 13938), (769, 13962), (773, 13974), (776, 13998), (778, 14010), (787, 14094), (788, 14100), (798, 14142), (801, 14163), (807, 14196), (812, 14229), (815, 14250), (817, 14277), (822, 14301), (824, 14337), (830, 14385), (848, 14487),

Gene: Mayweather_17 Start: 10006, Stop: 15090, Start Num: 28

Candidate Starts for Mayweather_17:

(Start: 28 @10006 has 33 MA's), (46, 10162), (60, 10291), (64, 10321), (77, 10390), (80, 10402), (83, 10417), (88, 10438), (90, 10447), (94, 10489), (97, 10498), (105, 10534), (109, 10558), (118, 10618), (127, 10672), (131, 10711), (133, 10717), (136, 10732), (138, 10753), (164, 10924), (175, 10987), (182, 11032), (193, 11113), (211, 11272), (215, 11305), (219, 11317), (223, 11344), (230, 11401), (236, 11431), (239, 11443), (253, 11545), (254, 11548), (267, 11635), (274, 11683), (293, 11797), (304, 11890), (307, 11905), (309, 11926), (313, 11959), (318, 12001), (324, 12040), (329, 12064), (330, 12067), (331, 12073), (336, 12091), (341, 12115), (350, 12220), (359, 12268), (370, 12328), (371, 12331), (373, 12367), (382, 12433), (384, 12448), (390, 12478), (395, 12499), (396, 12502), (408, 12541), (411, 12562), (415, 12583), (422, 12607), (424, 12613), (444, 12739), (450, 12769), (455, 12808), (461, 12856), (465, 12877), (466, 12880), (474, 12952), (481, 12997), (484, 13030), (486, 13051), (498, 13105), (509, 13180), (529, 13264), (544, 13351), (608, 13669), (616, 13699), (638, 13837), (648, 13888), (653, 13918), (678, 14071), (682, 14101), (723, 14311), (725, 14320), (726, 14326), (734, 14362), (757, 14479), (759, 14485), (769, 14527), (774, 14545), (788, 14668), (794, 14692), (796, 14707), (801, 14737), (805, 14764), (807, 14770), (812, 14803), (820, 14872), (822, 14875), (824, 14911), (833, 14983), (838, 15001),

Gene: McDazzle_15 Start: 10003, Stop: 14937, Start Num: 46

Candidate Starts for McDazzle_15:

(Start: 28 @9847 has 33 MA's), (46, 10003), (56, 10108), (60, 10132), (68, 10183), (77, 10231), (88, 10279), (90, 10288), (94, 10330), (96, 10336), (97, 10339), (105, 10375), (109, 10399), (114, 10426), (127, 10513), (131, 10552), (133, 10558), (136, 10573), (138, 10594), (147, 10648), (164, 10765), (175, 10828), (182, 10873), (189, 10912), (193, 10954), (211, 11116), (214, 11125), (215, 11149), (219, 11161), (223, 11188), (224, 11200), (230, 11245), (236, 11275), (239, 11287), (253, 11389), (254, 11392), (267, 11479), (270, 11506), (278, 11566), (284, 11596), (289, 11617), (293, 11641), (299, 11692), (304, 11734), (307, 11749), (308, 11758), (309, 11770), (313, 11803), (318, 11845), (328, 11905), (329, 11908), (330, 11911), (336, 11935), (341, 11959), (350, 12064), (359, 12112), (370, 12172), (371, 12175), (373, 12211), (382, 12277), (384, 12292), (386, 12307), (390, 12322), (395, 12343), (396, 12346), (408, 12385), (410, 12400), (411, 12406), (415, 12427), (422, 12451), (424, 12457), (444, 12583), (450, 12613), (455, 12652), (461, 12700), (465, 12721), (466, 12724), (467, 12730), (474, 12796), (481, 12841), (484, 12874), (486, 12895), (498, 12949), (527, 13099), (529, 13108), (544, 13195), (586, 13372), (608, 13513), (616, 13543), (638, 13681), (653, 13762), (678, 13915), (682, 13945), (723, 14167), (725, 14176), (726, 14182), (734, 14209), (757, 14326), (759, 14332), (769, 14374), (774, 14392), (788, 14515), (794, 14539), (796, 14554), (801, 14584), (805, 14611), (807, 14617), (812, 14650), (820, 14719), (822, 14722), (824, 14758), (833, 14830), (838, 14848),

Gene: Melba_17 Start: 10274, Stop: 15796, Start Num: 8

Candidate Starts for Melba_17:

(Start: 8 @10274 has 37 MA's), (Start: 11 @10289 has 1 MA's), (Start: 12 @10295 has 1 MA's), (Start: 14 @10325 has 1 MA's), (15, 10334), (16, 10337), (18, 10379), (38, 10490), (40, 10511), (47, 10631), (54, 10673), (65, 10739), (68, 10757), (72, 10778), (73, 10781), (76, 10799), (82, 10823), (95, 10907), (96, 10910), (105, 10949), (107, 10964), (109, 10973), (135, 11141), (138, 11168), (155, 11285), (184, 11456), (189, 11486), (211, 11690), (219, 11735), (223, 11762), (224, 11774), (240, 11864), (245, 11909), (250, 11936), (254, 11966), (267, 12053), (268, 12056), (272, 12095), (285, 12179), (293, 12215), (297, 12257), (302, 12302), (304, 12308), (306, 12320), (307, 12323), (313, 12377), (317, 12416), (320, 12437), (321, 12440), (324, 12458), (325, 12467), (330, 12485), (335, 12506), (337, 12512), (341, 12533), (345, 12560), (350, 12638), (389, 12827), (398, 12851), (404, 12863), (405, 12866), (418, 12881), (423, 12896), (424, 12899), (432, 12950), (445, 13031), (446, 13034), (452, 13067), (455, 13097), (457, 13121), (505, 13454), (514, 13502), (518, 13547), (519, 13550), (522, 13565), (531, 13610), (532, 13619), (533, 13628), (543, 13679), (557, 13751), (562, 13769), (571, 13790), (582, 13889), (583, 13892), (592, 13925), (600, 13991), (601, 14009), (604, 14024), (611, 14057), (619, 14108), (628, 14159), (635, 14207), (664, 14402), (665, 14405), (674, 14477), (675, 14480), (684, 14546), (685, 14549), (688, 14567), (697, 14627), (703, 14684), (704, 14702), (716, 14783), (717, 14786), (721, 14801), (754, 15014), (758, 15080), (772, 15134), (773, 15146), (774, 15152), (788, 15275), (794, 15299), (798, 15317), (801, 15341), (802, 15347), (805, 15368), (812, 15407), (826, 15548), (829, 15560), (839, 15611), (841, 15629), (860, 15779),

Gene: Mellie_16 Start: 10014, Stop: 15557, Start Num: 8

Candidate Starts for Mellie_16:

(Start: 8 @10014 has 37 MA's), (Start: 11 @10029 has 1 MA's), (Start: 12 @10035 has 1 MA's), (Start: 14 @10065 has 1 MA's), (15, 10074), (16, 10077), (18, 10119), (38, 10230), (40, 10251), (65, 10479), (68, 10497), (71, 10512), (72, 10518), (73, 10521), (76, 10539), (82, 10563), (95, 10647), (97, 10653), (105, 10689), (107, 10704), (109, 10713), (135, 10881), (138, 10908), (155, 11025), (184, 11196), (189, 11226), (211, 11430), (219, 11475), (223, 11502), (224, 11514), (240, 11604), (250, 11676), (254, 11706), (267, 11793), (268, 11796), (272, 11835), (293, 11955), (297, 11997), (302, 12042), (304, 12048), (306, 12060), (307, 12063), (313, 12117), (317, 12156), (320, 12177), (321, 12180), (324, 12198), (335, 12246), (337, 12252), (341, 12273), (345, 12300), (349, 12372), (370, 12507), (389, 12588), (398, 12612), (405, 12627), (423, 12657), (424, 12660), (432, 12711), (445, 12792), (446, 12795), (452, 12828), (455, 12858), (457, 12882), (468, 12948), (505, 13215), (508, 13233), (514, 13263), (518, 13308), (519, 13311), (522, 13326), (523, 13335), (531, 13371), (532, 13380), (533, 13389), (543, 13440), (557, 13512), (562, 13530), (571, 13551), (582, 13650), (583, 13653), (592, 13686), (600, 13752), (601, 13770), (604, 13785), (611, 13818), (619, 13869), (628, 13920), (664, 14163), (665, 14166), (674, 14238), (675, 14241), (684, 14307), (685, 14310), (688, 14328), (697, 14388), (703, 14445), (704, 14463), (716, 14544), (717, 14547), (721, 14562), (754, 14775), (758, 14841), (759, 14847), (773, 14907), (774, 14913), (788, 15036), (794, 15060), (798, 15078), (801, 15102), (802, 15108), (805, 15129), (812, 15168), (826, 15309), (829, 15321), (839, 15372), (841, 15390), (860, 15540),

Gene: MintFen_17 Start: 10274, Stop: 15796, Start Num: 8

Candidate Starts for MintFen_17:

(Start: 8 @10274 has 37 MA's), (Start: 11 @10289 has 1 MA's), (Start: 12 @10295 has 1 MA's), (Start: 14 @10325 has 1 MA's), (15, 10334), (16, 10337), (18, 10379), (38, 10490), (40, 10511), (47, 10631), (54, 10673), (65, 10739), (68, 10757), (72, 10778), (73, 10781), (76, 10799), (82, 10823), (95, 10907), (96, 10910), (105, 10949), (107, 10964), (109, 10973), (135, 11141), (138, 11168), (155, 11285), (184, 11456), (189, 11486), (211, 11690), (219, 11735), (223, 11762), (224, 11774), (240, 11864), (245, 11909), (250, 11936), (254, 11966), (267, 12053), (268, 12056), (272, 12095), (285, 12179), (293, 12215), (297, 12257), (302, 12302), (304, 12308), (306, 12320), (307, 12323), (313, 12377), (317, 12416), (320, 12437), (321, 12440), (324, 12458), (325, 12467), (330, 12485), (335, 12506), (337, 12512), (341, 12533), (345, 12560), (350, 12638), (389, 12827), (398, 12851), (404, 12863), (405, 12866), (418, 12881), (423, 12896), (424, 12899), (432, 12950), (445, 13031), (446, 13034), (452, 13067), (455, 13097), (457, 13121), (505, 13454), (514, 13502), (518, 13547), (519, 13550), (522,

13565), (531, 13610), (532, 13619), (533, 13628), (543, 13679), (557, 13751), (562, 13769), (571, 13790), (582, 13889), (583, 13892), (592, 13925), (600, 13991), (601, 14009), (604, 14024), (611, 14057), (619, 14108), (628, 14159), (635, 14207), (664, 14402), (665, 14405), (674, 14477), (675, 14480), (684, 14546), (685, 14549), (688, 14567), (697, 14627), (703, 14684), (704, 14702), (716, 14783), (717, 14786), (721, 14801), (754, 15014), (758, 15080), (772, 15134), (773, 15146), (774, 15152), (788, 15275), (794, 15299), (798, 15317), (801, 15341), (802, 15347), (805, 15368), (812, 15407), (826, 15548), (829, 15560), (839, 15611), (841, 15629), (860, 15779),

Gene: MissRona_19 Start: 10619, Stop: 16108, Start Num: 8

Candidate Starts for MissRona_19:

(Start: 8 @10619 has 37 MA's), (Start: 11 @10634 has 1 MA's), (Start: 12 @10640 has 1 MA's), (Start: 14 @10670 has 1 MA's), (15, 10679), (16, 10682), (18, 10724), (38, 10835), (40, 10856), (47, 10976), (54, 11018), (65, 11084), (68, 11102), (72, 11123), (73, 11126), (76, 11144), (82, 11168), (95, 11252), (105, 11294), (107, 11309), (109, 11318), (135, 11486), (138, 11513), (155, 11630), (184, 11801), (189, 11831), (211, 12035), (219, 12080), (223, 12107), (224, 12119), (226, 12131), (240, 12209), (245, 12254), (250, 12281), (254, 12311), (267, 12398), (268, 12401), (272, 12440), (281, 12503), (283, 12512), (293, 12560), (297, 12602), (302, 12647), (304, 12653), (307, 12668), (313, 12722), (317, 12761), (320, 12782), (321, 12785), (324, 12803), (330, 12830), (335, 12851), (337, 12857), (341, 12878), (344, 12896), (345, 12905), (385, 13178), (405, 13232), (423, 13262), (424, 13265), (432, 13316), (445, 13397), (446, 13400), (452, 13433), (455, 13463), (457, 13487), (468, 13553), (505, 13820), (514, 13868), (516, 13901), (518, 13913), (519, 13916), (531, 13976), (532, 13985), (533, 13994), (543, 14045), (557, 14117), (562, 14135), (571, 14156), (582, 14255), (583, 14258), (592, 14291), (600, 14357), (601, 14375), (604, 14390), (611, 14423), (619, 14474), (628, 14525), (639, 14594), (664, 14768), (665, 14771), (674, 14843), (675, 14846), (684, 14912), (685, 14915), (688, 14933), (697, 14993), (703, 15050), (704, 15068), (716, 15149), (717, 15152), (721, 15167), (743, 15338), (754, 15392), (766, 15464), (769, 15473), (775, 15509), (783, 15569), (785, 15587), (789, 15605), (800, 15650), (804, 15683), (821, 15794), (826, 15863), (839, 15926), (841, 15944), (860, 16094),

Gene: MunkgeeRoachy_16 Start: 9677, Stop: 14815, Start Num: 28

Candidate Starts for MunkgeeRoachy_16:

(Start: 22 @9653 has 5 MA's), (Start: 28 @9677 has 33 MA's), (32, 9704), (46, 9833), (49, 9908), (77, 10061), (78, 10064), (94, 10160), (97, 10169), (103, 10199), (105, 10205), (107, 10220), (108, 10223), (112, 10244), (122, 10316), (125, 10337), (136, 10403), (138, 10424), (155, 10541), (182, 10703), (189, 10742), (198, 10817), (215, 10976), (219, 10988), (223, 11015), (228, 11060), (230, 11072), (248, 11180), (252, 11201), (255, 11231), (261, 11255), (264, 11267), (267, 11306), (271, 11339), (288, 11441), (289, 11444), (292, 11462), (293, 11468), (304, 11561), (307, 11576), (311, 11615), (317, 11669), (324, 11711), (333, 11753), (340, 11783), (341, 11786), (351, 11894), (352, 11897), (357, 11948), (371, 12023), (380, 12113), (382, 12125), (390, 12170), (395, 12191), (396, 12194), (397, 12197), (414, 12272), (424, 12305), (428, 12326), (432, 12356), (440, 12404), (442, 12410), (446, 12437), (466, 12572), (481, 12689), (484, 12722), (486, 12743), (487, 12746), (501, 12812), (502, 12818), (504, 12833), (527, 12953), (529, 12962), (544, 13046), (608, 13367), (646, 13586), (653, 13622), (685, 13835), (725, 14027), (734, 14075), (743, 14096), (757, 14204), (774, 14270), (776, 14288), (788, 14393), (795, 14423), (796, 14432), (801, 14462), (812, 14528), (817, 14576), (824, 14636), (837, 14723), (848, 14786),

Gene: Murp_17 Start: 10264, Stop: 15864, Start Num: 8

Candidate Starts for Murp_17:

(Start: 8 @10264 has 37 MA's), (Start: 11 @10279 has 1 MA's), (Start: 12 @10285 has 1 MA's), (Start: 14 @10315 has 1 MA's), (15, 10324), (16, 10327), (18, 10369), (38, 10480), (40, 10501), (47, 10621), (55, 10669), (65, 10729), (68, 10747), (72, 10768), (73, 10771), (76, 10789), (95, 10897), (97, 10903), (105, 10939), (107, 10954), (109, 10963), (135, 11131), (138, 11158), (155, 11275), (184, 11446), (189, 11476), (202, 11572), (211, 11680), (219, 11725), (223, 11752), (224, 11764), (240, 11854),

(245, 11899), (250, 11926), (254, 11956), (267, 12043), (272, 12085), (274, 12091), (293, 12205), (297, 12247), (302, 12292), (304, 12298), (307, 12313), (313, 12367), (317, 12406), (320, 12427), (321, 12430), (324, 12448), (325, 12457), (330, 12475), (335, 12496), (337, 12502), (341, 12523), (345, 12550), (347, 12598), (350, 12628), (385, 12802), (398, 12841), (405, 12856), (423, 12886), (424, 12889), (432, 12940), (445, 13021), (446, 13024), (452, 13057), (455, 13087), (457, 13111), (467, 13165), (468, 13177), (493, 13366), (505, 13444), (512, 13486), (518, 13537), (519, 13540), (522, 13555), (524, 13567), (531, 13600), (532, 13609), (550, 13723), (559, 13777), (561, 13795), (577, 13879), (578, 13885), (581, 13921), (630, 14245), (636, 14293), (639, 14305), (649, 14368), (657, 14437), (662, 14467), (663, 14470), (664, 14479), (665, 14482), (669, 14515), (674, 14554), (675, 14557), (684, 14623), (685, 14626), (688, 14644), (697, 14704), (703, 14761), (704, 14779), (716, 14860), (721, 14878), (754, 15079), (758, 15145), (773, 15211), (774, 15217), (788, 15343), (794, 15367), (798, 15385), (801, 15409), (802, 15415), (805, 15436), (812, 15475), (826, 15616), (839, 15679), (841, 15697), (850, 15757), (860, 15850),

Gene: Nibbles_18 Start: 10619, Stop: 15748, Start Num: 28

Candidate Starts for Nibbles_18:

