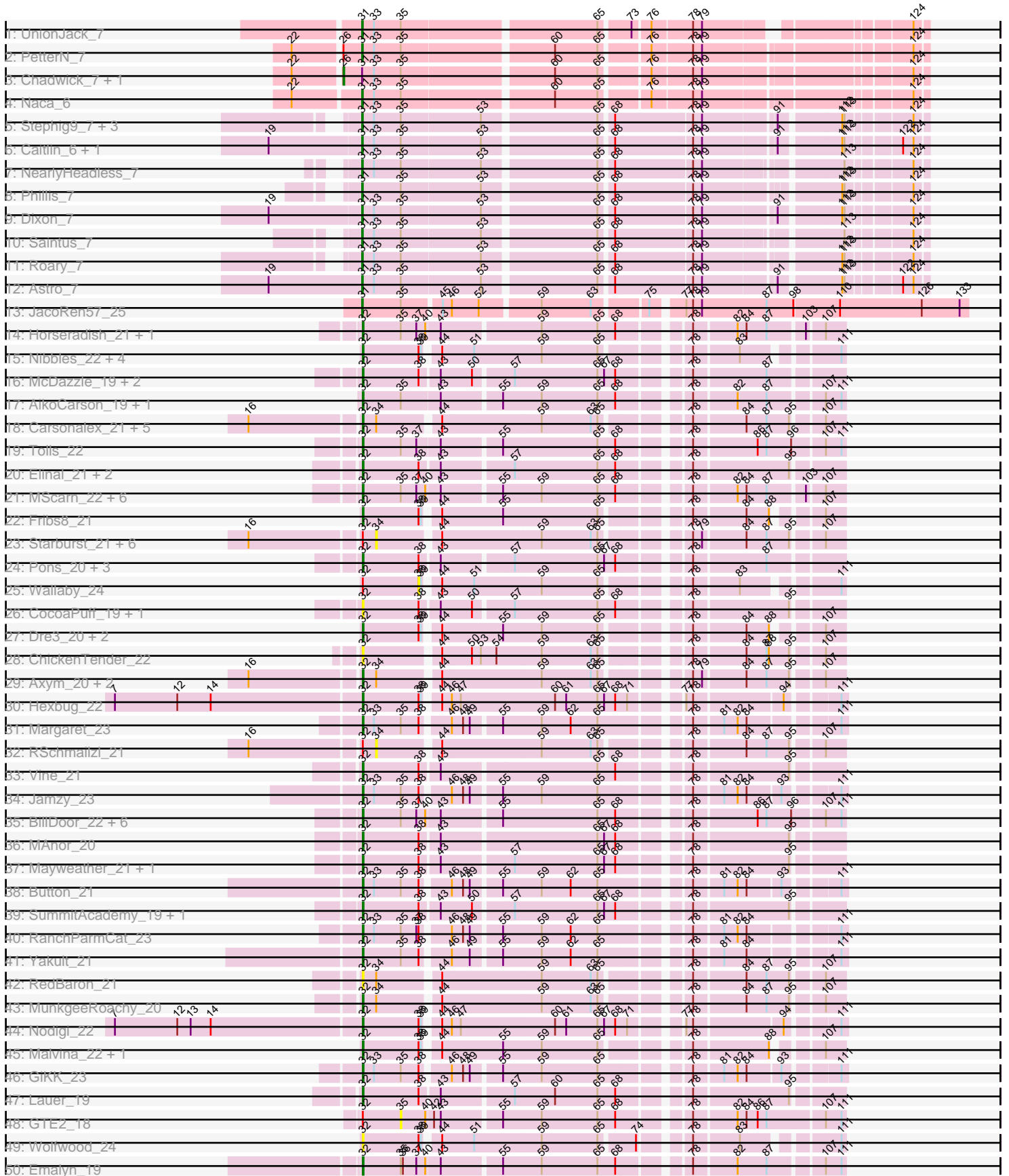
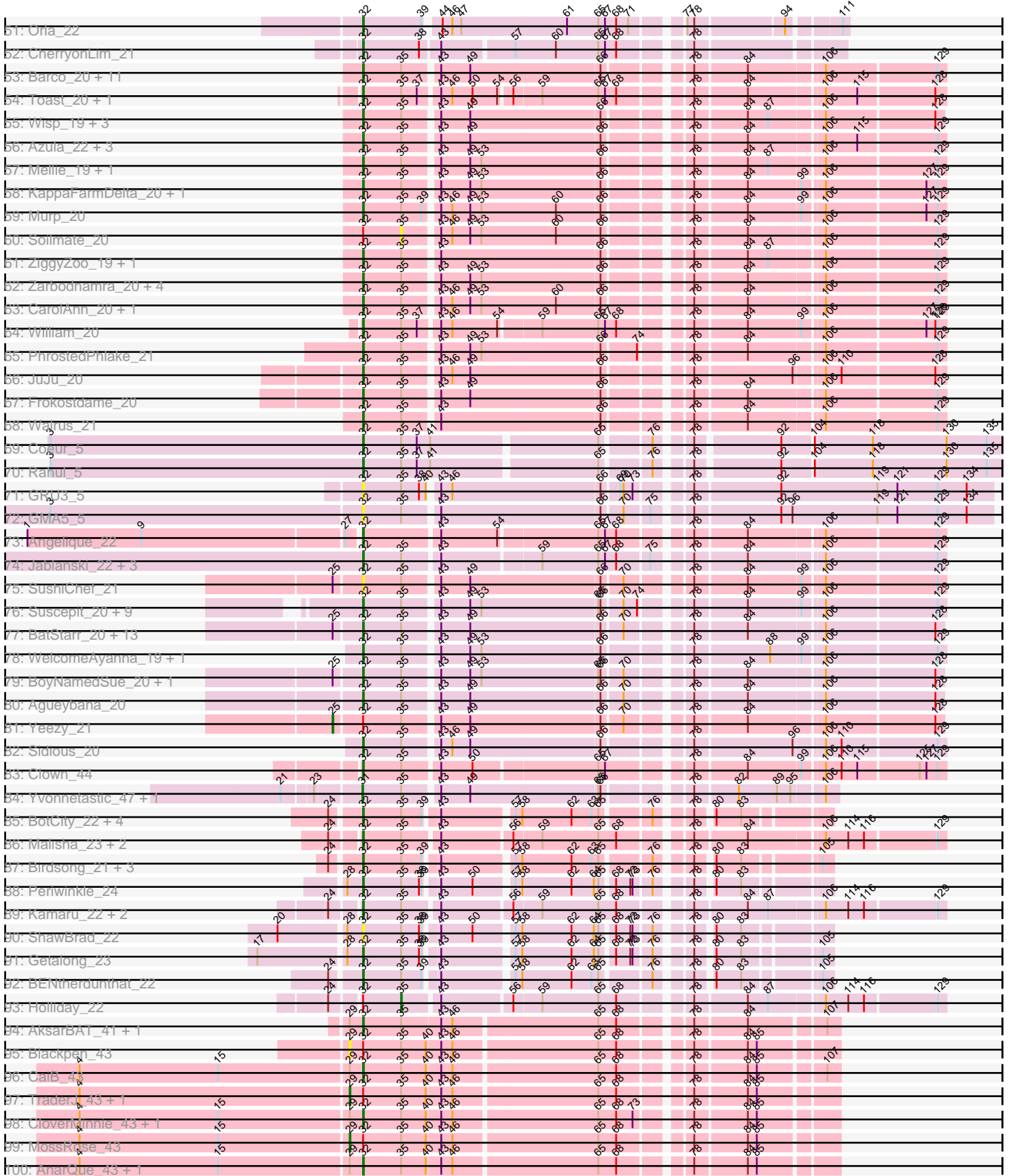


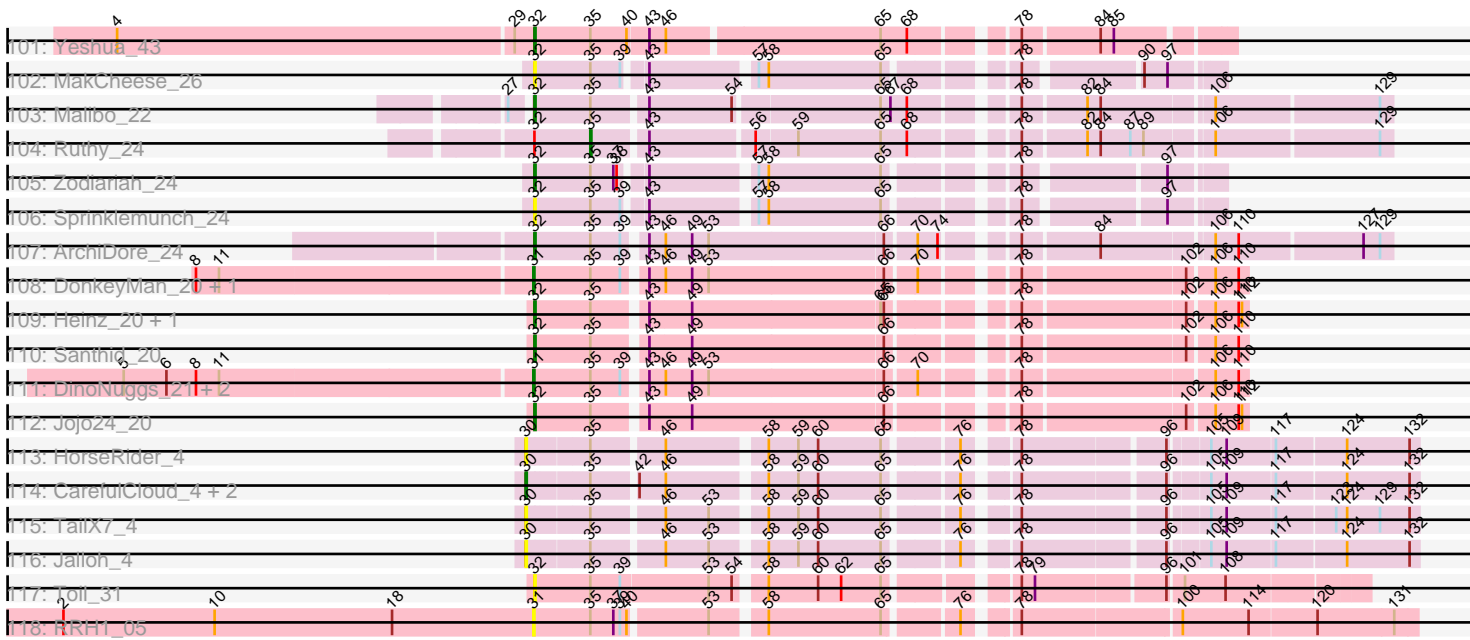
Pham 296219



Pham 296219



Pham 296219



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 296219 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296219 has 242 members, 48 are drafts.

Phages represented in each track:

- Track 1 : UnionJack_7
- Track 2 : PetterN_7
- Track 3 : Chadwick_7, Scorpia_7
- Track 4 : Naca_6
- Track 5 : Stephig9_7, Expelliarmus_6, Danforth_6, Groundhog_6
- Track 6 : Caitlin_6, Smeadley_7
- Track 7 : NearlyHeadless_7
- Track 8 : Phillis_7
- Track 9 : Dixon_7
- Track 10 : Saintus_7
- Track 11 : Roary_7
- Track 12 : Astro_7
- Track 13 : JacoRen57_25
- Track 14 : Horseradish_21, Yummy_21
- Track 15 : Nibbles_22, Azira_22, Survivors_22, MaVan_22, Zareef_22
- Track 16 : McDazzle_19, ElJefes_19, SheckWes_19
- Track 17 : AikoCarson_19, Amok_19
- Track 18 : Carsonalex_21, Burnsey_20, Nina_21, Typhonomachy_20, Agatha_20, Bubble_20
- Track 19 : Tolls_22
- Track 20 : Elinal_21, KayGee_20, Yucky_20
- Track 21 : MScarn_22, Blondies_21, Biskit_21, Buttrmlkdreams_20, Troje_20, SweatNTears_22, SketchMex_19
- Track 22 : Fribs8_21
- Track 23 : Starburst_21, RADical_21, Sopespian_20, GoldHunter_21, Socotra_21, PsychoKiller_20, Elliott_20
- Track 24 : Pons_20, Feastonyeet_19, Tarnish_20, BigChungus_19
- Track 25 : Wallaby_24
- Track 26 : CocoaPuff_19, Balloona_19
- Track 27 : Dre3_20, Gibbous_20, Cleo_20
- Track 28 : ChickenTender_22
- Track 29 : Axym_20, Cozz_20, Quasar_20
- Track 30 : Hexbug_22
- Track 31 : Margaret_23
- Track 32 : RSchmailzl_21
- Track 33 : Vine_21
- Track 34 : Jamzy_23

- Track 35 : BillDoor_22, ChocoMunchkin_20, SteamedHams_22, CanesSauce_20, Yarn_19, AndPeggy_19, CaramelLatte_20
- Track 36 : MAnor_20
- Track 37 : Mayweather_21, Bavidard_20
- Track 38 : Button_21
- Track 39 : SummitAcademy_19, PotPie_20
- Track 40 : RanchParmCat_23
- Track 41 : Yakult_21
- Track 42 : RedBaron_21
- Track 43 : MunkgeeRoachy_20
- Track 44 : Nodigi_22
- Track 45 : Malvina_22, HippoPololi_22
- Track 46 : GiKK_23
- Track 47 : Lauer_19
- Track 48 : GTE2_18
- Track 49 : Wolfwood_24
- Track 50 : Emalyn_19
- Track 51 : Orla_22
- Track 52 : CherryonLim_21
- Track 53 : Barco_20, Malachai_21, BlingBling_20, JasperJr_20, Zilla_20, Archis_21, Ferry_19, Utz_20, Begonia_21, Guacamole_20, Melba_20, MintFen_20
- Track 54 : Toast_20, PCoral7_20
- Track 55 : Wisp_19, CaptainKirk2_20, UmaThurman_20, Delian_20
- Track 56 : Azula_22, Gambino_22, MissRona_22, Blueberry_22
- Track 57 : Mellie_19, Pipp_20
- Track 58 : KappaFarmDelta_20, CheeseSpider_23
- Track 59 : Murp_20
- Track 60 : Soilmate_20
- Track 61 : ZiggyZoo_19, Obliviate_19
- Track 62 : Zarbodnamra_20, Lysidious_21, Jalammah_22, Hitter_20, Samba_20
- Track 63 : CarolAnn_20, Blino_20
- Track 64 : William_20
- Track 65 : PhrostedPhlake_21
- Track 66 : JuJu_20
- Track 67 : Frokostdame_20
- Track 68 : Walrus_21
- Track 69 : Coeur_5
- Track 70 : Rahul_5
- Track 71 : GRU3_5
- Track 72 : GMA5_5
- Track 73 : Angelique_22
- Track 74 : Jablanski_22, Posh_22, Pytheas_22, Wrigley_22
- Track 75 : SushiChef_21
- Track 76 : Suscepit_20, Zameen_20, Neobush_20, Antonio_20, Maridalia_19, Trumpet_20, Tayonia_20, Eudoria_20, Manasvini_20, Kita_20
- Track 77 : BatStarr_20, Bialota_20, Nymphadora_20, Madavieve_20, BaxterFox_19, Bosnia_20, Zirinka_20, PantheRoc_20, TimTam_20, Madeline_20, Hugley_20, Herod_20, Ohgeesy_20, Eviarto_20
- Track 78 : WelcomeAyanna_19, ThankyouJordi_19
- Track 79 : BoyNamedSue_20, AlumE_20
- Track 80 : Agueybana_20
- Track 81 : Yeezy_21
- Track 82 : Sidious_20

