

1. NewKittys2	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
2. GumGum6	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
3. Sashimi_1	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
4. Globish_1	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
5. Shukran_5	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
6. CosmicBro	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
7. MaterMagn	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
8. Hestia_19	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
9. MurphyJos	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
10. Winder_5	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
11. Tmr81_20	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
12. ThayneH	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
13. Anekin_1	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
14. Lasker_19	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
15. Hillester_4	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
16. Mapleville	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
17. Kabloowys	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
18. JakeH63	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
19. Phrank15	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
20. LeBrun_1	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
21. Ding_19	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
22. EvePickl	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
23. BenchScr	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
24. Seanorse	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
25. SpicyFran	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
26. Isoide_1	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
27. Faja_19	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
28. Bhageatin	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
29. Sairap_19	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
30. Persistent	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
31. YoungHar	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
32. Raphaela	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
33. Midnight	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
34. SonDevv	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
35. PeggyLeg	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
36. KayMone	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
37. NikkiHow	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
38. NidoQ_18	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
39. Eileen_18	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
40. GlobiWan	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
41. Karkhana	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
42. LittleRon	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
43. Constance	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
44. Henrique	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
45. FosterFra	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
46. Judy_19	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
47. HotPotat	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
48. Pucara_1	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
49. Bridgette	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421
50. LilyBell_1	193	124	122	159	193	219	200	302	306	331	357	361	395	412	421

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 304969 Report

This analysis was run 06/08/26 on database version 649.

Pham number 304969 has 76 members, 24 are drafts.

Phages represented in each track:

- Track 1 : NewKitty_20, AdaS_19, Vopal_20, Sporco_20, MUWow_18, Sakai_19, CookieBear_19, Richie_19, JellyBread_19, Auxilium_19, Gorpy_19
- Track 2 : GumGum_19
- Track 3 : Sashimi_20
- Track 4 : Globfish_19
- Track 5 : Shukran_19
- Track 6 : CosmicBrownie_19
- Track 7 : MaterMagnus_19, Aikyam_19
- Track 8 : Hestia_19
- Track 9 : MurphyJoseph_19
- Track 10 : Windest_20
- Track 11 : Tiff81_20, Nyilah_18
- Track 12 : ThayneTheZag_19
- Track 13 : Anekin_18, Crescenzo_19, DarwinJr_22
- Track 14 : Lasker_19, BlueShadow_19, BasketStar_19
- Track 15 : Hillester_19, RadFad_19
- Track 16 : Mapleville_18, Lawnathon_19, BillyTP_19
- Track 17 : Kabloowy_19
- Track 18 : JakeTheSnake_19
- Track 19 : Phrank15_18
- Track 20 : LeBruni_19
- Track 21 : Ding_19
- Track 22 : EvePickles_19
- Track 23 : BenchScraper_19
- Track 24 : Seahorse_20
- Track 25 : SpicyFrank_19
- Track 26 : Isolde_19
- Track 27 : Faja_19
- Track 28 : Bhageatrice_21
- Track 29 : Satrap_19
- Track 30 : Persistence_18
- Track 31 : YoungHarleezy_19
- Track 32 : Raphaella_19
- Track 33 : MidnightRain_19
- Track 34 : SonDevVon_18
- Track 35 : PeggyLeg03_18
- Track 36 : KayMoney_18, ChuckDuck_18

- Track 37 : NikkiHotWheels_18
- Track 38 : NidoQ_18
- Track 39 : Eileen_18, Peas_18
- Track 40 : GlobiWarming_18
- Track 41 : Karkharias_18
- Track 42 : LittleRon_18
- Track 43 : Constance_18
- Track 44 : Henrique_18
- Track 45 : FosterFrank_18
- Track 46 : Judy_19
- Track 47 : HotPotato_18
- Track 48 : Pucara_18
- Track 49 : Bridgette_18
- Track 50 : LilyBell_18
- Track 51 : GUPitcher_17
- Track 52 : PetriParty_17
- Track 53 : TripleJ_18
- Track 54 : Kukla_17
- Track 55 : DreamEater_16

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

The start number called the most often in the published annotations is 23, it was called in 46 of the 52 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AdaS_19, Aikyam_19, Anekin_18, Auxilium_19, BasketStar_19, BenchScraper_19, Bhageatrice_21, BillyTP_19, BlueShadow_19, Bridgette_18, ChuckDuck_18, Constance_18, CookieBear_19, CosmicBrownie_19, Crescenzo_19, DarwinJr_22, Ding_19, Eileen_18, FosterFrank_18, Globfish_19, GlobiWarming_18, Gorpy_19, GumGum_19, Henrique_18, Hestia_19, Hillester_19, HotPotato_18, Isolde_19, JakeTheSnake_19, JellyBread_19, Judy_19, Kabloowy_19, Karkharias_18, KayMoney_18, Lasker_19, Lawnathon_19, LeBruni_19, LilyBell_18, LittleRon_18, MUWow_18, Mapleville_18, MaterMagnus_19, MidnightRain_19, MurphyJoseph_19, NewKitty_20, NidoQ_18, Nyilah_18, Peas_18, PeggyLeg03_18, Persistence_18, Phrank15_18, Pucara_18, RadFad_19, Raphaella_19, Richie_19, Sakai_19, Seahorse_20, Shukran_19, SpicyFrank_19, Sporco_20, ThayneTheZag_19, Tiff81_20, Vopal_20, Windest_20, YoungHarleezy_19,

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

- NikkiHotWheels_18, Satrap_19, SonDevVon_18,

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

- DreamEater_16, EvePickles_19, Faja_19, GUPitcher_17, Kukla_17, PetriParty_17, Sashimi_20, TripleJ_18,

Summary by start number:

Start 7:

- Found in 4 of 76 (5.3%) of genes in pham

- Manual Annotations of this start: 2 of 52
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DreamEater_16 (FJ), GUPitcher_17 (FJ), PetriParty_17 (FJ), TripleJ_18 (FJ),

Start 16:

- Found in 2 of 76 (2.6%) of genes in pham
- Manual Annotations of this start: 2 of 52
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Faja_19 (AY), Sashimi_20 (AY),

Start 18:

- Found in 2 of 76 (2.6%) of genes in pham
- Manual Annotations of this start: 2 of 52
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EvePickles_19 (AY), Kukla_17 (FJ),

Start 23:

- Found in 68 of 76 (89.5%) of genes in pham
- Manual Annotations of this start: 46 of 52
- Called 95.6% of time when present
- Phage (with cluster) where this start called: AdaS_19 (AY), Aikyam_19 (AY), Anekin_18 (AY), Auxilium_19 (AY), BasketStar_19 (AY), BenchScraper_19 (AY), Bhageatrice_21 (AY), BillyTP_19 (AY), BlueShadow_19 (AY), Bridgette_18 (FA), ChuckDuck_18 (FA), Constance_18 (FA), CookieBear_19 (AY), CosmicBrownie_19 (AY), Crescenzo_19 (AY), DarwinJr_22 (AY), Ding_19 (AY), Eileen_18 (FA), FosterFrank_18 (FA), Globfish_19 (AY), GlobiWarming_18 (FA), Gorpy_19 (AY), GumGum_19 (AY), Henrique_18 (FA), Hestia_19 (AY), Hillester_19 (AY), HotPotato_18 (FA), Isolde_19 (AY), JakeTheSnake_19 (AY), JellyBread_19 (AY), Judy_19 (FA), Kabloowy_19 (AY), Karkharias_18 (FA), KayMoney_18 (FA), Lasker_19 (AY), Lawnathon_19 (AY), LeBruni_19 (AY), LilyBell_18 (FA), LittleRon_18 (FA), MUWow_18 (AY), Mapleville_18 (AY), MaterMagnus_19 (AY), MidnightRain_19 (AY), MurphyJoseph_19 (AY), NewKitty_20 (AY), NidoQ_18 (FA), Nyilah_18 (AY), Peas_18 (FA), PeggyLeg03_18 (FA), Persistence_18 (AY), Phrank15_18 (AY), Pucara_18 (FA), RadFad_19 (AY), Raphaella_19 (AY), Richie_19 (AY), Sakai_19 (AY), Seahorse_20 (AY), Shukran_19 (AY), SpicyFrank_19 (AY), Sporco_20 (AY), ThayneTheZag_19 (AY), Tiff81_20 (AY), Vopal_20 (AY), Windest_20 (AY), YoungHarleezy_19 (AY),

Start 26:

- Found in 32 of 76 (42.1%) of genes in pham
- No Manual Annotations of this start.
- Called 3.1% of time when present
- Phage (with cluster) where this start called: SonDevVon_18 (AY),

Start 28:

- Found in 9 of 76 (11.8%) of genes in pham
- No Manual Annotations of this start.
- Called 11.1% of time when present
- Phage (with cluster) where this start called: NikkiHotWheels_18 (FA),

Start 32:

- Found in 67 of 76 (88.2%) of genes in pham

- No Manual Annotations of this start.
- Called 1.5% of time when present
- Phage (with cluster) where this start called: Satrap_19 (AY),

Summary by clusters:

There are 3 clusters represented in this pham: AY, FA, FJ,

Info for manual annotations of cluster AY:

- Start number 16 was manually annotated 2 times for cluster AY.
- Start number 18 was manually annotated 1 time for cluster AY.
- Start number 23 was manually annotated 34 times for cluster AY.

Info for manual annotations of cluster FA:

- Start number 23 was manually annotated 12 times for cluster FA.

Info for manual annotations of cluster FJ:

- Start number 7 was manually annotated 2 times for cluster FJ.
- Start number 18 was manually annotated 1 time for cluster FJ.