(23, 10598), (Start: 28 @10619 has 33 MA's), (32, 10646), (46, 10775), (54, 10871), (62, 10922), (74, 10979), (79, 11012), (80, 11015), (94, 11102), (98, 11114), (107, 11162), (108, 11165), (109, 11171), (116, 11225), (118, 11231), (125, 11279), (136, 11345), (138, 11366), (198, 11759), (199, 11762), (208, 11864), (219, 11930), (220, 11936), (223, 11957), (254, 12161), (256, 12179), (259, 12185), (261, 12197), (264, 12209), (267, 12248), (269, 12260), (274, 12296), (281, 12353), (286, 12377), (304, 12503), (307, 12518), (311, 12557), (320, 12632), (326, 12665), (330, 12680), (331, 12686), (332, 12692), (341, 12728), (351, 12836), (360, 12908), (370, 12962), (390, 13112), (396, 13136), (411, 13196), (412, 13208), (414, 13214), (422, 13241), (423, 13244), (424, 13247), (438, 13340), (440, 13346), (448, 13397), (457, 13466), (463, 13499), (466, 13514), (467, 13520), (473, 13577), (475, 13589), (480, 13628), (481, 13631), (483, 13652), (484, 13664), (486, 13685), (487, 13688), (495, 13727), (498, 13739), (501, 13754), (527, 13895), (544, 13991), (556, 14057), (566, 14078), (570, 14084), (608, 14321), (616, 14351), (622, 14390), (643, 14525), (650, 14555), (653, 14576), (678, 14735), (682, 14768), (725, 14981), (733, 14999), (734, 15005), (757, 15134), (774, 15200), (779, 15251), (788, 15323), (796, 15362), (801, 15392), (807, 15425), (812, 15458), (822, 15530), (827, 15602), (837, 15656), (839, 15662), (848, 15719),

Gene: Nina_17 Start: 10662, Stop: 15809, Start Num: 28

Candidate Starts for Nina_17:

(Start: 22 @10638 has 5 MA's), (Start: 28 @10662 has 33 MA's), (32, 10689), (46, 10818), (51, 10911), (52, 10914), (67, 11004), (72, 11028), (82, 11073), (83, 11082), (94, 11154), (96, 11160), (97, 11163), (102, 11190), (104, 11196), (107, 11214), (108, 11217), (112, 11238), (122, 11310), (125, 11331), (136, 11397), (138, 11418), (155, 11535), (182, 11697), (189, 11736), (198, 11811), (215, 11970), (219, 11982), (223, 12009), (228, 12054), (230, 12066), (245, 12156), (248, 12174), (252, 12195), (255, 12225), (261, 12249), (264, 12261), (267, 12300), (271, 12333), (288, 12435), (289, 12438), (293, 12462), (304, 12555), (307, 12570), (311, 12609), (317, 12663), (324, 12705), (326, 12717), (333, 12747), (340, 12777), (341, 12780), (351, 12888), (352, 12891), (357, 12942), (358, 12948), (371, 13017), (380, 13107), (382, 13119), (390, 13164), (395, 13185), (396, 13188), (397, 13191), (414, 13266), (424, 13299), (428, 13320), (432, 13350), (440, 13398), (442, 13404), (446, 13431), (466, 13566), (481, 13683), (484, 13716), (486, 13737), (501, 13806), (502, 13812), (504, 13827), (527, 13947), (529, 13956), (544, 14040), (608, 14361), (613, 14382), (646, 14580), (653, 14616), (685, 14829), (725, 15021), (734, 15069), (743, 15090), (757, 15198), (774, 15264), (776, 15282), (788, 15387), (795, 15417), (796, 15426), (801, 15456), (812, 15522), (817, 15570), (824, 15630), (837, 15717), (848, 15780),

Gene: Nodigi_18 Start: 10594, Stop: 14802, Start Num: 81

Candidate Starts for Nodigi_18:

(Start: 81 @10594 has 23 MA's), (Start: 86 @10621 has 2 MA's), (136, 10930), (143, 10987), (147, 11011), (153, 11056), (157, 11101), (162, 11119), (166, 11134), (169, 11152), (170, 11161), (177, 11215), (188, 11272), (200, 11353), (205, 11401), (207, 11440), (209, 11455), (214, 11464), (217, 11491), (222, 11521), (225, 11542), (247, 11665), (257, 11731), (266, 11794), (279, 11881), (293, 11950), (307, 12058), (309, 12079), (313, 12112), (314, 12130), (316, 12148), (320, 12172), (325, 12202), (337, 12247), (338, 12250), (341, 12268), (368, 12379), (370, 12391), (371, 12394), (373, 12430), (389, 12472), (402, 12484), (414, 12511), (424, 12544), (436, 12619), (445, 12673), (446, 12676), (448, 12694), (455, 12739), (460, 12784), (469, 12832), (470, 12835), (484, 12961), (488, 12991), (490, 13000), (492, 13006), (517, 13159), (530, 13204), (537, 13228), (539, 13234), (548, 13270), (560, 13327), (579, 13378), (587, 13423), (608, 13561), (616, 13591), (644, 13783), (678, 13960), (753, 14152), (762, 14224), (773, 14260), (776, 14284), (778, 14296), (781, 14338), (788, 14386), (801, 14449), (805, 14476), (807, 14482), (812, 14515), (815, 14536), (817, 14563), (822, 14587), (824, 14623), (826, 14650), (828, 14659), (830, 14671), (848, 14773),

Gene: Obliviate_16 Start: 10043, Stop: 15586, Start Num: 8

Candidate Starts for Obliviate_16:

(Start: 8 @10043 has 37 MA's), (Start: 11 @10058 has 1 MA's), (Start: 12 @10064 has 1 MA's), (Start: 14 @10094 has 1 MA's), (15, 10103), (16, 10106), (18, 10148), (38, 10259), (40, 10280), (65, 10508), (68, 10526), (71, 10541), (72, 10547), (73, 10550), (76, 10568), (82, 10592), (95, 10676), (97, 10682), (105, 10718), (107, 10733), (109, 10742), (135, 10910), (138, 10937), (155, 11054), (164, 11108), (184, 11225), (189, 11255), (211, 11459), (219, 11504), (223, 11531), (224, 11543), (240, 11633), (245, 11678), (250, 11705), (254, 11735), (267, 11822), (268, 11825), (272, 11864), (293, 11984), (297, 12026), (302, 12071), (304, 12077), (306, 12089), (307, 12092), (313, 12146), (317, 12185), (320, 12206), (321, 12209), (324, 12227), (330, 12254), (335, 12275), (337, 12281), (341, 12302), (345, 12329), (349, 12401), (370, 12536), (389, 12617), (398, 12641), (405, 12656), (423, 12686), (424, 12689), (432, 12740), (445, 12821), (446, 12824), (452, 12857), (455, 12887), (457, 12911), (468, 12977), (505, 13244), (508, 13262), (514, 13292), (518, 13337), (519, 13340), (522, 13355), (523, 13364), (531, 13400), (532, 13409), (533, 13418), (543, 13469), (557, 13541), (562, 13559), (571, 13580), (582, 13679), (583, 13682), (592, 13715), (600, 13781), (601, 13799), (604, 13814), (611, 13847), (619, 13898), (628, 13949), (664, 14192), (665, 14195), (674, 14267), (675, 14270), (684, 14336), (685, 14339), (688, 14357), (697, 14417), (703, 14474), (704, 14492), (716, 14573), (717, 14576), (721, 14591), (743, 14750), (754, 14804), (758, 14870), (759, 14876), (773, 14936), (774, 14942), (779, 14993), (788, 15065), (794, 15089), (798, 15107), (801, 15131), (802, 15137), (805, 15158), (812, 15197), (826, 15338), (829, 15350), (839, 15401), (841, 15419), (860, 15569),

Gene: Opie_17 Start: 10940, Stop: 16069, Start Num: 25

Candidate Starts for Opie_17:

(Start: 25 @10940 has 13 MA's), (Start: 28 @10949 has 33 MA's), (57, 11222), (59, 11231), (76, 11327), (84, 11369), (90, 11390), (106, 11483), (109, 11501), (138, 11696), (161, 11855), (182, 11975), (183, 11978), (189, 12014), (199, 12092), (211, 12215), (215, 12248), (218, 12257), (220, 12266), (224, 12299), (226, 12311), (229, 12335), (238, 12380), (244, 12425), (250, 12461), (252, 12473), (254, 12491), (261, 12527), (276, 12650), (283, 12692), (302, 12827), (303, 12830), (304, 12833), (307, 12848), (313, 12902), (317, 12941), (332, 13022), (337, 13037), (341, 13058), (343, 13073), (345, 13085), (346, 13121), (349, 13157), (374, 13319), (389, 13352), (406, 13376), (413, 13388), (414, 13391), (424, 13424), (427, 13442), (440, 13523), (442, 13529), (444, 13550), (445, 13553), (446, 13556), (459, 13655), (462, 13670), (467, 13694), (469, 13709), (470, 13712), (471, 13718), (477, 13772), (489, 13871), (497, 13913), (503, 13946), (510, 13991), (514, 14015), (520, 14060), (526, 14078), (545, 14186), (553, 14216), (564, 14255), (565, 14258), (569, 14267), (609, 14516), (615, 14540), (640, 14684), (643, 14708), (653, 14759), (670, 14876), (675, 14903), (679, 14921), (689, 14999), (691, 15005), (694, 15014), (695, 15041), (705, 15134), (713, 15173), (718, 15215), (744, 15368), (751, 15401), (752, 15404), (756, 15461), (760, 15470), (763, 15482), (770, 15503), (774, 15524), (803, 15716), (810, 15755), (820, 15821), (822, 15824), (825, 15878), (853, 16031),

Gene: Orla_18 Start: 10598, Stop: 14806, Start Num: 81

Candidate Starts for Orla_18:

(Start: 81 @10598 has 23 MA's), (Start: 86 @10625 has 2 MA's), (136, 10934), (143, 10991), (147, 11015), (153, 11060), (157, 11105), (162, 11123), (166, 11138), (169, 11156), (170, 11165), (177, 11219), (188, 11276), (200, 11357), (205, 11405), (207, 11444), (209, 11459), (214, 11468), (217, 11495), (222, 11525), (225, 11546), (247, 11669), (257, 11735), (266, 11798), (279, 11885), (293, 11954), (307, 12062), (309, 12083), (313, 12116), (314, 12134), (316, 12152), (320, 12176), (325, 12206), (337, 12251), (338, 12254), (341, 12272), (368, 12383), (370, 12395), (373, 12434), (389, 12476), (402, 12488), (405, 12500), (414, 12515), (424, 12548), (436, 12623), (445, 12677), (446, 12680), (448, 12698), (455, 12743), (459, 12782), (460, 12788), (465, 12812), (468, 12833), (469, 12836), (470, 12839), (484, 12965), (486, 12986), (488, 12995), (490, 13004), (492, 13010), (517, 13163), (530, 13208), (537, 13232), (539, 13238), (548, 13274), (555, 13307), (560, 13331), (579, 13382), (587, 13427), (608, 13565), (616, 13595), (644, 13787), (678, 13964), (753, 14156), (762, 14228), (773, 14264), (776, 14288), (778, 14300), (781, 14342), (788, 14390), (801, 14453), (805, 14480), (807, 14486), (812, 14519), (815, 14540), (817, 14567), (822, 14591), (824, 14627), (826, 14654), (828, 14663), (830, 14675), (848, 14777),

Gene: PCoral7_17 Start: 10271, Stop: 15886, Start Num: 8

Candidate Starts for PCoral7_17:

(Start: 7 @10235 has 1 MA's), (Start: 8 @10271 has 37 MA's), (Start: 12 @10292 has 1 MA's), (15, 10331), (18, 10376), (34, 10466), (36, 10475), (38, 10487), (40, 10508), (45, 10565), (48, 10637), (51, 10658), (59, 10700), (60, 10703), (63, 10730), (67, 10751), (68, 10754), (72, 10775), (76, 10796), (87, 10847), (88, 10850), (97, 10910), (128, 11093), (138, 11165), (167, 11351), (184, 11453), (186, 11468), (189, 11483), (195, 11540), (219, 11732), (238, 11852), (250, 11933), (254, 11963), (261, 11999), (267, 12050), (288, 12185), (289, 12188), (293, 12212), (299, 12263), (302, 12299), (304, 12305), (307, 12320), (313, 12374), (317, 12413), (321, 12437), (324, 12455), (335, 12503), (337, 12509), (340, 12527), (341, 12530), (343, 12545), (345, 12557), (347, 12605), (370, 12743), (379, 12824), (382, 12848), (383, 12860), (384, 12863), (391, 12896), (415, 12998), (422, 13025), (423, 13028), (424, 13031), (425, 13037), (432, 13082), (434, 13094), (436, 13106), (440, 13130), (443, 13145), (445, 13160), (446, 13163), (450, 13187), (453, 13214), (465, 13295), (476, 13379), (489, 13484), (496, 13517), (505, 13583), (506, 13592), (514, 13631), (516, 13664), (518, 13676), (519, 13679), (522, 13694), (523, 13703), (531, 13739), (532, 13748), (533, 13757), (568, 13913), (569, 13916), (571, 13919), (572, 13940), (583, 14021), (593, 14063), (604, 14150), (611, 14183), (613, 14192), (619, 14234), (639, 14348), (663, 14513), (674, 14597), (675, 14600), (680, 14630), (681, 14633), (684, 14666), (685, 14669), (697, 14747), (703, 14804), (721, 14921), (727, 14972), (748, 15074), (754, 15107), (758, 15173), (773, 15239), (774, 15245), (776, 15263), (779, 15296), (788, 15368), (798, 15410), (799, 15416), (801, 15434), (802, 15440), (805, 15461), (812, 15500), (826, 15641), (839, 15704), (850, 15779), (860, 15872),

Gene: Periwinkle_20 Start: 10340, Stop: 15973, Start Num: 20

Candidate Starts for Periwinkle_20:

(17, 10313), (Start: 20 @10340 has 1 MA's), (Start: 31 @10385 has 1 MA's), (33, 10406), (37, 10427), (41, 10472), (Start: 42 @10487 has 1 MA's), (48, 10571), (56, 10613), (57, 10625), (68, 10688), (71, 10703), (73, 10712), (76, 10730), (77, 10736), (88, 10784), (95, 10838), (112, 10919), (133, 11063), (134, 11069), (138, 11099), (171, 11318), (184, 11393), (189, 11423), (208, 11606), (211, 11627), (219, 11672), (220, 11678), (223, 11699), (235, 11780), (245, 11846), (250, 11873), (252, 11885), (254, 11903), (255, 11915), (261, 11939), (264, 11951), (267, 11990), (268, 11993), (269, 12002), (272, 12032), (278, 12077), (290, 12137), (293, 12152), (296, 12182), (297, 12194), (302, 12239), (304, 12245), (306, 12257), (307, 12260), (309, 12281), (312, 12311), (313, 12314), (321, 12377), (325, 12404), (326, 12407), (327, 12410), (328, 12416), (334, 12440), (335, 12443), (337, 12449), (339, 12455), (341, 12470), (344, 12488), (349, 12569), (355, 12617), (356, 12623), (360, 12650), (382, 12809), (383, 12821), (391, 12857), (407, 12917), (414, 12956), (416, 12962), (417, 12965),

(423, 12986), (424, 12989), (440, 13088), (447, 13127), (451, 13151), (455, 13184), (458, 13229), (464, 13283), (472, 13370), (473, 13391), (478, 13427), (482, 13457), (494, 13538), (496, 13547), (500, 13571), (512, 13652), (514, 13658), (518, 13703), (519, 13706), (531, 13766), (532, 13775), (533, 13784), (555, 13892), (568, 13940), (571, 13946), (582, 14045), (583, 14048), (589, 14060), (604, 14177), (611, 14210), (619, 14261), (625, 14291), (634, 14351), (647, 14432), (651, 14453), (654, 14486), (666, 14549), (667, 14558), (668, 14567), (685, 14681), (690, 14711), (693, 14720), (698, 14759), (699, 14762), (702, 14792), (703, 14813), (730, 15017), (739, 15080), (742, 15086), (751, 15137), (777, 15323), (786, 15410), (791, 15437), (792, 15440), (806, 15515), (810, 15539), (816, 15578), (818, 15614), (823, 15635), (832, 15722), (837, 15764), (843, 15797), (845, 15809), (857, 15887), (861, 15953),

Gene: Petra_19 Start: 10705, Stop: 16197, Start Num: 14

Candidate Starts for Petra_19:

(Start: 8 @10654 has 37 MA's), (Start: 11 @10669 has 1 MA's), (Start: 12 @10675 has 1 MA's), (Start: 14 @10705 has 1 MA's), (15, 10714), (16, 10717), (18, 10759), (38, 10870), (40, 10891), (65, 11119), (68, 11137), (72, 11158), (73, 11161), (76, 11179), (82, 11203), (95, 11287), (105, 11329), (107, 11344), (109, 11353), (135, 11521), (138, 11548), (155, 11665), (184, 11836), (189, 11866), (211, 12070), (219, 12115), (245, 12289), (250, 12316), (254, 12346), (267, 12433), (272, 12475), (274, 12481), (293, 12595), (295, 12610), (297, 12637), (302, 12682), (304, 12688), (307, 12703), (313, 12757), (317, 12796), (320, 12817), (321, 12820), (324, 12838), (330, 12865), (335, 12886), (337, 12892), (341, 12913), (345, 12940), (385, 13213), (398, 13252), (405, 13267), (423, 13297), (424, 13300), (432, 13351), (445, 13432), (446, 13435), (452, 13468), (455, 13498), (468, 13588), (505, 13855), (514, 13903), (518, 13948), (519, 13951), (522, 13966), (523, 13975), (531, 14011), (532, 14020), (533, 14029), (543, 14080), (557, 14152), (562, 14170), (571, 14191), (582, 14290), (583, 14293), (592, 14326), (600, 14392), (601, 14410), (604, 14425), (611, 14458), (619, 14509), (628, 14560), (664, 14803), (665, 14806), (674, 14878), (675, 14881), (684, 14947), (685, 14950), (688, 14968), (697, 15028), (703, 15085), (704, 15103), (716, 15184), (717, 15187), (721, 15202), (743, 15361), (754, 15415), (758, 15481), (773, 15547), (774, 15553), (788, 15676), (794, 15700), (798, 15718), (801, 15742), (802, 15748), (805, 15769), (812, 15808), (826, 15949), (829, 15961), (839, 16012), (841, 16030), (850, 16087), (860, 16180),