- Track 83 : Clown_44
- Track 84 : Yvonnetastic_47, JonJames_49
- Track 85 : BotCity_22, Asapag_22, CheeseTouch_22, Lutum_22, Kenna_21
- Track 86 : Malisha_23, Squiddly_24, Spooky_22
- Track 87 : Birdsong_21, BearBQ_21, Kuwabara_21, MortyNRick_21
- Track 88 : Periwinkle_24
- Track 89 : Kamaru_22, Budski_22, Whitney_23
- Track 90 : ShawBrad_22
- Track 91 : Getalong_23
- Track 92 : BENtherdunthat_22
- Track 93 : Holliday_22
- Track 94 : AksarBAT_41, NHagos_41
- Track 95 : Blackpen_43
- Track 96 : CaiB_43
- Track 97 : TraderJ_43, Wooper_43
- Track 98 : CloverMinnie_43, FelixTres_43
- Track 99 : MossRose_43
- Track 100 : AnarQue_43, MakoManhole_43
- Track 101 : Yeshua_43
- Track 102 : MakCheese_26
- Track 103 : Malibo_22
- Track 104 : Ruthy_24
- Track 105 : Zodiariah_24
- Track 106 : Sprinklemunch_24
- Track 107 : ArchiDore_24
- Track 108 : DonkeyMan_20, Tarzan_20
- Track 109 : Heinz_20, Hibiscus_20
- Track 110 : Santhid_20
- Track 111 : DinoNuggs_21, Reyja_21, DearBasketball_23
- Track 112 : Jojo24_20
- Track 113 : HorseRider_4
- Track 114 : CarefulCloud_4, Flashwig_4, CyranoPS_4
- Track 115 : TailX7_4
- Track 116 : Jalloh_4
- Track 117 : Toil_31
- Track 118 : RRH1_05

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

The start number called the most often in the published annotations is 32, it was called in 166 of the 194 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Agatha_20, Agueybana_20, AikoCarson_19, AksarBAT_41, AlumE_20, Amok_19, AnarQue_43, AndPeggy_19, Angelique_22, Antonio_20, ArchiDore_24, Archis_21, Asapag_22, Axym_20, Azira_22, Azula_22, BENtherdunthat_22, Balloona_19, Barco_20, BatStarr_20, Bavidard_20, BaxterFox_19, BearBQ_21, Begonia_21, Bialota_20, BigChungus_19, BillDoor_22, Birdsong_21, Biskit_21, BlingBling_20, Blino_20, Blondies_21, Blueberry_22, Bosnia_20, BotCity_22, BoyNamedSue_20, Bubble_20, Budski_22, Burnsey_20, Button_21, Buttrmilkdreams_20, CaiB_43,

CanesSauce_20, CaptainKirk2_20, CaramellLatte_20, CarolAnn_20, Carsonalex_21, CheeseSpider_23, CheeseTouch_22, CherryonLim_21, ChickenTender_22, ChocoMunchkin_20, Cleo_20, CloverMinnie_43, Clown_44, CocoaPuff_19, Coeur_5, Cozz_20, Delian_20, Dre3_20, ElJefes_19, Elinal_21, Emalyn_19, Eudoria_20, Eviarto_20, Feastonyeet_19, FelixTres_43, Fenry_19, Fribs8_21, Frokostdame_20, GMA5_5, GRU3_5, Gambino_22, Getalong_23, GiKK_23, Gibbous_20, Guacamole_20, Heinz_20, Herod_20, Hexbug_22, Hibiscus_20, HippoPololi_22, Hitter_20, Horseradish_21, Hugley_20, Jablanski_22, Jalammah_22, Jamzy_23, JasperJr_20, Jojo24_20, JuJu_20, Kamaru_22, KappaFarmDelta_20, KayGee_20, Kenna_21, Kita_20, Kuwabara_21, Lauer_19, Lutum_22, Lysidious_21, MAnor_20, MScarn_22, MaVan_22, Madavieve_20, Madeline_20, MakCheese_26, MakoManhole_43, Malachai_21, Malibo_22, Malisha_23, Malvina_22, Manasvini_20, Margaret_23, Maridalia_19, Mayweather_21, McDazzle_19, Melba_20, Mellie_19, MintFen_20, MissRona_22, MortyNRick_21, MunkgeeRoachy_20, Murp_20, NHagos_41, Neobush_20, Nibbles_22, Nina_21, Nodigi_22, Nymphadora_20, Obliviate_19, Ohgeesy_20, Orla_22, PCoral7_20, PantheRoc_20, Periwinkle_24, PhrostedPhlake_21, Pipp_20, Pons_20, Posh_22, PotPie_20, Pytheas_22, Quasar_20, Rahul_5, RanchParmCat_23, RedBaron_21, Samba_20, Santhid_20, ShawBrad_22, SheckWes_19, Sidious_20, SketchMex_19, Spooky_22, Sprinklemunch_24, Squiddly_24, SteamedHams_22, SummitAcademy_19, Survivors_22, Suscepit_20, SushiChef_21, SweatNTears_22, Tarnish_20, Tayonia_20, ThankyouJordi_19, TimTam_20, Toast_20, Toil_31, Tolls_22, Troje_20, Trumpet_20, Typhonmarchy_20, UmaThurman_20, Utz_20, Vine_21, Walrus_21, WelcomeAyanna_19, Whitney_23, William_20, Wisp_19, Wolfwood_24, Wrigley_22, Yakult_21, Yarn_19, Yeshua_43, Yucky_20, Yummy_21, Zameen_20, Zarbodnamra_20, Zareef_22, ZiggyZoo_19, Zilla_20, Zirinka_20, Zodiariah_24,

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

- Blackpen_43, Elliott_20, GTE2_18, GoldHunter_21, Holliday_22, MossRose_43, PsychoKiller_20, RADical_21, RSchmailzl_21, Ruthy_24, Socotra_21, Soilmate_20, Sopespian_20, Starburst_21, TraderJ_43, Wallaby_24, Wooper_43, Yeezy_21,

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

- Astro_7, Caitlin_6, CarefulCloud_4, Chadwick_7, CyranoPS_4, Danforth_6, DearBasketball_23, DinoNuggs_21, Dixon_7, DonkeyMan_20, Expelliarmus_6, Flashwig_4, Groundhog_6, HorseRider_4, JacoRen57_25, Jalloh_4, JonJames_49, Naca_6, NearlyHeadless_7, PetterN_7, Phillis_7, RRH1_05, Reyja_21, Roary_7, Saintus_7, Scorpia_7, Smeadley_7, Stephig9_7, TailX7_4, Tarzan_20, UnionJack_7, Yvonnestic_47,

Summary by start number:

Start 25:

- Found in 18 of 242 (7.4%) of genes in pham
- Manual Annotations of this start: 1 of 194
- Called 5.6% of time when present
- Phage (with cluster) where this start called: Yeezy_21 (CZ3),

Start 26:

- Found in 3 of 242 (1.2%) of genes in pham
- Manual Annotations of this start: 2 of 194
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Chadwick_7 (A5), Scorpia_7 (A5),

Start 29:

- Found in 12 of 242 (5.0%) of genes in pham
- Manual Annotations of this start: 2 of 194
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Blackpen_43 (DR), MossRose_43 (DR), TraderJ_43 (DR), Wooper_43 (DR),

Start 30:

- Found in 6 of 242 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 194
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CarefulCloud_4 (ER), CyranoPS_4 (ER), Flashwig_4 (ER), HorseRider_4 (ER), Jalloh_4 (ER), TailX7_4 (ER),

Start 31:

- Found in 26 of 242 (10.7%) of genes in pham
- Manual Annotations of this start: 20 of 194
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Astro_7 (A8), Caitlin_6 (A8), Danforth_6 (A8), DearBasketball_23 (DY), DinoNuggs_21 (DY), Dixon_7 (A8), DonkeyMan_20 (DY), Expelliarmus_6 (A8), Groundhog_6 (A8), JacoRen57_25 (AB), JonJames_49 (DD), Naca_6 (A5), NearlyHeadless_7 (A8), PetterN_7 (A5), Phillis_7 (A8), RRH1_05 (singleton), Reyja_21 (DY), Roary_7 (A8), Saintus_7 (A8), Smeadley_7 (A8), Stephig9_7 (A8), Tarzan_20 (DY), UnionJack_7 (A5), Yvonnestic_47 (DD),

Start 32:

- Found in 210 of 242 (86.8%) of genes in pham
- Manual Annotations of this start: 166 of 194
- Called 91.4% of time when present
- Phage (with cluster) where this start called: Agatha_20 (CT), Agueybana_20 (CZ1), AikoCarson_19 (CT), AksarBAT_41 (DR), AlumE_20 (CZ1), Amok_19 (CT), AnarQue_43 (DR), AndPeggy_19 (CT), Angelique_22 (CY1), Antonio_20 (CZ1), ArchiDore_24 (DW), Archis_21 (CV), Asapag_22 (DN1), Axym_20 (CT), Azira_22 (CT), Azula_22 (CV), BENtherdunthat_22 (DN1), Balloona_19 (CT), Barco_20 (CV), BatStarr_20 (CZ1), Bavilard_20 (CT), BaxterFox_19 (CZ3), BearBQ_21 (DN), Begonia_21 (CV), Bialota_20 (CZ1), BigChungus_19 (CT), BillDoor_22 (CT), Birdsong_21 (DN), Biskit_21 (CT), BlingBling_20 (CV), Blino_20 (CV), Blondies_21 (CT), Blueberry_22 (CV), Bosnia_20 (CZ1), BotCity_22 (DN), BoyNamedSue_20 (CZ1), Bubble_20 (CT), Budski_22 (DN), Burnsey_20 (CT), Button_21 (CT), Buttrmlkdreams_20 (CT), CaiB_43 (DR), CanesSauce_20 (CT), CaptainKirk2_20 (CV), Caramellatte_20 (CT), CarolAnn_20 (CV), Carsonalex_21 (CT), CheeseSpider_23 (CV), CheeseTouch_22 (DN1), CherryonLim_21 (CT), ChickenTender_22 (CT), ChocoMunchkin_20 (CT), Cleo_20 (CT), CloverMinnie_43 (DR), Clown_44 (DC2), CocoaPuff_19 (CT), Coeur_5 (CW2), Cozz_20 (CT), Delian_20 (CV), Dre3_20 (CT), ElJefes_19 (CT), Elinal_21 (CT), Emalyn_19 (CT), Eudoria_20 (CZ1), Eviarto_20 (CZ1), Feastonyeet_19 (CT), FelixTres_43 (DR), Ferry_19 (CV), Fribs8_21 (CT), Frokostdame_20 (CV), GMA5_5 (CW2), GRU3_5 (CW2), Gambino_22 (CV), Getalong_23 (DN1), GiKK_23 (CT), Gibbous_20 (CT), Guacamole_20 (CV), Heinz_20 (DY), Herod_20 (CZ1), Hexbug_22 (CT), Hibiscus_20 (DY), HippoPololi_22 (CT), Hitter_20 (CV), Horseradish_21 (CT), Hugley_20 (CZ1), Jablanski_22 (CY3), Jalammah_22 (CV), Jamzy_23 (CT), JasperJr_20 (CV), Jojo24_20 (DY), JuJu_20 (CV), Kamaru_22 (DN1), KappaFarmDelta_20 (CV),

KayGee_20 (CT), Kenna_21 (DN1), Kita_20 (CZ1), Kuwabara_21 (DN4), Lauer_19 (CT), Lutum_22 (DN1), Lysidious_21 (CV), MAnor_20 (CT), MScarn_22 (CT), MaVan_22 (CT), Madavieve_20 (CZ1), Madeline_20 (CZ1), MakCheese_26 (DW), MakoManhole_43 (DR), Malachai_21 (CV), Malibo_22 (DW), Malisha_23 (DN), Malvina_22 (CT), Manasvini_20 (CZ1), Margaret_23 (CT), Maridalia_19 (CZ1), Mayweather_21 (CT), McDazzle_19 (CT), Melba_20 (CV), Mellie_19 (CV), MintFen_20 (CV), MissRona_22 (CV), MortyNRick_21 (DN), MunkgeeRoachy_20 (CT), Murp_20 (CV), NHagos_41 (DR), Neobush_20 (CZ1), Nibbles_22 (CT), Nina_21 (CT), Nodigi_22 (CT), Nymphadora_20 (CZ1), Oblivate_19 (CV), Ohgeesy_20 (CZ), Orla_22 (CT), PCoral7_20 (CV), PantheRoc_20 (CZ3), Periwinkle_24 (DN1), PhrostedPhlake_21 (CV), Pipp_20 (CV), Pons_20 (CT), Posh_22 (CY4), PotPie_20 (CT), Pytheas_22 (CY3), Quasar_20 (CT), Rahul_5 (CW2), RanchParmCat_23 (CT), RedBaron_21 (CT), Samba_20 (CV), Santhid_20 (DY), ShawBrad_22 (DN1), SheckWes_19 (CT), Sidious_20 (CZ7), SketchMex_19 (CT), Spooky_22 (DN2), Sprinklemunch_24 (DW), Squiddly_24 (DN2), SteamedHams_22 (CT), SummitAcademy_19 (CT), Survivors_22 (CT), Suscepit_20 (CZ1), SushiChef_21 (CZ), SweatNTears_22 (CT), Tarnish_20 (CT), Tayonia_20 (CZ1), ThankyouJordi_19 (CZ1), TimTam_20 (CZ1), Toast_20 (CV), Toil_31 (singleton), Tolls_22 (CT), Troje_20 (CT), Trumpet_20 (CZ1), Typhonmarchy_20 (CT), UmaThurman_20 (CV), Utz_20 (CV), Vine_21 (CT), Walrus_21 (CV), WelcomeAyanna_19 (CZ1), Whitney_23 (DN1), William_20 (CV), Wisp_19 (CV), Wolfwood_24 (CT), Wrigley_22 (CY4), Yakult_21 (CT), Yarn_19 (CT), Yeshua_43 (DR), Yucky_20 (CT), Yummy_21 (CT), Zameen_20 (CZ1), Zarbodnamra_20 (CV), Zareef_22 (CT), ZiggyZoo_19 (CV), Zilla_20 (CV), Zirinka_20 (CZ1), Zodiariah_24 (DW),

Start 34:

- Found in 19 of 242 (7.9%) of genes in pham
- No Manual Annotations of this start.
- Called 42.1% of time when present
- Phage (with cluster) where this start called: Elliott_20 (CT), GoldHunter_21 (CT), PsychoKiller_20 (CT), RADical_21 (CT), RSchmailzl_21 (CT), Socotra_21 (CT), Sopespian_20 (CT), Starburst_21 (CT),

Start 35:

- Found in 185 of 242 (76.4%) of genes in pham
- Manual Annotations of this start: 2 of 194
- Called 2.2% of time when present
- Phage (with cluster) where this start called: GTE2_18 (CT), Holliday_22 (DN1), Ruthy_24 (DW), Soilmate_20 (CV),

Start 38:

- Found in 46 of 242 (19.0%) of genes in pham
- No Manual Annotations of this start.
- Called 2.2% of time when present
- Phage (with cluster) where this start called: Wallaby_24 (CT),

Summary by clusters:

There are 24 clusters represented in this pham: DN, singleton, CZ3, DD, CZ1, CZ7, DY, DW, DR, CW2, DN4, DN1, DN2, A8, CT, CY3, CY1, AB, CY4, CZ, A5, DC2, CV, ER,

Info for manual annotations of cluster A5:

- Start number 26 was manually annotated 2 times for cluster A5.
- Start number 31 was manually annotated 3 times for cluster A5.

Info for manual annotations of cluster A8:

- Start number 31 was manually annotated 11 times for cluster A8.

Info for manual annotations of cluster AB:

- Start number 31 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster CT:

- Start number 32 was manually annotated 60 times for cluster CT.

Info for manual annotations of cluster CV:

- Start number 32 was manually annotated 39 times for cluster CV.

Info for manual annotations of cluster CW2:

- Start number 32 was manually annotated 2 times for cluster CW2.

Info for manual annotations of cluster CY1:

- Start number 32 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster CY3:

- Start number 32 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:

- Start number 32 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CZ:

- Start number 32 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 32 was manually annotated 24 times for cluster CZ1.

Info for manual annotations of cluster CZ3:

- Start number 25 was manually annotated 1 time for cluster CZ3.
- Start number 32 was manually annotated 2 times for cluster CZ3.