Gene Information:

Gene: AdaS_19 Start: 10843, Stop: 14784, Start Num: 23

Candidate Starts for AdaS_19:

(Start: 23 @10843 has 46 MA's), (26, 10882), (30, 10945), (32, 10978), (35, 11002), (37, 11008), (38, 11020), (43, 11044), (44, 11056), (45, 11074), (47, 11116), (58, 11281), (77, 11548), (79, 11554), (83, 11593), (93, 11686), (109, 11854), (113, 11899), (124, 11995), (138, 12070), (142, 12100), (149, 12187), (151, 12199), (158, 12268), (159, 12304), (162, 12334), (166, 12370), (173, 12418), (174, 12430), (179, 12460), (183, 12517), (184, 12526), (186, 12571), (187, 12574), (189, 12619), (191, 12628), (199, 12712), (200, 12721), (202, 12733), (204, 12754), (208, 12793), (209, 12805), (218, 12880), (222, 12904), (234, 13012), (238, 13051), (250, 13141), (253, 13156), (270, 13258), (274, 13288), (280, 13339), (282, 13360), (286, 13408), (287, 13411), (301, 13495), (302, 13498), (308, 13576), (318, 13651), (319, 13660), (323, 13675), (337, 13795), (344, 13834), (349, 13852), (357, 13951), (361, 14044), (366, 14158), (367, 14176), (371, 14215), (372, 14257), (377, 14320), (378, 14332), (381, 14368), (383, 14410), (386, 14431), (392, 14527), (399, 14581), (421, 14734),

Gene: Aikyam_19 Start: 10844, Stop: 14785, Start Num: 23

Candidate Starts for Aikyam_19:

(Start: 23 @10844 has 46 MA's), (26, 10883), (30, 10946), (32, 10979), (35, 11003), (37, 11009), (38, 11021), (43, 11045), (44, 11057), (45, 11075), (47, 11117), (58, 11282), (77, 11549), (79, 11555), (83, 11594), (93, 11687), (109, 11855), (113, 11900), (124, 11996), (138, 12071), (142, 12101), (149, 12188), (151, 12200), (158, 12269), (159, 12305), (162, 12335), (166, 12371), (173, 12419), (174, 12431), (179, 12461), (183, 12518), (184, 12527), (186, 12572), (187, 12575), (191, 12629), (199, 12713), (200, 12722), (202, 12734), (204, 12755), (209, 12806), (222, 12905), (234, 13013), (238, 13052), (250, 13142), (253, 13157), (270, 13259), (274, 13289), (280, 13340), (282, 13361), (286, 13409), (287, 13412), (301, 13496), (302, 13499), (308, 13577), (318, 13652), (319, 13661), (323, 13676), (337, 13796), (344, 13835), (349, 13853), (357, 13952), (361, 14045), (366, 14159), (367, 14177), (371, 14216), (372, 14258), (377, 14321), (378, 14333), (381, 14369), (383, 14411), (386, 14432), (392, 14528), (399, 14582), (411, 14672), (421, 14735),

Gene: Anekin_18 Start: 10911, Stop: 14747, Start Num: 23

Candidate Starts for Anekin_18:

(Start: 23 @10911 has 46 MA's), (28, 10971), (32, 11046), (35, 11070), (37, 11076), (42, 11106), (43, 11112), (45, 11142), (47, 11184), (60, 11388), (65, 11439), (77, 11616), (78, 11619), (81, 11628), (83, 11661), (109, 11922), (119, 12012), (122, 12033), (123, 12042), (125, 12066), (131, 12108), (136, 12129), (140, 12150), (150, 12261), (153, 12279), (157, 12327), (159, 12372), (160, 12381), (165, 12429), (171, 12474), (183, 12582), (191, 12693), (194, 12741), (199, 12777), (202, 12798), (209, 12870), (230, 13017), (235, 13050), (252, 13116), (253, 13122), (254, 13125), (263, 13176), (275, 13260), (280, 13299), (282, 13320), (308, 13539), (310, 13560), (314, 13587), (316, 13605), (318, 13614), (363, 14040), (364, 14070), (366, 14121), (371, 14178), (372, 14220), (377, 14283), (378, 14295), (383, 14373), (386, 14394), (390, 14478), (397, 14532), (399, 14544), (409, 14628), (411, 14634),

Gene: Auxilium_19 Start: 10843, Stop: 14784, Start Num: 23

Candidate Starts for Auxilium_19:

(Start: 23 @10843 has 46 MA's), (26, 10882), (30, 10945), (32, 10978), (35, 11002), (37, 11008), (38, 11020), (43, 11044), (44, 11056), (45, 11074), (47, 11116), (58, 11281), (77, 11548), (79, 11554), (83, 11593), (93, 11686), (109, 11854), (113, 11899), (124, 11995), (138, 12070), (142, 12100), (149, 12187), (151, 12199), (158, 12268), (159, 12304), (162, 12334), (166, 12370), (173, 12418), (174, 12430), (179, 12460), (183, 12517), (184, 12526), (186, 12571), (187, 12574), (189, 12619), (191, 12628), (199, 12712), (200, 12721), (202, 12733), (204, 12754), (208, 12793), (209, 12805), (218, 12880), (222, 12904), (234, 13012), (238, 13051), (250, 13141), (253, 13156), (270, 13258), (274, 13288), (280, 13339), (282, 13360), (286, 13408), (287, 13411), (301, 13495), (302, 13498), (308, 13576), (318, 13651), (319, 13660), (323, 13675), (337, 13795), (344, 13834), (349, 13852), (357, 13951), (361, 14044), (366, 14158), (367, 14176), (371, 14215), (372, 14257), (377, 14320), (378, 14332), (381, 14368), (383, 14410), (386, 14431), (392, 14527), (399, 14581), (421, 14734),

Gene: BasketStar_19 Start: 10897, Stop: 14838, Start Num: 23

Candidate Starts for BasketStar_19:

(Start: 23 @10897 has 46 MA's), (26, 10936), (30, 10999), (32, 11032), (35, 11056), (37, 11062), (38, 11074), (43, 11098), (44, 11110), (45, 11128), (47, 11170), (58, 11335), (77, 11602), (79, 11608), (83, 11647), (93, 11740), (109, 11908), (113, 11953), (124, 12049), (138, 12124), (142, 12154), (149, 12241), (151, 12253), (158, 12322), (159, 12358), (162, 12388), (166, 12424), (173, 12472), (174, 12484), (179, 12514), (183, 12571), (184, 12580), (186, 12625), (187, 12628), (189, 12673), (191, 12682), (199, 12766), (200, 12775), (202, 12787), (204, 12808), (208, 12847), (209, 12859), (218, 12934), (222, 12958), (234, 13066), (238, 13105), (250, 13195), (253, 13210), (270, 13312), (274, 13342), (280, 13393), (282, 13414), (286, 13462), (287, 13465), (301, 13549), (302, 13552), (308, 13630), (318, 13705), (319, 13714), (323, 13729), (344, 13888), (349, 13906), (357, 14005), (361, 14098), (366, 14212), (367, 14230), (371, 14269), (372, 14311), (377, 14374), (378, 14386), (381, 14422), (383, 14464), (386, 14485), (392, 14581), (399, 14635), (411, 14725), (421, 14788),

Gene: BenchScraper_19 Start: 10858, Stop: 14799, Start Num: 23

Candidate Starts for BenchScraper_19:

(Start: 23 @10858 has 46 MA's), (26, 10897), (30, 10960), (32, 10993), (35, 11017), (37, 11023), (38, 11035), (43, 11059), (44, 11071), (45, 11089), (47, 11131), (58, 11296), (77, 11563), (79, 11569), (83, 11608), (93, 11701), (109, 11869), (113, 11914), (124, 12010), (138, 12085), (149, 12202), (151, 12214), (158, 12283), (159, 12319), (162, 12349), (166, 12385), (173, 12433), (174, 12445), (179, 12475), (183, 12532), (184, 12541), (186, 12586), (187, 12589), (191, 12643), (199, 12727), (200, 12736), (202, 12748), (204, 12769), (209, 12820), (222, 12919), (234, 13027), (238, 13066), (250, 13156), (253, 13171), (270, 13273), (274, 13303), (280, 13354), (282, 13375), (286, 13423), (287, 13426), (301, 13510), (302, 13513), (308, 13591), (318, 13666), (319, 13675), (323, 13690), (337, 13810), (344, 13849), (349, 13867), (357, 13966), (361, 14059), (366, 14173), (367, 14191), (371, 14230), (372, 14272), (377, 14335), (378, 14347), (381, 14383), (383, 14425), (386, 14446), (392, 14542), (399, 14596), (411, 14686), (421, 14749),

Gene: Bhageatrice_21 Start: 12043, Stop: 16074, Start Num: 23

Candidate Starts for Bhageatrice_21:

(Start: 23 @12043 has 46 MA's), (32, 12178), (45, 12274), (47, 12316), (52, 12415), (57, 12463), (63, 12559), (65, 12571), (71, 12643), (77, 12748), (82, 12790), (83, 12793), (88, 12865), (102, 12955), (115, 13120), (122, 13165), (124, 13195), (132, 13243), (150, 13393), (154, 13426), (161, 13543), (170, 13606), (179, 13663), (183, 13714), (187, 13771), (191, 13825), (199, 13909), (220, 14098), (235, 14200), (262, 14374), (265, 14392), (272, 14437), (273, 14455), (278, 14512), (300, 14770), (308, 14866), (316, 14932), (318, 14941), (324, 14968), (336, 15028), (352, 15142), (357, 15241), (361, 15334), (366, 15448), (367, 15466), (371, 15505), (372, 15547), (377, 15610), (378, 15622), (381, 15658), (383, 15700), (385, 15715), (386, 15721), (390, 15805), (392, 15817), (399, 15871), (411, 15961), (420, 16024),

Gene: BillyTP_19 Start: 10765, Stop: 14568, Start Num: 23

Candidate Starts for BillyTP_19:

(Start: 23 @10765 has 46 MA's), (32, 10900), (35, 10924), (37, 10930), (43, 10966), (44, 10978), (45, 10996), (46, 11005), (47, 11038), (48, 11044), (51, 11122), (58, 11203), (60, 11242), (66, 11326), (67, 11335), (68, 11341), (71, 11365), (72, 11374), (78, 11473), (80, 11479), (86, 11566), (91, 11599), (96, 11635), (112, 11818), (117, 11854), (119, 11866), (124, 11917), (140, 12004), (146, 12091), (159, 12232), (166, 12301), (167, 12310), (174, 12358), (176, 12379), (177, 12382), (185, 12454), (188, 12517), (197, 12601), (199, 12616), (208, 12655), (213, 12712), (246, 12907), (255, 12952), (266, 13015), (280, 13117), (282, 13138), (308, 13360), (316, 13426), (318, 13435), (333, 13501), (349, 13597), (352, 13636), (355, 13702), (361, 13828), (366, 13942), (367, 13960), (370, 13990), (371, 13999), (372, 14041), (377, 14104), (378, 14116), (381, 14152), (383, 14194), (386, 14215), (387, 14227), (397, 14353), (399, 14365), (409, 14449), (411, 14455), (422, 14548),