Gene: Phabuloso_18 Start: 9869, Stop: 15502, Start Num: 21

Candidate Starts for Phabuloso_18:

(Start: 21 @9869 has 11 MA's), (29, 9896), (Start: 31 @9914 has 1 MA's), (33, 9935), (37, 9956), (41, 10001), (Start: 42 @10016 has 1 MA's), (48, 10100), (56, 10142), (57, 10154), (68, 10217), (71, 10232), (73, 10241), (76, 10259), (77, 10265), (88, 10313), (112, 10448), (134, 10598), (138, 10628), (171, 10847), (184, 10922), (189, 10952), (211, 11156), (218, 11198), (219, 11201), (220, 11207), (223, 11228), (235, 11309), (245, 11375), (250, 11402), (252, 11414), (254, 11432), (255, 11444), (261, 11468), (264, 11480), (267, 11519), (268, 11522), (269, 11531), (272, 11561), (278, 11606), (290, 11666), (293, 11681), (296, 11711), (297, 11723), (302, 11768), (304, 11774), (307, 11789), (310, 11819), (312, 11840), (313, 11843), (321, 11906), (325, 11933), (326, 11936), (327, 11939), (328, 11945), (334, 11969), (335, 11972), (337, 11978), (339, 11984), (341, 11999), (344, 12017), (349, 12098), (355, 12146), (356, 12152), (360, 12179), (382, 12338), (383, 12350), (391, 12386), (407, 12446), (414, 12485), (416, 12491), (417, 12494), (423, 12515), (424, 12518), (440, 12617), (447, 12656), (451, 12680), (455, 12713), (458, 12758), (464, 12812), (472, 12899), (473, 12920), (478, 12956), (482, 12986), (493, 13064), (494, 13067), (496, 13076), (500, 13100), (512, 13181), (514, 13187), (518, 13232), (519, 13235), (522, 13250), (531, 13295), (532, 13304), (533, 13313), (534, 13316), (555, 13421), (568, 13469), (571, 13475), (582, 13574), (583, 13577), (589, 13589), (604, 13706), (611, 13739), (619, 13790), (625, 13820), (634, 13880), (647, 13961), (651, 13982), (654, 14015), (666, 14078), (668, 14096), (685, 14210), (690, 14240), (693, 14249), (698, 14288), (699, 14291), (702, 14321), (703, 14342), (722, 14495), (730, 14546), (739, 14609), (742, 14615), (751, 14666), (777, 14852), (786, 14939), (791, 14966), (792, 14969), (806, 15044), (810, 15068), (816, 15107), (818, 15143), (823, 15164), (832, 15251), (837, 15293), (843, 15326), (845, 15338),

(857, 15416), (861, 15482),

Gene: Phistory_19 Start: 10653, Stop: 16280, Start Num: 19

Candidate Starts for Phistory_19:

(Start: 19 @10653 has 1 MA's), (24, 10659), (Start: 31 @10698 has 1 MA's), (41, 10785), (48, 10884), (56, 10926), (57, 10938), (68, 11001), (71, 11016), (73, 11025), (76, 11043), (77, 11049), (88, 11097), (100, 11172), (112, 11232), (134, 11382), (138, 11412), (184, 11706), (189, 11736), (208, 11919), (211, 11940), (218, 11982), (219, 11985), (220, 11991), (223, 12012), (224, 12024), (234, 12084), (238, 12105), (245, 12159), (250, 12186), (252, 12198), (254, 12216), (255, 12228), (261, 12252), (264, 12264), (267, 12303), (268, 12306), (269, 12315), (273, 12348), (283, 12417), (288, 12438), (293, 12465), (294, 12471), (297, 12507), (298, 12510), (302, 12552), (304, 12558), (306, 12570), (307, 12573), (312, 12624), (313, 12627), (321, 12690), (322, 12699), (325, 12717), (326, 12720), (328, 12729), (337, 12762), (341, 12783), (342, 12789), (343, 12798), (346, 12846), (350, 12888), (355, 12930), (360, 12963), (369, 13014), (370, 13017), (373, 13056), (374, 13065), (382, 13122), (383, 13134), (391, 13170), (407, 13230), (414, 13269), (416, 13275), (423, 13299), (424, 13302), (427, 13320), (440, 13401), (451, 13464), (455, 13497), (459, 13572), (464, 13596), (465, 13608), (468, 13641), (473, 13704), (478, 13740), (482, 13770), (493, 13848), (494, 13851), (496, 13860), (500, 13884), (514, 13971), (518, 14016), (519, 14019), (522, 14034), (531, 14079), (532, 14088), (533, 14097), (534, 14100), (555, 14205), (568, 14253), (571, 14259), (582, 14358), (583, 14361), (589, 14373), (604, 14490), (611, 14523), (619, 14574), (625, 14604), (634, 14664), (647, 14745), (651, 14766), (652, 14769), (666, 14862), (668, 14880), (685, 14994), (690, 15024), (693, 15033), (698, 15072), (699, 15075), (702, 15105), (703, 15126), (730, 15324), (739, 15387), (742, 15393), (746, 15420), (751, 15444), (777, 15630), (786, 15717), (791, 15744), (792, 15747), (806, 15822), (810, 15846), (816, 15885), (818, 15921), (823, 15942), (832, 16029), (837, 16071), (843, 16104), (845, 16116), (857, 16194), (861, 16260),

Gene: PhrostedPhlake_18 Start: 10632, Stop: 16172, Start Num: 8

Candidate Starts for PhrostedPhlake_18:

(Start: 8 @10632 has 37 MA's), (Start: 11 @10647 has 1 MA's), (Start: 12 @10653 has 1 MA's), (Start: 14 @10683 has 1 MA's), (15, 10692), (18, 10737), (38, 10848), (40, 10869), (65, 11097), (68, 11115), (72, 11136), (73, 11139), (76, 11157), (82, 11181), (95, 11265), (97, 11271), (105, 11307), (107, 11322), (109, 11331), (118, 11391), (135, 11499), (138, 11526), (155, 11643), (164, 11697), (171, 11739), (184, 11814), (189, 11844), (211, 12048), (219, 12093), (245, 12267), (250, 12294), (254, 12324), (267, 12411), (272, 12453), (281, 12516), (293, 12573), (297, 12615), (302, 12660), (304, 12666), (307, 12681), (313, 12735), (317, 12774), (320, 12795), (321, 12798), (324, 12816), (330, 12843), (335, 12864), (337, 12870), (341, 12891), (345, 12918), (398, 13230), (405, 13245), (423, 13275), (424, 13278), (432, 13329), (445, 13410), (446, 13413), (452, 13446), (455, 13476), (468, 13566), (505, 13833), (514, 13881), (516, 13914), (518, 13926), (519, 13929), (522, 13944), (523, 13953), (531, 13989), (532, 13998), (533, 14007), (555, 14115), (568, 14163), (569, 14166), (571, 14169), (583, 14271), (584, 14274), (604, 14400), (611, 14433), (618, 14481), (619, 14484), (628, 14535), (639, 14604), (664, 14778), (665, 14781), (674, 14853), (675, 14856), (684, 14922), (685, 14925), (688, 14943), (697, 15003), (703, 15060), (704, 15078), (716, 15159), (717, 15162), (721, 15177), (743, 15336), (754, 15390), (758, 15456), (773, 15522), (774, 15528), (778, 15558), (788, 15651), (794, 15675), (798, 15693), (801, 15717), (802, 15723), (805, 15744), (812, 15783), (826, 15924), (839, 15987), (841, 16005), (860, 16155),

Gene: Pipp_17 Start: 10133, Stop: 15790, Start Num: 5

Candidate Starts for Pipp_17:

(4, 10094), (Start: 5 @10133 has 1 MA's), (Start: 8 @10247 has 37 MA's), (Start: 11 @10262 has 1 MA's), (Start: 12 @10268 has 1 MA's), (Start: 14 @10298 has 1 MA's), (15, 10307), (16, 10310), (18, 10352), (38, 10463), (40, 10484), (68, 10730), (72, 10751), (73, 10754), (76, 10772), (82, 10796), (95, 10880), (97, 10886), (105, 10922), (107, 10937), (109, 10946), (112, 10961), (118, 11006), (135, 11114), (138, 11141), (144, 11174), (155, 11258), (189, 11459), (211, 11663), (220, 11714), (223,

11735), (224, 11747), (240, 11837), (245, 11882), (250, 11909), (254, 11939), (267, 12026), (268, 12029), (272, 12068), (283, 12140), (293, 12188), (297, 12230), (302, 12275), (304, 12281), (306, 12293), (307, 12296), (313, 12350), (317, 12389), (320, 12410), (321, 12413), (324, 12431), (330, 12458), (335, 12479), (337, 12485), (341, 12506), (370, 12740), (385, 12806), (398, 12845), (405, 12860), (423, 12890), (424, 12893), (432, 12944), (445, 13025), (446, 13028), (452, 13061), (455, 13091), (468, 13181), (496, 13382), (505, 13448), (514, 13496), (518, 13541), (519, 13544), (522, 13559), (523, 13568), (531, 13604), (532, 13613), (533, 13622), (557, 13745), (571, 13784), (582, 13883), (583, 13886), (600, 13985), (601, 14003), (604, 14018), (611, 14051), (619, 14102), (628, 14153), (639, 14222), (664, 14396), (665, 14399), (673, 14465), (674, 14471), (675, 14474), (684, 14540), (685, 14543), (688, 14561), (697, 14621), (703, 14678), (704, 14696), (716, 14777), (721, 14795), (727, 14846), (743, 14954), (754, 15008), (758, 15074), (772, 15128), (773, 15140), (774, 15146), (778, 15176), (788, 15269), (794, 15293), (798, 15311), (801, 15335), (802, 15341), (805, 15362), (812, 15401), (826, 15542), (839, 15605), (841, 15623), (850, 15680), (860, 15773),

Gene: Pons_16 Start: 9384, Stop: 14465, Start Num: 28

Candidate Starts for Pons_16:

(Start: 28 @9384 has 33 MA's), (46, 9540), (60, 9669), (64, 9699), (77, 9768), (80, 9780), (83, 9795), (88, 9816), (90, 9825), (94, 9867), (97, 9876), (105, 9912), (109, 9936), (118, 9996), (127, 10050), (131, 10089), (133, 10095), (136, 10110), (138, 10131), (147, 10185), (164, 10302), (175, 10365), (182, 10410), (189, 10449), (193, 10491), (211, 10650), (215, 10683), (219, 10695), (223, 10722), (230, 10779), (236, 10809), (239, 10821), (253, 10923), (254, 10926), (267, 11013), (274, 11061), (293, 11175), (299, 11226), (304, 11268), (307, 11283), (308, 11292), (309, 11304), (313, 11337), (318, 11379), (328, 11439), (329, 11442), (330, 11445), (331, 11451), (336, 11469), (341, 11493), (350, 11598), (359, 11646), (370, 11706), (371, 11709), (373, 11745), (384, 11826), (390, 11856), (395, 11877), (396, 11880), (397, 11883), (415, 11961), (422, 11985), (424, 11991), (444, 12117), (450, 12147), (455, 12186), (461, 12234), (465, 12255), (466, 12258), (467, 12264), (474, 12330), (481, 12375), (484, 12408), (486, 12429), (498, 12483), (527, 12633), (529, 12642), (544, 12729), (608, 13047), (616, 13077), (638, 13215), (653, 13296), (678, 13446), (682, 13476), (723, 13686), (725, 13695), (726, 13701), (734, 13737), (757, 13854), (759, 13860), (769, 13902), (774, 13920), (788, 14043), (794, 14067), (796, 14082), (801, 14112), (805, 14139), (807, 14145), (812, 14178), (820, 14247), (822, 14250), (824, 14286), (833, 14358), (838, 14376),

Gene: PotPie_16 Start: 10237, Stop: 15330, Start Num: 28

Candidate Starts for PotPie_16:

(Start: 28 @10237 has 33 MA's), (46, 10393), (60, 10522), (64, 10552), (77, 10621), (80, 10633), (88, 10669), (90, 10678), (94, 10720), (97, 10729), (105, 10765), (109, 10789), (127, 10903), (131, 10942), (136, 10963), (138, 10984), (164, 11155), (175, 11218), (182, 11263), (193, 11344), (211, 11503), (215, 11536), (219, 11548), (223, 11575), (230, 11632), (236, 11662), (239, 11674), (253, 11776), (254, 11779), (267, 11866), (274, 11914), (293, 12028), (304, 12121), (307, 12136), (309, 12157), (313, 12190), (315, 12220), (318, 12232), (324, 12271), (329, 12295), (330, 12298), (336, 12322), (341, 12346), (350, 12451), (363, 12529), (370, 12559), (371, 12562), (373, 12598), (379, 12640), (382, 12664), (384, 12679), (386, 12694), (390, 12709), (396, 12733), (408, 12772), (410, 12787), (411, 12793), (422, 12838), (424, 12844), (444, 12970), (450, 13000), (456, 13051), (461, 13087), (465, 13108), (466, 13111), (474, 13183), (481, 13228), (484, 13261), (486, 13282), (498, 13336), (509, 13411), (529, 13495), (544, 13582), (608, 13900), (616, 13930), (638, 14068), (648, 14119), (653, 14149), (678, 14314), (682, 14344), (720, 14524), (726, 14575), (734, 14602), (743, 14623), (757, 14719), (769, 14767), (774, 14785), (788, 14908), (794, 14932), (796, 14947), (801, 14977), (805, 15004), (807, 15010), (812, 15043), (820, 15112), (822, 15115), (824, 15151), (838, 15241),

Gene: PrincePatrick_17 Start: 10339, Stop: 15960, Start Num: 8

Candidate Starts for PrincePatrick_17:

(Start: 7 @10303 has 1 MA's), (Start: 8 @10339 has 37 MA's), (Start: 12 @10360 has 1 MA's), (15, 10399), (18, 10444), (34, 10534), (36, 10543), (38, 10555), (40, 10576), (45, 10633), (48, 10705), (51,

10726), (59, 10768), (60, 10771), (63, 10798), (67, 10819), (68, 10822), (72, 10843), (76, 10864), (87, 10915), (88, 10918), (97, 10978), (128, 11161), (138, 11233), (167, 11419), (184, 11521), (186, 11536), (189, 11551), (195, 11608), (219, 11800), (238, 11920), (250, 12001), (254, 12031), (261, 12067), (267, 12118), (272, 12160), (283, 12232), (291, 12268), (293, 12280), (299, 12331), (304, 12373), (307, 12388), (313, 12442), (317, 12481), (321, 12505), (324, 12523), (335, 12571), (337, 12577), (340, 12595), (341, 12598), (343, 12613), (345, 12625), (347, 12673), (350, 12703), (362, 12778), (379, 12892), (382, 12916), (383, 12928), (384, 12931), (391, 12964), (415, 13066), (424, 13099), (432, 13150), (434, 13162), (436, 13174), (440, 13198), (446, 13234), (450, 13258), (453, 13285), (465, 13366), (476, 13450), (489, 13555), (496, 13588), (505, 13654), (506, 13663), (514, 13702), (516, 13735), (518, 13747), (519, 13750), (522, 13765), (523, 13774), (531, 13810), (532, 13819), (533, 13828), (542, 13870), (568, 13984), (569, 13987), (571, 13990), (572, 14011), (583, 14092), (593, 14134), (604, 14221), (611, 14254), (613, 14263), (619, 14305), (639, 14419), (674, 14668), (675, 14671), (680, 14701), (681, 14704), (683, 14728), (684, 14737), (685, 14740), (697, 14818), (703, 14875), (721, 14992), (727, 15043), (754, 15181), (758, 15247), (773, 15313), (774, 15319), (776, 15337), (786, 15430), (788, 15442), (799, 15490), (801, 15508), (802, 15514), (805, 15535), (812, 15574), (826, 15715), (839, 15778), (850, 15853), (860, 15946),

Gene: PsychoKiller_16 Start: 9629, Stop: 14767, Start Num: 28

Candidate Starts for PsychoKiller_16:

(Start: 22 @9605 has 5 MA's), (Start: 28 @9629 has 33 MA's), (32, 9656), (46, 9785), (49, 9860), (77, 10013), (78, 10016), (94, 10112), (97, 10121), (103, 10151), (105, 10157), (107, 10172), (108, 10175), (112, 10196), (122, 10268), (125, 10289), (136, 10355), (138, 10376), (155, 10493), (182, 10655), (189, 10694), (198, 10769), (215, 10928), (219, 10940), (223, 10967), (228, 11012), (230, 11024), (245, 11114), (248, 11132), (252, 11153), (255, 11183), (261, 11207), (264, 11219), (267, 11258), (271, 11291), (288, 11393), (289, 11396), (293, 11420), (304, 11513), (307, 11528), (311, 11567), (332, 11702), (333, 11705), (341, 11738), (351, 11846), (352, 11849), (357, 11900), (371, 11975), (382, 12077), (390, 12122), (395, 12143), (396, 12146), (397, 12149), (414, 12224), (424, 12257), (428, 12278), (432, 12308), (440, 12356), (442, 12362), (446, 12389), (466, 12524), (481, 12641), (484, 12674), (486, 12695), (501, 12764), (502, 12770), (504, 12785), (527, 12905), (529, 12914), (544, 12998), (608, 13319), (646, 13538), (653, 13574), (685, 13787), (725, 13979), (734, 14027), (743, 14048), (757, 14156), (774, 14222), (776, 14240), (788, 14345), (795, 14375), (796, 14384), (801, 14414), (812, 14480), (817, 14528), (824, 14588), (837, 14675), (848, 14738),