Info for manual annotations of cluster CZ7:

- Start number 32 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DC2:

- Start number 32 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DD:

- Start number 31 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DN:

- Start number 32 was manually annotated 6 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 32 was manually annotated 9 times for cluster DN1.
- Start number 35 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 32 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DN4:

- Start number 32 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DR:

- Start number 29 was manually annotated 2 times for cluster DR.
- Start number 32 was manually annotated 6 times for cluster DR.

Info for manual annotations of cluster DW:

- Start number 32 was manually annotated 3 times for cluster DW.
- Start number 35 was manually annotated 1 time for cluster DW.

Info for manual annotations of cluster DY:

- Start number 31 was manually annotated 3 times for cluster DY.
- Start number 32 was manually annotated 4 times for cluster DY.

Info for manual annotations of cluster ER:

- Start number 30 was manually annotated 1 time for cluster ER.

Gene Information:

Gene: Agatha_20 Start: 17828, Stop: 18406, Start Num: 32

Candidate Starts for Agatha_20:

(16, 17687), (Start: 32 @17828 has 166 MA's), (34, 17846), (44, 17921), (59, 18053), (63, 18119), (65, 18128), (78, 18221), (84, 18287), (87, 18314), (95, 18344), (107, 18380),

Gene: Agueybana_20 Start: 19470, Stop: 20174, Start Num: 32

Candidate Starts for Agueybana_20:

(Start: 32 @19470 has 166 MA's), (Start: 35 @19521 has 2 MA's), (43, 19563), (49, 19599), (66, 19770), (70, 19794), (78, 19863), (84, 19929), (106, 20022), (128, 20163),

Gene: AikoCarson_19 Start: 17137, Stop: 17727, Start Num: 32

Candidate Starts for AikoCarson_19:

(Start: 32 @17137 has 166 MA's), (Start: 35 @17188 has 2 MA's), (43, 17239), (55, 17314), (59, 17365), (65, 17440), (68, 17464), (78, 17542), (82, 17596), (87, 17635), (107, 17701), (111, 17722),

Gene: AksarBAT_41 Start: 34561, Stop: 35139, Start Num: 32

Candidate Starts for AksarBAT_41:

(Start: 29 @34543 has 2 MA's), (Start: 32 @34561 has 166 MA's), (Start: 35 @34612 has 2 MA's), (43, 34663), (46, 34678), (65, 34864), (68, 34888), (78, 34966), (84, 35032), (107, 35125),

Gene: AlumE_20 Start: 19469, Stop: 20173, Start Num: 32

Candidate Starts for AlumE_20:

(Start: 25 @19436 has 1 MA's), (Start: 32 @19469 has 166 MA's), (Start: 35 @19520 has 2 MA's), (43, 19562), (49, 19598), (53, 19613), (65, 19766), (66, 19769), (70, 19793), (78, 19862), (84, 19928), (106, 20021), (128, 20162),

Gene: Amok_19 Start: 17134, Stop: 17724, Start Num: 32

Candidate Starts for Amok_19:

(Start: 32 @17134 has 166 MA's), (Start: 35 @17185 has 2 MA's), (43, 17236), (55, 17311), (59, 17362), (65, 17437), (68, 17461), (78, 17539), (82, 17593), (87, 17632), (107, 17698), (111, 17719),

Gene: AnarQue_43 Start: 35973, Stop: 36551, Start Num: 32

Candidate Starts for AnarQue_43:

(4, 35598), (15, 35784), (Start: 29 @35955 has 2 MA's), (Start: 32 @35973 has 166 MA's), (Start: 35 @36024 has 2 MA's), (40, 36057), (43, 36075), (46, 36090), (65, 36276), (68, 36300), (78, 36378), (84, 36444), (85, 36456),

Gene: AndPeggy_19 Start: 17500, Stop: 18096, Start Num: 32

Candidate Starts for AndPeggy_19:

(Start: 32 @17500 has 166 MA's), (Start: 35 @17551 has 2 MA's), (37, 17572), (40, 17584), (43, 17602), (55, 17677), (65, 17803), (68, 17827), (78, 17905), (86, 17986), (87, 17998), (96, 18031), (107, 18070), (111, 18091),

Gene: Angelique_22 Start: 19811, Stop: 20524, Start Num: 32

Candidate Starts for Angelique_22:

(1, 19382), (9, 19535), (27, 19796), (Start: 32 @19811 has 166 MA's), (43, 19907), (54, 19982), (65, 20108), (67, 20117), (68, 20132), (78, 20210), (84, 20276), (106, 20369), (129, 20513),

Gene: Antonio_20 Start: 19391, Stop: 20098, Start Num: 32

Candidate Starts for Antonio_20:

(Start: 32 @19391 has 166 MA's), (Start: 35 @19442 has 2 MA's), (43, 19484), (49, 19520), (53, 19535), (65, 19688), (66, 19691), (70, 19715), (74, 19733), (78, 19784), (84, 19850), (99, 19919), (106, 19943), (129, 20087),

Gene: ArchiDore_24 Start: 21598, Stop: 22305, Start Num: 32

Candidate Starts for ArchiDore_24:

(Start: 32 @21598 has 166 MA's), (Start: 35 @21649 has 2 MA's), (39, 21676), (43, 21691), (46, 21703), (49, 21727), (53, 21742), (66, 21898), (70, 21922), (74, 21940), (78, 21991), (84, 22057), (106, 22150), (110, 22171), (127, 22279), (129, 22294),

Gene: Archis_21 Start: 18524, Stop: 19231, Start Num: 32

Candidate Starts for Archis_21:

(Start: 32 @18524 has 166 MA's), (Start: 35 @18575 has 2 MA's), (43, 18617), (49, 18653), (66, 18824), (78, 18917), (84, 18983), (106, 19076), (129, 19220),

Gene: Asapag_22 Start: 18682, Stop: 19215, Start Num: 32

Candidate Starts for Asapag_22:

(24, 18649), (Start: 32 @18682 has 166 MA's), (Start: 35 @18733 has 2 MA's), (39, 18760), (43, 18775), (57, 18862), (58, 18871), (62, 18937), (63, 18964), (65, 18973), (76, 19030), (78, 19066), (80, 19084), (83, 19117),

Gene: Astro_7 Start: 4196, Stop: 4876, Start Num: 31

Candidate Starts for Astro_7:

(19, 4070), (Start: 31 @4196 has 20 MA's), (33, 4211), (Start: 35 @4247 has 2 MA's), (53, 4352), (65, 4496), (68, 4511), (78, 4610), (79, 4622), (91, 4712), (112, 4787), (113, 4790), (122, 4850), (124, 4862),

Gene: Axym_20 Start: 17828, Stop: 18406, Start Num: 32

Candidate Starts for Axym_20:

(16, 17687), (Start: 32 @17828 has 166 MA's), (34, 17846), (44, 17921), (59, 18053), (63, 18119), (65, 18128), (78, 18221), (79, 18233), (84, 18287), (87, 18314), (95, 18344), (107, 18380),

Gene: Azira_22 Start: 18806, Stop: 19369, Start Num: 32

Candidate Starts for Azira_22:

(Start: 32 @18806 has 166 MA's), (38, 18881), (39, 18884), (44, 18899), (51, 18941), (59, 19031), (65, 19106), (78, 19199), (83, 19256), (111, 19364),

Gene: Azula_22 Start: 18628, Stop: 19335, Start Num: 32

Candidate Starts for Azula_22:

(Start: 32 @18628 has 166 MA's), (Start: 35 @18679 has 2 MA's), (43, 18721), (49, 18757), (66, 18928), (78, 19021), (84, 19087), (106, 19180), (115, 19222), (129, 19324),

Gene: BENtherdunthat_22 Start: 18682, Stop: 19215, Start Num: 32

Candidate Starts for BENtherdunthat_22:

(24, 18649), (Start: 32 @18682 has 166 MA's), (Start: 35 @18733 has 2 MA's), (39, 18760), (43, 18775), (57, 18862), (58, 18871), (62, 18937), (63, 18964), (65, 18973), (76, 19030), (78, 19066), (80, 19084), (83, 19117), (105, 19201),

Gene: Balloona_19 Start: 17505, Stop: 18092, Start Num: 32

Candidate Starts for Balloona_19:

(Start: 32 @17505 has 166 MA's), (38, 17580), (43, 17604), (50, 17646), (57, 17694), (65, 17805), (68, 17829), (78, 17907), (95, 18030),

Gene: Barco_20 Start: 18313, Stop: 19020, Start Num: 32

Candidate Starts for Barco_20:

(Start: 32 @18313 has 166 MA's), (Start: 35 @18364 has 2 MA's), (43, 18406), (49, 18442), (66, 18613), (78, 18706), (84, 18772), (106, 18865), (129, 19009),

Gene: BatStarr_20 Start: 19457, Stop: 20161, Start Num: 32

Candidate Starts for BatStarr_20:

(Start: 25 @19424 has 1 MA's), (Start: 32 @19457 has 166 MA's), (Start: 35 @19508 has 2 MA's), (43, 19550), (49, 19586), (66, 19757), (70, 19781), (78, 19850), (84, 19916), (106, 20009), (128, 20150),

Gene: Bavilard_20 Start: 18287, Stop: 18874, Start Num: 32

Candidate Starts for Bavilard_20:

(Start: 32 @18287 has 166 MA's), (38, 18362), (43, 18386), (57, 18476), (65, 18587), (67, 18596), (68, 18611), (78, 18689), (95, 18812),

Gene: BaxterFox_19 Start: 18796, Stop: 19500, Start Num: 32

Candidate Starts for BaxterFox_19:

(Start: 25 @18763 has 1 MA's), (Start: 32 @18796 has 166 MA's), (Start: 35 @18847 has 2 MA's), (43, 18889), (49, 18925), (66, 19096), (70, 19120), (78, 19189), (84, 19255), (106, 19348), (128, 19489),

Gene: BearBQ_21 Start: 19522, Stop: 20055, Start Num: 32

Candidate Starts for BearBQ_21:

(24, 19489), (Start: 32 @19522 has 166 MA's), (Start: 35 @19573 has 2 MA's), (39, 19600), (43, 19615), (57, 19702), (58, 19711), (62, 19777), (63, 19804), (65, 19813), (76, 19870), (78, 19906), (80, 19924), (83, 19957), (105, 20041),

Gene: Begonia_21 Start: 18791, Stop: 19498, Start Num: 32

Candidate Starts for Begonia_21:

(Start: 32 @18791 has 166 MA's), (Start: 35 @18842 has 2 MA's), (43, 18884), (49, 18920), (66, 19091), (78, 19184), (84, 19250), (106, 19343), (129, 19487),

Gene: Bialota_20 Start: 19469, Stop: 20173, Start Num: 32

Candidate Starts for Bialota_20:

(Start: 25 @19436 has 1 MA's), (Start: 32 @19469 has 166 MA's), (Start: 35 @19520 has 2 MA's), (43, 19562), (49, 19598), (66, 19769), (70, 19793), (78, 19862), (84, 19928), (106, 20021), (128, 20162),

Gene: BigChungus_19 Start: 17545, Stop: 18132, Start Num: 32

Candidate Starts for BigChungus_19:

(Start: 32 @17545 has 166 MA's), (38, 17620), (43, 17644), (57, 17734), (65, 17845), (67, 17854), (68, 17869), (78, 17947), (87, 18040),

Gene: BillDoor_22 Start: 17468, Stop: 18064, Start Num: 32

Candidate Starts for BillDoor_22:

(Start: 32 @17468 has 166 MA's), (Start: 35 @17519 has 2 MA's), (37, 17540), (40, 17552), (43, 17570), (55, 17645), (65, 17771), (68, 17795), (78, 17873), (86, 17954), (87, 17966), (96, 17999), (107, 18038), (111, 18059),

Gene: Birdsong_21 Start: 18415, Stop: 18948, Start Num: 32

Candidate Starts for Birdsong_21:

(24, 18382), (Start: 32 @18415 has 166 MA's), (Start: 35 @18466 has 2 MA's), (39, 18493), (43, 18508), (57, 18595), (58, 18604), (62, 18670), (63, 18697), (65, 18706), (76, 18763), (78, 18799), (80, 18817), (83, 18850), (105, 18934),

Gene: Biskit_21 Start: 17483, Stop: 18073, Start Num: 32

Candidate Starts for Biskit_21:

(Start: 32 @17483 has 166 MA's), (Start: 35 @17534 has 2 MA's), (37, 17555), (40, 17567), (43, 17585), (55, 17660), (59, 17711), (65, 17786), (68, 17810), (78, 17888), (82, 17942), (84, 17954), (87, 17981), (103, 18026), (107, 18047),

Gene: Blackpen_43 Start: 35373, Stop: 35969, Start Num: 29

Candidate Starts for Blackpen_43:

(Start: 29 @35373 has 2 MA's), (Start: 32 @35391 has 166 MA's), (Start: 35 @35442 has 2 MA's), (40, 35475), (43, 35493), (46, 35508), (65, 35694), (68, 35718), (78, 35796), (84, 35862), (85, 35874),

Gene: BlingBling_20 Start: 18313, Stop: 19020, Start Num: 32

Candidate Starts for BlingBling_20:

(Start: 32 @18313 has 166 MA's), (Start: 35 @18364 has 2 MA's), (43, 18406), (49, 18442), (66, 18613), (78, 18706), (84, 18772), (106, 18865), (129, 19009),

Gene: Blino_20 Start: 18281, Stop: 18988, Start Num: 32

Candidate Starts for Blino_20:

(Start: 32 @18281 has 166 MA's), (Start: 35 @18332 has 2 MA's), (43, 18374), (46, 18386), (49, 18410), (53, 18425), (60, 18524), (66, 18581), (78, 18674), (84, 18740), (106, 18833), (129, 18977),

Gene: Blondies_21 Start: 17466, Stop: 18056, Start Num: 32

Candidate Starts for Blondies_21:

(Start: 32 @17466 has 166 MA's), (Start: 35 @17517 has 2 MA's), (37, 17538), (40, 17550), (43, 17568), (55, 17643), (59, 17694), (65, 17769), (68, 17793), (78, 17871), (82, 17925), (84, 17937), (87, 17964), (103, 18009), (107, 18030),

Gene: Blueberry_22 Start: 18628, Stop: 19335, Start Num: 32

Candidate Starts for Blueberry_22:

(Start: 32 @18628 has 166 MA's), (Start: 35 @18679 has 2 MA's), (43, 18721), (49, 18757), (66, 18928), (78, 19021), (84, 19087), (106, 19180), (115, 19222), (129, 19324),

Gene: Bosnia_20 Start: 19457, Stop: 20161, Start Num: 32

Candidate Starts for Bosnia_20:

(Start: 25 @19424 has 1 MA's), (Start: 32 @19457 has 166 MA's), (Start: 35 @19508 has 2 MA's), (43, 19550), (49, 19586), (66, 19757), (70, 19781), (78, 19850), (84, 19916), (106, 20009), (128, 20150),

Gene: BotCity_22 Start: 18680, Stop: 19213, Start Num: 32

Candidate Starts for BotCity_22:

(24, 18647), (Start: 32 @18680 has 166 MA's), (Start: 35 @18731 has 2 MA's), (39, 18758), (43, 18773), (57, 18860), (58, 18869), (62, 18935), (63, 18962), (65, 18971), (76, 19028), (78, 19064), (80, 19082), (83, 19115),

Gene: BoyNamedSue_20 Start: 19469, Stop: 20173, Start Num: 32

Candidate Starts for BoyNamedSue_20:

(Start: 25 @19436 has 1 MA's), (Start: 32 @19469 has 166 MA's), (Start: 35 @19520 has 2 MA's), (43, 19562), (49, 19598), (53, 19613), (65, 19766), (66, 19769), (70, 19793), (78, 19862), (84, 19928), (106, 20021), (128, 20162),

Gene: Bubble_20 Start: 17828, Stop: 18406, Start Num: 32

Candidate Starts for Bubble_20:

(16, 17687), (Start: 32 @17828 has 166 MA's), (34, 17846), (44, 17921), (59, 18053), (63, 18119), (65, 18128), (78, 18221), (84, 18287), (87, 18314), (95, 18344), (107, 18380),