Gene: BlueShadow_19 Start: 10843, Stop: 14784, Start Num: 23

Candidate Starts for BlueShadow_19:

(Start: 23 @10843 has 46 MA's), (26, 10882), (30, 10945), (32, 10978), (35, 11002), (37, 11008), (38, 11020), (43, 11044), (44, 11056), (45, 11074), (47, 11116), (58, 11281), (77, 11548), (79, 11554), (83, 11593), (93, 11686), (109, 11854), (113, 11899), (124, 11995), (138, 12070), (142, 12100), (149, 12187), (151, 12199), (158, 12268), (159, 12304), (162, 12334), (166, 12370), (173, 12418), (174, 12430), (179, 12460), (183, 12517), (184, 12526), (186, 12571), (187, 12574), (189, 12619), (191, 12628), (199, 12712), (200, 12721), (202, 12733), (204, 12754), (208, 12793), (209, 12805), (218, 12880), (222, 12904), (234, 13012), (238, 13051), (250, 13141), (253, 13156), (270, 13258), (274, 13288), (280, 13339), (282, 13360), (286, 13408), (287, 13411), (301, 13495), (302, 13498), (308, 13576), (318, 13651), (319, 13660), (323, 13675), (344, 13834), (349, 13852), (357, 13951), (361, 14044), (366, 14158), (367, 14176), (371, 14215), (372, 14257), (377, 14320), (378, 14332), (381, 14368), (383, 14410), (386, 14431), (392, 14527), (399, 14581), (411, 14671), (421, 14734),

Gene: Bridgette_18 Start: 10928, Stop: 14845, Start Num: 23

Candidate Starts for Bridgette_18:

(Start: 23 @10928 has 46 MA's), (32, 11063), (35, 11087), (37, 11093), (43, 11129), (44, 11141), (45, 11159), (46, 11168), (47, 11201), (48, 11207), (51, 11285), (58, 11366), (60, 11405), (66, 11489), (68, 11504), (71, 11528), (72, 11537), (80, 11642), (85, 11723), (86, 11729), (88, 11750), (94, 11792), (97, 11819), (104, 11909), (112, 12002), (119, 12050), (140, 12188), (146, 12275), (148, 12284), (166, 12485), (167, 12494), (174, 12542), (176, 12563), (177, 12566), (185, 12638), (188, 12701), (209, 12851), (227, 12977), (251, 13115), (260, 13166), (263, 13178), (266, 13199), (279, 13289), (293, 13424), (301, 13463), (305, 13499), (308, 13541), (310, 13562), (311, 13580), (318, 13616), (319, 13625), (323, 13640), (348, 13853), (356, 14003), (357, 14009), (361, 14102), (366, 14216), (367, 14234), (370, 14264), (371, 14273), (372, 14315), (377, 14378), (378, 14390), (383, 14468), (386, 14489), (387, 14501), (397, 14627), (399, 14639), (410, 14726), (413, 14744),

Gene: ChuckDuck_18 Start: 10884, Stop: 14687, Start Num: 23

Candidate Starts for ChuckDuck_18:

(Start: 23 @10884 has 46 MA's), (32, 11019), (35, 11043), (36, 11046), (37, 11049), (43, 11085), (44, 11097), (45, 11115), (46, 11124), (47, 11157), (48, 11163), (51, 11241), (58, 11322), (60, 11361), (66, 11445), (67, 11454), (68, 11460), (71, 11484), (72, 11493), (78, 11592), (80, 11598), (86, 11685), (91, 11718), (96, 11754), (112, 11937), (117, 11973), (119, 11985), (124, 12036), (140, 12123), (146, 12210), (148, 12219), (159, 12351), (166, 12420), (167, 12429), (174, 12477), (176, 12498), (177, 12501), (185, 12573), (188, 12636), (197, 12720), (199, 12735), (208, 12774), (213, 12831), (219, 12864), (246, 13026), (255, 13071), (266, 13134), (280, 13236), (282, 13257), (308, 13479), (318, 13554), (333, 13620), (349, 13716), (352, 13755), (355, 13821), (361, 13947), (366, 14061), (367, 14079), (370, 14109), (371, 14118), (372, 14160), (377, 14223), (378, 14235), (381, 14271), (383, 14313), (386, 14334), (395, 14451), (399, 14484), (400, 14493), (409, 14568), (411, 14574),

Gene: Constance_18 Start: 10931, Stop: 14827, Start Num: 23

Candidate Starts for Constance_18:

(Start: 23 @10931 has 46 MA's), (32, 11066), (35, 11090), (37, 11096), (43, 11132), (44, 11144), (45, 11162), (46, 11171), (47, 11204), (48, 11210), (51, 11288), (58, 11369), (60, 11408), (66, 11492), (71, 11531), (72, 11540), (80, 11645), (85, 11726), (86, 11732), (91, 11765), (97, 11801), (119, 12032), (140, 12170), (148, 12266), (166, 12467), (167, 12476), (174, 12524), (176, 12545), (177, 12548), (185, 12620), (199, 12782), (209, 12833), (227, 12959), (251, 13097), (263, 13160), (266, 13181), (279, 13271), (293, 13406), (301, 13445), (305, 13481), (308, 13523), (311, 13562), (315, 13586), (318, 13598), (319, 13607), (323, 13622), (346, 13826), (348, 13835), (355, 13958), (356, 13985), (357, 13991), (358, 14012), (361, 14084), (366, 14198), (370, 14246), (371, 14255), (372, 14297), (377, 14360), (378, 14372), (381, 14408), (383, 14450), (386, 14471), (387, 14483), (392, 14567), (399, 14621), (408, 14702), (410, 14708), (412, 14723), (413, 14726), (417, 14762),

Gene: CookieBear_19 Start: 10843, Stop: 14784, Start Num: 23

Candidate Starts for CookieBear_19:

(Start: 23 @10843 has 46 MA's), (26, 10882), (30, 10945), (32, 10978), (35, 11002), (37, 11008), (38, 11020), (43, 11044), (44, 11056), (45, 11074), (47, 11116), (58, 11281), (77, 11548), (79, 11554), (83, 11593), (93, 11686), (109, 11854), (113, 11899), (124, 11995), (138, 12070), (142, 12100), (149, 12187), (151, 12199), (158, 12268), (159, 12304), (162, 12334), (166, 12370), (173, 12418), (174, 12430), (179, 12460), (183, 12517), (184, 12526), (186, 12571), (187, 12574), (189, 12619), (191, 12628), (199, 12712), (200, 12721), (202, 12733), (204, 12754), (208, 12793), (209, 12805), (218, 12880), (222, 12904), (234, 13012), (238, 13051), (250, 13141), (253, 13156), (270, 13258), (274, 13288), (280, 13339), (282, 13360), (286, 13408), (287, 13411), (301, 13495), (302, 13498), (308, 13576), (318, 13651), (319, 13660), (323, 13675), (337, 13795), (344, 13834), (349, 13852), (357, 13951), (361, 14044), (366, 14158), (367, 14176), (371, 14215), (372, 14257), (377, 14320), (378, 14332), (381, 14368), (383, 14410), (386, 14431), (392, 14527), (399, 14581), (421, 14734),

Gene: CosmicBrownie_19 Start: 10849, Stop: 14742, Start Num: 23

Candidate Starts for CosmicBrownie_19:

(15, 10756), (Start: 23 @10849 has 46 MA's), (32, 10984), (35, 11008), (43, 11050), (44, 11062), (45, 11080), (46, 11089), (47, 11122), (48, 11128), (51, 11206), (58, 11287), (60, 11326), (66, 11410), (68, 11425), (72, 11458), (80, 11563), (86, 11650), (91, 11683), (96, 11719), (112, 11902), (119, 11950), (124, 12001), (125, 12004), (140, 12088), (146, 12175), (148, 12184), (166, 12385), (167, 12394), (174, 12442), (176, 12463), (177, 12466), (185, 12538), (192, 12658), (199, 12700), (209, 12751), (227, 12877), (251, 13015), (263, 13078), (266, 13099), (279, 13189), (293, 13324), (301, 13363), (305, 13399), (308, 13441), (310, 13462), (311, 13480), (315, 13504), (318, 13516), (319, 13525), (323, 13540), (346, 13744), (348, 13753), (355, 13876), (356, 13903), (357, 13909), (361, 14002), (366, 14116), (370, 14164), (371, 14173), (372, 14215), (377, 14278), (378, 14290), (381, 14326), (383, 14368), (384, 14371), (385, 14383), (386, 14389), (387, 14401), (392, 14485), (399, 14539), (400, 14548), (411, 14629), (421, 14692),

Gene: Crescenzo_19 Start: 10839, Stop: 14675, Start Num: 23

Candidate Starts for Crescenzo_19:

(Start: 23 @10839 has 46 MA's), (28, 10899), (32, 10974), (35, 10998), (37, 11004), (42, 11034), (43, 11040), (45, 11070), (47, 11112), (60, 11316), (65, 11367), (77, 11544), (78, 11547), (81, 11556), (83, 11589), (109, 11850), (119, 11940), (122, 11961), (123, 11970), (125, 11994), (131, 12036), (136, 12057), (140, 12078), (150, 12189), (153, 12207), (157, 12255), (159, 12300), (160, 12309), (165, 12357), (171, 12402), (183, 12510), (191, 12621), (194, 12669), (199, 12705), (202, 12726), (209, 12798), (230, 12945), (235, 12978), (252, 13044), (253, 13050), (254, 13053), (263, 13104), (275, 13188), (280, 13227), (282, 13248), (308, 13467), (310, 13488), (314, 13515), (316, 13533), (318, 13542), (363, 13968), (364, 13998), (366, 14049), (371, 14106), (372, 14148), (377, 14211), (378, 14223), (383, 14301), (386, 14322), (390, 14406), (397, 14460), (399, 14472), (409, 14556), (411, 14562),

Gene: DarwinJr_22 Start: 12143, Stop: 15979, Start Num: 23

Candidate Starts for DarwinJr_22:

(Start: 23 @12143 has 46 MA's), (28, 12203), (32, 12278), (35, 12302), (37, 12308), (42, 12338), (43, 12344), (45, 12374), (47, 12416), (60, 12620), (65, 12671), (77, 12848), (78, 12851), (81, 12860), (83, 12893), (109, 13154), (119, 13244), (122, 13265), (123, 13274), (125, 13298), (131, 13340), (136, 13361), (140, 13382), (150, 13493), (153, 13511), (157, 13559), (159, 13604), (160, 13613), (165, 13661), (171, 13706), (183, 13814), (191, 13925), (194, 13973), (199, 14009), (202, 14030), (209, 14102), (230, 14249), (235, 14282), (252, 14348), (253, 14354), (254, 14357), (263, 14408), (275, 14492), (280, 14531), (282, 14552), (308, 14771), (310, 14792), (314, 14819), (316, 14837), (318, 14846), (363, 15272), (364, 15302), (366, 15353), (371, 15410), (372, 15452), (377, 15515), (378, 15527), (383, 15605), (386, 15626), (390, 15710), (397, 15764), (399, 15776), (409, 15860), (411, 15866),

Gene: Ding_19 Start: 10834, Stop: 14847, Start Num: 23

Candidate Starts for Ding_19:

(Start: 23 @10834 has 46 MA's), (32, 10969), (33, 10978), (37, 10999), (45, 11065), (46, 11074), (47, 11107), (51, 11191), (56, 11248), (57, 11254), (63, 11350), (66, 11395), (76, 11506), (77, 11539), (82, 11581), (83, 11584), (88, 11656), (115, 11911), (122, 11956), (124, 11986), (132, 12034), (144, 12133), (150, 12184), (154, 12217), (170, 12397), (179, 12454), (183, 12505), (187, 12562), (191, 12616), (199, 12700), (206, 12772), (212, 12829), (224, 12910), (235, 12991), (259, 13153), (262, 13165), (265, 13183), (278, 13303), (292, 13489), (295, 13519), (296, 13525), (298, 13546), (299, 13555), (308, 13651), (311, 13690), (316, 13717), (317, 13720), (318, 13726), (319, 13735), (328, 13780), (361, 14107), (366, 14221), (371, 14278), (372, 14320), (377, 14383), (378, 14395), (381, 14431), (383, 14473), (386, 14494), (387, 14506), (390, 14578), (392, 14590), (395, 14611), (399, 14644), (403, 14677), (420, 14797),

Gene: DreamEater_16 Start: 11120, Stop: 15454, Start Num: 7

Candidate Starts for DreamEater_16:

(6, 11108), (Start: 7 @11120 has 2 MA's), (9, 11180), (11, 11243), (12, 11255), (13, 11297), (22, 11393), (25, 11423), (29, 11507), (45, 11645), (47, 11687), (56, 11828), (60, 11891), (73, 12026), (77, 12119), (93, 12278), (102, 12347), (103, 12374), (108, 12434), (122, 12557), (153, 12803), (160, 12905), (164, 12944), (166, 12962), (168, 12974), (175, 13040), (199, 13298), (202, 13319), (210, 13412), (218, 13466), (222, 13490), (226, 13529), (231, 13562), (239, 13589), (241, 13592), (248, 13652), (250, 13664), (256, 13697), (260, 13727), (263, 13739), (271, 13787), (274, 13811), (282, 13883), (300, 14015), (311, 14147), (329, 14270), (338, 14369), (343, 14393), (345, 14417), (350, 14468), (352, 14486), (357, 14582), (363, 14708), (365, 14750), (368, 14810), (375, 14909), (379, 14978), (383, 15041), (386, 15062), (389, 15125), (396, 15188), (401, 15233), (414, 15323), (424, 15434),

Gene: Eileen_18 Start: 10892, Stop: 14788, Start Num: 23

Candidate Starts for Eileen_18:

(Start: 23 @10892 has 46 MA's), (32, 11027), (35, 11051), (37, 11057), (43, 11093), (44, 11105), (45, 11123), (46, 11132), (47, 11165), (48, 11171), (51, 11249), (58, 11330), (60, 11369), (66, 11453), (68, 11468), (72, 11501), (80, 11606), (86, 11693), (91, 11726), (96, 11762), (112, 11945), (119, 11993), (124, 12044), (125, 12047), (129, 12083), (130, 12086), (140, 12131), (146, 12218), (159, 12359), (166, 12428), (167, 12437), (174, 12485), (176, 12506), (177, 12509), (185, 12581), (188, 12644), (199, 12743), (209, 12794), (227, 12920), (251, 13058), (260, 13109), (263, 13121), (266, 13142), (279, 13232), (293, 13367), (301, 13406), (305, 13442), (308, 13484), (310, 13505), (311, 13523), (315, 13547), (318, 13559), (319, 13568), (323, 13583), (348, 13796), (356, 13946), (357, 13952), (361, 14045), (366, 14159), (367, 14177), (370, 14207), (371, 14216), (372, 14258), (377, 14321), (378, 14333), (381, 14369), (383, 14411), (386, 14432), (387, 14444), (397, 14570), (399, 14582), (410, 14669), (413, 14687),

Gene: EvePickles_19 Start: 11006, Stop: 15145, Start Num: 18

Candidate Starts for EvePickles_19:

(17, 10994), (Start: 18 @11006 has 2 MA's), (19, 11024), (25, 11066), (30, 11150), (45, 11279), (47, 11321), (52, 11420), (58, 11486), (62, 11555), (63, 11564), (67, 11618), (71, 11648), (75, 11693), (77, 11753), (78, 11756), (83, 11798), (91, 11882), (96, 11918), (122, 12170), (126, 12221), (128, 12233), (140, 12287), (148, 12383), (149, 12392), (156, 12458), (163, 12545), (172, 12617), (178, 12659), (184, 12710), (193, 12851), (199, 12896), (205, 12953), (222, 13088), (223, 13094), (228, 13136), (229, 13148), (233, 13187), (238, 13235), (250, 13325), (253, 13340), (257, 13373), (270, 13442), (274, 13472), (276, 13487), (280, 13523), (282, 13544), (284, 13568), (288, 13601), (290, 13637), (291, 13640), (303, 13694), (311, 13808), (314, 13817), (316, 13835), (326, 13898), (339, 14054), (340, 14060), (352, 14168), (360, 14330), (363, 14393), (365, 14435), (369, 14513), (372, 14573), (373, 14582), (375, 14594), (376, 14618), (379, 14663), (381, 14684), (383, 14726), (386, 14747), (389, 14810), (391, 14843), (399, 14900), (404, 14939), (407, 14969), (414, 15014), (423, 15113), (425, 15131),

Gene: Faja_19 Start: 10995, Stop: 15041, Start Num: 16

Candidate Starts for Faja_19:

(Start: 16 @10995 has 2 MA's), (24, 11055), (29, 11130), (31, 11142), (34, 11193), (38, 11214), (39, 11217), (41, 11226), (45, 11268), (47, 11310), (49, 11319), (52, 11409), (57, 11457), (58, 11475), (59, 11481), (60, 11514), (63, 11553), (67, 11607), (68, 11613), (74, 11670), (77, 11742), (83, 11787), (84, 11796), (89, 11865), (91, 11871), (93, 11880), (96, 11907), (102, 11949), (105, 12003), (118, 12135), (119, 12138), (122, 12159), (124, 12189), (126, 12210), (128, 12222), (140, 12276), (145, 12345), (153, 12405), (158, 12462), (160, 12507), (166, 12564), (169, 12585), (183, 12711), (185, 12723), (190, 12819), (191, 12822), (194, 12870), (202, 12927), (213, 13044), (222, 13098), (229, 13158), (234, 13206), (238, 13245), (242, 13257), (253, 13350), (258, 13389), (264, 13413), (266, 13431), (267, 13434), (270, 13452), (275, 13494), (280, 13533), (282, 13554), (284, 13578), (299, 13668), (310, 13794), (311, 13812), (320, 13860), (321, 13863), (334, 13920), (340, 13962), (352, 14070), (353, 14103), (363, 14295), (365, 14337), (369, 14415), (372, 14475), (375, 14496), (381, 14586), (383, 14628), (386, 14649), (389, 14712), (396, 14775), (401, 14820), (414, 14910), (423, 15009), (425, 15027),

Gene: FosterFrank_18 Start: 10889, Stop: 14785, Start Num: 23

Candidate Starts for FosterFrank_18:

(Start: 23 @10889 has 46 MA's), (32, 11024), (35, 11048), (37, 11054), (43, 11090), (44, 11102), (45, 11120), (46, 11129), (47, 11162), (48, 11168), (51, 11246), (58, 11327), (60, 11366), (66, 11450), (71, 11489), (72, 11498), (80, 11603), (85, 11684), (86, 11690), (91, 11723), (97, 11759), (119, 11990), (130, 12083), (140, 12128), (148, 12224), (166, 12425), (167, 12434), (174, 12482), (176, 12503), (177, 12506), (185, 12578), (199, 12740), (227, 12917), (251, 13055), (263, 13118), (266, 13139), (279, 13229), (293, 13364), (301, 13403), (305, 13439), (308, 13481), (311, 13520), (315, 13544),

(318, 13556), (319, 13565), (323, 13580), (348, 13793), (355, 13916), (356, 13943), (357, 13949), (361, 14042), (366, 14156), (370, 14204), (371, 14213), (372, 14255), (377, 14318), (378, 14330), (381, 14366), (383, 14408), (386, 14429), (387, 14441), (388, 14483), (392, 14525), (399, 14579), (408, 14660), (410, 14666), (412, 14681), (413, 14684), (417, 14720),

Gene: GUPitcher_17 Start: 10438, Stop: 14796, Start Num: 7

Candidate Starts for GUPitcher_17:

(6, 10426), (Start: 7 @10438 has 2 MA's), (8, 10456), (9, 10498), (10, 10540), (12, 10573), (21, 10708), (30, 10834), (31, 10837), (34, 10888), (38, 10909), (40, 10915), (41, 10921), (45, 10963), (46, 10972), (47, 11005), (62, 11239), (63, 11248), (67, 11302), (68, 11308), (77, 11437), (83, 11482), (91, 11566), (96, 11602), (100, 11629), (112, 11785), (128, 11917), (145, 12040), (148, 12067), (156, 12142), (163, 12229), (184, 12394), (185, 12397), (209, 12673), (222, 12772), (233, 12871), (238, 12919), (247, 12988), (253, 13024), (257, 13057), (270, 13126), (275, 13168), (276, 13171), (280, 13207), (282, 13228), (289, 13312), (291, 13321), (294, 13336), (310, 13462), (311, 13480), (314, 13489), (321, 13531), (338, 13702), (340, 13711), (352, 13819), (363, 14044), (365, 14086), (368, 14146), (372, 14224), (375, 14245), (379, 14314), (381, 14335), (383, 14377), (386, 14398), (389, 14461), (393, 14500), (399, 14551), (414, 14665), (423, 14764), (425, 14782),