Gene: Quasar_16 Start: 10238, Stop: 15376, Start Num: 28

Candidate Starts for Quasar_16:

(Start: 22 @10214 has 5 MA's), (Start: 28 @10238 has 33 MA's), (32, 10265), (46, 10394), (49, 10469), (77, 10622), (78, 10625), (94, 10721), (97, 10730), (103, 10760), (105, 10766), (107, 10781), (108, 10784), (112, 10805), (122, 10877), (125, 10898), (136, 10964), (138, 10985), (155, 11102), (182, 11264), (189, 11303), (198, 11378), (215, 11537), (219, 11549), (223, 11576), (228, 11621), (230, 11633), (245, 11723), (248, 11741), (252, 11762), (255, 11792), (261, 11816), (264, 11828), (267, 11867), (271, 11900), (288, 12002), (289, 12005), (293, 12029), (294, 12035), (304, 12122), (307, 12137), (311, 12176), (333, 12314), (340, 12344), (341, 12347), (351, 12455), (352, 12458), (357, 12509), (371, 12584), (382, 12686), (390, 12731), (395, 12752), (396, 12755), (397, 12758), (414, 12833), (424, 12866), (428, 12887), (432, 12917), (440, 12965), (442, 12971), (446, 12998), (466, 13133), (481, 13250), (484, 13283), (486, 13304), (487, 13307), (501, 13373), (502, 13379), (504, 13394), (527, 13514), (529, 13523), (544, 13607), (608, 13928), (646, 14147), (653, 14183), (685, 14396), (725, 14588), (734, 14636), (743, 14657), (757, 14765), (774, 14831), (776, 14849), (788, 14954), (795, 14984), (796, 14993), (801, 15023), (812, 15089), (817, 15137), (824, 15197), (837, 15284), (848, 15347),

Gene: RADical_17 Start: 9630, Stop: 14768, Start Num: 28

Candidate Starts for RADical_17:

(Start: 22 @9606 has 5 MA's), (Start: 28 @9630 has 33 MA's), (32, 9657), (46, 9786), (49, 9861), (77, 10014), (78, 10017), (94, 10113), (97, 10122), (103, 10152), (105, 10158), (107, 10173), (108, 10176), (111, 10191), (112, 10197), (122, 10269), (125, 10290), (136, 10356), (138, 10377), (155, 10494), (182, 10656), (189, 10695), (198, 10770), (215, 10929), (219, 10941), (223, 10968), (228, 11013), (230, 11025), (245, 11115), (248, 11133), (252, 11154), (255, 11184), (261, 11208), (264, 11220), (267, 11259), (271, 11292), (288, 11394), (289, 11397), (293, 11421), (304, 11514), (307, 11529), (311, 11568), (324, 11664), (326, 11676), (333, 11706), (341, 11739), (351, 11847), (352, 11850), (357, 11901), (371, 11976), (382, 12078), (390, 12123), (395, 12144), (396, 12147), (397, 12150), (414, 12225), (424, 12258), (428, 12279), (440, 12357), (442, 12363), (446, 12390), (466, 12525), (481, 12642), (484, 12675), (486, 12696), (501, 12765), (502, 12771), (504, 12786), (527, 12906), (529, 12915), (544, 12999), (608, 13320), (646, 13539), (653, 13575), (685, 13788), (725, 13980), (734, 14028), (743, 14049), (757, 14157), (774, 14223), (776, 14241), (782, 14301), (788, 14346), (795, 14376), (796, 14385), (801, 14415), (812, 14481), (817, 14529), (824, 14589), (837, 14676), (848, 14739),

Gene: REQ2_18 Start: 12445, Stop: 18258, Start Num: 1

Candidate Starts for REQ2_18:

(Start: 1 @12445 has 1 MA's), (3, 12493), (9, 12664), (Start: 28 @12805 has 33 MA's), (44, 12958), (46, 12970), (49, 13045), (50, 13051), (53, 13060), (61, 13114), (67, 13147), (77, 13198), (78, 13201), (89, 13252), (97, 13306), (98, 13309), (109, 13366), (110, 13369), (115, 13402), (116, 13420), (119, 13447), (120, 13450), (124, 13480), (130, 13531), (133, 13540), (142, 13630), (206, 14125), (221, 14227), (232, 14308), (237, 14338), (247, 14407), (253, 14452), (265, 14515), (283, 14668), (299, 14767), (302, 14803), (304, 14809), (305, 14818), (307, 14824), (316, 14914), (322, 14950), (329, 14983), (336, 15010), (341, 15034), (343, 15049), (345, 15061), (351, 15142), (369, 15244), (401, 15430), (404, 15445), (420, 15517), (424, 15529), (426, 15544), (433, 15589), (438, 15622), (441, 15631), (447, 15667), (467, 15802), (471, 15826), (472, 15838), (473, 15859), (475, 15871), (485, 15961), (504, 16075), (505, 16093), (515, 16150), (535, 16264), (540, 16297), (569, 16405), (574, 16441), (581, 16480), (585, 16498), (590, 16519), (591, 16522), (605, 16615), (632, 16750), (636, 16771), (645, 16828), (697, 17152), (701, 17185), (712, 17263), (719, 17308), (724, 17347), (728, 17377), (731, 17392), (735, 17410), (738, 17443), (767, 17611), (828, 18052), (831, 18064), (835, 18094), (836, 18097), (844, 18142), (852, 18190),

Gene: RSchmailzl_17 Start: 9773, Stop: 14911, Start Num: 28

Candidate Starts for RSchmailzl_17:

(Start: 22 @9749 has 5 MA's), (Start: 28 @9773 has 33 MA's), (32, 9800), (46, 9929), (49, 10004), (77, 10157), (78, 10160), (94, 10256), (97, 10265), (103, 10295), (105, 10301), (107, 10316), (108, 10319), (112, 10340), (122, 10412), (125, 10433), (136, 10499), (138, 10520), (155, 10637), (182, 10799), (189, 10838), (198, 10913), (215, 11072), (219, 11084), (223, 11111), (228, 11156), (230, 11168), (245, 11258), (248, 11276), (252, 11297), (255, 11327), (261, 11351), (264, 11363), (267, 11402), (271, 11435), (273, 11447), (288, 11537), (289, 11540), (293, 11564), (294, 11570), (304, 11657), (307, 11672), (311, 11711), (317, 11765), (324, 11807), (326, 11819), (331, 11840), (341, 11882), (351, 11990), (358, 12050), (371, 12119), (380, 12209), (382, 12221), (390, 12266), (395, 12287), (396, 12290), (397, 12293), (414, 12368), (419, 12386), (424, 12401), (432, 12452), (440, 12500), (442, 12506), (446, 12533), (466, 12668), (481, 12785), (484, 12818), (486, 12839), (487, 12842), (501, 12908), (502, 12914), (504, 12929), (527, 13049), (529, 13058), (544, 13142), (608, 13463), (646, 13682), (653, 13718), (685, 13931), (725, 14123), (734, 14171), (743, 14192), (757, 14300), (774, 14366), (776, 14384), (788, 14489), (795, 14519), (796, 14528), (801, 14558), (812, 14624), (817, 14672), (824, 14732), (837, 14819), (848, 14882),

Gene: RanchParmCat_19 Start: 10311, Stop: 14516, Start Num: 81

Candidate Starts for RanchParmCat_19:

(Start: 81 @10311 has 23 MA's), (Start: 86 @10338 has 2 MA's), (131, 10626), (136, 10647), (137, 10653), (141, 10686), (143, 10704), (147, 10728), (157, 10818), (160, 10827), (162, 10836), (169,

10869), (172, 10896), (174, 10905), (176, 10929), (203, 11082), (207, 11145), (209, 11160), (217, 11196), (222, 11226), (225, 11247), (233, 11289), (247, 11370), (259, 11445), (260, 11454), (265, 11475), (286, 11622), (307, 11763), (309, 11784), (312, 11814), (313, 11817), (314, 11835), (317, 11856), (320, 11877), (324, 11898), (336, 11949), (337, 11952), (338, 11955), (341, 11973), (361, 12054), (368, 12084), (373, 12135), (402, 12189), (414, 12216), (424, 12249), (433, 12309), (445, 12378), (446, 12381), (459, 12483), (460, 12489), (469, 12537), (470, 12540), (481, 12633), (484, 12666), (486, 12687), (488, 12696), (490, 12705), (492, 12711), (517, 12864), (537, 12933), (539, 12939), (548, 12975), (586, 13104), (608, 13245), (614, 13269), (622, 13314), (644, 13467), (646, 13470), (678, 13659), (682, 13689), (753, 13866), (762, 13938), (769, 13962), (773, 13974), (776, 13998), (778, 14010), (787, 14094), (788, 14100), (798, 14142), (801, 14163), (807, 14196), (812, 14229), (815, 14250), (817, 14277), (822, 14301), (824, 14337), (830, 14385), (848, 14487),

Gene: RedBaron_17 Start: 9673, Stop: 14811, Start Num: 28

Candidate Starts for RedBaron_17:

(Start: 22 @9649 has 5 MA's), (Start: 28 @9673 has 33 MA's), (32, 9700), (46, 9829), (49, 9904), (77, 10057), (78, 10060), (94, 10156), (97, 10165), (103, 10195), (105, 10201), (107, 10216), (108, 10219), (112, 10240), (122, 10312), (125, 10333), (136, 10399), (138, 10420), (155, 10537), (182, 10699), (189, 10738), (198, 10813), (223, 11011), (241, 11119), (252, 11197), (254, 11215), (256, 11233), (267, 11302), (268, 11305), (269, 11314), (273, 11347), (292, 11458), (293, 11464), (304, 11557), (307, 11572), (324, 11707), (331, 11740), (341, 11782), (351, 11890), (357, 11944), (370, 12016), (371, 12019), (382, 12121), (390, 12166), (392, 12175), (395, 12187), (396, 12190), (397, 12193), (414, 12268), (415, 12271), (416, 12274), (419, 12286), (422, 12295), (424, 12301), (430, 12343), (432, 12352), (440, 12400), (446, 12433), (466, 12568), (481, 12685), (484, 12718), (486, 12739), (501, 12808), (502, 12814), (527, 12949), (529, 12958), (544, 13042), (608, 13363), (646, 13582), (653, 13618), (725, 14023), (734, 14071), (743, 14092), (757, 14200), (774, 14266), (776, 14284), (788, 14389), (795, 14419), (796, 14428), (801, 14458), (812, 14524), (817, 14572), (824, 14632), (837, 14719), (848, 14782),

Gene: Samba_17 Start: 10382, Stop: 15874, Start Num: 8

Candidate Starts for Samba_17:

(Start: 8 @10382 has 37 MA's), (Start: 11 @10397 has 1 MA's), (Start: 12 @10403 has 1 MA's), (Start: 14 @10433 has 1 MA's), (15, 10442), (16, 10445), (18, 10487), (38, 10598), (40, 10619), (47, 10739), (54, 10781), (65, 10847), (68, 10865), (71, 10880), (72, 10886), (73, 10889), (76, 10907), (82, 10931), (95, 11015), (105, 11057), (107, 11072), (109, 11081), (135, 11249), (138, 11276), (155, 11393), (184, 11564), (189, 11594), (211, 11798), (219, 11843), (223, 11870), (224, 11882), (240, 11972), (245, 12017), (250, 12044), (254, 12074), (267, 12161), (272, 12203), (281, 12266), (283, 12275), (293, 12323), (297, 12365), (302, 12410), (304, 12416), (306, 12428), (307, 12431), (313, 12485), (317, 12524), (320, 12545), (321, 12548), (324, 12566), (325, 12575), (335, 12614), (337, 12620), (340, 12638), (341, 12641), (345, 12668), (385, 12941), (393, 12968), (398, 12980), (404, 12992), (405, 12995), (423, 13025), (424, 13028), (432, 13079), (445, 13160), (446, 13163), (452, 13196), (455, 13226), (457, 13250), (468, 13316), (505, 13583), (514, 13631), (518, 13676), (519, 13679), (522, 13694), (531, 13739), (532, 13748), (533, 13757), (543, 13808), (557, 13880), (562, 13898), (571, 13919), (582, 14018), (583, 14021), (592, 14054), (600, 14120), (601, 14138), (604, 14153), (611, 14186), (619, 14237), (628, 14288), (664, 14531), (665, 14534), (674, 14606), (675, 14609), (684, 14675), (685, 14678), (688, 14696), (697, 14756), (716, 14912), (717, 14915), (721, 14930), (743, 15101), (754, 15155), (762, 15212), (766, 15227), (775, 15275), (780, 15320), (803, 15440), (804, 15449), (811, 15488), (821, 15560), (826, 15629), (839, 15692), (841, 15710), (860, 15860),

Gene: Schnabeltier_17 Start: 10933, Stop: 16047, Start Num: 25

Candidate Starts for Schnabeltier_17:

(Start: 25 @10933 has 13 MA's), (Start: 28 @10942 has 33 MA's), (57, 11215), (59, 11224), (63, 11254), (66, 11263), (76, 11320), (90, 11383), (101, 11455), (106, 11476), (109, 11494), (131, 11647), (138, 11689), (147, 11743), (152, 11776), (182, 11968), (183, 11971), (189, 12007), (199, 12085),

(204, 12124), (211, 12208), (215, 12241), (218, 12250), (220, 12259), (224, 12292), (226, 12304), (229, 12328), (238, 12373), (240, 12382), (244, 12418), (245, 12427), (250, 12454), (252, 12466), (254, 12484), (261, 12520), (276, 12643), (283, 12685), (302, 12820), (303, 12823), (304, 12826), (307, 12841), (313, 12895), (317, 12934), (330, 13003), (332, 13015), (337, 13030), (341, 13051), (343, 13066), (345, 13078), (346, 13114), (349, 13150), (374, 13312), (406, 13369), (413, 13381), (414, 13384), (424, 13417), (438, 13510), (440, 13516), (442, 13522), (444, 13543), (445, 13546), (446, 13549), (455, 13612), (459, 13648), (462, 13663), (467, 13687), (469, 13702), (470, 13705), (471, 13711), (477, 13765), (489, 13864), (497, 13906), (510, 13984), (514, 14008), (520, 14053), (545, 14179), (549, 14188), (552, 14206), (553, 14209), (564, 14248), (565, 14251), (569, 14260), (595, 14419), (616, 14539), (630, 14617), (640, 14665), (642, 14677), (653, 14737), (670, 14854), (675, 14881), (679, 14899), (689, 14977), (691, 14983), (694, 14992), (695, 15019), (705, 15112), (713, 15151), (718, 15193), (744, 15346), (751, 15379), (752, 15382), (756, 15439), (760, 15448), (763, 15460), (770, 15481), (774, 15502), (803, 15694), (810, 15733), (822, 15802), (825, 15856), (853, 16009),

Gene: ShawBrad_18 Start: 9931, Stop: 15516, Start Num: 31

Candidate Starts for ShawBrad_18:

(Start: 21 @9886 has 11 MA's), (Start: 31 @9931 has 1 MA's), (33, 9952), (37, 9973), (41, 10018), (Start: 42 @10033 has 1 MA's), (48, 10117), (56, 10159), (57, 10171), (68, 10234), (71, 10249), (73, 10258), (76, 10276), (77, 10282), (88, 10330), (112, 10465), (134, 10615), (138, 10645), (184, 10939), (189, 10969), (211, 11173), (218, 11215), (219, 11218), (220, 11224), (223, 11245), (235, 11326), (245, 11392), (250, 11419), (252, 11431), (254, 11449), (255, 11461), (261, 11485), (264, 11497), (267, 11536), (268, 11539), (269, 11548), (272, 11578), (278, 11623), (290, 11683), (293, 11698), (296, 11728), (297, 11740), (302, 11785), (304, 11791), (306, 11803), (307, 11806), (309, 11827), (312, 11857), (313, 11860), (321, 11923), (325, 11950), (326, 11953), (327, 11956), (328, 11962), (334, 11986), (335, 11989), (337, 11995), (339, 12001), (341, 12016), (344, 12034), (349, 12115), (355, 12163), (356, 12169), (360, 12196), (373, 12289), (377, 12322), (382, 12352), (394, 12415), (400, 12433), (407, 12460), (440, 12631), (451, 12694), (455, 12727), (459, 12802), (464, 12826), (465, 12838), (468, 12871), (473, 12934), (478, 12970), (482, 13000), (493, 13078), (494, 13081), (496, 13090), (514, 13201), (518, 13246), (519, 13249), (522, 13264), (531, 13309), (532, 13318), (533, 13327), (534, 13330), (555, 13435), (568, 13483), (571, 13489), (582, 13588), (583, 13591), (589, 13603), (604, 13720), (611, 13753), (619, 13804), (625, 13834), (634, 13894), (647, 13975), (651, 13996), (654, 14029), (666, 14092), (668, 14110), (685, 14224), (690, 14254), (693, 14263), (698, 14302), (699, 14305), (702, 14335), (703, 14356), (730, 14554), (739, 14617), (742, 14623), (751, 14674), (777, 14866), (786, 14953), (791, 14980), (792, 14983), (806, 15058), (810, 15082), (816, 15121), (818, 15157), (823, 15178), (832, 15265), (837, 15307), (843, 15340), (845, 15352), (861, 15496),

Gene: SheckWes_15 Start: 9372, Stop: 14465, Start Num: 28

Candidate Starts for SheckWes_15:

(Start: 28 @9372 has 33 MA's), (46, 9528), (56, 9633), (60, 9657), (68, 9708), (71, 9723), (77, 9756), (88, 9804), (90, 9813), (94, 9855), (96, 9861), (97, 9864), (105, 9900), (109, 9924), (114, 9951), (127, 10038), (131, 10077), (133, 10083), (136, 10098), (138, 10119), (147, 10173), (164, 10290), (175, 10353), (182, 10398), (189, 10437), (193, 10479), (211, 10641), (214, 10650), (215, 10674), (219, 10686), (223, 10713), (224, 10725), (230, 10770), (236, 10800), (239, 10812), (253, 10914), (254, 10917), (267, 11004), (270, 11031), (278, 11091), (284, 11121), (289, 11142), (293, 11166), (299, 11217), (304, 11259), (307, 11274), (308, 11283), (309, 11295), (313, 11328), (318, 11370), (328, 11430), (329, 11433), (330, 11436), (331, 11442), (336, 11460), (341, 11484), (348, 11568), (350, 11589), (359, 11637), (370, 11697), (371, 11700), (373, 11736), (382, 11802), (384, 11817), (390, 11847), (395, 11868), (396, 11871), (397, 11874), (415, 11952), (422, 11976), (424, 11982), (444, 12108), (450, 12138), (455, 12177), (461, 12225), (465, 12246), (466, 12249), (467, 12255), (474, 12321), (481, 12366), (484, 12399), (486, 12420), (498, 12474), (527, 12624), (529, 12633), (544, 12720), (586, 12897), (608, 13038), (616, 13068), (638, 13206), (653, 13287), (678, 13440), (682,

13470), (723, 13686), (725, 13695), (726, 13701), (734, 13737), (757, 13854), (759, 13860), (769, 13902), (774, 13920), (788, 14043), (794, 14067), (796, 14082), (801, 14112), (805, 14139), (807, 14145), (812, 14178), (820, 14247), (822, 14250), (824, 14286), (833, 14358), (834, 14361), (838, 14376),

Gene: SketchMex_15 Start: 9616, Stop: 14415, Start Num: 81

Candidate Starts for SketchMex_15:

(Start: 81 @9616 has 23 MA's), (Start: 86 @9643 has 2 MA's), (108, 9772), (124, 9874), (129, 9919), (132, 9931), (136, 9949), (139, 9976), (140, 9979), (142, 9994), (150, 10045), (151, 10048), (158, 10105), (159, 10108), (168, 10150), (171, 10168), (178, 10213), (187, 10249), (191, 10282), (196, 10315), (197, 10327), (205, 10381), (208, 10420), (210, 10435), (213, 10444), (217, 10471), (225, 10522), (233, 10564), (236, 10582), (239, 10591), (246, 10645), (258, 10708), (261, 10723), (269, 10786), (286, 10876), (292, 10903), (302, 10996), (304, 11002), (307, 11017), (311, 11056), (321, 11134), (327, 11167), (337, 11206), (340, 11224), (341, 11227), (345, 11254), (348, 11311), (350, 11332), (358, 11395), (363, 11431), (366, 11443), (371, 11464), (373, 11500), (379, 11542), (380, 11554), (382, 11566), (390, 11611), (391, 11614), (395, 11632), (396, 11635), (397, 11638), (414, 11713), (416, 11719), (424, 11746), (433, 11806), (436, 11821), (444, 11872), (445, 11875), (446, 11878), (448, 11896), (462, 11995), (465, 12010), (466, 12013), (484, 12163), (486, 12184), (495, 12226), (501, 12253), (502, 12259), (525, 12391), (529, 12403), (544, 12490), (553, 12532), (563, 12568), (580, 12643), (590, 12694), (596, 12733), (606, 12811), (617, 12862), (627, 12919), (650, 13057), (660, 13132), (682, 13276), (685, 13297), (710, 13474), (712, 13480), (757, 13804), (759, 13810), (774, 13870), (776, 13888), (779, 13921), (788, 13993), (796, 14032), (801, 14062), (812, 14128), (817, 14176), (824, 14236), (838, 14326), (848, 14386),

Gene: Socotra_17 Start: 9629, Stop: 14767, Start Num: 28

Candidate Starts for Socotra_17:

(Start: 22 @9605 has 5 MA's), (Start: 28 @9629 has 33 MA's), (32, 9656), (46, 9785), (49, 9860), (77, 10013), (78, 10016), (94, 10112), (97, 10121), (103, 10151), (105, 10157), (107, 10172), (108, 10175), (112, 10196), (122, 10268), (125, 10289), (136, 10355), (138, 10376), (155, 10493), (182, 10655), (189, 10694), (198, 10769), (215, 10928), (219, 10940), (223, 10967), (228, 11012), (230, 11024), (245, 11114), (248, 11132), (252, 11153), (255, 11183), (261, 11207), (264, 11219), (267, 11258), (271, 11291), (288, 11393), (289, 11396), (293, 11420), (304, 11513), (307, 11528), (311, 11567), (317, 11621), (324, 11663), (326, 11675), (333, 11705), (340, 11735), (341, 11738), (351, 11846), (352, 11849), (357, 11900), (371, 11975), (380, 12065), (382, 12077), (390, 12122), (395, 12143), (396, 12146), (397, 12149), (414, 12224), (424, 12257), (428, 12278), (432, 12308), (440, 12356), (442, 12362), (446, 12389), (466, 12524), (481, 12641), (484, 12674), (486, 12695), (487, 12698), (501, 12764), (502, 12770), (504, 12785), (527, 12905), (529, 12914), (544, 12998), (608, 13319), (646, 13538), (653, 13574), (685, 13787), (725, 13979), (734, 14027), (743, 14048), (757, 14156), (774, 14222), (776, 14240), (782, 14300), (788, 14345), (795, 14375), (796, 14384), (801, 14414), (812, 14480), (817, 14528), (824, 14588), (837, 14675), (848, 14738),

Gene: Sopespian_16 Start: 9630, Stop: 14768, Start Num: 28

Candidate Starts for Sopespian_16:

(Start: 22 @9606 has 5 MA's), (Start: 28 @9630 has 33 MA's), (32, 9657), (46, 9786), (49, 9861), (77, 10014), (78, 10017), (94, 10113), (97, 10122), (103, 10152), (105, 10158), (107, 10173), (108, 10176), (112, 10197), (122, 10269), (125, 10290), (136, 10356), (138, 10377), (155, 10494), (182, 10656), (189, 10695), (198, 10770), (215, 10929), (219, 10941), (223, 10968), (228, 11013), (230, 11025), (245, 11115), (248, 11133), (252, 11154), (255, 11184), (261, 11208), (264, 11220), (267, 11259), (271, 11292), (288, 11394), (289, 11397), (293, 11421), (304, 11514), (307, 11529), (311, 11568), (332, 11703), (333, 11706), (341, 11739), (351, 11847), (352, 11850), (357, 11901), (371, 11976), (380, 12066), (382, 12078), (390, 12123), (395, 12144), (396, 12147), (397, 12150), (414, 12225), (424, 12258), (428, 12279), (432, 12309), (440, 12357), (442, 12363), (446, 12390), (466, 12525), (481, 12642), (484, 12675), (486, 12696), (501, 12765), (502, 12771), (504, 12786), (527, 12906),

(529, 12915), (544, 12999), (608, 13320), (646, 13539), (653, 13575), (685, 13788), (725, 13980), (734, 14028), (743, 14049), (757, 14157), (774, 14223), (776, 14241), (788, 14346), (795, 14376), (796, 14385), (801, 14415), (812, 14481), (817, 14529), (824, 14589), (837, 14676), (848, 14739),

Gene: Spooky_18 Start: 9874, Stop: 15489, Start Num: 22

Candidate Starts for Spooky_18:

(Start: 22 @9874 has 5 MA's), (Start: 31 @9919 has 1 MA's), (33, 9940), (37, 9961), (41, 10006), (73, 10246), (91, 10339), (92, 10351), (96, 10375), (97, 10378), (109, 10438), (111, 10447), (112, 10453), (122, 10525), (134, 10603), (136, 10612), (138, 10633), (202, 11053), (211, 11161), (215, 11194), (219, 11206), (223, 11233), (245, 11380), (250, 11407), (254, 11437), (261, 11473), (267, 11524), (268, 11527), (269, 11536), (274, 11572), (283, 11638), (293, 11686), (301, 11770), (302, 11773), (304, 11779), (306, 11791), (307, 11794), (312, 11845), (313, 11848), (317, 11887), (337, 11983), (341, 12004), (363, 12208), (370, 12238), (379, 12319), (382, 12343), (383, 12355), (391, 12391), (407, 12451), (414, 12490), (416, 12496), (417, 12499), (423, 12520), (424, 12523), (440, 12622), (447, 12661), (451, 12685), (455, 12718), (458, 12763), (464, 12817), (465, 12829), (472, 12904), (473, 12925), (478, 12961), (482, 12991), (494, 13072), (496, 13081), (500, 13105), (512, 13186), (514, 13192), (518, 13237), (519, 13240), (522, 13255), (531, 13300), (532, 13309), (533, 13318), (555, 13426), (562, 13459), (568, 13474), (571, 13480), (582, 13579), (583, 13582), (584, 13585), (589, 13594), (604, 13711), (611, 13744), (618, 13792), (619, 13795), (625, 13825), (634, 13885), (647, 13966), (651, 13987), (652, 13990), (666, 14083), (667, 14092), (682, 14194), (685, 14215), (690, 14245), (693, 14254), (698, 14293), (699, 14296), (700, 14299), (702, 14326), (708, 14380), (722, 14497), (736, 14581), (737, 14593), (739, 14605), (742, 14611), (746, 14638), (751, 14662), (777, 14839), (786, 14926), (790, 14944), (791, 14953), (806, 15031), (809, 15049), (819, 15139), (823, 15151), (832, 15238), (837, 15280), (843, 15313), (845, 15325), (861, 15469),

Gene: Squiddly_20 Start: 11289, Stop: 16901, Start Num: 22

Candidate Starts for Squiddly_20:

(Start: 22 @11289 has 5 MA's), (26, 11307), (29, 11316), (Start: 31 @11334 has 1 MA's), (33, 11355), (35, 11367), (41, 11421), (Start: 42 @11436 has 1 MA's), (62, 11604), (63, 11613), (68, 11637), (73, 11661), (76, 11679), (85, 11724), (96, 11790), (97, 11793), (109, 11853), (134, 12018), (138, 12048), (159, 12204), (184, 12342), (186, 12357), (202, 12468), (211, 12576), (218, 12618), (219, 12621), (220, 12627), (223, 12648), (224, 12660), (245, 12795), (250, 12822), (254, 12852), (256, 12870), (267, 12939), (269, 12951), (283, 13053), (293, 13101), (297, 13143), (302, 13188), (304, 13194), (306, 13206), (307, 13209), (309, 13230), (312, 13260), (313, 13263), (316, 13299), (317, 13302), (331, 13377), (337, 13398), (341, 13419), (348, 13503), (359, 13593), (379, 13734), (383, 13770), (390, 13803), (391, 13806), (395, 13824), (407, 13866), (414, 13905), (416, 13911), (417, 13914), (423, 13935), (424, 13938), (440, 14037), (447, 14076), (455, 14133), (459, 14208), (465, 14244), (473, 14340), (478, 14376), (482, 14406), (493, 14484), (494, 14487), (496, 14496), (500, 14520), (504, 14544), (507, 14577), (512, 14601), (514, 14607), (516, 14640), (518, 14652), (519, 14655), (522, 14670), (528, 14688), (531, 14715), (532, 14724), (533, 14733), (534, 14736), (555, 14841), (568, 14889), (571, 14895), (583, 14997), (589, 15009), (604, 15126), (611, 15159), (619, 15210), (620, 15222), (625, 15240), (634, 15300), (647, 15381), (651, 15402), (666, 15498), (668, 15516), (671, 15540), (682, 15609), (685, 15630), (690, 15660), (693, 15669), (698, 15708), (699, 15711), (700, 15714), (702, 15741), (708, 15795), (722, 15912), (736, 15996), (737, 16008), (739, 16020), (742, 16026), (746, 16053), (751, 16077), (777, 16254), (786, 16341), (790, 16359), (791, 16368), (806, 16446), (808, 16461), (810, 16470), (818, 16545), (819, 16554), (823, 16566), (832, 16653), (837, 16695), (843, 16728), (845, 16740), (857, 16815), (861, 16881),

Gene: Starburst_17 Start: 9629, Stop: 14767, Start Num: 28

Candidate Starts for Starburst_17:

(Start: 22 @9605 has 5 MA's), (Start: 28 @9629 has 33 MA's), (32, 9656), (46, 9785), (49, 9860), (77, 10013), (78, 10016), (94, 10112), (97, 10121), (103, 10151), (105, 10157), (107, 10172), (108, 10175), (112, 10196), (122, 10268), (125, 10289), (136, 10355), (138, 10376), (155, 10493), (182, 10655),

(189, 10694), (198, 10769), (215, 10928), (219, 10940), (223, 10967), (228, 11012), (230, 11024), (245, 11114), (248, 11132), (252, 11153), (255, 11183), (261, 11207), (264, 11219), (267, 11258), (271, 11291), (288, 11393), (289, 11396), (293, 11420), (294, 11426), (304, 11513), (307, 11528), (311, 11567), (333, 11705), (340, 11735), (341, 11738), (351, 11846), (352, 11849), (357, 11900), (371, 11975), (382, 12077), (390, 12122), (395, 12143), (396, 12146), (397, 12149), (414, 12224), (424, 12257), (428, 12278), (432, 12308), (440, 12356), (442, 12362), (446, 12389), (466, 12524), (481, 12641), (484, 12674), (486, 12695), (501, 12764), (502, 12770), (504, 12785), (527, 12905), (529, 12914), (544, 12998), (608, 13319), (646, 13538), (653, 13574), (685, 13787), (725, 13979), (734, 14027), (743, 14048), (757, 14156), (774, 14222), (776, 14240), (782, 14300), (788, 14345), (795, 14375), (796, 14384), (801, 14414), (812, 14480), (817, 14528), (824, 14588), (837, 14675), (848, 14738),

Gene: SteamedHams_18 Start: 9646, Stop: 14433, Start Num: 81

Candidate Starts for SteamedHams_18:

(Start: 81 @9646 has 23 MA's), (Start: 86 @9673 has 2 MA's), (99, 9751), (108, 9802), (121, 9889), (124, 9904), (132, 9961), (136, 9979), (139, 10006), (140, 10009), (151, 10078), (158, 10135), (168, 10180), (171, 10198), (178, 10243), (187, 10279), (191, 10312), (199, 10360), (200, 10363), (205, 10411), (208, 10450), (210, 10465), (235, 10606), (243, 10657), (246, 10675), (255, 10729), (286, 10906), (292, 10933), (302, 11026), (304, 11032), (307, 11047), (311, 11086), (312, 11098), (321, 11164), (337, 11236), (340, 11254), (341, 11257), (345, 11284), (373, 11530), (382, 11596), (390, 11641), (395, 11662), (396, 11665), (397, 11668), (408, 11704), (414, 11743), (416, 11749), (424, 11776), (445, 11905), (446, 11908), (448, 11926), (467, 12049), (469, 12064), (484, 12193), (486, 12214), (495, 12256), (501, 12283), (502, 12289), (525, 12421), (529, 12433), (544, 12520), (553, 12562), (563, 12598), (590, 12724), (596, 12763), (617, 12892), (627, 12949), (633, 12991), (650, 13084), (660, 13159), (669, 13222), (682, 13303), (685, 13324), (710, 13501), (712, 13507), (747, 13726), (755, 13804), (757, 13822), (759, 13828), (774, 13888), (776, 13906), (779, 13939), (788, 14011), (796, 14050), (801, 14080), (812, 14146), (817, 14194), (824, 14254), (838, 14344), (848, 14404),

Gene: SummitAcademy_15 Start: 9452, Stop: 14545, Start Num: 28

Candidate Starts for SummitAcademy_15:

(Start: 28 @9452 has 33 MA's), (46, 9608), (60, 9737), (64, 9767), (77, 9836), (80, 9848), (88, 9884), (94, 9935), (97, 9944), (105, 9980), (109, 10004), (118, 10064), (127, 10118), (131, 10157), (133, 10163), (136, 10178), (138, 10199), (164, 10370), (175, 10433), (182, 10478), (193, 10559), (211, 10718), (215, 10751), (219, 10763), (223, 10790), (230, 10847), (236, 10877), (239, 10889), (253, 10991), (254, 10994), (267, 11081), (274, 11129), (293, 11243), (304, 11336), (307, 11351), (309, 11372), (313, 11405), (315, 11435), (318, 11447), (324, 11486), (329, 11510), (330, 11513), (336, 11537), (341, 11561), (350, 11666), (363, 11744), (370, 11774), (371, 11777), (373, 11813), (379, 11855), (382, 11879), (384, 11894), (386, 11909), (390, 11924), (396, 11948), (408, 11987), (410, 12002), (411, 12008), (415, 12029), (422, 12053), (424, 12059), (444, 12185), (450, 12215), (456, 12266), (461, 12302), (465, 12323), (466, 12326), (474, 12398), (481, 12443), (484, 12476), (486, 12497), (498, 12551), (509, 12626), (529, 12710), (544, 12797), (608, 13115), (616, 13145), (638, 13283), (648, 13334), (653, 13364), (678, 13529), (682, 13559), (720, 13739), (726, 13790), (734, 13817), (743, 13838), (757, 13934), (769, 13982), (774, 14000), (788, 14123), (794, 14147), (796, 14162), (801, 14192), (805, 14219), (807, 14225), (812, 14258), (820, 14327), (822, 14330), (824, 14366), (838, 14456),

Gene: Survivors_18 Start: 10474, Stop: 15597, Start Num: 28

Candidate Starts for Survivors_18:

(23, 10453), (Start: 28 @10474 has 33 MA's), (32, 10501), (46, 10630), (54, 10726), (62, 10777), (74, 10834), (79, 10867), (80, 10870), (94, 10957), (98, 10969), (107, 11017), (108, 11020), (109, 11026), (116, 11080), (118, 11086), (125, 11134), (136, 11200), (138, 11221), (198, 11614), (199, 11617), (208, 11719), (219, 11785), (220, 11791), (223, 11812), (254, 12016), (256, 12034), (259, 12040),