Gene: Budski_22 Start: 18675, Stop: 19385, Start Num: 32

Candidate Starts for Budski_22:

(24, 18642), (Start: 32 @18675 has 166 MA's), (Start: 35 @18726 has 2 MA's), (43, 18771), (56, 18861), (59, 18897), (65, 18972), (68, 18996), (78, 19074), (84, 19140), (87, 19167), (106, 19233), (114, 19263), (116, 19284), (129, 19374),

Gene: Burnsey_20 Start: 17829, Stop: 18407, Start Num: 32

Candidate Starts for Burnsey_20:

(16, 17688), (Start: 32 @17829 has 166 MA's), (34, 17847), (44, 17922), (59, 18054), (63, 18120), (65, 18129), (78, 18222), (84, 18288), (87, 18315), (95, 18345), (107, 18381),

Gene: Button_21 Start: 16864, Stop: 17439, Start Num: 32

Candidate Starts for Button_21:

(Start: 32 @16864 has 166 MA's), (33, 16879), (Start: 35 @16915 has 2 MA's), (38, 16939), (46, 16972), (48, 16987), (49, 16996), (55, 17032), (59, 17083), (62, 17122), (65, 17158), (78, 17260), (81, 17296), (82, 17314), (84, 17326), (93, 17368), (111, 17431),

Gene: Buttrmlkdreams_20 Start: 17465, Stop: 18055, Start Num: 32

Candidate Starts for Buttrmlkdreams_20:

(Start: 32 @17465 has 166 MA's), (Start: 35 @17516 has 2 MA's), (37, 17537), (40, 17549), (43, 17567), (55, 17642), (59, 17693), (65, 17768), (68, 17792), (78, 17870), (82, 17924), (84, 17936), (87, 17963), (103, 18008), (107, 18029),

Gene: CaiB_43 Start: 35959, Stop: 36537, Start Num: 32

Candidate Starts for CaiB_43:

(4, 35584), (15, 35770), (Start: 29 @35941 has 2 MA's), (Start: 32 @35959 has 166 MA's), (Start: 35 @36010 has 2 MA's), (40, 36043), (43, 36061), (46, 36076), (65, 36262), (68, 36286), (78, 36364), (84,

36430), (85, 36442), (107, 36523),

Gene: Caitlin_6 Start: 4193, Stop: 4873, Start Num: 31

Candidate Starts for Caitlin_6:

(19, 4070), (Start: 31 @4193 has 20 MA's), (33, 4208), (Start: 35 @4244 has 2 MA's), (53, 4349), (65, 4493), (68, 4508), (78, 4607), (79, 4619), (91, 4709), (112, 4784), (113, 4787), (122, 4847), (124, 4859),

Gene: CanesSauce_20 Start: 17501, Stop: 18097, Start Num: 32

Candidate Starts for CanesSauce_20:

(Start: 32 @17501 has 166 MA's), (Start: 35 @17552 has 2 MA's), (37, 17573), (40, 17585), (43, 17603), (55, 17678), (65, 17804), (68, 17828), (78, 17906), (86, 17987), (87, 17999), (96, 18032), (107, 18071), (111, 18092),

Gene: CaptainKirk2_20 Start: 18337, Stop: 19041, Start Num: 32

Candidate Starts for CaptainKirk2_20:

(Start: 32 @18337 has 166 MA's), (Start: 35 @18388 has 2 MA's), (43, 18430), (49, 18466), (66, 18637), (78, 18730), (84, 18796), (87, 18823), (106, 18889), (128, 19030),

Gene: CaramellLatte_20 Start: 17501, Stop: 18097, Start Num: 32

Candidate Starts for CaramellLatte_20:

(Start: 32 @17501 has 166 MA's), (Start: 35 @17552 has 2 MA's), (37, 17573), (40, 17585), (43, 17603), (55, 17678), (65, 17804), (68, 17828), (78, 17906), (86, 17987), (87, 17999), (96, 18032), (107, 18071), (111, 18092),

Gene: CarefulCloud_4 Start: 2898, Stop: 3614, Start Num: 30

Candidate Starts for CarefulCloud_4:

(Start: 30 @2898 has 1 MA's), (Start: 35 @2949 has 2 MA's), (42, 2985), (46, 3009), (58, 3090), (59, 3117), (60, 3135), (65, 3192), (76, 3249), (78, 3285), (96, 3405), (105, 3435), (109, 3447), (117, 3489), (124, 3549), (132, 3606),

Gene: CarolAnn_20 Start: 18280, Stop: 18987, Start Num: 32

Candidate Starts for CarolAnn_20:

(Start: 32 @18280 has 166 MA's), (Start: 35 @18331 has 2 MA's), (43, 18373), (46, 18385), (49, 18409), (53, 18424), (60, 18523), (66, 18580), (78, 18673), (84, 18739), (106, 18832), (129, 18976),

Gene: Carsonalex_21 Start: 17886, Stop: 18464, Start Num: 32

Candidate Starts for Carsonalex_21:

(16, 17745), (Start: 32 @17886 has 166 MA's), (34, 17904), (44, 17979), (59, 18111), (63, 18177), (65, 18186), (78, 18279), (84, 18345), (87, 18372), (95, 18402), (107, 18438),

Gene: Chadwick_7 Start: 4240, Stop: 4944, Start Num: 26

Candidate Starts for Chadwick_7:

(22, 4180), (Start: 26 @4240 has 2 MA's), (Start: 31 @4264 has 20 MA's), (33, 4279), (Start: 35 @4315 has 2 MA's), (60, 4507), (65, 4564), (76, 4621), (78, 4672), (79, 4684), (124, 4930),

Gene: CheeseSpider_23 Start: 18679, Stop: 19386, Start Num: 32

Candidate Starts for CheeseSpider_23:

(Start: 32 @18679 has 166 MA's), (Start: 35 @18730 has 2 MA's), (43, 18772), (49, 18808), (53, 18823), (66, 18979), (78, 19072), (84, 19138), (99, 19207), (106, 19231), (127, 19360), (129, 19375),

Gene: CheeseTouch_22 Start: 18676, Stop: 19209, Start Num: 32

Candidate Starts for CheeseTouch_22:

(24, 18643), (Start: 32 @18676 has 166 MA's), (Start: 35 @18727 has 2 MA's), (39, 18754), (43, 18769), (57, 18856), (58, 18865), (62, 18931), (63, 18958), (65, 18967), (76, 19024), (78, 19060), (80, 19078), (83, 19111),

Gene: CherryonLim_21 Start: 18254, Stop: 18841, Start Num: 32

Candidate Starts for CherryonLim_21:

(Start: 32 @18254 has 166 MA's), (38, 18329), (43, 18353), (57, 18443), (60, 18497), (65, 18554), (67, 18563), (68, 18578), (78, 18656),

Gene: ChickenTender_22 Start: 17893, Stop: 18471, Start Num: 32

Candidate Starts for ChickenTender_22:

(Start: 32 @17893 has 166 MA's), (44, 17986), (50, 18025), (53, 18037), (54, 18058), (59, 18118), (63, 18184), (65, 18193), (78, 18286), (84, 18352), (87, 18379), (88, 18382), (95, 18409), (107, 18445),

Gene: ChocoMunchkin_20 Start: 17501, Stop: 18097, Start Num: 32

Candidate Starts for ChocoMunchkin_20:

(Start: 32 @17501 has 166 MA's), (Start: 35 @17552 has 2 MA's), (37, 17573), (40, 17585), (43, 17603), (55, 17678), (65, 17804), (68, 17828), (78, 17906), (86, 17987), (87, 17999), (96, 18032), (107, 18071), (111, 18092),

Gene: Cleo_20 Start: 18119, Stop: 18682, Start Num: 32

Candidate Starts for Cleo_20:

(Start: 32 @18119 has 166 MA's), (38, 18194), (39, 18197), (44, 18212), (55, 18293), (59, 18344), (65, 18419), (78, 18512), (84, 18578), (88, 18608), (107, 18656),

Gene: CloverMinnie_43 Start: 35899, Stop: 36477, Start Num: 32

Candidate Starts for CloverMinnie_43:

(4, 35524), (15, 35710), (Start: 29 @35881 has 2 MA's), (Start: 32 @35899 has 166 MA's), (Start: 35 @35950 has 2 MA's), (40, 35983), (43, 36001), (46, 36016), (65, 36202), (68, 36226), (73, 36247), (78, 36304), (84, 36370), (85, 36382),

Gene: Clown_44 Start: 35539, Stop: 36252, Start Num: 32

Candidate Starts for Clown_44:

(Start: 32 @35539 has 166 MA's), (Start: 35 @35590 has 2 MA's), (43, 35635), (50, 35677), (65, 35836), (67, 35845), (78, 35938), (84, 36004), (99, 36073), (106, 36097), (110, 36118), (115, 36139), (125, 36217), (127, 36226), (129, 36241),

Gene: CocoaPuff_19 Start: 17499, Stop: 18086, Start Num: 32

Candidate Starts for CocoaPuff_19:

(Start: 32 @17499 has 166 MA's), (38, 17574), (43, 17598), (50, 17640), (57, 17688), (65, 17799), (68, 17823), (78, 17901), (95, 18024),

Gene: Coeur_5 Start: 3259, Stop: 4041, Start Num: 32

Candidate Starts for Coeur_5:

(3, 2839), (Start: 32 @3259 has 166 MA's), (Start: 35 @3310 has 2 MA's), (37, 3331), (41, 3349), (65, 3562), (76, 3619), (78, 3655), (92, 3757), (104, 3793), (118, 3868), (130, 3967), (135, 4021),

Gene: Cozz_20 Start: 17829, Stop: 18407, Start Num: 32

Candidate Starts for Cozz_20:

(16, 17688), (Start: 32 @17829 has 166 MA's), (34, 17847), (44, 17922), (59, 18054), (63, 18120), (65, 18129), (78, 18222), (79, 18234), (84, 18288), (87, 18315), (95, 18345), (107, 18381),

Gene: CyranoPS_4 Start: 2898, Stop: 3614, Start Num: 30

Candidate Starts for CyranoPS_4:

(Start: 30 @2898 has 1 MA's), (Start: 35 @2949 has 2 MA's), (42, 2985), (46, 3009), (58, 3090), (59, 3117), (60, 3135), (65, 3192), (76, 3249), (78, 3285), (96, 3405), (105, 3435), (109, 3447), (117, 3489), (124, 3549), (132, 3606),

Gene: Danforth_6 Start: 4175, Stop: 4855, Start Num: 31

Candidate Starts for Danforth_6:

(Start: 31 @4175 has 20 MA's), (33, 4190), (Start: 35 @4226 has 2 MA's), (53, 4331), (65, 4475), (68, 4490), (78, 4589), (79, 4601), (91, 4691), (112, 4766), (113, 4769), (124, 4841),

Gene: DearBasketball_23 Start: 17226, Stop: 17810, Start Num: 31

Candidate Starts for DearBasketball_23:

(5, 16863), (6, 16902), (8, 16929), (11, 16950), (Start: 31 @17226 has 20 MA's), (Start: 35 @17277 has 2 MA's), (39, 17304), (43, 17319), (46, 17331), (49, 17355), (53, 17370), (66, 17526), (70, 17550), (78, 17619), (106, 17781), (110, 17802),

Gene: Delian_20 Start: 18337, Stop: 19041, Start Num: 32

Candidate Starts for Delian_20:

(Start: 32 @18337 has 166 MA's), (Start: 35 @18388 has 2 MA's), (43, 18430), (49, 18466), (66, 18637), (78, 18730), (84, 18796), (87, 18823), (106, 18889), (128, 19030),

Gene: DinoNuggs_21 Start: 17192, Stop: 17776, Start Num: 31

Candidate Starts for DinoNuggs_21:

(5, 16829), (6, 16868), (8, 16895), (11, 16916), (Start: 31 @17192 has 20 MA's), (Start: 35 @17243 has 2 MA's), (39, 17270), (43, 17285), (46, 17297), (49, 17321), (53, 17336), (66, 17492), (70, 17516), (78, 17585), (106, 17747), (110, 17768),

Gene: Dixon_7 Start: 4194, Stop: 4874, Start Num: 31

Candidate Starts for Dixon_7:

(19, 4071), (Start: 31 @4194 has 20 MA's), (33, 4209), (Start: 35 @4245 has 2 MA's), (53, 4350), (65, 4494), (68, 4509), (78, 4608), (79, 4620), (91, 4710), (112, 4785), (113, 4788), (124, 4860),

Gene: DonkeyMan_20 Start: 16981, Stop: 17565, Start Num: 31

Candidate Starts for DonkeyMan_20:

(8, 16684), (11, 16705), (Start: 31 @16981 has 20 MA's), (Start: 35 @17032 has 2 MA's), (39, 17059), (43, 17074), (46, 17086), (49, 17110), (53, 17125), (66, 17281), (70, 17305), (78, 17374), (102, 17515), (106, 17536), (110, 17557),

Gene: Dre3_20 Start: 18066, Stop: 18629, Start Num: 32

Candidate Starts for Dre3_20:

(Start: 32 @18066 has 166 MA's), (38, 18141), (39, 18144), (44, 18159), (55, 18240), (59, 18291), (65, 18366), (78, 18459), (84, 18525), (88, 18555), (107, 18603),

Gene: ElJefes_19 Start: 17977, Stop: 18564, Start Num: 32

Candidate Starts for ElJefes_19:

(Start: 32 @17977 has 166 MA's), (38, 18052), (43, 18076), (50, 18118), (57, 18166), (65, 18277), (67, 18286), (68, 18301), (78, 18379), (87, 18472),

Gene: Elinal_21 Start: 17498, Stop: 18085, Start Num: 32

Candidate Starts for Elinal_21:

(Start: 32 @17498 has 166 MA's), (38, 17573), (43, 17597), (57, 17687), (65, 17798), (68, 17822), (78, 17900), (95, 18023),

Gene: Elliott_20 Start: 17846, Stop: 18406, Start Num: 34

Candidate Starts for Elliott_20:

(16, 17687), (Start: 32 @17828 has 166 MA's), (34, 17846), (44, 17921), (59, 18053), (63, 18119), (65, 18128), (78, 18221), (79, 18233), (84, 18287), (87, 18314), (95, 18344), (107, 18380),

Gene: Emalyn_19 Start: 17133, Stop: 17723, Start Num: 32

Candidate Starts for Emalyn_19:

(Start: 32 @17133 has 166 MA's), (Start: 35 @17184 has 2 MA's), (36, 17187), (37, 17205), (40, 17217), (43, 17235), (55, 17310), (59, 17361), (65, 17436), (68, 17460), (78, 17538), (82, 17592), (87, 17631), (107, 17697), (111, 17718),

Gene: Eudoria_20 Start: 19391, Stop: 20098, Start Num: 32

Candidate Starts for Eudoria_20:

(Start: 32 @19391 has 166 MA's), (Start: 35 @19442 has 2 MA's), (43, 19484), (49, 19520), (53, 19535), (65, 19688), (66, 19691), (70, 19715), (74, 19733), (78, 19784), (84, 19850), (99, 19919), (106, 19943), (129, 20087),

Gene: Eviarto_20 Start: 19457, Stop: 20161, Start Num: 32

Candidate Starts for Eviarto_20:

(Start: 25 @19424 has 1 MA's), (Start: 32 @19457 has 166 MA's), (Start: 35 @19508 has 2 MA's), (43, 19550), (49, 19586), (66, 19757), (70, 19781), (78, 19850), (84, 19916), (106, 20009), (128, 20150),

Gene: Expelliarmus_6 Start: 4161, Stop: 4841, Start Num: 31

Candidate Starts for Expelliarmus_6:

(Start: 31 @4161 has 20 MA's), (33, 4176), (Start: 35 @4212 has 2 MA's), (53, 4317), (65, 4461), (68, 4476), (78, 4575), (79, 4587), (91, 4677), (112, 4752), (113, 4755), (124, 4827),

Gene: Feastonyeet_19 Start: 17545, Stop: 18132, Start Num: 32

Candidate Starts for Feastonyeet_19:

(Start: 32 @17545 has 166 MA's), (38, 17620), (43, 17644), (57, 17734), (65, 17845), (67, 17854), (68, 17869), (78, 17947), (87, 18040),

Gene: FelixTres_43 Start: 35962, Stop: 36540, Start Num: 32

Candidate Starts for FelixTres_43:

(4, 35587), (15, 35773), (Start: 29 @35944 has 2 MA's), (Start: 32 @35962 has 166 MA's), (Start: 35 @36013 has 2 MA's), (40, 36046), (43, 36064), (46, 36079), (65, 36265), (68, 36289), (73, 36310), (78, 36367), (84, 36433), (85, 36445),

Gene: Fenry_19 Start: 18032, Stop: 18739, Start Num: 32

Candidate Starts for Fenry_19:

(Start: 32 @18032 has 166 MA's), (Start: 35 @18083 has 2 MA's), (43, 18125), (49, 18161), (66, 18332), (78, 18425), (84, 18491), (106, 18584), (129, 18728),

Gene: Flashwig_4 Start: 2898, Stop: 3614, Start Num: 30

Candidate Starts for Flashwig_4:

(Start: 30 @2898 has 1 MA's), (Start: 35 @2949 has 2 MA's), (42, 2985), (46, 3009), (58, 3090), (59, 3117), (60, 3135), (65, 3192), (76, 3249), (78, 3285), (96, 3405), (105, 3435), (109, 3447), (117, 3489), (124, 3549), (132, 3606),

Gene: Fribs8_21 Start: 18650, Stop: 19213, Start Num: 32

Candidate Starts for Fribs8_21:

(Start: 32 @18650 has 166 MA's), (38, 18725), (39, 18728), (44, 18743), (55, 18824), (65, 18950), (78, 19043), (84, 19109), (88, 19139), (107, 19187),

Gene: Frokostdame_20 Start: 18282, Stop: 18989, Start Num: 32

Candidate Starts for Frokostdame_20:

(Start: 32 @18282 has 166 MA's), (Start: 35 @18333 has 2 MA's), (43, 18375), (49, 18411), (66, 18582), (78, 18675), (84, 18741), (106, 18834), (129, 18978),

Gene: GMA5_5 Start: 3196, Stop: 3984, Start Num: 32

Candidate Starts for GMA5_5:

(3, 2782), (Start: 32 @3196 has 166 MA's), (Start: 35 @3247 has 2 MA's), (43, 3289), (66, 3496), (70, 3520), (75, 3550), (78, 3589), (92, 3700), (96, 3715), (119, 3829), (121, 3856), (129, 3910), (134, 3949),

Gene: GRU3_5 Start: 3244, Stop: 4032, Start Num: 32

Candidate Starts for GRU3_5:

(Start: 32 @3244 has 166 MA's), (Start: 35 @3295 has 2 MA's), (38, 3319), (40, 3328), (43, 3337), (46, 3349), (66, 3544), (69, 3565), (70, 3568), (73, 3580), (78, 3637), (92, 3748), (119, 3877), (121, 3904), (129, 3958), (134, 3997),

Gene: GTE2_18 Start: 17225, Stop: 17770, Start Num: 35

Candidate Starts for GTE2_18:

(Start: 32 @17174 has 166 MA's), (Start: 35 @17225 has 2 MA's), (40, 17258), (42, 17267), (43, 17276), (55, 17351), (59, 17402), (65, 17477), (68, 17501), (78, 17579), (82, 17633), (84, 17645), (86, 17660), (87, 17672), (107, 17744), (111, 17765),

Gene: Gambino_22 Start: 18628, Stop: 19335, Start Num: 32

Candidate Starts for Gambino_22:

(Start: 32 @18628 has 166 MA's), (Start: 35 @18679 has 2 MA's), (43, 18721), (49, 18757), (66, 18928), (78, 19021), (84, 19087), (106, 19180), (115, 19222), (129, 19324),

Gene: Getalong_23 Start: 19482, Stop: 20015, Start Num: 32

Candidate Starts for Getalong_23:

(17, 19353), (28, 19464), (Start: 32 @19482 has 166 MA's), (Start: 35 @19533 has 2 MA's), (38, 19557), (39, 19560), (43, 19575), (57, 19662), (58, 19671), (62, 19737), (64, 19767), (65, 19773), (68, 19788), (72, 19806), (73, 19809), (76, 19830), (78, 19866), (80, 19884), (83, 19917), (105, 20001),

Gene: GiKK_23 Start: 17167, Stop: 17742, Start Num: 32

Candidate Starts for GiKK_23:

(Start: 32 @17167 has 166 MA's), (33, 17182), (Start: 35 @17218 has 2 MA's), (38, 17242), (46, 17275), (48, 17290), (49, 17299), (55, 17335), (59, 17386), (65, 17461), (78, 17563), (81, 17599), (82, 17617), (84, 17629), (93, 17671), (111, 17734),

Gene: Gibbous_20 Start: 18066, Stop: 18629, Start Num: 32

Candidate Starts for Gibbous_20:

(Start: 32 @18066 has 166 MA's), (38, 18141), (39, 18144), (44, 18159), (55, 18240), (59, 18291), (65, 18366), (78, 18459), (84, 18525), (88, 18555), (107, 18603),

Gene: GoldHunter_21 Start: 17847, Stop: 18407, Start Num: 34

Candidate Starts for GoldHunter_21:

(16, 17688), (Start: 32 @17829 has 166 MA's), (34, 17847), (44, 17922), (59, 18054), (63, 18120), (65, 18129), (78, 18222), (79, 18234), (84, 18288), (87, 18315), (95, 18345), (107, 18381),

Gene: Groundhog_6 Start: 4162, Stop: 4842, Start Num: 31

Candidate Starts for Groundhog_6:

(Start: 31 @4162 has 20 MA's), (33, 4177), (Start: 35 @4213 has 2 MA's), (53, 4318), (65, 4462), (68, 4477), (78, 4576), (79, 4588), (91, 4678), (112, 4753), (113, 4756), (124, 4828),

Gene: Guacamole_20 Start: 18317, Stop: 19024, Start Num: 32

Candidate Starts for Guacamole_20:

(Start: 32 @18317 has 166 MA's), (Start: 35 @18368 has 2 MA's), (43, 18410), (49, 18446), (66, 18617), (78, 18710), (84, 18776), (106, 18869), (129, 19013),

Gene: Heinz_20 Start: 17073, Stop: 17657, Start Num: 32

Candidate Starts for Heinz_20:

(Start: 32 @17073 has 166 MA's), (Start: 35 @17124 has 2 MA's), (43, 17166), (49, 17202), (65, 17370), (66, 17373), (78, 17466), (102, 17607), (106, 17628), (110, 17649), (112, 17652),

Gene: Herod_20 Start: 19457, Stop: 20161, Start Num: 32

Candidate Starts for Herod_20:

(Start: 25 @19424 has 1 MA's), (Start: 32 @19457 has 166 MA's), (Start: 35 @19508 has 2 MA's), (43, 19550), (49, 19586), (66, 19757), (70, 19781), (78, 19850), (84, 19916), (106, 20009), (128, 20150),

Gene: Hexbug_22 Start: 17853, Stop: 18434, Start Num: 32

Candidate Starts for Hexbug_22:

(7, 17529), (12, 17613), (14, 17658), (Start: 32 @17853 has 166 MA's), (38, 17928), (39, 17931), (44, 17946), (46, 17958), (47, 17970), (60, 18096), (61, 18111), (65, 18153), (67, 18162), (68, 18177), (71, 18192), (77, 18246), (78, 18255), (94, 18366), (111, 18426),

Gene: Hibiscus_20 Start: 17021, Stop: 17605, Start Num: 32

Candidate Starts for Hibiscus_20:

(Start: 32 @17021 has 166 MA's), (Start: 35 @17072 has 2 MA's), (43, 17114), (49, 17150), (65, 17318), (66, 17321), (78, 17414), (102, 17555), (106, 17576), (110, 17597), (112, 17600),

Gene: HippoPololi_22 Start: 18718, Stop: 19281, Start Num: 32

Candidate Starts for HippoPololi_22:

(Start: 32 @18718 has 166 MA's), (38, 18793), (39, 18796), (44, 18811), (55, 18892), (59, 18943), (65, 19018), (78, 19111), (88, 19207), (107, 19255),

Gene: Hitter_20 Start: 18313, Stop: 19020, Start Num: 32

Candidate Starts for Hitter_20:

(Start: 32 @18313 has 166 MA's), (Start: 35 @18364 has 2 MA's), (43, 18406), (49, 18442), (53, 18457), (66, 18613), (78, 18706), (84, 18772), (106, 18865), (129, 19009),

Gene: Holliday_22 Start: 18726, Stop: 19385, Start Num: 35

Candidate Starts for Holliday_22:

(24, 18642), (Start: 32 @18675 has 166 MA's), (Start: 35 @18726 has 2 MA's), (43, 18771), (56, 18861), (59, 18897), (65, 18972), (68, 18996), (78, 19074), (84, 19140), (87, 19167), (106, 19233), (114, 19263), (116, 19284), (129, 19374),

Gene: HorseRider_4 Start: 2898, Stop: 3614, Start Num: 30

Candidate Starts for HorseRider_4:

(Start: 30 @2898 has 1 MA's), (Start: 35 @2949 has 2 MA's), (46, 3009), (58, 3090), (59, 3117), (60, 3135), (65, 3192), (76, 3249), (78, 3285), (96, 3405), (105, 3435), (109, 3447), (117, 3489), (124, 3549), (132, 3606),

Gene: Horseradish_21 Start: 17379, Stop: 17969, Start Num: 32

Candidate Starts for Horseradish_21:

(Start: 32 @17379 has 166 MA's), (Start: 35 @17430 has 2 MA's), (37, 17451), (40, 17463), (43, 17481), (59, 17607), (65, 17682), (68, 17706), (78, 17784), (82, 17838), (84, 17850), (87, 17877), (103, 17922), (107, 17943),

Gene: Hugley_20 Start: 19457, Stop: 20161, Start Num: 32

Candidate Starts for Hugley_20:

(Start: 25 @19424 has 1 MA's), (Start: 32 @19457 has 166 MA's), (Start: 35 @19508 has 2 MA's), (43, 19550), (49, 19586), (66, 19757), (70, 19781), (78, 19850), (84, 19916), (106, 20009), (128, 20150),

Gene: Jablanski_22 Start: 19787, Stop: 20500, Start Num: 32

Candidate Starts for Jablanski_22:

(Start: 32 @19787 has 166 MA's), (Start: 35 @19838 has 2 MA's), (43, 19883), (59, 20009), (65, 20084), (67, 20093), (68, 20108), (75, 20147), (78, 20186), (84, 20252), (106, 20345), (129, 20489),

Gene: JacoRen57_25 Start: 24411, Stop: 25172, Start Num: 31

Candidate Starts for JacoRen57_25:

(Start: 31 @24411 has 20 MA's), (Start: 35 @24462 has 2 MA's), (45, 24510), (46, 24522), (52, 24558), (59, 24633), (63, 24699), (75, 24762), (77, 24798), (78, 24807), (79, 24819), (87, 24906), (98, 24942), (110, 25002), (126, 25110), (133, 25161),

Gene: Jalamah_22 Start: 19107, Stop: 19814, Start Num: 32

Candidate Starts for Jalamah_22:

(Start: 32 @19107 has 166 MA's), (Start: 35 @19158 has 2 MA's), (43, 19200), (49, 19236), (53, 19251), (66, 19407), (78, 19500), (84, 19566), (106, 19659), (129, 19803),

Gene: Jalloh_4 Start: 2897, Stop: 3613, Start Num: 30

Candidate Starts for Jalloh_4:

(Start: 30 @2897 has 1 MA's), (Start: 35 @2948 has 2 MA's), (46, 3008), (53, 3047), (58, 3089), (59, 3116), (60, 3134), (65, 3191), (76, 3248), (78, 3284), (96, 3404), (105, 3434), (109, 3446), (117, 3488), (124, 3548), (132, 3605),

Gene: Jamzy_23 Start: 17177, Stop: 17752, Start Num: 32

Candidate Starts for Jamzy_23:

(Start: 32 @17177 has 166 MA's), (33, 17192), (Start: 35 @17228 has 2 MA's), (38, 17252), (46, 17285), (48, 17300), (49, 17309), (55, 17345), (59, 17396), (65, 17471), (78, 17573), (81, 17609), (82, 17627), (84, 17639), (93, 17681), (111, 17744),

Gene: JasperJr_20 Start: 18317, Stop: 19024, Start Num: 32

Candidate Starts for JasperJr_20:

(Start: 32 @18317 has 166 MA's), (Start: 35 @18368 has 2 MA's), (43, 18410), (49, 18446), (66, 18617), (78, 18710), (84, 18776), (106, 18869), (129, 19013),

Gene: Jojo24_20 Start: 17018, Stop: 17602, Start Num: 32

Candidate Starts for Jojo24_20:

(Start: 32 @17018 has 166 MA's), (Start: 35 @17069 has 2 MA's), (43, 17111), (49, 17147), (66, 17318), (78, 17411), (102, 17552), (106, 17573), (110, 17594), (112, 17597),

Gene: JonJames_49 Start: 35611, Stop: 36183, Start Num: 31

Candidate Starts for JonJames_49:

(21, 35521), (23, 35557), (Start: 31 @35611 has 20 MA's), (Start: 35 @35662 has 2 MA's), (43, 35704), (49, 35740), (65, 35908), (66, 35911), (78, 36004), (82, 36058), (89, 36109), (95, 36127), (106, 36166),

Gene: JuJu_20 Start: 18238, Stop: 18942, Start Num: 32

Candidate Starts for JuJu_20:

(Start: 32 @18238 has 166 MA's), (Start: 35 @18289 has 2 MA's), (43, 18331), (46, 18343), (49, 18367), (66, 18538), (78, 18631), (96, 18757), (106, 18790), (110, 18811), (128, 18931),

Gene: Kamaru_22 Start: 18675, Stop: 19385, Start Num: 32

Candidate Starts for Kamaru_22:

(24, 18642), (Start: 32 @18675 has 166 MA's), (Start: 35 @18726 has 2 MA's), (43, 18771), (56, 18861), (59, 18897), (65, 18972), (68, 18996), (78, 19074), (84, 19140), (87, 19167), (106, 19233), (114, 19263), (116, 19284), (129, 19374),

Gene: KappaFarmDelta_20 Start: 18481, Stop: 19188, Start Num: 32

Candidate Starts for KappaFarmDelta_20:

(Start: 32 @18481 has 166 MA's), (Start: 35 @18532 has 2 MA's), (43, 18574), (49, 18610), (53, 18625), (66, 18781), (78, 18874), (84, 18940), (99, 19009), (106, 19033), (127, 19162), (129, 19177),

Gene: KayGee_20 Start: 17498, Stop: 18085, Start Num: 32

Candidate Starts for KayGee_20:

(Start: 32 @17498 has 166 MA's), (38, 17573), (43, 17597), (57, 17687), (65, 17798), (68, 17822), (78, 17900), (95, 18023),

Gene: Kenna_21 Start: 18683, Stop: 19216, Start Num: 32

Candidate Starts for Kenna_21:

(24, 18650), (Start: 32 @18683 has 166 MA's), (Start: 35 @18734 has 2 MA's), (39, 18761), (43, 18776), (57, 18863), (58, 18872), (62, 18938), (63, 18965), (65, 18974), (76, 19031), (78, 19067), (80, 19085), (83, 19118),

Gene: Kita_20 Start: 19391, Stop: 20098, Start Num: 32

Candidate Starts for Kita_20:

(Start: 32 @19391 has 166 MA's), (Start: 35 @19442 has 2 MA's), (43, 19484), (49, 19520), (53, 19535), (65, 19688), (66, 19691), (70, 19715), (74, 19733), (78, 19784), (84, 19850), (99, 19919), (106, 19943), (129, 20087),

Gene: Kuwabara_21 Start: 18109, Stop: 18642, Start Num: 32

Candidate Starts for Kuwabara_21:

(24, 18076), (Start: 32 @18109 has 166 MA's), (Start: 35 @18160 has 2 MA's), (39, 18187), (43, 18202), (57, 18289), (58, 18298), (62, 18364), (63, 18391), (65, 18400), (76, 18457), (78, 18493), (80, 18511), (83, 18544), (105, 18628),

Gene: Lauer_19 Start: 17547, Stop: 18134, Start Num: 32

Candidate Starts for Lauer_19:

(Start: 32 @17547 has 166 MA's), (38, 17622), (43, 17646), (57, 17736), (60, 17790), (65, 17847), (68, 17871), (78, 17949), (95, 18072),

Gene: Lutum_22 Start: 18683, Stop: 19216, Start Num: 32

Candidate Starts for Lutum_22:

(24, 18650), (Start: 32 @18683 has 166 MA's), (Start: 35 @18734 has 2 MA's), (39, 18761), (43, 18776), (57, 18863), (58, 18872), (62, 18938), (63, 18965), (65, 18974), (76, 19031), (78, 19067), (80, 19085), (83, 19118),

Gene: Lysidious_21 Start: 18837, Stop: 19544, Start Num: 32

Candidate Starts for Lysidious_21:

(Start: 32 @18837 has 166 MA's), (Start: 35 @18888 has 2 MA's), (43, 18930), (49, 18966), (53, 18981), (66, 19137), (78, 19230), (84, 19296), (106, 19389), (129, 19533),

Gene: MAnor_20 Start: 17509, Stop: 18096, Start Num: 32

Candidate Starts for MAnor_20:

(Start: 32 @17509 has 166 MA's), (38, 17584), (43, 17608), (65, 17809), (67, 17818), (68, 17833), (78, 17911), (95, 18034),

Gene: MScarn_22 Start: 17468, Stop: 18058, Start Num: 32

Candidate Starts for MScarn_22:

(Start: 32 @17468 has 166 MA's), (Start: 35 @17519 has 2 MA's), (37, 17540), (40, 17552), (43, 17570), (55, 17645), (59, 17696), (65, 17771), (68, 17795), (78, 17873), (82, 17927), (84, 17939), (87, 17966), (103, 18011), (107, 18032),

Gene: MaVan_22 Start: 18806, Stop: 19369, Start Num: 32

Candidate Starts for MaVan_22:

(Start: 32 @18806 has 166 MA's), (38, 18881), (39, 18884), (44, 18899), (51, 18941), (59, 19031), (65, 19106), (78, 19199), (83, 19256), (111, 19364),

Gene: Madavieve_20 Start: 19737, Stop: 20441, Start Num: 32

Candidate Starts for Madavieve_20:

(Start: 25 @19704 has 1 MA's), (Start: 32 @19737 has 166 MA's), (Start: 35 @19788 has 2 MA's), (43, 19830), (49, 19866), (66, 20037), (70, 20061), (78, 20130), (84, 20196), (106, 20289), (128, 20430),

Gene: Madeline_20 Start: 19755, Stop: 20459, Start Num: 32

Candidate Starts for Madeline_20:

(Start: 25 @19722 has 1 MA's), (Start: 32 @19755 has 166 MA's), (Start: 35 @19806 has 2 MA's), (43, 19848), (49, 19884), (66, 20055), (70, 20079), (78, 20148), (84, 20214), (106, 20307), (128, 20448),

Gene: MakCheese_26 Start: 23097, Stop: 23636, Start Num: 32

Candidate Starts for MakCheese_26:

(Start: 32 @23097 has 166 MA's), (Start: 35 @23148 has 2 MA's), (39, 23175), (43, 23190), (57, 23277), (58, 23286), (65, 23388), (78, 23481), (90, 23574), (97, 23595),

Gene: MakoManhole_43 Start: 35977, Stop: 36555, Start Num: 32

Candidate Starts for MakoManhole_43:

(4, 35602), (15, 35788), (Start: 29 @35959 has 2 MA's), (Start: 32 @35977 has 166 MA's), (Start: 35 @36028 has 2 MA's), (40, 36061), (43, 36079), (46, 36094), (65, 36280), (68, 36304), (78, 36382), (84, 36448), (85, 36460),

Gene: Malachai_21 Start: 18791, Stop: 19498, Start Num: 32

Candidate Starts for Malachai_21:

(Start: 32 @18791 has 166 MA's), (Start: 35 @18842 has 2 MA's), (43, 18884), (49, 18920), (66, 19091), (78, 19184), (84, 19250), (106, 19343), (129, 19487),

Gene: Malibo_22 Start: 18630, Stop: 19343, Start Num: 32

Candidate Starts for Malibo_22:

(27, 18615), (Start: 32 @18630 has 166 MA's), (Start: 35 @18681 has 2 MA's), (43, 18726), (54, 18801), (65, 18927), (67, 18936), (68, 18951), (78, 19029), (82, 19083), (84, 19095), (106, 19188), (129, 19332),

Gene: Malisha_23 Start: 20456, Stop: 21166, Start Num: 32

Candidate Starts for Malisha_23:

(24, 20423), (Start: 32 @20456 has 166 MA's), (Start: 35 @20507 has 2 MA's), (43, 20552), (56, 20642), (59, 20678), (65, 20753), (68, 20777), (78, 20855), (84, 20921), (106, 21014), (114, 21044),

(116, 21065), (129, 21155),

Gene: Malvina_22 Start: 18721, Stop: 19284, Start Num: 32

Candidate Starts for Malvina_22:

(Start: 32 @18721 has 166 MA's), (38, 18796), (39, 18799), (44, 18814), (55, 18895), (59, 18946), (65, 19021), (78, 19114), (88, 19210), (107, 19258),

Gene: Manasvini_20 Start: 19391, Stop: 20098, Start Num: 32

Candidate Starts for Manasvini_20:

(Start: 32 @19391 has 166 MA's), (Start: 35 @19442 has 2 MA's), (43, 19484), (49, 19520), (53, 19535), (65, 19688), (66, 19691), (70, 19715), (74, 19733), (78, 19784), (84, 19850), (99, 19919), (106, 19943), (129, 20087),

Gene: Margaret_23 Start: 17546, Stop: 18121, Start Num: 32

Candidate Starts for Margaret_23:

(Start: 32 @17546 has 166 MA's), (33, 17561), (Start: 35 @17597 has 2 MA's), (38, 17621), (46, 17654), (48, 17669), (49, 17678), (55, 17714), (59, 17765), (62, 17804), (65, 17840), (78, 17942), (81, 17978), (82, 17996), (84, 18008), (111, 18113),

Gene: Maridalia_19 Start: 19391, Stop: 20098, Start Num: 32

Candidate Starts for Maridalia_19:

(Start: 32 @19391 has 166 MA's), (Start: 35 @19442 has 2 MA's), (43, 19484), (49, 19520), (53, 19535), (65, 19688), (66, 19691), (70, 19715), (74, 19733), (78, 19784), (84, 19850), (99, 19919), (106, 19943), (129, 20087),

Gene: Mayweather_21 Start: 18124, Stop: 18711, Start Num: 32

Candidate Starts for Mayweather_21:

(Start: 32 @18124 has 166 MA's), (38, 18199), (43, 18223), (57, 18313), (65, 18424), (67, 18433), (68, 18448), (78, 18526), (95, 18649),

Gene: McDazzle_19 Start: 17971, Stop: 18558, Start Num: 32

Candidate Starts for McDazzle_19:

(Start: 32 @17971 has 166 MA's), (38, 18046), (43, 18070), (50, 18112), (57, 18160), (65, 18271), (67, 18280), (68, 18295), (78, 18373), (87, 18466),

Gene: Melba_20 Start: 18313, Stop: 19020, Start Num: 32

Candidate Starts for Melba_20:

(Start: 32 @18313 has 166 MA's), (Start: 35 @18364 has 2 MA's), (43, 18406), (49, 18442), (66, 18613), (78, 18706), (84, 18772), (106, 18865), (129, 19009),

Gene: Mellie_19 Start: 18074, Stop: 18781, Start Num: 32

Candidate Starts for Mellie_19:

(Start: 32 @18074 has 166 MA's), (Start: 35 @18125 has 2 MA's), (43, 18167), (49, 18203), (53, 18218), (66, 18374), (78, 18467), (84, 18533), (87, 18560), (106, 18626), (129, 18770),

Gene: MintFen_20 Start: 18313, Stop: 19020, Start Num: 32

Candidate Starts for MintFen_20:

(Start: 32 @18313 has 166 MA's), (Start: 35 @18364 has 2 MA's), (43, 18406), (49, 18442), (66, 18613), (78, 18706), (84, 18772), (106, 18865), (129, 19009),

Gene: MissRona_22 Start: 18628, Stop: 19335, Start Num: 32

Candidate Starts for MissRona_22:

(Start: 32 @18628 has 166 MA's), (Start: 35 @18679 has 2 MA's), (43, 18721), (49, 18757), (66, 18928), (78, 19021), (84, 19087), (106, 19180), (115, 19222), (129, 19324),

Gene: MortyNRick_21 Start: 18415, Stop: 18948, Start Num: 32

Candidate Starts for MortyNRick_21:

(24, 18382), (Start: 32 @18415 has 166 MA's), (Start: 35 @18466 has 2 MA's), (39, 18493), (43, 18508), (57, 18595), (58, 18604), (62, 18670), (63, 18697), (65, 18706), (76, 18763), (78, 18799), (80, 18817), (83, 18850), (105, 18934),

Gene: MossRose_43 Start: 35938, Stop: 36534, Start Num: 29

Candidate Starts for MossRose_43:

(4, 35581), (15, 35767), (Start: 29 @35938 has 2 MA's), (Start: 32 @35956 has 166 MA's), (Start: 35 @36007 has 2 MA's), (40, 36040), (43, 36058), (46, 36073), (65, 36259), (68, 36283), (78, 36361), (84, 36427), (85, 36439),

Gene: MunkgeeRoachy_20 Start: 17876, Stop: 18454, Start Num: 32

Candidate Starts for MunkgeeRoachy_20:

(Start: 32 @17876 has 166 MA's), (34, 17894), (44, 17969), (59, 18101), (63, 18167), (65, 18176), (78, 18269), (84, 18335), (87, 18362), (95, 18392), (107, 18428),

Gene: Murp_20 Start: 18381, Stop: 19088, Start Num: 32

Candidate Starts for Murp_20:

(Start: 32 @18381 has 166 MA's), (Start: 35 @18432 has 2 MA's), (39, 18459), (43, 18474), (46, 18486), (49, 18510), (53, 18525), (60, 18624), (66, 18681), (78, 18774), (84, 18840), (99, 18909), (106, 18933), (127, 19062), (129, 19077),

Gene: NHagos_41 Start: 34560, Stop: 35138, Start Num: 32

Candidate Starts for NHagos_41:

(Start: 29 @34542 has 2 MA's), (Start: 32 @34560 has 166 MA's), (Start: 35 @34611 has 2 MA's), (43, 34662), (46, 34677), (65, 34863), (68, 34887), (78, 34965), (84, 35031), (107, 35124),

Gene: Naca_6 Start: 4378, Stop: 5058, Start Num: 31

Candidate Starts for Naca_6:

(22, 4291), (Start: 31 @4378 has 20 MA's), (33, 4393), (Start: 35 @4429 has 2 MA's), (60, 4621), (65, 4678), (76, 4735), (78, 4786), (79, 4798), (124, 5044),

Gene: NearlyHeadless_7 Start: 4201, Stop: 4878, Start Num: 31

Candidate Starts for NearlyHeadless_7:

(Start: 31 @4201 has 20 MA's), (33, 4216), (Start: 35 @4252 has 2 MA's), (53, 4357), (65, 4501), (68, 4516), (78, 4615), (79, 4627), (113, 4792), (124, 4864),

Gene: Neobush_20 Start: 19391, Stop: 20098, Start Num: 32

Candidate Starts for Neobush_20:

(Start: 32 @19391 has 166 MA's), (Start: 35 @19442 has 2 MA's), (43, 19484), (49, 19520), (53, 19535), (65, 19688), (66, 19691), (70, 19715), (74, 19733), (78, 19784), (84, 19850), (99, 19919), (106, 19943), (129, 20087),

Gene: Nibbles_22 Start: 18806, Stop: 19369, Start Num: 32

Candidate Starts for Nibbles_22:

(Start: 32 @18806 has 166 MA's), (38, 18881), (39, 18884), (44, 18899), (51, 18941), (59, 19031), (65, 19106), (78, 19199), (83, 19256), (111, 19364),

Gene: Nina_21 Start: 18870, Stop: 19448, Start Num: 32

Candidate Starts for Nina_21:

(16, 18729), (Start: 32 @18870 has 166 MA's), (34, 18888), (44, 18963), (59, 19095), (63, 19161), (65, 19170), (78, 19263), (84, 19329), (87, 19356), (95, 19386), (107, 19422),

Gene: Nodigi_22 Start: 17832, Stop: 18413, Start Num: 32

Candidate Starts for Nodigi_22:

(7, 17508), (12, 17592), (13, 17610), (14, 17637), (Start: 32 @17832 has 166 MA's), (38, 17907), (39, 17910), (44, 17925), (46, 17937), (47, 17949), (60, 18075), (61, 18090), (65, 18132), (67, 18141), (68, 18156), (71, 18171), (77, 18225), (78, 18234), (94, 18345), (111, 18405),

Gene: Nymphadora_20 Start: 19457, Stop: 20161, Start Num: 32

Candidate Starts for Nymphadora_20:

(Start: 25 @19424 has 1 MA's), (Start: 32 @19457 has 166 MA's), (Start: 35 @19508 has 2 MA's), (43, 19550), (49, 19586), (66, 19757), (70, 19781), (78, 19850), (84, 19916), (106, 20009), (128, 20150),

Gene: Obliviate_19 Start: 18103, Stop: 18810, Start Num: 32

Candidate Starts for Obliviate_19:

(Start: 32 @18103 has 166 MA's), (Start: 35 @18154 has 2 MA's), (43, 18196), (66, 18403), (78, 18496), (84, 18562), (87, 18589), (106, 18655), (129, 18799),

Gene: Ohgeesy_20 Start: 19080, Stop: 19784, Start Num: 32

Candidate Starts for Ohgeesy_20:

(Start: 25 @19047 has 1 MA's), (Start: 32 @19080 has 166 MA's), (Start: 35 @19131 has 2 MA's), (43, 19173), (49, 19209), (66, 19380), (70, 19404), (78, 19473), (84, 19539), (106, 19632), (128, 19773),

Gene: Orla_22 Start: 17836, Stop: 18417, Start Num: 32

Candidate Starts for Orla_22:

(Start: 32 @17836 has 166 MA's), (39, 17914), (44, 17929), (46, 17941), (47, 17953), (61, 18094), (65, 18136), (67, 18145), (68, 18160), (71, 18175), (77, 18229), (78, 18238), (94, 18349), (111, 18409),

Gene: PCoral7_20 Start: 18403, Stop: 19116, Start Num: 32

Candidate Starts for PCoral7_20:

(Start: 32 @18403 has 166 MA's), (Start: 35 @18454 has 2 MA's), (37, 18475), (43, 18499), (46, 18514), (50, 18541), (54, 18574), (56, 18589), (59, 18625), (65, 18700), (67, 18709), (68, 18724), (78, 18802), (84, 18868), (106, 18961), (115, 19003), (128, 19102),

Gene: PantheRoc_20 Start: 18788, Stop: 19492, Start Num: 32

Candidate Starts for PantheRoc_20:

(Start: 25 @18755 has 1 MA's), (Start: 32 @18788 has 166 MA's), (Start: 35 @18839 has 2 MA's), (43, 18881), (49, 18917), (66, 19088), (70, 19112), (78, 19181), (84, 19247), (106, 19340), (128, 19481),

Gene: Periwinkle_24 Start: 19149, Stop: 19682, Start Num: 32

Candidate Starts for Periwinkle_24:

(28, 19131), (Start: 32 @19149 has 166 MA's), (Start: 35 @19200 has 2 MA's), (38, 19224), (39, 19227), (43, 19242), (50, 19284), (57, 19329), (58, 19338), (62, 19404), (64, 19434), (65, 19440), (68, 19455), (72, 19473), (73, 19476), (76, 19497), (78, 19533), (80, 19551), (83, 19584),