Gene: Globfish_19 Start: 10916, Stop: 14857, Start Num: 23

Candidate Starts for Globfish_19:

(Start: 23 @10916 has 46 MA's), (26, 10955), (30, 11018), (32, 11051), (35, 11075), (37, 11081), (43, 11117), (44, 11129), (45, 11147), (47, 11189), (58, 11354), (59, 11360), (75, 11561), (77, 11621), (83, 11666), (93, 11759), (109, 11927), (113, 11972), (134, 12128), (138, 12143), (149, 12260), (151, 12272), (157, 12332), (158, 12341), (162, 12407), (166, 12443), (173, 12491), (174, 12503), (179, 12533), (181, 12557), (183, 12590), (187, 12647), (191, 12701), (199, 12785), (200, 12794), (202, 12806), (206, 12857), (209, 12878), (222, 12977), (234, 13085), (238, 13124), (250, 13214), (253, 13229), (270, 13331), (274, 13361), (275, 13373), (280, 13412), (282, 13433), (286, 13481), (287, 13484), (301, 13568), (302, 13571), (308, 13649), (318, 13724), (319, 13733), (323, 13748), (349, 13925), (361, 14117), (366, 14231), (367, 14249), (371, 14288), (372, 14330), (377, 14393), (378, 14405), (381, 14441), (383, 14483), (386, 14504), (399, 14654), (406, 14720), (411, 14744), (417, 14792), (421, 14807),

Gene: GlobiWarming_18 Start: 10885, Stop: 14781, Start Num: 23

Candidate Starts for GlobiWarming_18:

(1, 10477), (2, 10486), (3, 10507), (5, 10558), (Start: 23 @10885 has 46 MA's), (32, 11020), (35, 11044), (37, 11050), (43, 11086), (44, 11098), (45, 11116), (46, 11125), (47, 11158), (48, 11164), (51, 11242), (58, 11323), (60, 11362), (66, 11446), (68, 11461), (72, 11494), (80, 11599), (86, 11686), (88, 11707), (91, 11719), (96, 11755), (112, 11938), (119, 11986), (124, 12037), (140, 12124), (146, 12211), (148, 12220), (166, 12421), (167, 12430), (174, 12478), (176, 12499), (177, 12502), (185, 12574), (188, 12637), (199, 12736), (209, 12787), (227, 12913), (251, 13051), (260, 13102), (263, 13114), (266, 13135), (279, 13225), (293, 13360), (301, 13399), (305, 13435), (308, 13477), (310, 13498), (311, 13516), (315, 13540), (318, 13552), (319, 13561), (323, 13576), (348, 13789), (356, 13939), (357, 13945), (361, 14038), (366, 14152), (367, 14170), (370, 14200), (371, 14209), (372, 14251), (377, 14314), (378, 14326), (381, 14362), (383, 14404), (386, 14425), (387, 14437), (397, 14563), (399, 14575), (410, 14662), (413, 14680),

Gene: Gorpy_19 Start: 10852, Stop: 14793, Start Num: 23

Candidate Starts for Gorpy_19:

(Start: 23 @10852 has 46 MA's), (26, 10891), (30, 10954), (32, 10987), (35, 11011), (37, 11017), (38, 11029), (43, 11053), (44, 11065), (45, 11083), (47, 11125), (58, 11290), (77, 11557), (79, 11563), (83, 11602), (93, 11695), (109, 11863), (113, 11908), (124, 12004), (138, 12079), (142, 12109), (149, 12196), (151, 12208), (158, 12277), (159, 12313), (162, 12343), (166, 12379), (173, 12427), (174, 12439), (179, 12469), (183, 12526), (184, 12535), (186, 12580), (187, 12583), (189, 12628), (191,

12637), (199, 12721), (200, 12730), (202, 12742), (204, 12763), (208, 12802), (209, 12814), (218, 12889), (222, 12913), (234, 13021), (238, 13060), (250, 13150), (253, 13165), (270, 13267), (274, 13297), (280, 13348), (282, 13369), (286, 13417), (287, 13420), (301, 13504), (302, 13507), (308, 13585), (318, 13660), (319, 13669), (323, 13684), (337, 13804), (344, 13843), (349, 13861), (357, 13960), (361, 14053), (366, 14167), (367, 14185), (371, 14224), (372, 14266), (377, 14329), (378, 14341), (381, 14377), (383, 14419), (386, 14440), (392, 14536), (399, 14590), (421, 14743),

Gene: GumGum_19 Start: 10840, Stop: 14733, Start Num: 23

Candidate Starts for GumGum_19:

(15, 10747), (Start: 23 @10840 has 46 MA's), (32, 10975), (35, 10999), (43, 11041), (44, 11053), (45, 11071), (46, 11080), (47, 11113), (48, 11119), (51, 11197), (58, 11278), (60, 11317), (66, 11401), (68, 11416), (72, 11449), (80, 11554), (86, 11641), (91, 11674), (96, 11710), (112, 11893), (119, 11941), (124, 11992), (125, 11995), (140, 12079), (146, 12166), (148, 12175), (166, 12376), (167, 12385), (174, 12433), (176, 12454), (177, 12457), (185, 12529), (192, 12649), (199, 12691), (209, 12742), (227, 12868), (251, 13006), (263, 13069), (266, 13090), (279, 13180), (293, 13315), (301, 13354), (305, 13390), (308, 13432), (310, 13453), (311, 13471), (315, 13495), (318, 13507), (319, 13516), (323, 13531), (346, 13735), (348, 13744), (355, 13867), (356, 13894), (357, 13900), (361, 13993), (366, 14107), (367, 14125), (371, 14164), (372, 14206), (377, 14269), (378, 14281), (380, 14314), (381, 14317), (383, 14359), (385, 14374), (386, 14380), (392, 14476), (399, 14530), (400, 14539), (411, 14620), (421, 14683),

Gene: Henrique_18 Start: 10889, Stop: 14806, Start Num: 23

Candidate Starts for Henrique_18:

(Start: 23 @10889 has 46 MA's), (32, 11024), (35, 11048), (37, 11054), (43, 11090), (44, 11102), (45, 11120), (46, 11129), (47, 11162), (48, 11168), (51, 11246), (58, 11327), (60, 11366), (66, 11450), (68, 11465), (71, 11489), (72, 11498), (80, 11603), (85, 11684), (86, 11690), (88, 11711), (94, 11753), (97, 11780), (104, 11870), (112, 11963), (119, 12011), (140, 12149), (146, 12236), (148, 12245), (166, 12446), (167, 12455), (174, 12503), (176, 12524), (177, 12527), (185, 12599), (188, 12662), (209, 12812), (227, 12938), (251, 13076), (260, 13127), (263, 13139), (266, 13160), (279, 13250), (293, 13385), (301, 13424), (305, 13460), (308, 13502), (310, 13523), (311, 13541), (318, 13577), (319, 13586), (323, 13601), (348, 13814), (356, 13964), (357, 13970), (361, 14063), (366, 14177), (367, 14195), (370, 14225), (371, 14234), (372, 14276), (377, 14339), (378, 14351), (381, 14387), (383, 14429), (386, 14450), (387, 14462), (397, 14588), (399, 14600), (410, 14687), (413, 14705),

Gene: Hestia_19 Start: 10985, Stop: 14962, Start Num: 23

Candidate Starts for Hestia_19:

(Start: 23 @10985 has 46 MA's), (32, 11120), (35, 11144), (37, 11150), (41, 11174), (45, 11216), (47, 11258), (53, 11372), (77, 11690), (82, 11732), (83, 11735), (119, 12086), (122, 12107), (125, 12140), (139, 12221), (140, 12224), (142, 12242), (146, 12311), (147, 12317), (152, 12350), (177, 12590), (183, 12653), (191, 12764), (194, 12812), (195, 12815), (199, 12848), (200, 12857), (202, 12869), (204, 12890), (209, 12941), (219, 13019), (243, 13127), (248, 13181), (256, 13226), (274, 13340), (280, 13391), (282, 13412), (301, 13553), (308, 13631), (315, 13694), (318, 13706), (323, 13730), (330, 13802), (342, 13934), (345, 13961), (346, 13964), (348, 13973), (349, 13991), (352, 14030), (357, 14129), (361, 14222), (366, 14336), (367, 14354), (371, 14393), (372, 14435), (377, 14498), (378, 14510), (380, 14543), (381, 14546), (383, 14588), (385, 14603), (386, 14609), (392, 14705), (399, 14759), (400, 14768), (411, 14849), (421, 14912),

Gene: Hillester_19 Start: 10843, Stop: 14784, Start Num: 23

Candidate Starts for Hillester_19:

(Start: 23 @10843 has 46 MA's), (26, 10882), (30, 10945), (32, 10978), (35, 11002), (37, 11008), (38, 11020), (43, 11044), (44, 11056), (45, 11074), (47, 11116), (58, 11281), (77, 11548), (79, 11554), (83, 11593), (93, 11686), (109, 11854), (113, 11899), (124, 11995), (138, 12070), (142, 12100), (149, 12187), (151, 12199), (158, 12268), (159, 12304), (162, 12334), (166, 12370), (173, 12418), (174,

12430), (179, 12460), (183, 12517), (184, 12526), (186, 12571), (187, 12574), (191, 12628), (199, 12712), (200, 12721), (202, 12733), (204, 12754), (209, 12805), (211, 12832), (222, 12904), (234, 13012), (238, 13051), (250, 13141), (253, 13156), (270, 13258), (274, 13288), (280, 13339), (282, 13360), (286, 13408), (287, 13411), (301, 13495), (302, 13498), (308, 13576), (318, 13651), (319, 13660), (323, 13675), (344, 13834), (349, 13852), (357, 13951), (361, 14044), (366, 14158), (367, 14176), (371, 14215), (372, 14257), (377, 14320), (378, 14332), (381, 14368), (383, 14410), (386, 14431), (392, 14527), (399, 14581), (411, 14671), (421, 14734),

Gene: HotPotato_18 Start: 10893, Stop: 14789, Start Num: 23

Candidate Starts for HotPotato_18:

(Start: 23 @10893 has 46 MA's), (32, 11028), (35, 11052), (37, 11058), (43, 11094), (44, 11106), (45, 11124), (46, 11133), (47, 11166), (48, 11172), (51, 11250), (58, 11331), (60, 11370), (66, 11454), (68, 11469), (71, 11493), (72, 11502), (80, 11607), (86, 11694), (88, 11715), (91, 11727), (96, 11763), (112, 11946), (119, 11994), (124, 12045), (125, 12048), (130, 12087), (140, 12132), (146, 12219), (148, 12228), (150, 12240), (166, 12429), (167, 12438), (174, 12486), (176, 12507), (177, 12510), (185, 12582), (199, 12744), (209, 12795), (227, 12921), (251, 13059), (260, 13110), (263, 13122), (266, 13143), (279, 13233), (293, 13368), (301, 13407), (305, 13443), (308, 13485), (310, 13506), (311, 13524), (318, 13560), (319, 13569), (323, 13584), (348, 13797), (356, 13947), (357, 13953), (361, 14046), (366, 14160), (367, 14178), (370, 14208), (371, 14217), (372, 14259), (377, 14322), (378, 14334), (383, 14412), (386, 14433), (387, 14445), (397, 14571), (399, 14583), (410, 14670), (413, 14688),

Gene: Isolde_19 Start: 10834, Stop: 14619, Start Num: 23

Candidate Starts for Isolde_19:

(Start: 23 @10834 has 46 MA's), (32, 10969), (35, 10993), (37, 10999), (43, 11035), (44, 11047), (45, 11065), (47, 11107), (62, 11341), (66, 11395), (67, 11404), (68, 11410), (69, 11416), (72, 11443), (77, 11539), (83, 11584), (90, 11668), (96, 11704), (98, 11710), (111, 11881), (114, 11896), (116, 11923), (127, 12019), (130, 12031), (133, 12040), (135, 12052), (141, 12085), (158, 12262), (167, 12382), (174, 12430), (175, 12448), (180, 12472), (185, 12526), (197, 12673), (199, 12688), (218, 12814), (225, 12844), (230, 12886), (245, 12970), (251, 13003), (263, 13066), (277, 13171), (288, 13270), (304, 13369), (310, 13444), (314, 13471), (323, 13522), (324, 13525), (352, 13687), (357, 13786), (361, 13879), (366, 13993), (367, 14011), (370, 14041), (371, 14050), (372, 14092), (377, 14155), (378, 14167), (381, 14203), (383, 14245), (386, 14266), (390, 14350), (392, 14362), (399, 14416), (409, 14500), (411, 14506),

Gene: JakeTheSnake_19 Start: 10846, Stop: 14685, Start Num: 23

Candidate Starts for JakeTheSnake_19:

(20, 10825), (Start: 23 @10846 has 46 MA's), (28, 10906), (32, 10981), (35, 11005), (37, 11011), (39, 11026), (45, 11077), (47, 11119), (52, 11218), (54, 11236), (61, 11338), (70, 11443), (71, 11446), (77, 11551), (81, 11563), (83, 11596), (88, 11668), (91, 11680), (116, 11932), (119, 11947), (120, 11956), (137, 12070), (154, 12229), (161, 12346), (179, 12466), (187, 12574), (191, 12628), (199, 12712), (202, 12733), (209, 12805), (215, 12859), (230, 12952), (235, 12985), (249, 13036), (253, 13057), (254, 13060), (263, 13111), (275, 13195), (280, 13234), (282, 13255), (290, 13348), (293, 13360), (301, 13402), (307, 13471), (308, 13477), (314, 13525), (318, 13552), (319, 13561), (352, 13753), (357, 13852), (361, 13945), (363, 13978), (364, 14008), (366, 14059), (371, 14116), (372, 14158), (377, 14221), (378, 14233), (383, 14311), (386, 14332), (390, 14416), (397, 14470), (399, 14482), (409, 14566), (411, 14572),

Gene: JellyBread_19 Start: 10836, Stop: 14777, Start Num: 23

Candidate Starts for JellyBread_19:

(Start: 23 @10836 has 46 MA's), (26, 10875), (30, 10938), (32, 10971), (35, 10995), (37, 11001), (38, 11013), (43, 11037), (44, 11049), (45, 11067), (47, 11109), (58, 11274), (77, 11541), (79, 11547), (83, 11586), (93, 11679), (109, 11847), (113, 11892), (124, 11988), (138, 12063), (142, 12093), (149,

12180), (151, 12192), (158, 12261), (159, 12297), (162, 12327), (166, 12363), (173, 12411), (174, 12423), (179, 12453), (183, 12510), (184, 12519), (186, 12564), (187, 12567), (189, 12612), (191, 12621), (199, 12705), (200, 12714), (202, 12726), (204, 12747), (208, 12786), (209, 12798), (218, 12873), (222, 12897), (234, 13005), (238, 13044), (250, 13134), (253, 13149), (270, 13251), (274, 13281), (280, 13332), (282, 13353), (286, 13401), (287, 13404), (301, 13488), (302, 13491), (308, 13569), (318, 13644), (319, 13653), (323, 13668), (337, 13788), (344, 13827), (349, 13845), (357, 13944), (361, 14037), (366, 14151), (367, 14169), (371, 14208), (372, 14250), (377, 14313), (378, 14325), (381, 14361), (383, 14403), (386, 14424), (392, 14520), (399, 14574), (421, 14727),

Gene: Judy_19 Start: 11202, Stop: 15098, Start Num: 23

Candidate Starts for Judy_19:

(Start: 23 @11202 has 46 MA's), (32, 11337), (35, 11361), (37, 11367), (43, 11403), (44, 11415), (45, 11433), (46, 11442), (47, 11475), (48, 11481), (51, 11559), (58, 11640), (60, 11679), (66, 11763), (71, 11802), (72, 11811), (80, 11916), (85, 11997), (86, 12003), (91, 12036), (97, 12072), (119, 12303), (130, 12396), (140, 12441), (148, 12537), (166, 12738), (167, 12747), (174, 12795), (176, 12816), (177, 12819), (185, 12891), (199, 13053), (209, 13104), (227, 13230), (251, 13368), (263, 13431), (266, 13452), (279, 13542), (293, 13677), (301, 13716), (305, 13752), (308, 13794), (311, 13833), (315, 13857), (318, 13869), (319, 13878), (323, 13893), (346, 14097), (348, 14106), (355, 14229), (356, 14256), (357, 14262), (358, 14283), (361, 14355), (366, 14469), (370, 14517), (371, 14526), (372, 14568), (377, 14631), (378, 14643), (381, 14679), (383, 14721), (386, 14742), (387, 14754), (392, 14838), (399, 14892), (408, 14973), (410, 14979), (412, 14994), (413, 14997), (417, 15033),

Gene: Kabloowy_19 Start: 10969, Stop: 14973, Start Num: 23

Candidate Starts for Kabloowy_19:

(Start: 23 @10969 has 46 MA's), (26, 11008), (35, 11128), (37, 11134), (45, 11200), (47, 11242), (49, 11251), (51, 11326), (52, 11341), (54, 11359), (56, 11383), (64, 11494), (71, 11569), (77, 11674), (83, 11719), (93, 11833), (96, 11860), (106, 11974), (119, 12091), (122, 12112), (125, 12145), (127, 12172), (135, 12205), (137, 12214), (139, 12226), (146, 12316), (148, 12325), (162, 12481), (165, 12508), (166, 12517), (168, 12529), (173, 12565), (176, 12598), (177, 12601), (179, 12607), (183, 12664), (197, 12844), (199, 12859), (200, 12868), (202, 12880), (204, 12901), (209, 12952), (214, 13000), (219, 13030), (237, 13105), (244, 13141), (248, 13192), (256, 13237), (274, 13351), (280, 13402), (282, 13423), (301, 13564), (308, 13642), (315, 13705), (318, 13717), (323, 13741), (330, 13813), (342, 13945), (345, 13972), (346, 13975), (348, 13984), (349, 14002), (352, 14041), (357, 14140), (361, 14233), (366, 14347), (367, 14365), (371, 14404), (372, 14446), (377, 14509), (378, 14521), (380, 14554), (381, 14557), (383, 14599), (385, 14614), (386, 14620), (392, 14716), (399, 14770), (400, 14779), (402, 14794), (405, 14827), (421, 14923),

Gene: Karkharias_18 Start: 10889, Stop: 14785, Start Num: 23

Candidate Starts for Karkharias_18:

(Start: 23 @10889 has 46 MA's), (32, 11024), (35, 11048), (37, 11054), (43, 11090), (44, 11102), (45, 11120), (46, 11129), (47, 11162), (48, 11168), (51, 11246), (58, 11327), (60, 11366), (66, 11450), (68, 11465), (72, 11498), (80, 11603), (86, 11690), (91, 11723), (96, 11759), (112, 11942), (119, 11990), (124, 12041), (125, 12044), (140, 12128), (146, 12215), (148, 12224), (166, 12425), (167, 12434), (174, 12482), (176, 12503), (177, 12506), (185, 12578), (188, 12641), (209, 12791), (227, 12917), (251, 13055), (260, 13106), (263, 13118), (266, 13139), (279, 13229), (293, 13364), (301, 13403), (305, 13439), (308, 13481), (310, 13502), (311, 13520), (318, 13556), (323, 13580), (348, 13793), (356, 13943), (357, 13949), (361, 14042), (366, 14156), (367, 14174), (370, 14204), (371, 14213), (372, 14255), (377, 14318), (378, 14330), (383, 14408), (386, 14429), (387, 14441), (397, 14567), (399, 14579), (410, 14666), (413, 14684),

Gene: KayMoney_18 Start: 10886, Stop: 14689, Start Num: 23

Candidate Starts for KayMoney_18:

(Start: 23 @10886 has 46 MA's), (32, 11021), (35, 11045), (36, 11048), (37, 11051), (43, 11087), (44, 11099), (45, 11117), (46, 11126), (47, 11159), (48, 11165), (51, 11243), (58, 11324), (60, 11363), (66, 11447), (67, 11456), (68, 11462), (71, 11486), (72, 11495), (78, 11594), (80, 11600), (86, 11687), (91, 11720), (96, 11756), (112, 11939), (117, 11975), (119, 11987), (124, 12038), (140, 12125), (146, 12212), (148, 12221), (159, 12353), (166, 12422), (167, 12431), (174, 12479), (176, 12500), (177, 12503), (185, 12575), (188, 12638), (197, 12722), (199, 12737), (208, 12776), (213, 12833), (219, 12866), (246, 13028), (255, 13073), (266, 13136), (280, 13238), (282, 13259), (308, 13481), (318, 13556), (333, 13622), (349, 13718), (352, 13757), (355, 13823), (361, 13949), (366, 14063), (367, 14081), (370, 14111), (371, 14120), (372, 14162), (377, 14225), (378, 14237), (381, 14273), (383, 14315), (386, 14336), (395, 14453), (399, 14486), (400, 14495), (409, 14570), (411, 14576),

Gene: Kukla_17 Start: 10473, Stop: 14528, Start Num: 18

Candidate Starts for Kukla_17:

(14, 10419), (17, 10461), (Start: 18 @10473 has 2 MA's), (19, 10491), (25, 10533), (27, 10563), (31, 10620), (38, 10692), (40, 10698), (41, 10704), (45, 10746), (47, 10788), (51, 10872), (58, 10953), (62, 11022), (63, 11031), (68, 11091), (73, 11127), (77, 11220), (81, 11232), (83, 11265), (87, 11325), (92, 11352), (96, 11385), (116, 11601), (121, 11634), (126, 11688), (128, 11700), (145, 11823), (156, 11925), (163, 12012), (184, 12177), (207, 12438), (218, 12531), (222, 12555), (256, 12762), (269, 12840), (271, 12852), (274, 12876), (277, 12909), (282, 12948), (306, 13173), (314, 13230), (321, 13272), (334, 13410), (339, 13446), (340, 13452), (352, 13560), (363, 13785), (365, 13827), (369, 13905), (372, 13965), (375, 13986), (381, 14076), (383, 14118), (386, 14139), (389, 14202), (396, 14265), (398, 14283), (399, 14292), (401, 14310), (414, 14400), (423, 14496), (425, 14514),

Gene: Lasker_19 Start: 10851, Stop: 14792, Start Num: 23

Candidate Starts for Lasker_19:

(Start: 23 @10851 has 46 MA's), (26, 10890), (30, 10953), (32, 10986), (35, 11010), (37, 11016), (38, 11028), (43, 11052), (44, 11064), (45, 11082), (47, 11124), (58, 11289), (77, 11556), (79, 11562), (83, 11601), (93, 11694), (109, 11862), (113, 11907), (124, 12003), (138, 12078), (142, 12108), (149, 12195), (151, 12207), (158, 12276), (159, 12312), (162, 12342), (166, 12378), (173, 12426), (174, 12438), (179, 12468), (183, 12525), (184, 12534), (186, 12579), (187, 12582), (189, 12627), (191, 12636), (199, 12720), (200, 12729), (202, 12741), (204, 12762), (208, 12801), (209, 12813), (218, 12888), (222, 12912), (234, 13020), (238, 13059), (250, 13149), (253, 13164), (270, 13266), (274, 13296), (280, 13347), (282, 13368), (286, 13416), (287, 13419), (301, 13503), (302, 13506), (308, 13584), (318, 13659), (319, 13668), (323, 13683), (344, 13842), (349, 13860), (357, 13959), (361, 14052), (366, 14166), (367, 14184), (371, 14223), (372, 14265), (377, 14328), (378, 14340), (381, 14376), (383, 14418), (386, 14439), (392, 14535), (399, 14589), (411, 14679), (421, 14742),

Gene: Lawnathon_19 Start: 10910, Stop: 14713, Start Num: 23

Candidate Starts for Lawnathon_19:

(Start: 23 @10910 has 46 MA's), (32, 11045), (35, 11069), (37, 11075), (43, 11111), (44, 11123), (45, 11141), (46, 11150), (47, 11183), (48, 11189), (51, 11267), (58, 11348), (60, 11387), (66, 11471), (67, 11480), (68, 11486), (71, 11510), (72, 11519), (78, 11618), (80, 11624), (86, 11711), (91, 11744), (96, 11780), (112, 11963), (117, 11999), (119, 12011), (124, 12062), (140, 12149), (146, 12236), (159, 12377), (166, 12446), (167, 12455), (174, 12503), (176, 12524), (177, 12527), (185, 12599), (188, 12662), (197, 12746), (199, 12761), (208, 12800), (213, 12857), (246, 13052), (255, 13097), (266, 13160), (280, 13262), (282, 13283), (308, 13505), (316, 13571), (318, 13580), (333, 13646), (349, 13742), (352, 13781), (355, 13847), (361, 13973), (366, 14087), (367, 14105), (370, 14135), (371, 14144), (372, 14186), (377, 14249), (378, 14261), (381, 14297), (383, 14339), (386, 14360), (387, 14372), (397, 14498), (399, 14510), (409, 14594), (411, 14600), (422, 14693),

Gene: LeBruni_19 Start: 10784, Stop: 14581, Start Num: 23

Candidate Starts for LeBruni_19:

(Start: 23 @10784 has 46 MA's), (26, 10823), (32, 10919), (35, 10943), (37, 10949), (43, 10985), (44, 10997), (45, 11015), (47, 11057), (48, 11063), (51, 11141), (58, 11222), (60, 11261), (63, 11300), (66, 11345), (67, 11354), (68, 11360), (72, 11393), (78, 11492), (80, 11498), (85, 11579), (86, 11585), (91, 11618), (96, 11654), (112, 11837), (119, 11885), (140, 12023), (146, 12110), (166, 12320), (167, 12329), (174, 12377), (176, 12398), (177, 12401), (185, 12473), (188, 12536), (197, 12620), (199, 12635), (209, 12686), (221, 12776), (227, 12812), (245, 12917), (251, 12950), (263, 13013), (266, 13034), (277, 13118), (301, 13295), (305, 13331), (308, 13373), (316, 13439), (318, 13448), (348, 13592), (352, 13649), (361, 13841), (364, 13904), (366, 13955), (367, 13973), (371, 14012), (372, 14054), (377, 14117), (378, 14129), (381, 14165), (383, 14207), (384, 14210), (385, 14222), (386, 14228), (399, 14378), (411, 14468), (421, 14531),

Gene: LilyBell_18 Start: 10905, Stop: 14801, Start Num: 23

Candidate Starts for LilyBell_18:

(Start: 23 @10905 has 46 MA's), (32, 11040), (35, 11064), (37, 11070), (43, 11106), (44, 11118), (45, 11136), (46, 11145), (47, 11178), (48, 11184), (51, 11262), (58, 11343), (60, 11382), (66, 11466), (71, 11505), (72, 11514), (80, 11619), (85, 11700), (86, 11706), (91, 11739), (97, 11775), (119, 12006), (130, 12099), (140, 12144), (148, 12240), (166, 12441), (167, 12450), (174, 12498), (176, 12519), (177, 12522), (185, 12594), (199, 12756), (227, 12933), (251, 13071), (263, 13134), (266, 13155), (279, 13245), (284, 13302), (293, 13380), (301, 13419), (305, 13455), (308, 13497), (311, 13536), (315, 13560), (318, 13572), (319, 13581), (323, 13596), (325, 13614), (346, 13800), (348, 13809), (355, 13932), (356, 13959), (357, 13965), (361, 14058), (366, 14172), (370, 14220), (371, 14229), (372, 14271), (377, 14334), (378, 14346), (381, 14382), (383, 14424), (386, 14445), (387, 14457), (392, 14541), (399, 14595), (408, 14676), (410, 14682), (412, 14697), (413, 14700), (417, 14736),

Gene: LittleRon_18 Start: 10859, Stop: 14659, Start Num: 23

Candidate Starts for LittleRon_18:

(Start: 23 @10859 has 46 MA's), (32, 10994), (35, 11018), (37, 11024), (43, 11060), (44, 11072), (45, 11090), (46, 11099), (47, 11132), (48, 11138), (51, 11216), (58, 11297), (60, 11336), (62, 11366), (66, 11420), (68, 11435), (72, 11468), (80, 11573), (86, 11660), (91, 11693), (96, 11729), (109, 11870), (119, 11960), (130, 12053), (140, 12098), (148, 12194), (166, 12395), (167, 12404), (174, 12452), (176, 12473), (177, 12476), (185, 12548), (199, 12710), (209, 12761), (213, 12806), (227, 12887), (251, 13025), (260, 13076), (263, 13088), (266, 13109), (293, 13334), (305, 13406), (308, 13448), (316, 13514), (318, 13523), (323, 13547), (324, 13550), (345, 13655), (350, 13706), (352, 13724), (358, 13844), (361, 13916), (366, 14030), (370, 14078), (371, 14087), (372, 14129), (377, 14192), (378, 14204), (381, 14240), (383, 14282), (386, 14303), (387, 14315), (392, 14399), (399, 14453), (408, 14534), (410, 14540), (412, 14555), (413, 14558), (417, 14594),

Gene: MUWow_18 Start: 10936, Stop: 14877, Start Num: 23

Candidate Starts for MUWow_18:

(Start: 23 @10936 has 46 MA's), (26, 10975), (30, 11038), (32, 11071), (35, 11095), (37, 11101), (38, 11113), (43, 11137), (44, 11149), (45, 11167), (47, 11209), (58, 11374), (77, 11641), (79, 11647), (83, 11686), (93, 11779), (109, 11947), (113, 11992), (124, 12088), (138, 12163), (142, 12193), (149, 12280), (151, 12292), (158, 12361), (159, 12397), (162, 12427), (166, 12463), (173, 12511), (174, 12523), (179, 12553), (183, 12610), (184, 12619), (186, 12664), (187, 12667), (189, 12712), (191, 12721), (199, 12805), (200, 12814), (202, 12826), (204, 12847), (208, 12886), (209, 12898), (218, 12973), (222, 12997), (234, 13105), (238, 13144), (250, 13234), (253, 13249), (270, 13351), (274, 13381), (280, 13432), (282, 13453), (286, 13501), (287, 13504), (301, 13588), (302, 13591), (308, 13669), (318, 13744), (319, 13753), (323, 13768), (337, 13888), (344, 13927), (349, 13945), (357, 14044), (361, 14137), (366, 14251), (367, 14269), (371, 14308), (372, 14350), (377, 14413), (378, 14425), (381, 14461), (383, 14503), (386, 14524), (392, 14620), (399, 14674), (421, 14827),