(261, 12052), (264, 12064), (267, 12103), (269, 12115), (274, 12151), (281, 12208), (286, 12232), (288, 12238), (304, 12358), (307, 12373), (311, 12412), (320, 12487), (326, 12520), (330, 12535), (331, 12541), (332, 12547), (341, 12583), (351, 12691), (360, 12763), (370, 12817), (390, 12967), (396, 12991), (411, 13051), (412, 13063), (414, 13069), (422, 13096), (423, 13099), (424, 13102), (438, 13195), (440, 13201), (448, 13252), (457, 13321), (463, 13354), (466, 13369), (467, 13375), (473, 13432), (475, 13444), (480, 13483), (481, 13486), (483, 13507), (484, 13519), (486, 13540), (487, 13543), (495, 13582), (498, 13594), (501, 13609), (527, 13750), (544, 13846), (556, 13912), (566, 13933), (570, 13939), (608, 14176), (616, 14206), (622, 14245), (643, 14380), (650, 14410), (653, 14431), (674, 14569), (682, 14617), (733, 14848), (734, 14854), (757, 14983), (774, 15049), (779, 15100), (788, 15172), (796, 15211), (801, 15241), (807, 15274), (812, 15307), (822, 15379), (827, 15451), (837, 15505), (839, 15511), (848, 15568),

Gene: SweatNTears_18 Start: 10127, Stop: 14926, Start Num: 81

Candidate Starts for SweatNTears_18:

(Start: 81 @10127 has 23 MA's), (Start: 86 @10154 has 2 MA's), (88, 10160), (108, 10283), (124, 10385), (129, 10430), (132, 10442), (136, 10460), (139, 10487), (140, 10490), (142, 10505), (150, 10556), (151, 10559), (158, 10616), (159, 10619), (168, 10661), (171, 10679), (178, 10724), (187, 10760), (191, 10793), (196, 10826), (197, 10838), (205, 10892), (208, 10931), (210, 10946), (213, 10955), (217, 10982), (225, 11033), (236, 11093), (239, 11102), (246, 11156), (258, 11219), (261, 11234), (269, 11297), (286, 11387), (292, 11414), (300, 11495), (302, 11507), (304, 11513), (307, 11528), (310, 11558), (311, 11567), (321, 11645), (327, 11678), (337, 11717), (340, 11735), (341, 11738), (345, 11765), (348, 11822), (350, 11843), (366, 11954), (371, 11975), (373, 12011), (379, 12053), (380, 12065), (382, 12077), (390, 12122), (391, 12125), (395, 12143), (396, 12146), (397, 12149), (414, 12224), (424, 12257), (433, 12317), (444, 12383), (445, 12386), (446, 12389), (448, 12407), (462, 12506), (465, 12521), (466, 12524), (484, 12674), (486, 12695), (495, 12737), (501, 12764), (502, 12770), (525, 12902), (529, 12914), (544, 13001), (553, 13043), (563, 13079), (580, 13154), (590, 13205), (596, 13244), (598, 13268), (617, 13373), (627, 13430), (650, 13568), (660, 13643), (682, 13787), (685, 13808), (710, 13985), (712, 13991), (757, 14315), (759, 14321), (774, 14381), (776, 14399), (779, 14432), (788, 14504), (796, 14543), (801, 14573), (812, 14639), (817, 14687), (824, 14747), (838, 14837), (848, 14897),

Gene: Tarnish_15 Start: 9751, Stop: 14835, Start Num: 28

Candidate Starts for Tarnish_15:

(Start: 28 @9751 has 33 MA's), (46, 9907), (60, 10036), (64, 10066), (77, 10135), (80, 10147), (88, 10183), (94, 10234), (97, 10243), (105, 10279), (109, 10303), (118, 10363), (127, 10417), (131, 10456), (136, 10477), (138, 10498), (161, 10657), (164, 10669), (175, 10732), (182, 10777), (193, 10858), (211, 11017), (215, 11050), (219, 11062), (223, 11089), (230, 11146), (236, 11176), (239, 11188), (253, 11290), (254, 11293), (267, 11380), (274, 11428), (293, 11542), (304, 11635), (307, 11650), (309, 11671), (313, 11704), (315, 11734), (318, 11746), (324, 11785), (329, 11809), (330, 11812), (336, 11836), (341, 11860), (350, 11965), (359, 12013), (363, 12043), (367, 12058), (370, 12073), (373, 12112), (379, 12154), (382, 12178), (386, 12208), (390, 12223), (396, 12247), (408, 12286), (410, 12301), (411, 12307), (415, 12328), (422, 12352), (424, 12358), (444, 12484), (450, 12514), (455, 12553), (461, 12601), (465, 12622), (466, 12625), (474, 12697), (481, 12742), (484, 12775), (486, 12796), (498, 12850), (509, 12925), (529, 13009), (544, 13096), (588, 13282), (608, 13414), (616, 13444), (638, 13582), (648, 13633), (653, 13663), (668, 13768), (678, 13819), (682, 13849), (720, 14029), (726, 14080), (734, 14107), (743, 14128), (757, 14224), (769, 14272), (774, 14290), (788, 14413), (794, 14437), (796, 14452), (801, 14482), (805, 14509), (807, 14515), (812, 14548), (820, 14617), (822, 14620), (824, 14656), (838, 14746),

Gene: TaronosaurusRx_17 Start: 10940, Stop: 16063, Start Num: 25

Candidate Starts for TaronosaurusRx_17:

(Start: 25 @10940 has 13 MA's), (27, 10946), (57, 11219), (59, 11228), (66, 11267), (76, 11324), (90, 11387), (106, 11480), (109, 11498), (131, 11651), (138, 11693), (152, 11780), (182, 11972), (183,

11975), (189, 12011), (194, 12059), (211, 12212), (215, 12245), (218, 12254), (220, 12263), (224, 12296), (226, 12308), (229, 12332), (238, 12377), (240, 12386), (245, 12431), (250, 12458), (252, 12470), (254, 12488), (276, 12647), (280, 12671), (281, 12680), (282, 12683), (302, 12824), (303, 12827), (304, 12830), (306, 12842), (307, 12845), (313, 12899), (317, 12938), (337, 13034), (341, 13055), (343, 13070), (345, 13082), (349, 13154), (374, 13316), (406, 13373), (413, 13385), (414, 13388), (424, 13421), (438, 13514), (440, 13520), (442, 13526), (444, 13547), (445, 13550), (446, 13553), (449, 13574), (453, 13604), (459, 13652), (460, 13658), (462, 13667), (467, 13691), (469, 13706), (470, 13709), (471, 13715), (475, 13760), (477, 13769), (489, 13868), (497, 13910), (503, 13943), (510, 13988), (514, 14012), (520, 14057), (526, 14075), (553, 14213), (558, 14234), (564, 14252), (565, 14255), (569, 14264), (607, 14495), (609, 14513), (615, 14537), (640, 14681), (643, 14705), (653, 14756), (675, 14900), (679, 14918), (683, 14957), (689, 14996), (691, 15002), (694, 15011), (698, 15053), (705, 15131), (713, 15170), (732, 15305), (751, 15398), (752, 15401), (756, 15458), (760, 15467), (763, 15479), (770, 15500), (803, 15713), (810, 15752), (822, 15821), (825, 15875), (853, 16025),

Gene: Toast_17 Start: 10235, Stop: 15886, Start Num: 7

Candidate Starts for Toast_17:

(Start: 7 @10235 has 1 MA's), (Start: 8 @10271 has 37 MA's), (Start: 12 @10292 has 1 MA's), (15, 10331), (18, 10376), (34, 10466), (36, 10475), (38, 10487), (40, 10508), (45, 10565), (48, 10637), (51, 10658), (59, 10700), (60, 10703), (63, 10730), (67, 10751), (68, 10754), (72, 10775), (76, 10796), (87, 10847), (88, 10850), (97, 10910), (128, 11093), (138, 11165), (167, 11351), (184, 11453), (186, 11468), (189, 11483), (195, 11540), (219, 11732), (238, 11852), (250, 11933), (254, 11963), (261, 11999), (267, 12050), (288, 12185), (289, 12188), (293, 12212), (299, 12263), (302, 12299), (304, 12305), (307, 12320), (313, 12374), (317, 12413), (321, 12437), (324, 12455), (335, 12503), (337, 12509), (340, 12527), (341, 12530), (343, 12545), (345, 12557), (347, 12605), (370, 12743), (379, 12824), (382, 12848), (383, 12860), (384, 12863), (391, 12896), (415, 12998), (422, 13025), (423, 13028), (424, 13031), (425, 13037), (432, 13082), (434, 13094), (436, 13106), (440, 13130), (443, 13145), (445, 13160), (446, 13163), (450, 13187), (453, 13214), (465, 13295), (476, 13379), (489, 13484), (496, 13517), (505, 13583), (506, 13592), (514, 13631), (516, 13664), (518, 13676), (519, 13679), (522, 13694), (523, 13703), (531, 13739), (532, 13748), (533, 13757), (568, 13913), (569, 13916), (571, 13919), (572, 13940), (583, 14021), (593, 14063), (604, 14150), (611, 14183), (613, 14192), (619, 14234), (639, 14348), (663, 14513), (674, 14597), (675, 14600), (680, 14630), (681, 14633), (684, 14666), (685, 14669), (697, 14747), (703, 14804), (721, 14921), (727, 14972), (748, 15074), (754, 15107), (758, 15173), (773, 15239), (774, 15245), (776, 15263), (779, 15296), (788, 15368), (798, 15410), (799, 15416), (801, 15434), (802, 15440), (805, 15461), (812, 15500), (826, 15641), (839, 15704), (850, 15779), (860, 15872),

Gene: Tolls_18 Start: 9649, Stop: 14436, Start Num: 81

Candidate Starts for Tolls_18:

(Start: 81 @9649 has 23 MA's), (Start: 86 @9676 has 2 MA's), (99, 9754), (108, 9805), (121, 9892), (124, 9907), (132, 9964), (136, 9982), (139, 10009), (140, 10012), (151, 10081), (158, 10138), (168, 10183), (171, 10201), (178, 10246), (181, 10261), (187, 10282), (191, 10315), (199, 10363), (200, 10366), (205, 10414), (208, 10453), (210, 10468), (243, 10660), (246, 10678), (262, 10762), (286, 10909), (292, 10936), (302, 11029), (304, 11035), (307, 11050), (311, 11089), (312, 11101), (321, 11167), (337, 11239), (340, 11257), (341, 11260), (345, 11287), (373, 11533), (382, 11599), (390, 11644), (395, 11665), (396, 11668), (397, 11671), (408, 11707), (414, 11746), (416, 11752), (424, 11779), (445, 11908), (446, 11911), (448, 11929), (467, 12052), (469, 12067), (484, 12196), (486, 12217), (495, 12259), (501, 12286), (502, 12292), (525, 12424), (529, 12436), (544, 12523), (553, 12565), (563, 12601), (590, 12727), (596, 12766), (617, 12895), (627, 12952), (633, 12994), (650, 13087), (660, 13162), (669, 13225), (682, 13306), (685, 13327), (710, 13504), (712, 13510), (747, 13729), (755, 13807), (757, 13825), (759, 13831), (774, 13891), (776, 13909), (779, 13942), (788, 14014), (796, 14053), (801, 14083), (812, 14149), (817, 14197), (824, 14257), (838, 14347), (848, 14407),

Gene: Troje_16 Start: 9601, Stop: 14397, Start Num: 81

Candidate Starts for Troje_16:

(Start: 81 @9601 has 23 MA's), (Start: 86 @9628 has 2 MA's), (88, 9634), (108, 9757), (124, 9859), (129, 9904), (132, 9916), (136, 9934), (139, 9961), (140, 9964), (142, 9979), (150, 10030), (151, 10033), (158, 10090), (159, 10093), (168, 10135), (171, 10153), (178, 10198), (187, 10234), (191, 10267), (196, 10300), (197, 10312), (205, 10366), (208, 10405), (210, 10420), (213, 10429), (217, 10456), (225, 10507), (236, 10567), (239, 10576), (246, 10630), (258, 10693), (261, 10708), (286, 10861), (292, 10888), (300, 10969), (302, 10981), (304, 10987), (307, 11002), (311, 11041), (321, 11119), (327, 11152), (337, 11191), (340, 11209), (341, 11212), (345, 11239), (348, 11296), (350, 11317), (358, 11380), (366, 11428), (371, 11449), (373, 11485), (379, 11527), (382, 11551), (390, 11596), (391, 11599), (395, 11617), (396, 11620), (397, 11623), (414, 11698), (416, 11704), (424, 11731), (433, 11791), (444, 11857), (445, 11860), (446, 11863), (448, 11881), (462, 11980), (465, 11995), (466, 11998), (484, 12148), (486, 12169), (495, 12211), (501, 12238), (502, 12244), (529, 12388), (544, 12475), (553, 12517), (563, 12553), (580, 12628), (590, 12679), (596, 12718), (606, 12796), (617, 12847), (627, 12904), (650, 13042), (660, 13114), (682, 13258), (685, 13279), (710, 13456), (712, 13462), (757, 13786), (759, 13792), (774, 13852), (776, 13870), (779, 13903), (788, 13975), (796, 14014), (801, 14044), (812, 14110), (814, 14128), (817, 14158), (824, 14218), (838, 14308), (848, 14368),

Gene: Typhonomachy_16 Start: 9629, Stop: 14767, Start Num: 28

Candidate Starts for Typhonomachy_16:

(Start: 22 @9605 has 5 MA's), (Start: 28 @9629 has 33 MA's), (32, 9656), (46, 9785), (49, 9860), (77, 10013), (78, 10016), (94, 10112), (97, 10121), (103, 10151), (105, 10157), (107, 10172), (108, 10175), (112, 10196), (122, 10268), (125, 10289), (136, 10355), (138, 10376), (155, 10493), (182, 10655), (189, 10694), (198, 10769), (215, 10928), (219, 10940), (223, 10967), (228, 11012), (230, 11024), (245, 11114), (248, 11132), (252, 11153), (255, 11183), (261, 11207), (264, 11219), (267, 11258), (271, 11291), (273, 11303), (288, 11393), (289, 11396), (293, 11420), (304, 11513), (307, 11528), (311, 11567), (317, 11621), (324, 11663), (333, 11705), (340, 11735), (341, 11738), (351, 11846), (352, 11849), (357, 11900), (371, 11975), (380, 12065), (382, 12077), (388, 12116), (390, 12122), (395, 12143), (396, 12146), (397, 12149), (414, 12224), (424, 12257), (428, 12278), (432, 12308), (440, 12356), (442, 12362), (446, 12389), (466, 12524), (481, 12641), (484, 12674), (486, 12695), (501, 12764), (502, 12770), (504, 12785), (527, 12905), (529, 12914), (544, 12998), (608, 13319), (646, 13538), (653, 13574), (685, 13787), (725, 13979), (734, 14027), (743, 14048), (757, 14156), (774, 14222), (776, 14240), (788, 14345), (795, 14375), (796, 14384), (801, 14414), (812, 14480), (817, 14528), (824, 14588), (837, 14675), (848, 14738),

Gene: UmaThurman_17 Start: 10381, Stop: 15924, Start Num: 8

Candidate Starts for UmaThurman_17:

(Start: 8 @10381 has 37 MA's), (Start: 11 @10396 has 1 MA's), (Start: 12 @10402 has 1 MA's), (Start: 14 @10432 has 1 MA's), (15, 10441), (16, 10444), (18, 10486), (38, 10597), (40, 10618), (65, 10846), (68, 10864), (71, 10879), (72, 10885), (73, 10888), (76, 10906), (82, 10930), (95, 11014), (96, 11017), (105, 11056), (107, 11071), (109, 11080), (135, 11248), (138, 11275), (189, 11593), (211, 11797), (219, 11842), (220, 11848), (223, 11869), (224, 11881), (240, 11971), (245, 12016), (250, 12043), (254, 12073), (267, 12160), (268, 12163), (272, 12202), (293, 12322), (297, 12364), (302, 12409), (304, 12415), (307, 12430), (313, 12484), (317, 12523), (320, 12544), (321, 12547), (324, 12565), (325, 12574), (335, 12613), (337, 12619), (341, 12640), (345, 12667), (370, 12874), (385, 12940), (398, 12979), (405, 12994), (423, 13024), (424, 13027), (432, 13078), (445, 13159), (446, 13162), (452, 13195), (455, 13225), (457, 13249), (505, 13582), (514, 13630), (518, 13675), (519, 13678), (522, 13693), (531, 13738), (532, 13747), (533, 13756), (543, 13807), (557, 13879), (562, 13897), (571, 13918), (582, 14017), (583, 14020), (592, 14053), (600, 14119), (601, 14137), (604, 14152), (611, 14185), (619, 14236), (628, 14287), (635, 14335), (664, 14530), (665, 14533), (674, 14605), (675, 14608), (684, 14674), (685, 14677), (688, 14695), (697, 14755), (703, 14812), (704, 14830),

(716, 14911), (717, 14914), (721, 14929), (743, 15088), (754, 15142), (758, 15208), (772, 15262), (773, 15274), (774, 15280), (788, 15403), (794, 15427), (798, 15445), (801, 15469), (802, 15475), (805, 15496), (812, 15535), (826, 15676), (829, 15688), (839, 15739), (841, 15757), (860, 15907),

Gene: Utz_17 Start: 10248, Stop: 15791, Start Num: 8

Candidate Starts for Utz_17:

(Start: 8 @10248 has 37 MA's), (Start: 11 @10263 has 1 MA's), (Start: 12 @10269 has 1 MA's), (Start: 14 @10299 has 1 MA's), (15, 10308), (16, 10311), (18, 10353), (38, 10464), (40, 10485), (47, 10605), (54, 10647), (65, 10713), (68, 10731), (72, 10752), (73, 10755), (76, 10773), (82, 10797), (95, 10881), (96, 10884), (105, 10923), (107, 10938), (109, 10947), (135, 11115), (138, 11142), (155, 11259), (184, 11430), (189, 11460), (211, 11664), (219, 11709), (223, 11736), (224, 11748), (240, 11838), (250, 11910), (254, 11940), (267, 12027), (268, 12030), (272, 12069), (293, 12189), (297, 12231), (302, 12276), (304, 12282), (306, 12294), (307, 12297), (313, 12351), (317, 12390), (320, 12411), (321, 12414), (324, 12432), (335, 12480), (337, 12486), (341, 12507), (345, 12534), (385, 12807), (398, 12846), (405, 12861), (423, 12891), (424, 12894), (432, 12945), (445, 13026), (446, 13029), (452, 13062), (455, 13092), (457, 13116), (468, 13182), (505, 13449), (508, 13467), (514, 13497), (518, 13542), (519, 13545), (522, 13560), (523, 13569), (531, 13605), (532, 13614), (533, 13623), (543, 13674), (557, 13746), (562, 13764), (571, 13785), (582, 13884), (583, 13887), (592, 13920), (600, 13986), (601, 14004), (604, 14019), (611, 14052), (619, 14103), (628, 14154), (664, 14397), (665, 14400), (674, 14472), (675, 14475), (684, 14541), (685, 14544), (688, 14562), (697, 14622), (703, 14679), (704, 14697), (716, 14778), (717, 14781), (721, 14796), (754, 15009), (758, 15075), (773, 15141), (774, 15147), (788, 15270), (794, 15294), (798, 15312), (801, 15336), (802, 15342), (805, 15363), (812, 15402), (826, 15543), (839, 15606), (841, 15624), (846, 15651), (850, 15681), (860, 15774),

Gene: Vine_17 Start: 10381, Stop: 15480, Start Num: 28

Candidate Starts for Vine_17:

(Start: 28 @10381 has 33 MA's), (46, 10537), (60, 10666), (64, 10696), (77, 10765), (80, 10777), (88, 10813), (90, 10822), (94, 10864), (97, 10873), (105, 10909), (109, 10933), (118, 10993), (127, 11047), (131, 11086), (136, 11107), (138, 11128), (161, 11287), (164, 11299), (175, 11362), (182, 11407), (193, 11488), (211, 11647), (215, 11680), (219, 11692), (223, 11719), (230, 11776), (236, 11806), (239, 11818), (253, 11920), (254, 11923), (267, 12010), (273, 12055), (274, 12058), (293, 12172), (304, 12265), (307, 12280), (309, 12301), (313, 12334), (315, 12364), (318, 12376), (324, 12415), (329, 12439), (330, 12442), (336, 12466), (341, 12490), (350, 12595), (363, 12673), (370, 12703), (371, 12706), (373, 12742), (379, 12784), (382, 12808), (384, 12823), (386, 12838), (390, 12853), (396, 12877), (408, 12916), (410, 12931), (411, 12937), (415, 12958), (422, 12982), (424, 12988), (444, 13114), (450, 13144), (456, 13195), (461, 13231), (465, 13252), (466, 13255), (474, 13327), (481, 13372), (484, 13405), (486, 13426), (498, 13480), (509, 13555), (529, 13639), (544, 13726), (588, 13912), (608, 14044), (616, 14074), (638, 14212), (648, 14263), (653, 14293), (668, 14398), (678, 14449), (682, 14479), (720, 14659), (726, 14710), (734, 14752), (743, 14773), (757, 14869), (769, 14917), (774, 14935), (788, 15058), (794, 15082), (796, 15097), (801, 15127), (805, 15154), (807, 15160), (812, 15193), (820, 15262), (822, 15265), (824, 15301), (838, 15391),

Gene: Walrus_18 Start: 10497, Stop: 16019, Start Num: 12

Candidate Starts for Walrus_18:

(Start: 8 @10476 has 37 MA's), (Start: 11 @10491 has 1 MA's), (Start: 12 @10497 has 1 MA's), (Start: 14 @10527 has 1 MA's), (15, 10536), (16, 10539), (18, 10581), (38, 10692), (40, 10713), (47, 10833), (65, 10941), (68, 10959), (73, 10983), (76, 11001), (82, 11025), (95, 11109), (97, 11115), (105, 11151), (107, 11166), (109, 11175), (112, 11190), (118, 11235), (120, 11256), (135, 11343), (138, 11370), (144, 11403), (155, 11487), (164, 11541), (171, 11583), (184, 11658), (189, 11688), (211, 11892), (219, 11937), (245, 12111), (250, 12138), (254, 12168), (267, 12255), (268, 12258), (272, 12297), (274, 12303), (281, 12360), (293, 12417), (297, 12459), (302, 12504), (304, 12510), (307, 12525), (313, 12579), (317, 12618), (320, 12639), (321, 12642), (324, 12660), (330, 12687), (335, 12708),

(337, 12714), (341, 12735), (349, 12834), (385, 13035), (389, 13050), (398, 13074), (405, 13089),
(423, 13119), (424, 13122), (432, 13173), (445, 13254), (446, 13257), (452, 13290), (455, 13320),
(457, 13344), (468, 13410), (505, 13677), (514, 13725), (518, 13770), (519, 13773), (522, 13788),
(528, 13806), (531, 13833), (532, 13842), (533, 13851), (543, 13902), (557, 13974), (562, 13992),
(571, 14013), (582, 14112), (583, 14115), (592, 14148), (600, 14214), (601, 14232), (604, 14247),
(611, 14280), (619, 14331), (628, 14382), (664, 14625), (665, 14628), (674, 14700), (675, 14703),
(684, 14769), (685, 14772), (688, 14790), (697, 14850), (703, 14907), (704, 14925), (716, 15006),
(717, 15009), (721, 15024), (743, 15183), (754, 15237), (758, 15303), (759, 15309), (773, 15369),
(774, 15375), (788, 15498), (794, 15522), (798, 15540), (801, 15564), (802, 15570), (805, 15591),
(812, 15630), (826, 15771), (829, 15783), (839, 15834), (841, 15852), (859, 15981), (860, 16002),

Gene: Whack_16 Start: 10349, Stop: 16249, Start Num: 1

Candidate Starts for Whack_16:

(Start: 1 @10349 has 1 MA's), (2, 10358), (3, 10397), (6, 10445), (46, 10874), (49, 10949), (50, 10955),
(61, 11018), (62, 11021), (68, 11054), (77, 11102), (78, 11105), (93, 11192), (98, 11213), (101, 11231),
(109, 11270), (115, 11306), (120, 11354), (124, 11384), (133, 11444), (146, 11567), (175, 11777),
(179, 11819), (206, 12029), (212, 12083), (221, 12134), (232, 12215), (251, 12341), (253, 12359),
(287, 12593), (299, 12674), (302, 12710), (304, 12716), (307, 12731), (312, 12782), (313, 12785),
(319, 12836), (323, 12860), (324, 12866), (331, 12899), (339, 12926), (341, 12941), (346, 13004),
(348, 13025), (355, 13088), (363, 13145), (377, 13247), (402, 13343), (419, 13400), (421, 13406),
(422, 13409), (439, 13511), (443, 13529), (447, 13553), (481, 13802), (483, 13823), (491, 13880),
(513, 14024), (521, 14081), (541, 14183), (546, 14207), (548, 14210), (564, 14270), (567, 14276),
(576, 14324), (591, 14399), (602, 14498), (610, 14549), (612, 14555), (627, 14636), (629, 14645),
(676, 14966), (681, 14990), (686, 15026), (692, 15065), (698, 15110), (706, 15170), (711, 15212),
(714, 15242), (715, 15245), (740, 15416), (741, 15419), (745, 15446), (761, 15578), (765, 15593),
(768, 15599), (771, 15608), (777, 15656), (813, 15905), (822, 15977), (828, 16052), (836, 16097),
(842, 16127), (843, 16136), (849, 16172), (852, 16187),

Gene: Whitney_19 Start: 10672, Stop: 16305, Start Num: 22

Candidate Starts for Whitney_19:

(Start: 22 @10672 has 5 MA's), (Start: 31 @10717 has 1 MA's), (33, 10738), (37, 10759), (41, 10804),
(Start: 42 @10819 has 1 MA's), (48, 10903), (56, 10945), (57, 10957), (68, 11020), (71, 11035), (73,
11044), (76, 11062), (77, 11068), (88, 11116), (112, 11251), (134, 11401), (138, 11431), (171, 11650),
(184, 11725), (189, 11755), (211, 11959), (219, 12004), (220, 12010), (223, 12031), (226, 12055),
(235, 12112), (245, 12178), (250, 12205), (252, 12217), (254, 12235), (255, 12247), (261, 12271),
(264, 12283), (267, 12322), (268, 12325), (269, 12334), (272, 12364), (278, 12409), (290, 12469),
(293, 12484), (296, 12514), (297, 12526), (302, 12571), (304, 12577), (307, 12592), (310, 12622),
(312, 12643), (313, 12646), (321, 12709), (325, 12736), (326, 12739), (327, 12742), (328, 12748),
(334, 12772), (335, 12775), (337, 12781), (339, 12787), (341, 12802), (344, 12820), (346, 12865),
(355, 12949), (356, 12955), (360, 12982), (373, 13075), (374, 13084), (382, 13141), (383, 13153),
(391, 13189), (392, 13195), (404, 13237), (407, 13249), (414, 13288), (416, 13294), (417, 13297),
(422, 13315), (423, 13318), (424, 13321), (429, 13345), (440, 13420), (447, 13459), (451, 13483),
(455, 13516), (465, 13627), (468, 13660), (473, 13723), (478, 13759), (482, 13789), (493, 13867),
(494, 13870), (496, 13879), (500, 13903), (514, 13990), (518, 14035), (519, 14038), (522, 14053),
(531, 14098), (532, 14107), (533, 14116), (534, 14119), (555, 14224), (568, 14272), (571, 14278),
(582, 14377), (583, 14380), (589, 14392), (604, 14509), (611, 14542), (619, 14593), (625, 14623),
(634, 14683), (647, 14764), (651, 14785), (652, 14788), (654, 14818), (666, 14881), (667, 14890),
(668, 14899), (685, 15013), (690, 15043), (698, 15091), (699, 15094), (702, 15124), (703, 15145),
(730, 15343), (739, 15406), (742, 15412), (751, 15463), (777, 15655), (786, 15742), (791, 15769),
(792, 15772), (806, 15847), (810, 15871), (816, 15910), (818, 15946), (823, 15967), (832, 16054),
(837, 16096), (843, 16129), (845, 16141), (861, 16285),

Gene: William_17 Start: 10217, Stop: 15835, Start Num: 8

Candidate Starts for William_17:

(Start: 7 @10181 has 1 MA's), (Start: 8 @10217 has 37 MA's), (Start: 12 @10238 has 1 MA's), (16, 10280), (18, 10322), (34, 10412), (36, 10421), (38, 10433), (40, 10454), (46, 10520), (48, 10583), (51, 10604), (59, 10646), (60, 10649), (63, 10676), (67, 10697), (68, 10700), (72, 10721), (76, 10742), (87, 10793), (88, 10796), (97, 10856), (128, 11039), (138, 11111), (167, 11297), (184, 11399), (186, 11414), (189, 11429), (195, 11486), (219, 11678), (238, 11798), (250, 11879), (254, 11909), (261, 11945), (267, 11996), (288, 12131), (289, 12134), (293, 12158), (299, 12209), (302, 12245), (304, 12251), (307, 12266), (313, 12320), (317, 12359), (321, 12383), (324, 12401), (335, 12449), (337, 12455), (340, 12473), (341, 12476), (343, 12491), (345, 12503), (347, 12551), (370, 12689), (379, 12770), (382, 12794), (383, 12806), (384, 12809), (391, 12842), (415, 12944), (422, 12971), (423, 12974), (424, 12977), (425, 12983), (434, 13040), (436, 13052), (440, 13076), (443, 13091), (445, 13106), (446, 13109), (450, 13133), (453, 13160), (465, 13241), (476, 13325), (489, 13430), (496, 13463), (505, 13529), (506, 13538), (514, 13577), (516, 13610), (518, 13622), (519, 13625), (522, 13640), (523, 13649), (531, 13685), (532, 13694), (533, 13703), (568, 13859), (569, 13862), (571, 13865), (572, 13886), (583, 13967), (593, 14009), (604, 14096), (611, 14129), (613, 14138), (619, 14180), (639, 14294), (674, 14543), (675, 14546), (680, 14576), (681, 14579), (683, 14603), (684, 14612), (685, 14615), (697, 14693), (703, 14750), (721, 14867), (727, 14918), (754, 15056), (758, 15122), (773, 15188), (774, 15194), (776, 15212), (786, 15305), (788, 15317), (799, 15365), (801, 15383), (802, 15389), (805, 15410), (812, 15449), (826, 15590), (839, 15653), (850, 15728), (860, 15821),

Gene: Wisp_16 Start: 10065, Stop: 15509, Start Num: 14

Candidate Starts for Wisp_16:

(Start: 8 @10014 has 37 MA's), (Start: 11 @10029 has 1 MA's), (Start: 12 @10035 has 1 MA's), (Start: 14 @10065 has 1 MA's), (15, 10074), (16, 10077), (18, 10119), (38, 10230), (40, 10251), (47, 10371), (54, 10413), (60, 10446), (65, 10479), (68, 10497), (71, 10512), (72, 10518), (73, 10521), (76, 10539), (82, 10563), (95, 10647), (105, 10689), (107, 10704), (109, 10713), (135, 10881), (138, 10908), (155, 11025), (184, 11196), (189, 11226), (211, 11430), (219, 11475), (223, 11502), (224, 11514), (240, 11604), (245, 11649), (250, 11676), (254, 11706), (267, 11793), (268, 11796), (272, 11835), (281, 11898), (293, 11955), (297, 11997), (302, 12042), (304, 12048), (306, 12060), (307, 12063), (313, 12117), (317, 12156), (320, 12177), (321, 12180), (324, 12198), (330, 12225), (335, 12246), (337, 12252), (340, 12270), (341, 12273), (342, 12279), (345, 12300), (385, 12573), (393, 12600), (398, 12612), (405, 12627), (423, 12657), (424, 12660), (445, 12792), (446, 12795), (452, 12828), (455, 12858), (457, 12882), (468, 12948), (505, 13215), (514, 13263), (518, 13308), (519, 13311), (522, 13326), (531, 13371), (532, 13380), (533, 13389), (543, 13440), (557, 13512), (562, 13530), (571, 13551), (582, 13650), (583, 13653), (592, 13686), (600, 13752), (601, 13770), (604, 13785), (611, 13818), (619, 13869), (628, 13920), (664, 14163), (665, 14166), (674, 14238), (675, 14241), (684, 14307), (685, 14310), (688, 14328), (697, 14388), (716, 14544), (717, 14547), (721, 14562), (743, 14733), (754, 14787), (762, 14844), (766, 14859), (775, 14907), (780, 14952), (803, 15072), (804, 15081), (811, 15120), (821, 15192), (826, 15261), (829, 15273), (839, 15324), (841, 15342), (850, 15399), (860, 15492),

Gene: Wocket_18 Start: 10497, Stop: 15983, Start Num: 8

Candidate Starts for Wocket_18:

(Start: 8 @10497 has 37 MA's), (Start: 11 @10512 has 1 MA's), (Start: 14 @10548 has 1 MA's), (15, 10557), (16, 10560), (18, 10602), (38, 10713), (40, 10734), (47, 10854), (65, 10962), (68, 10980), (72, 11001), (73, 11004), (76, 11022), (82, 11046), (88, 11076), (95, 11130), (97, 11136), (105, 11172), (107, 11187), (109, 11196), (135, 11364), (138, 11391), (164, 11562), (171, 11604), (184, 11679), (189, 11709), (211, 11913), (219, 11958), (220, 11964), (223, 11985), (224, 11997), (240, 12087), (245, 12132), (250, 12159), (254, 12189), (267, 12276), (272, 12318), (283, 12390), (293, 12438), (297, 12480), (302, 12525), (304, 12531), (307, 12546), (313, 12600), (317, 12639), (320, 12660), (321, 12663), (324, 12681), (330, 12708), (335, 12729), (337, 12735), (341, 12756), (345, 12783), (398, 13095), (405, 13110), (423, 13140), (424, 13143), (432, 13194), (445, 13275), (446, 13278),

(452, 13311), (455, 13341), (457, 13365), (468, 13431), (505, 13698), (512, 13740), (514, 13746), (516, 13779), (518, 13791), (519, 13794), (522, 13809), (528, 13827), (531, 13854), (532, 13863), (533, 13872), (555, 13980), (568, 14028), (569, 14031), (571, 14034), (572, 14055), (583, 14136), (584, 14139), (604, 14265), (611, 14298), (618, 14346), (619, 14349), (621, 14364), (628, 14400), (665, 14646), (674, 14718), (675, 14721), (684, 14787), (685, 14790), (688, 14808), (697, 14868), (716, 15024), (721, 15042), (743, 15207), (754, 15261), (762, 15318), (766, 15333), (775, 15381), (780, 15426), (803, 15546), (804, 15555), (811, 15594), (821, 15666), (826, 15735), (839, 15798), (841, 15816), (847, 15846),

Gene: Wolfwood_20 Start: 10618, Stop: 15741, Start Num: 28

Candidate Starts for Wolfwood_20:

(23, 10597), (Start: 28 @10618 has 33 MA's), (32, 10645), (46, 10774), (54, 10870), (62, 10921), (74, 10978), (79, 11011), (80, 11014), (94, 11101), (98, 11113), (107, 11161), (108, 11164), (109, 11170), (110, 11173), (116, 11224), (118, 11230), (125, 11278), (136, 11344), (138, 11365), (198, 11758), (199, 11761), (208, 11863), (216, 11920), (218, 11926), (219, 11929), (220, 11935), (223, 11956), (240, 12058), (242, 12085), (254, 12160), (256, 12178), (261, 12196), (264, 12208), (267, 12247), (274, 12295), (281, 12352), (286, 12376), (288, 12382), (304, 12502), (307, 12517), (311, 12556), (320, 12631), (326, 12664), (330, 12679), (331, 12685), (332, 12691), (341, 12727), (351, 12835), (360, 12907), (370, 12961), (382, 13066), (390, 13111), (396, 13135), (411, 13195), (412, 13207), (414, 13213), (422, 13240), (423, 13243), (424, 13246), (438, 13339), (440, 13345), (448, 13396), (457, 13465), (463, 13498), (466, 13513), (467, 13519), (473, 13576), (475, 13588), (480, 13627), (481, 13630), (483, 13651), (484, 13663), (486, 13684), (487, 13687), (495, 13726), (498, 13738), (501, 13753), (527, 13894), (544, 13990), (556, 14056), (566, 14077), (570, 14083), (608, 14320), (616, 14350), (643, 14524), (650, 14554), (653, 14575), (674, 14713), (682, 14761), (733, 14992), (734, 14998), (757, 15127), (774, 15193), (779, 15244), (788, 15316), (796, 15355), (801, 15385), (807, 15418), (812, 15451), (827, 15595), (837, 15649), (839, 15655), (848, 15712),

Gene: Yarn_15 Start: 9639, Stop: 14426, Start Num: 81

Candidate Starts for Yarn_15:

(Start: 81 @9639 has 23 MA's), (Start: 86 @9666 has 2 MA's), (99, 9744), (108, 9795), (121, 9882), (124, 9897), (132, 9954), (136, 9972), (139, 9999), (140, 10002), (151, 10071), (158, 10128), (168, 10173), (171, 10191), (178, 10236), (187, 10272), (191, 10305), (199, 10353), (200, 10356), (205, 10404), (208, 10443), (210, 10458), (243, 10650), (246, 10668), (262, 10752), (286, 10899), (292, 10926), (302, 11019), (304, 11025), (307, 11040), (311, 11079), (312, 11091), (321, 11157), (337, 11229), (340, 11247), (341, 11250), (345, 11277), (373, 11523), (382, 11589), (390, 11634), (395, 11655), (396, 11658), (397, 11661), (408, 11697), (414, 11736), (416, 11742), (424, 11769), (445, 11898), (446, 11901), (448, 11919), (467, 12042), (469, 12057), (484, 12186), (486, 12207), (495, 12249), (501, 12276), (502, 12282), (525, 12414), (529, 12426), (544, 12513), (553, 12555), (563, 12591), (590, 12717), (596, 12756), (617, 12885), (627, 12942), (633, 12984), (650, 13077), (660, 13152), (669, 13215), (682, 13296), (685, 13317), (710, 13494), (712, 13500), (747, 13719), (755, 13797), (757, 13815), (759, 13821), (774, 13881), (776, 13899), (779, 13932), (788, 14004), (796, 14043), (801, 14073), (812, 14139), (817, 14187), (824, 14247), (838, 14337), (848, 14397),

Gene: Yucky_16 Start: 10241, Stop: 15340, Start Num: 28

Candidate Starts for Yucky_16:

(Start: 28 @10241 has 33 MA's), (46, 10397), (64, 10556), (77, 10625), (88, 10673), (94, 10724), (97, 10733), (105, 10769), (109, 10793), (118, 10853), (127, 10907), (131, 10946), (133, 10952), (136, 10967), (138, 10988), (161, 11147), (164, 11159), (175, 11222), (182, 11267), (193, 11348), (211, 11507), (215, 11540), (219, 11552), (223, 11579), (230, 11636), (236, 11666), (239, 11678), (253, 11780), (254, 11783), (267, 11870), (273, 11915), (274, 11918), (293, 12032), (304, 12125), (307, 12140), (309, 12161), (313, 12194), (315, 12224), (318, 12236), (324, 12275), (329, 12299), (330, 12302), (336, 12326), (341, 12350), (350, 12455), (359, 12503), (363, 12533), (367, 12548), (370, 12563), (373, 12602), (379, 12644), (382, 12668), (384, 12683), (386, 12698), (390, 12713), (396,

12737), (408, 12776), (410, 12791), (411, 12797), (415, 12818), (422, 12842), (424, 12848), (444, 12974), (450, 13004), (454, 13040), (455, 13043), (461, 13091), (465, 13112), (466, 13115), (474, 13187), (481, 13232), (484, 13265), (486, 13286), (498, 13340), (509, 13415), (529, 13499), (544, 13586), (588, 13772), (608, 13904), (616, 13934), (638, 14072), (648, 14123), (653, 14153), (668, 14258), (678, 14309), (682, 14339), (720, 14519), (726, 14570), (734, 14612), (743, 14633), (757, 14729), (769, 14777), (774, 14795), (788, 14918), (794, 14942), (796, 14957), (801, 14987), (805, 15014), (807, 15020), (812, 15053), (820, 15122), (822, 15125), (824, 15161), (838, 15251),

Gene: Yummy_17 Start: 9515, Stop: 14311, Start Num: 81

Candidate Starts for Yummy_17:

(Start: 81 @9515 has 23 MA's), (Start: 86 @9542 has 2 MA's), (88, 9548), (108, 9671), (124, 9773), (129, 9818), (132, 9830), (136, 9848), (139, 9875), (140, 9878), (142, 9893), (150, 9944), (151, 9947), (158, 10004), (159, 10007), (160, 10010), (168, 10049), (171, 10067), (178, 10112), (187, 10148), (191, 10181), (196, 10214), (197, 10226), (205, 10280), (208, 10319), (210, 10334), (213, 10343), (217, 10370), (225, 10421), (236, 10481), (239, 10490), (246, 10544), (258, 10607), (261, 10622), (269, 10685), (286, 10775), (292, 10802), (302, 10895), (304, 10901), (307, 10916), (311, 10955), (321, 11033), (327, 11066), (337, 11105), (340, 11123), (341, 11126), (345, 11153), (348, 11210), (350, 11231), (366, 11342), (371, 11363), (373, 11399), (379, 11441), (380, 11453), (382, 11465), (390, 11510), (391, 11513), (395, 11531), (396, 11534), (397, 11537), (414, 11612), (424, 11645), (433, 11705), (444, 11771), (445, 11774), (446, 11777), (448, 11795), (462, 11894), (465, 11909), (466, 11912), (484, 12062), (486, 12083), (495, 12125), (501, 12152), (502, 12158), (525, 12290), (529, 12302), (544, 12389), (553, 12431), (563, 12467), (573, 12503), (580, 12542), (590, 12593), (596, 12632), (606, 12710), (617, 12761), (627, 12818), (650, 12956), (660, 13028), (682, 13172), (685, 13193), (710, 13370), (712, 13376), (757, 13700), (759, 13706), (774, 13766), (776, 13784), (779, 13817), (788, 13889), (796, 13928), (801, 13958), (812, 14024), (814, 14042), (817, 14072), (824, 14132), (838, 14222), (848, 14282),

Gene: ZAYM_17 Start: 10932, Stop: 16055, Start Num: 25

Candidate Starts for ZAYM_17:

(Start: 25 @10932 has 13 MA's), (27, 10938), (57, 11211), (59, 11220), (66, 11259), (76, 11316), (90, 11379), (106, 11472), (109, 11490), (131, 11643), (138, 11685), (152, 11772), (182, 11964), (183, 11967), (189, 12003), (194, 12051), (211, 12204), (215, 12237), (218, 12246), (220, 12255), (224, 12288), (226, 12300), (229, 12324), (238, 12369), (240, 12378), (250, 12450), (252, 12462), (254, 12480), (276, 12639), (280, 12663), (281, 12672), (282, 12675), (302, 12816), (303, 12819), (304, 12822), (307, 12837), (313, 12891), (317, 12930), (337, 13026), (341, 13047), (343, 13062), (345, 13074), (349, 13146), (374, 13308), (406, 13365), (413, 13377), (414, 13380), (424, 13413), (438, 13506), (440, 13512), (442, 13518), (444, 13539), (445, 13542), (446, 13545), (449, 13566), (453, 13596), (459, 13644), (460, 13650), (462, 13659), (467, 13683), (469, 13698), (470, 13701), (471, 13707), (475, 13752), (477, 13761), (489, 13860), (497, 13902), (503, 13935), (510, 13980), (514, 14004), (520, 14049), (526, 14067), (553, 14205), (558, 14226), (564, 14244), (565, 14247), (569, 14256), (607, 14487), (609, 14505), (615, 14529), (640, 14673), (643, 14697), (653, 14748), (675, 14892), (679, 14910), (683, 14949), (689, 14988), (691, 14994), (694, 15003), (698, 15045), (705, 15123), (713, 15162), (732, 15297), (751, 15390), (752, 15393), (756, 15450), (760, 15459), (763, 15471), (770, 15492), (803, 15705), (810, 15744), (822, 15813), (825, 15867), (853, 16017),

Gene: Zarbodnamra_17 Start: 10273, Stop: 15795, Start Num: 8

Candidate Starts for Zarbodnamra_17:

(Start: 8 @10273 has 37 MA's), (Start: 11 @10288 has 1 MA's), (Start: 12 @10294 has 1 MA's), (Start: 14 @10324 has 1 MA's), (15, 10333), (16, 10336), (18, 10378), (38, 10489), (40, 10510), (65, 10738), (68, 10756), (71, 10771), (72, 10777), (73, 10780), (76, 10798), (82, 10822), (95, 10906), (96, 10909), (105, 10948), (107, 10963), (109, 10972), (135, 11140), (138, 11167), (184, 11455), (189, 11485), (211, 11689), (219, 11734), (223, 11761), (224, 11773), (240, 11863), (245, 11908), (250, 11935), (254, 11965), (267, 12052), (268, 12055), (272, 12094), (285, 12178), (293, 12214), (297, 12256),

(302, 12301), (304, 12307), (306, 12319), (307, 12322), (313, 12376), (317, 12415), (320, 12436), (321, 12439), (324, 12457), (325, 12466), (330, 12484), (335, 12505), (337, 12511), (341, 12532), (345, 12559), (350, 12637), (389, 12826), (398, 12850), (404, 12862), (405, 12865), (418, 12880), (423, 12895), (424, 12898), (432, 12949), (445, 13030), (446, 13033), (452, 13066), (455, 13096), (457, 13120), (505, 13453), (514, 13501), (518, 13546), (519, 13549), (522, 13564), (531, 13609), (532, 13618), (533, 13627), (543, 13678), (557, 13750), (562, 13768), (571, 13789), (582, 13888), (583, 13891), (592, 13924), (600, 13990), (601, 14008), (604, 14023), (611, 14056), (619, 14107), (628, 14158), (664, 14401), (665, 14404), (674, 14476), (675, 14479), (684, 14545), (685, 14548), (688, 14566), (697, 14626), (703, 14683), (704, 14701), (716, 14782), (717, 14785), (721, 14800), (743, 14959), (754, 15013), (758, 15079), (759, 15085), (773, 15145), (774, 15151), (788, 15274), (794, 15298), (798, 15316), (801, 15340), (802, 15346), (805, 15367), (812, 15406), (826, 15547), (829, 15559), (839, 15610), (841, 15628), (860, 15778),

Gene: Zareef_18 Start: 10620, Stop: 15749, Start Num: 28

Candidate Starts for Zareef_18:

(23, 10599), (Start: 28 @10620 has 33 MA's), (32, 10647), (46, 10776), (54, 10872), (62, 10923), (74, 10980), (79, 11013), (80, 11016), (94, 11103), (98, 11115), (107, 11163), (108, 11166), (109, 11172), (110, 11175), (116, 11226), (118, 11232), (125, 11280), (136, 11346), (138, 11367), (198, 11760), (199, 11763), (208, 11865), (216, 11922), (218, 11928), (219, 11931), (220, 11937), (223, 11958), (240, 12060), (242, 12087), (254, 12162), (256, 12180), (261, 12198), (264, 12210), (267, 12249), (274, 12297), (281, 12354), (286, 12378), (288, 12384), (304, 12504), (307, 12519), (311, 12558), (320, 12633), (326, 12666), (330, 12681), (331, 12687), (332, 12693), (341, 12729), (351, 12837), (360, 12909), (370, 12963), (382, 13068), (390, 13113), (396, 13137), (405, 13167), (411, 13197), (412, 13209), (414, 13215), (422, 13242), (424, 13248), (438, 13341), (440, 13347), (448, 13398), (457, 13467), (463, 13500), (466, 13515), (467, 13521), (473, 13578), (481, 13632), (483, 13653), (484, 13665), (486, 13686), (487, 13689), (501, 13755), (527, 13896), (544, 13992), (551, 14025), (556, 14058), (566, 14079), (570, 14085), (608, 14322), (616, 14352), (643, 14526), (650, 14556), (653, 14577), (682, 14769), (683, 14778), (709, 14859), (733, 15000), (734, 15006), (757, 15135), (774, 15201), (779, 15252), (788, 15324), (796, 15363), (797, 15366), (801, 15393), (807, 15426), (812, 15459), (822, 15531), (827, 15603), (837, 15657), (839, 15663), (848, 15720),

Gene: ZiggyZoo_16 Start: 10043, Stop: 15586, Start Num: 8

Candidate Starts for ZiggyZoo_16:

(Start: 8 @10043 has 37 MA's), (Start: 11 @10058 has 1 MA's), (Start: 12 @10064 has 1 MA's), (Start: 14 @10094 has 1 MA's), (15, 10103), (16, 10106), (18, 10148), (38, 10259), (40, 10280), (65, 10508), (68, 10526), (71, 10541), (72, 10547), (73, 10550), (76, 10568), (82, 10592), (95, 10676), (97, 10682), (105, 10718), (107, 10733), (109, 10742), (135, 10910), (138, 10937), (155, 11054), (164, 11108), (184, 11225), (189, 11255), (211, 11459), (219, 11504), (223, 11531), (224, 11543), (240, 11633), (245, 11678), (250, 11705), (254, 11735), (267, 11822), (268, 11825), (272, 11864), (293, 11984), (297, 12026), (302, 12071), (304, 12077), (306, 12089), (307, 12092), (313, 12146), (317, 12185), (320, 12206), (321, 12209), (324, 12227), (330, 12254), (335, 12275), (337, 12281), (341, 12302), (345, 12329), (349, 12401), (370, 12536), (389, 12617), (398, 12641), (405, 12656), (423, 12686), (424, 12689), (432, 12740), (445, 12821), (446, 12824), (452, 12857), (455, 12887), (457, 12911), (468, 12977), (505, 13244), (508, 13262), (514, 13292), (518, 13337), (519, 13340), (522, 13355), (523, 13364), (531, 13400), (532, 13409), (533, 13418), (543, 13469), (557, 13541), (562, 13559), (571, 13580), (582, 13679), (583, 13682), (592, 13715), (600, 13781), (601, 13799), (604, 13814), (611, 13847), (619, 13898), (628, 13949), (664, 14192), (665, 14195), (674, 14267), (675, 14270), (684, 14336), (685, 14339), (688, 14357), (697, 14417), (703, 14474), (704, 14492), (716, 14573), (717, 14576), (721, 14591), (743, 14750), (754, 14804), (758, 14870), (759, 14876), (773, 14936), (774, 14942), (779, 14993), (788, 15065), (794, 15089), (798, 15107), (801, 15131), (802, 15137), (805, 15158), (812, 15197), (826, 15338), (829, 15350), (839, 15401), (841, 15419), (860, 15569),

Gene: Zilla_17 Start: 10345, Stop: 15813, Start Num: 12

Candidate Starts for Zilla_17:

(Start: 8 @10324 has 37 MA's), (Start: 11 @10339 has 1 MA's), (Start: 12 @10345 has 1 MA's), (Start: 14 @10375 has 1 MA's), (15, 10384), (16, 10387), (18, 10429), (38, 10540), (40, 10561), (47, 10681), (54, 10723), (65, 10789), (68, 10807), (72, 10828), (73, 10831), (76, 10849), (82, 10873), (95, 10957), (105, 10999), (107, 11014), (109, 11023), (135, 11191), (138, 11218), (155, 11335), (184, 11506), (189, 11536), (211, 11740), (219, 11785), (223, 11812), (224, 11824), (226, 11836), (240, 11914), (245, 11959), (250, 11986), (254, 12016), (267, 12103), (268, 12106), (272, 12145), (293, 12265), (297, 12307), (304, 12358), (307, 12373), (313, 12427), (317, 12466), (320, 12487), (321, 12490), (324, 12508), (330, 12535), (335, 12556), (337, 12562), (341, 12583), (344, 12601), (345, 12610), (385, 12883), (405, 12937), (423, 12967), (424, 12970), (432, 13021), (445, 13102), (446, 13105), (452, 13138), (455, 13168), (457, 13192), (468, 13258), (505, 13525), (514, 13573), (516, 13606), (518, 13618), (519, 13621), (531, 13681), (532, 13690), (533, 13699), (543, 13750), (557, 13822), (562, 13840), (571, 13861), (582, 13960), (583, 13963), (592, 13996), (600, 14062), (601, 14080), (604, 14095), (611, 14128), (619, 14179), (628, 14230), (639, 14299), (664, 14473), (665, 14476), (674, 14548), (675, 14551), (684, 14617), (685, 14620), (688, 14638), (697, 14698), (703, 14755), (704, 14773), (716, 14854), (717, 14857), (721, 14872), (743, 15043), (754, 15097), (766, 15169), (769, 15178), (775, 15214), (783, 15274), (785, 15292), (789, 15310), (800, 15355), (804, 15388), (821, 15499), (826, 15568), (839, 15631), (841, 15649), (860, 15799),