Gene: PetterN_7 Start: 4265, Stop: 4945, Start Num: 31

Candidate Starts for PetterN_7:

(22, 4181), (Start: 26 @4241 has 2 MA's), (Start: 31 @4265 has 20 MA's), (33, 4280), (Start: 35 @4316 has 2 MA's), (60, 4508), (65, 4565), (76, 4622), (78, 4673), (79, 4685), (124, 4931),

Gene: Phillis_7 Start: 4159, Stop: 4836, Start Num: 31

Candidate Starts for Phillis_7:

(Start: 31 @4159 has 20 MA's), (Start: 35 @4210 has 2 MA's), (53, 4315), (65, 4459), (68, 4474), (78, 4573), (79, 4585), (112, 4747), (113, 4750), (124, 4822),

Gene: PhrostedPhlake_21 Start: 18689, Stop: 19396, Start Num: 32

Candidate Starts for PhrostedPhlake_21:

(Start: 32 @18689 has 166 MA's), (Start: 35 @18740 has 2 MA's), (43, 18782), (49, 18818), (53, 18833), (66, 18989), (74, 19031), (78, 19082), (84, 19148), (106, 19241), (129, 19385),

Gene: Pipp_20 Start: 18307, Stop: 19014, Start Num: 32

Candidate Starts for Pipp_20:

(Start: 32 @18307 has 166 MA's), (Start: 35 @18358 has 2 MA's), (43, 18400), (49, 18436), (53, 18451), (66, 18607), (78, 18700), (84, 18766), (87, 18793), (106, 18859), (129, 19003),

Gene: Pons_20 Start: 17499, Stop: 18086, Start Num: 32

Candidate Starts for Pons_20:

(Start: 32 @17499 has 166 MA's), (38, 17574), (43, 17598), (57, 17688), (65, 17799), (67, 17808), (68, 17823), (78, 17901), (87, 17994),

Gene: Posh_22 Start: 19640, Stop: 20353, Start Num: 32

Candidate Starts for Posh_22:

(Start: 32 @19640 has 166 MA's), (Start: 35 @19691 has 2 MA's), (43, 19736), (59, 19862), (65, 19937), (67, 19946), (68, 19961), (75, 20000), (78, 20039), (84, 20105), (106, 20198), (129, 20342),

Gene: PotPie_20 Start: 18364, Stop: 18951, Start Num: 32

Candidate Starts for PotPie_20:

(Start: 32 @18364 has 166 MA's), (38, 18439), (43, 18463), (50, 18505), (57, 18553), (65, 18664), (67, 18673), (68, 18688), (78, 18766), (95, 18889),

Gene: PsychoKiller_20 Start: 17846, Stop: 18406, Start Num: 34

Candidate Starts for PsychoKiller_20:

(16, 17687), (Start: 32 @17828 has 166 MA's), (34, 17846), (44, 17921), (59, 18053), (63, 18119), (65, 18128), (78, 18221), (79, 18233), (84, 18287), (87, 18314), (95, 18344), (107, 18380),

Gene: Pytheas_22 Start: 19786, Stop: 20499, Start Num: 32

Candidate Starts for Pytheas_22:

(Start: 32 @19786 has 166 MA's), (Start: 35 @19837 has 2 MA's), (43, 19882), (59, 20008), (65, 20083), (67, 20092), (68, 20107), (75, 20146), (78, 20185), (84, 20251), (106, 20344), (129, 20488),

Gene: Quasar_20 Start: 18437, Stop: 19015, Start Num: 32

Candidate Starts for Quasar_20:

(16, 18296), (Start: 32 @18437 has 166 MA's), (34, 18455), (44, 18530), (59, 18662), (63, 18728), (65, 18737), (78, 18830), (79, 18842), (84, 18896), (87, 18923), (95, 18953), (107, 18989),

Gene: RADical_21 Start: 17847, Stop: 18407, Start Num: 34

Candidate Starts for RADical_21:

(16, 17688), (Start: 32 @17829 has 166 MA's), (34, 17847), (44, 17922), (59, 18054), (63, 18120), (65, 18129), (78, 18222), (79, 18234), (84, 18288), (87, 18315), (95, 18345), (107, 18381),

Gene: RRH1_05 Start: 3586, Stop: 4320, Start Num: 31

Candidate Starts for RRH1_05:

(2, 3157), (10, 3295), (18, 3457), (Start: 31 @3586 has 20 MA's), (Start: 35 @3637 has 2 MA's), (37, 3658), (39, 3664), (40, 3670), (53, 3736), (58, 3778), (65, 3880), (76, 3937), (78, 3973), (100, 4111),

(114, 4171), (120, 4231), (131, 4300),

Gene: RSchmailzl_21 Start: 17990, Stop: 18550, Start Num: 34

Candidate Starts for RSchmailzl_21:

(16, 17831), (Start: 32 @17972 has 166 MA's), (34, 17990), (44, 18065), (59, 18197), (63, 18263), (65, 18272), (78, 18365), (84, 18431), (87, 18458), (95, 18488), (107, 18524),

Gene: Rahul_5 Start: 3256, Stop: 4038, Start Num: 32

Candidate Starts for Rahul_5:

(3, 2836), (Start: 32 @3256 has 166 MA's), (Start: 35 @3307 has 2 MA's), (37, 3328), (41, 3346), (65, 3559), (76, 3616), (78, 3652), (92, 3754), (104, 3790), (118, 3865), (130, 3964), (135, 4018),

Gene: RanchParmCat_23 Start: 17546, Stop: 18121, Start Num: 32

Candidate Starts for RanchParmCat_23:

(Start: 32 @17546 has 166 MA's), (33, 17561), (Start: 35 @17597 has 2 MA's), (37, 17618), (38, 17621), (46, 17654), (48, 17669), (49, 17678), (55, 17714), (59, 17765), (62, 17804), (65, 17840), (78, 17942), (81, 17978), (82, 17996), (84, 18008), (111, 18113),

Gene: RedBaron_21 Start: 17872, Stop: 18450, Start Num: 32

Candidate Starts for RedBaron_21:

(Start: 32 @17872 has 166 MA's), (34, 17890), (44, 17965), (59, 18097), (63, 18163), (65, 18172), (78, 18265), (84, 18331), (87, 18358), (95, 18388), (107, 18424),

Gene: Reyja_21 Start: 17192, Stop: 17776, Start Num: 31

Candidate Starts for Reyja_21:

(5, 16829), (6, 16868), (8, 16895), (11, 16916), (Start: 31 @17192 has 20 MA's), (Start: 35 @17243 has 2 MA's), (39, 17270), (43, 17285), (46, 17297), (49, 17321), (53, 17336), (66, 17492), (70, 17516), (78, 17585), (106, 17747), (110, 17768),

Gene: Roary_7 Start: 4160, Stop: 4840, Start Num: 31

Candidate Starts for Roary_7:

(Start: 31 @4160 has 20 MA's), (33, 4175), (Start: 35 @4211 has 2 MA's), (53, 4316), (65, 4460), (68, 4475), (78, 4574), (79, 4586), (112, 4751), (113, 4754), (124, 4826),

Gene: Ruthy_24 Start: 21732, Stop: 22394, Start Num: 35

Candidate Starts for Ruthy_24:

(Start: 32 @21681 has 166 MA's), (Start: 35 @21732 has 2 MA's), (43, 21777), (56, 21867), (59, 21903), (65, 21978), (68, 22002), (78, 22080), (82, 22134), (84, 22146), (87, 22173), (89, 22185), (106, 22239), (129, 22383),

Gene: Saintus_7 Start: 4176, Stop: 4853, Start Num: 31

Candidate Starts for Saintus_7:

(Start: 31 @4176 has 20 MA's), (33, 4191), (Start: 35 @4227 has 2 MA's), (53, 4332), (65, 4476), (68, 4491), (78, 4590), (79, 4602), (113, 4767), (124, 4839),

Gene: Samba_20 Start: 18391, Stop: 19098, Start Num: 32

Candidate Starts for Samba_20:

(Start: 32 @18391 has 166 MA's), (Start: 35 @18442 has 2 MA's), (43, 18484), (49, 18520), (53, 18535), (66, 18691), (78, 18784), (84, 18850), (106, 18943), (129, 19087),

Gene: Santhid_20 Start: 17026, Stop: 17610, Start Num: 32

Candidate Starts for Santhid_20:

(Start: 32 @17026 has 166 MA's), (Start: 35 @17077 has 2 MA's), (43, 17119), (49, 17155), (66, 17326), (78, 17419), (102, 17560), (106, 17581), (110, 17602),

Gene: Scorpia_7 Start: 4242, Stop: 4946, Start Num: 26

Candidate Starts for Scorpia_7:

(22, 4182), (Start: 26 @4242 has 2 MA's), (Start: 31 @4266 has 20 MA's), (33, 4281), (Start: 35 @4317 has 2 MA's), (60, 4509), (65, 4566), (76, 4623), (78, 4674), (79, 4686), (124, 4932),

Gene: ShawBrad_22 Start: 18692, Stop: 19225, Start Num: 32

Candidate Starts for ShawBrad_22:

(20, 18590), (28, 18674), (Start: 32 @18692 has 166 MA's), (Start: 35 @18743 has 2 MA's), (38, 18767), (39, 18770), (43, 18785), (50, 18827), (57, 18872), (58, 18881), (62, 18947), (64, 18977), (65, 18983), (68, 18998), (72, 19016), (73, 19019), (76, 19040), (78, 19076), (80, 19094), (83, 19127),

Gene: SheckWes_19 Start: 17499, Stop: 18086, Start Num: 32

Candidate Starts for SheckWes_19:

(Start: 32 @17499 has 166 MA's), (38, 17574), (43, 17598), (50, 17640), (57, 17688), (65, 17799), (67, 17808), (68, 17823), (78, 17901), (87, 17994),

Gene: Sidious_20 Start: 18909, Stop: 19616, Start Num: 32

Candidate Starts for Sidious_20:

(Start: 32 @18909 has 166 MA's), (Start: 35 @18960 has 2 MA's), (43, 19002), (46, 19014), (49, 19038), (66, 19209), (78, 19302), (96, 19428), (106, 19461), (110, 19482), (129, 19605),

Gene: SketchMex_19 Start: 17483, Stop: 18073, Start Num: 32

Candidate Starts for SketchMex_19:

(Start: 32 @17483 has 166 MA's), (Start: 35 @17534 has 2 MA's), (37, 17555), (40, 17567), (43, 17585), (55, 17660), (59, 17711), (65, 17786), (68, 17810), (78, 17888), (82, 17942), (84, 17954), (87, 17981), (103, 18026), (107, 18047),

Gene: Smeadley_7 Start: 4193, Stop: 4873, Start Num: 31

Candidate Starts for Smeadley_7:

(19, 4070), (Start: 31 @4193 has 20 MA's), (33, 4208), (Start: 35 @4244 has 2 MA's), (53, 4349), (65, 4493), (68, 4508), (78, 4607), (79, 4619), (91, 4709), (112, 4784), (113, 4787), (122, 4847), (124, 4859),

Gene: Socotra_21 Start: 17846, Stop: 18406, Start Num: 34

Candidate Starts for Socotra_21:

(16, 17687), (Start: 32 @17828 has 166 MA's), (34, 17846), (44, 17921), (59, 18053), (63, 18119), (65, 18128), (78, 18221), (79, 18233), (84, 18287), (87, 18314), (95, 18344), (107, 18380),

Gene: Soilmate_20 Start: 18331, Stop: 18987, Start Num: 35

Candidate Starts for Soilmate_20:

(Start: 32 @18280 has 166 MA's), (Start: 35 @18331 has 2 MA's), (43, 18373), (46, 18385), (49, 18409), (53, 18424), (60, 18523), (66, 18580), (78, 18673), (84, 18739), (106, 18832), (129, 18976),

Gene: Sopespian_20 Start: 17847, Stop: 18407, Start Num: 34

Candidate Starts for Sopespian_20:

(16, 17688), (Start: 32 @17829 has 166 MA's), (34, 17847), (44, 17922), (59, 18054), (63, 18120), (65, 18129), (78, 18222), (79, 18234), (84, 18288), (87, 18315), (95, 18345), (107, 18381),

Gene: Spooky_22 Start: 18665, Stop: 19375, Start Num: 32

Candidate Starts for Spooky_22:

(24, 18632), (Start: 32 @18665 has 166 MA's), (Start: 35 @18716 has 2 MA's), (43, 18761), (56, 18851), (59, 18887), (65, 18962), (68, 18986), (78, 19064), (84, 19130), (106, 19223), (114, 19253), (116, 19274), (129, 19364),

Gene: Sprinklemunch_24 Start: 23347, Stop: 23886, Start Num: 32

Candidate Starts for Sprinklemunch_24:

(Start: 32 @23347 has 166 MA's), (Start: 35 @23398 has 2 MA's), (39, 23425), (43, 23440), (57, 23527), (58, 23536), (65, 23638), (78, 23731), (97, 23845),

Gene: Squiddly_24 Start: 20077, Stop: 20787, Start Num: 32

Candidate Starts for Squiddly_24:

(24, 20044), (Start: 32 @20077 has 166 MA's), (Start: 35 @20128 has 2 MA's), (43, 20173), (56, 20263), (59, 20299), (65, 20374), (68, 20398), (78, 20476), (84, 20542), (106, 20635), (114, 20665), (116, 20686), (129, 20776),

Gene: Starburst_21 Start: 17846, Stop: 18406, Start Num: 34

Candidate Starts for Starburst_21:

(16, 17687), (Start: 32 @17828 has 166 MA's), (34, 17846), (44, 17921), (59, 18053), (63, 18119), (65, 18128), (78, 18221), (79, 18233), (84, 18287), (87, 18314), (95, 18344), (107, 18380),

Gene: SteamedHams_22 Start: 17501, Stop: 18097, Start Num: 32

Candidate Starts for SteamedHams_22:

(Start: 32 @17501 has 166 MA's), (Start: 35 @17552 has 2 MA's), (37, 17573), (40, 17585), (43, 17603), (55, 17678), (65, 17804), (68, 17828), (78, 17906), (86, 17987), (87, 17999), (96, 18032), (107, 18071), (111, 18092),

Gene: Stephig9_7 Start: 4161, Stop: 4841, Start Num: 31

Candidate Starts for Stephig9_7:

(Start: 31 @4161 has 20 MA's), (33, 4176), (Start: 35 @4212 has 2 MA's), (53, 4317), (65, 4461), (68, 4476), (78, 4575), (79, 4587), (91, 4677), (112, 4752), (113, 4755), (124, 4827),

Gene: SummitAcademy_19 Start: 17579, Stop: 18166, Start Num: 32

Candidate Starts for SummitAcademy_19:

(Start: 32 @17579 has 166 MA's), (38, 17654), (43, 17678), (50, 17720), (57, 17768), (65, 17879), (67, 17888), (68, 17903), (78, 17981), (95, 18104),

Gene: Survivors_22 Start: 18655, Stop: 19218, Start Num: 32

Candidate Starts for Survivors_22:

(Start: 32 @18655 has 166 MA's), (38, 18730), (39, 18733), (44, 18748), (51, 18790), (59, 18880), (65, 18955), (78, 19048), (83, 19105), (111, 19213),

Gene: Suscepit_20 Start: 19391, Stop: 20098, Start Num: 32

Candidate Starts for Suscepit_20:

(Start: 32 @19391 has 166 MA's), (Start: 35 @19442 has 2 MA's), (43, 19484), (49, 19520), (53, 19535), (65, 19688), (66, 19691), (70, 19715), (74, 19733), (78, 19784), (84, 19850), (99, 19919), (106, 19943), (129, 20087),

Gene: SushiChef_21 Start: 19457, Stop: 20164, Start Num: 32

Candidate Starts for SushiChef_21:

(Start: 25 @19424 has 1 MA's), (Start: 32 @19457 has 166 MA's), (Start: 35 @19508 has 2 MA's), (43, 19550), (49, 19586), (66, 19757), (70, 19781), (78, 19850), (84, 19916), (99, 19985), (106, 20009), (129, 20153),

Gene: SweatNTears_22 Start: 17994, Stop: 18584, Start Num: 32

Candidate Starts for SweatNTears_22:

(Start: 32 @17994 has 166 MA's), (Start: 35 @18045 has 2 MA's), (37, 18066), (40, 18078), (43, 18096), (55, 18171), (59, 18222), (65, 18297), (68, 18321), (78, 18399), (82, 18453), (84, 18465), (87, 18492), (103, 18537), (107, 18558),

Gene: TailX7_4 Start: 2898, Stop: 3614, Start Num: 30

Candidate Starts for TailX7_4:

(Start: 30 @2898 has 1 MA's), (Start: 35 @2949 has 2 MA's), (46, 3009), (53, 3048), (58, 3090), (59, 3117), (60, 3135), (65, 3192), (76, 3249), (78, 3285), (96, 3405), (105, 3435), (109, 3447), (117, 3489), (123, 3540), (124, 3549), (129, 3579), (132, 3606),

Gene: Tarnish_20 Start: 17869, Stop: 18456, Start Num: 32

Candidate Starts for Tarnish_20:

(Start: 32 @17869 has 166 MA's), (38, 17944), (43, 17968), (57, 18058), (65, 18169), (67, 18178), (68, 18193), (78, 18271), (87, 18364),

Gene: Tarzan_20 Start: 16995, Stop: 17579, Start Num: 31

Candidate Starts for Tarzan_20:

(8, 16698), (11, 16719), (Start: 31 @16995 has 20 MA's), (Start: 35 @17046 has 2 MA's), (39, 17073), (43, 17088), (46, 17100), (49, 17124), (53, 17139), (66, 17295), (70, 17319), (78, 17388), (102, 17529), (106, 17550), (110, 17571),

Gene: Tayonia_20 Start: 19391, Stop: 20098, Start Num: 32

Candidate Starts for Tayonia_20:

(Start: 32 @19391 has 166 MA's), (Start: 35 @19442 has 2 MA's), (43, 19484), (49, 19520), (53, 19535), (65, 19688), (66, 19691), (70, 19715), (74, 19733), (78, 19784), (84, 19850), (99, 19919), (106, 19943), (129, 20087),

Gene: ThankyouJordi_19 Start: 19426, Stop: 20133, Start Num: 32

Candidate Starts for ThankyouJordi_19:

(Start: 32 @19426 has 166 MA's), (Start: 35 @19477 has 2 MA's), (43, 19519), (49, 19555), (53, 19570), (66, 19726), (78, 19819), (88, 19915), (99, 19954), (106, 19978), (129, 20122),

Gene: TimTam_20 Start: 19457, Stop: 20161, Start Num: 32

Candidate Starts for TimTam_20:

(Start: 25 @19424 has 1 MA's), (Start: 32 @19457 has 166 MA's), (Start: 35 @19508 has 2 MA's), (43, 19550), (49, 19586), (66, 19757), (70, 19781), (78, 19850), (84, 19916), (106, 20009), (128, 20150),

Gene: Toast_20 Start: 18403, Stop: 19116, Start Num: 32

Candidate Starts for Toast_20:

(Start: 32 @18403 has 166 MA's), (Start: 35 @18454 has 2 MA's), (37, 18475), (43, 18499), (46, 18514), (50, 18541), (54, 18574), (56, 18589), (59, 18625), (65, 18700), (67, 18709), (68, 18724), (78, 18802), (84, 18868), (106, 18961), (115, 19003), (128, 19102),

Gene: Toil_31 Start: 15291, Stop: 15974, Start Num: 32

Candidate Starts for Toil_31:

(Start: 32 @15291 has 166 MA's), (Start: 35 @15342 has 2 MA's), (39, 15369), (53, 15447), (54, 15468), (58, 15489), (60, 15534), (62, 15555), (65, 15591), (78, 15684), (79, 15696), (96, 15807), (101, 15819), (108, 15855),

Gene: Tolls_22 Start: 17504, Stop: 18100, Start Num: 32

Candidate Starts for Tolls_22:

(Start: 32 @17504 has 166 MA's), (Start: 35 @17555 has 2 MA's), (37, 17576), (43, 17606), (55, 17681), (65, 17807), (68, 17831), (78, 17909), (86, 17990), (87, 18002), (96, 18035), (107, 18074), (111, 18095),

Gene: TraderJ_43 Start: 35970, Stop: 36566, Start Num: 29

Candidate Starts for TraderJ_43:

(4, 35613), (Start: 29 @35970 has 2 MA's), (Start: 32 @35988 has 166 MA's), (Start: 35 @36039 has 2 MA's), (40, 36072), (43, 36090), (46, 36105), (65, 36291), (68, 36315), (78, 36393), (84, 36459), (85, 36471),

Gene: Troje_20 Start: 17465, Stop: 18055, Start Num: 32

Candidate Starts for Troje_20:

(Start: 32 @17465 has 166 MA's), (Start: 35 @17516 has 2 MA's), (37, 17537), (40, 17549), (43, 17567), (55, 17642), (59, 17693), (65, 17768), (68, 17792), (78, 17870), (82, 17924), (84, 17936), (87, 17963), (103, 18008), (107, 18029),

Gene: Trumpet_20 Start: 19391, Stop: 20098, Start Num: 32

Candidate Starts for Trumpet_20:

(Start: 32 @19391 has 166 MA's), (Start: 35 @19442 has 2 MA's), (43, 19484), (49, 19520), (53, 19535), (65, 19688), (66, 19691), (70, 19715), (74, 19733), (78, 19784), (84, 19850), (99, 19919), (106, 19943), (129, 20087),

Gene: Typhonomachy_20 Start: 17828, Stop: 18406, Start Num: 32

Candidate Starts for Typhonomachy_20:

(16, 17687), (Start: 32 @17828 has 166 MA's), (34, 17846), (44, 17921), (59, 18053), (63, 18119), (65, 18128), (78, 18221), (84, 18287), (87, 18314), (95, 18344), (107, 18380),

Gene: UmaThurman_20 Start: 18441, Stop: 19145, Start Num: 32

Candidate Starts for UmaThurman_20:

(Start: 32 @18441 has 166 MA's), (Start: 35 @18492 has 2 MA's), (43, 18534), (49, 18570), (66, 18741), (78, 18834), (84, 18900), (87, 18927), (106, 18993), (128, 19134),

Gene: UnionJack_7 Start: 4229, Stop: 4894, Start Num: 31

Candidate Starts for UnionJack_7:

(Start: 31 @4229 has 20 MA's), (33, 4244), (Start: 35 @4280 has 2 MA's), (65, 4529), (73, 4565), (76, 4586), (78, 4637), (79, 4649), (124, 4880),

Gene: Utz_20 Start: 18308, Stop: 19015, Start Num: 32

Candidate Starts for Utz_20:

(Start: 32 @18308 has 166 MA's), (Start: 35 @18359 has 2 MA's), (43, 18401), (49, 18437), (66, 18608), (78, 18701), (84, 18767), (106, 18860), (129, 19004),

Gene: Vine_21 Start: 18511, Stop: 19098, Start Num: 32

Candidate Starts for Vine_21:

(Start: 32 @18511 has 166 MA's), (38, 18586), (43, 18610), (65, 18811), (68, 18835), (78, 18913), (95, 19036),

Gene: Wallaby_24 Start: 18874, Stop: 19362, Start Num: 38

Candidate Starts for Wallaby_24:

(Start: 32 @18799 has 166 MA's), (38, 18874), (39, 18877), (44, 18892), (51, 18934), (59, 19024), (65, 19099), (78, 19192), (83, 19249), (111, 19357),

Gene: Walrus_21 Start: 18536, Stop: 19243, Start Num: 32

Candidate Starts for Walrus_21:

(Start: 32 @18536 has 166 MA's), (Start: 35 @18587 has 2 MA's), (43, 18629), (66, 18836), (78, 18929), (84, 18995), (106, 19088), (129, 19232),

Gene: WelcomeAyanna_19 Start: 19426, Stop: 20133, Start Num: 32

Candidate Starts for WelcomeAyanna_19:

(Start: 32 @19426 has 166 MA's), (Start: 35 @19477 has 2 MA's), (43, 19519), (49, 19555), (53, 19570), (66, 19726), (78, 19819), (88, 19915), (99, 19954), (106, 19978), (129, 20122),

Gene: Whitney_23 Start: 19479, Stop: 20189, Start Num: 32

Candidate Starts for Whitney_23:

(24, 19446), (Start: 32 @19479 has 166 MA's), (Start: 35 @19530 has 2 MA's), (43, 19575), (56, 19665), (59, 19701), (65, 19776), (68, 19800), (78, 19878), (84, 19944), (87, 19971), (106, 20037), (114, 20067), (116, 20088), (129, 20178),

Gene: William_20 Start: 18351, Stop: 19064, Start Num: 32

Candidate Starts for William_20:

(Start: 32 @18351 has 166 MA's), (Start: 35 @18402 has 2 MA's), (37, 18423), (43, 18447), (46, 18462), (54, 18522), (59, 18573), (65, 18648), (67, 18657), (68, 18672), (78, 18750), (84, 18816), (99, 18885), (106, 18909), (127, 19038), (128, 19050), (129, 19053),

Gene: Wisp_19 Start: 18026, Stop: 18730, Start Num: 32

Candidate Starts for Wisp_19:

(Start: 32 @18026 has 166 MA's), (Start: 35 @18077 has 2 MA's), (43, 18119), (49, 18155), (66, 18326), (78, 18419), (84, 18485), (87, 18512), (106, 18578), (128, 18719),

Gene: Wolfwood_24 Start: 18799, Stop: 19362, Start Num: 32

Candidate Starts for Wolfwood_24:

(Start: 32 @18799 has 166 MA's), (38, 18874), (39, 18877), (44, 18892), (51, 18934), (59, 19024), (65, 19099), (74, 19141), (78, 19192), (83, 19249), (111, 19357),

Gene: Wooper_43 Start: 35976, Stop: 36572, Start Num: 29

Candidate Starts for Wooper_43:

(4, 35619), (Start: 29 @35976 has 2 MA's), (Start: 32 @35994 has 166 MA's), (Start: 35 @36045 has 2 MA's), (40, 36078), (43, 36096), (46, 36111), (65, 36297), (68, 36321), (78, 36399), (84, 36465), (85, 36477),

Gene: Wrigley_22 Start: 19537, Stop: 20250, Start Num: 32

Candidate Starts for Wrigley_22:

(Start: 32 @19537 has 166 MA's), (Start: 35 @19588 has 2 MA's), (43, 19633), (59, 19759), (65, 19834), (67, 19843), (68, 19858), (75, 19897), (78, 19936), (84, 20002), (106, 20095), (129, 20239),

Gene: Yakult_21 Start: 17400, Stop: 17975, Start Num: 32

Candidate Starts for Yakult_21:

(Start: 32 @17400 has 166 MA's), (Start: 35 @17451 has 2 MA's), (38, 17475), (46, 17508), (49, 17532), (55, 17568), (59, 17619), (62, 17658), (65, 17694), (78, 17796), (81, 17832), (84, 17862), (111, 17967),

Gene: Yarn_19 Start: 17494, Stop: 18090, Start Num: 32

Candidate Starts for Yarn_19:

(Start: 32 @17494 has 166 MA's), (Start: 35 @17545 has 2 MA's), (37, 17566), (40, 17578), (43, 17596), (55, 17671), (65, 17797), (68, 17821), (78, 17899), (86, 17980), (87, 17992), (96, 18025), (107, 18064), (111, 18085),

Gene: Yeezy_21 Start: 18779, Stop: 19516, Start Num: 25

Candidate Starts for Yeezy_21:

(Start: 25 @18779 has 1 MA's), (Start: 32 @18812 has 166 MA's), (Start: 35 @18863 has 2 MA's), (43, 18905), (49, 18941), (66, 19112), (70, 19136), (78, 19205), (84, 19271), (106, 19364), (128, 19505),

Gene: Yeshua_43 Start: 35971, Stop: 36549, Start Num: 32

Candidate Starts for Yeshua_43:

(4, 35596), (Start: 29 @35953 has 2 MA's), (Start: 32 @35971 has 166 MA's), (Start: 35 @36022 has 2 MA's), (40, 36055), (43, 36073), (46, 36088), (65, 36274), (68, 36298), (78, 36376), (84, 36442), (85, 36454),

Gene: Yucky_20 Start: 18370, Stop: 18957, Start Num: 32

Candidate Starts for Yucky_20:

(Start: 32 @18370 has 166 MA's), (38, 18445), (43, 18469), (57, 18559), (65, 18670), (68, 18694), (78, 18772), (95, 18895),

Gene: Yummy_21 Start: 17379, Stop: 17969, Start Num: 32

Candidate Starts for Yummy_21:

(Start: 32 @17379 has 166 MA's), (Start: 35 @17430 has 2 MA's), (37, 17451), (40, 17463), (43, 17481), (59, 17607), (65, 17682), (68, 17706), (78, 17784), (82, 17838), (84, 17850), (87, 17877), (103, 17922), (107, 17943),

Gene: Yvonnetastic_47 Start: 33146, Stop: 33718, Start Num: 31

Candidate Starts for Yvonnetastic_47:

(21, 33056), (23, 33092), (Start: 31 @33146 has 20 MA's), (Start: 35 @33197 has 2 MA's), (43, 33239), (49, 33275), (65, 33443), (66, 33446), (78, 33539), (82, 33593), (89, 33644), (95, 33662), (106, 33701),

Gene: Zameen_20 Start: 19391, Stop: 20098, Start Num: 32

Candidate Starts for Zameen_20:

(Start: 32 @19391 has 166 MA's), (Start: 35 @19442 has 2 MA's), (43, 19484), (49, 19520), (53, 19535), (65, 19688), (66, 19691), (70, 19715), (74, 19733), (78, 19784), (84, 19850), (99, 19919), (106, 19943), (129, 20087),

Gene: Zarbodnamra_20 Start: 18312, Stop: 19019, Start Num: 32

Candidate Starts for Zarbodnamra_20:

(Start: 32 @18312 has 166 MA's), (Start: 35 @18363 has 2 MA's), (43, 18405), (49, 18441), (53, 18456), (66, 18612), (78, 18705), (84, 18771), (106, 18864), (129, 19008),

Gene: Zareef_22 Start: 18807, Stop: 19370, Start Num: 32

Candidate Starts for Zareef_22:

(Start: 32 @18807 has 166 MA's), (38, 18882), (39, 18885), (44, 18900), (51, 18942), (59, 19032), (65, 19107), (78, 19200), (83, 19257), (111, 19365),

Gene: ZiggyZoo_19 Start: 18103, Stop: 18810, Start Num: 32

Candidate Starts for ZiggyZoo_19:

(Start: 32 @18103 has 166 MA's), (Start: 35 @18154 has 2 MA's), (43, 18196), (66, 18403), (78, 18496), (84, 18562), (87, 18589), (106, 18655), (129, 18799),

Gene: Zilla_20 Start: 18330, Stop: 19037, Start Num: 32

Candidate Starts for Zilla_20:

(Start: 32 @18330 has 166 MA's), (Start: 35 @18381 has 2 MA's), (43, 18423), (49, 18459), (66, 18630), (78, 18723), (84, 18789), (106, 18882), (129, 19026),

Gene: Zirinka_20 Start: 19469, Stop: 20173, Start Num: 32

Candidate Starts for Zirinka_20:

(Start: 25 @19436 has 1 MA's), (Start: 32 @19469 has 166 MA's), (Start: 35 @19520 has 2 MA's), (43, 19562), (49, 19598), (66, 19769), (70, 19793), (78, 19862), (84, 19928), (106, 20021), (128, 20162),

Gene: Zodiariah_24 Start: 23393, Stop: 23932, Start Num: 32

Candidate Starts for Zodiariah_24:

(Start: 32 @23393 has 166 MA's), (Start: 35 @23444 has 2 MA's), (37, 23465), (38, 23468), (43, 23486), (57, 23573), (58, 23582), (65, 23684), (78, 23777), (97, 23891),