Gene: Mapleville_18 Start: 10980, Stop: 14783, Start Num: 23

Candidate Starts for Mapleville_18:

(Start: 23 @10980 has 46 MA's), (32, 11115), (35, 11139), (37, 11145), (43, 11181), (44, 11193), (45, 11211), (46, 11220), (47, 11253), (48, 11259), (51, 11337), (58, 11418), (60, 11457), (66, 11541), (67, 11550), (68, 11556), (71, 11580), (72, 11589), (78, 11688), (80, 11694), (86, 11781), (91, 11814), (96, 11850), (112, 12033), (117, 12069), (119, 12081), (124, 12132), (140, 12219), (146, 12306), (159, 12447), (166, 12516), (167, 12525), (174, 12573), (176, 12594), (177, 12597), (185, 12669), (188, 12732), (197, 12816), (199, 12831), (208, 12870), (213, 12927), (246, 13122), (255, 13167), (266, 13230), (280, 13332), (282, 13353), (308, 13575), (316, 13641), (318, 13650), (333, 13716), (349, 13812), (352, 13851), (355, 13917), (361, 14043), (366, 14157), (367, 14175), (370, 14205), (371, 14214), (372, 14256), (377, 14319), (378, 14331), (381, 14367), (383, 14409), (386, 14430), (387, 14442), (397, 14568), (399, 14580), (409, 14664), (411, 14670), (422, 14763),

Gene: MaterMagnus_19 Start: 10844, Stop: 14785, Start Num: 23

Candidate Starts for MaterMagnus_19:

(Start: 23 @10844 has 46 MA's), (26, 10883), (30, 10946), (32, 10979), (35, 11003), (37, 11009), (38, 11021), (43, 11045), (44, 11057), (45, 11075), (47, 11117), (58, 11282), (77, 11549), (79, 11555), (83, 11594), (93, 11687), (109, 11855), (113, 11900), (124, 11996), (138, 12071), (142, 12101), (149, 12188), (151, 12200), (158, 12269), (159, 12305), (162, 12335), (166, 12371), (173, 12419), (174, 12431), (179, 12461), (183, 12518), (184, 12527), (186, 12572), (187, 12575), (191, 12629), (199, 12713), (200, 12722), (202, 12734), (204, 12755), (209, 12806), (222, 12905), (234, 13013), (238, 13052), (250, 13142), (253, 13157), (270, 13259), (274, 13289), (280, 13340), (282, 13361), (286, 13409), (287, 13412), (301, 13496), (302, 13499), (308, 13577), (318, 13652), (319, 13661), (323, 13676), (337, 13796), (344, 13835), (349, 13853), (357, 13952), (361, 14045), (366, 14159), (367, 14177), (371, 14216), (372, 14258), (377, 14321), (378, 14333), (381, 14369), (383, 14411), (386, 14432), (392, 14528), (399, 14582), (411, 14672), (421, 14735),

Gene: MidnightRain_19 Start: 10842, Stop: 14783, Start Num: 23

Candidate Starts for MidnightRain_19:

(Start: 23 @10842 has 46 MA's), (26, 10881), (30, 10944), (32, 10977), (35, 11001), (37, 11007), (38, 11019), (43, 11043), (44, 11055), (45, 11073), (47, 11115), (58, 11280), (77, 11547), (79, 11553), (83, 11592), (93, 11685), (109, 11853), (113, 11898), (124, 11994), (138, 12069), (142, 12099), (149, 12186), (151, 12198), (158, 12267), (159, 12303), (162, 12333), (166, 12369), (173, 12417), (174, 12429), (179, 12459), (183, 12516), (184, 12525), (186, 12570), (187, 12573), (189, 12618), (191, 12627), (199, 12711), (200, 12720), (202, 12732), (204, 12753), (208, 12792), (209, 12804), (218, 12879), (222, 12903), (234, 13011), (238, 13050), (250, 13140), (253, 13155), (270, 13257), (274, 13287), (280, 13338), (282, 13359), (286, 13407), (287, 13410), (301, 13494), (302, 13497), (308, 13575), (318, 13650), (319, 13659), (323, 13674), (344, 13833), (349, 13851), (357, 13950), (361, 14043), (366, 14157), (367, 14175), (371, 14214), (372, 14256), (377, 14319), (378, 14331), (381, 14367), (383, 14409), (386, 14430), (392, 14526), (399, 14580), (411, 14670), (421, 14733),

Gene: MurphyJoseph_19 Start: 10843, Stop: 14868, Start Num: 23

Candidate Starts for MurphyJoseph_19:

(Start: 23 @10843 has 46 MA's), (32, 10978), (45, 11074), (46, 11083), (47, 11116), (51, 11200), (63, 11359), (65, 11371), (71, 11443), (77, 11548), (82, 11590), (83, 11593), (99, 11722), (102, 11755), (110, 11866), (115, 11920), (132, 12043), (150, 12193), (154, 12226), (161, 12343), (170, 12406), (179, 12463), (183, 12514), (187, 12571), (191, 12625), (199, 12709), (217, 12880), (235, 13000), (261, 13171), (262, 13174), (265, 13192), (278, 13312), (281, 13336), (297, 13543), (300, 13570), (308, 13663), (309, 13666), (313, 13708), (314, 13711), (316, 13729), (319, 13747), (328, 13792), (348, 13870), (352, 13927), (357, 14026), (361, 14119), (363, 14152), (364, 14182), (366, 14233), (367, 14251), (371, 14290), (372, 14332), (374, 14350), (378, 14407), (381, 14443), (383, 14485), (384, 14488), (386, 14506), (399, 14656), (415, 14770), (418, 14803),

Gene: NewKitty_20 Start: 11073, Stop: 15014, Start Num: 23

Candidate Starts for NewKitty_20:

(Start: 23 @11073 has 46 MA's), (26, 11112), (30, 11175), (32, 11208), (35, 11232), (37, 11238), (38, 11250), (43, 11274), (44, 11286), (45, 11304), (47, 11346), (58, 11511), (77, 11778), (79, 11784), (83, 11823), (93, 11916), (109, 12084), (113, 12129), (124, 12225), (138, 12300), (142, 12330), (149, 12417), (151, 12429), (158, 12498), (159, 12534), (162, 12564), (166, 12600), (173, 12648), (174, 12660), (179, 12690), (183, 12747), (184, 12756), (186, 12801), (187, 12804), (189, 12849), (191, 12858), (199, 12942), (200, 12951), (202, 12963), (204, 12984), (208, 13023), (209, 13035), (218, 13110), (222, 13134), (234, 13242), (238, 13281), (250, 13371), (253, 13386), (270, 13488), (274, 13518), (280, 13569), (282, 13590), (286, 13638), (287, 13641), (301, 13725), (302, 13728), (308, 13806), (318, 13881), (319, 13890), (323, 13905), (337, 14025), (344, 14064), (349, 14082), (357, 14181), (361, 14274), (366, 14388), (367, 14406), (371, 14445), (372, 14487), (377, 14550), (378, 14562), (381, 14598), (383, 14640), (386, 14661), (392, 14757), (399, 14811), (421, 14964),

Gene: NidoQ_18 Start: 10948, Stop: 14841, Start Num: 23

Candidate Starts for NidoQ_18:

(Start: 23 @10948 has 46 MA's), (32, 11083), (35, 11107), (37, 11113), (43, 11149), (44, 11161), (45, 11179), (46, 11188), (47, 11221), (48, 11227), (51, 11305), (58, 11386), (60, 11425), (66, 11509), (71, 11548), (72, 11557), (80, 11662), (85, 11743), (86, 11749), (91, 11782), (97, 11818), (119, 12049), (140, 12187), (148, 12283), (166, 12484), (167, 12493), (174, 12541), (176, 12562), (177, 12565), (185, 12637), (199, 12799), (209, 12850), (227, 12976), (251, 13114), (263, 13177), (266, 13198), (279, 13288), (293, 13423), (301, 13462), (305, 13498), (308, 13540), (311, 13579), (315, 13603), (318, 13615), (319, 13624), (323, 13639), (346, 13843), (348, 13852), (355, 13975), (356, 14002), (357, 14008), (358, 14029), (361, 14101), (366, 14215), (370, 14263), (371, 14272), (372, 14314), (377, 14377), (378, 14389), (381, 14425), (382, 14434), (383, 14467), (385, 14482), (386, 14488), (387, 14500), (397, 14626), (399, 14638), (409, 14722), (411, 14728),

Gene: NikkiHotWheels_18 Start: 10948, Stop: 14802, Start Num: 28

Candidate Starts for NikkiHotWheels_18:

(Start: 23 @10888 has 46 MA's), (28, 10948), (32, 11023), (35, 11047), (37, 11053), (43, 11089), (44, 11101), (45, 11119), (46, 11128), (47, 11161), (48, 11167), (51, 11245), (58, 11326), (60, 11365), (66, 11449), (71, 11488), (72, 11497), (80, 11602), (85, 11683), (86, 11689), (88, 11710), (94, 11752), (97, 11779), (101, 11812), (104, 11869), (112, 11962), (119, 12010), (124, 12061), (140, 12148), (146, 12235), (148, 12244), (166, 12445), (167, 12454), (174, 12502), (176, 12523), (177, 12526), (185, 12598), (199, 12760), (209, 12811), (227, 12937), (251, 13075), (260, 13126), (263, 13138), (266, 13159), (279, 13249), (293, 13384), (301, 13423), (305, 13459), (308, 13501), (310, 13522), (311, 13540), (315, 13564), (318, 13576), (319, 13585), (323, 13600), (348, 13813), (356, 13963), (357, 13969), (361, 14062), (366, 14176), (367, 14194), (370, 14224), (371, 14233), (372, 14275), (377, 14338), (378, 14350), (381, 14386), (383, 14428), (385, 14443), (386, 14449), (387, 14461), (397, 14587), (399, 14599), (409, 14683), (411, 14689),

Gene: Nyilah_18 Start: 10881, Stop: 14774, Start Num: 23

Candidate Starts for Nyilah_18:

(15, 10788), (Start: 23 @10881 has 46 MA's), (32, 11016), (35, 11040), (38, 11058), (43, 11082), (44, 11094), (45, 11112), (46, 11121), (47, 11154), (48, 11160), (51, 11238), (58, 11319), (60, 11358), (66, 11442), (68, 11457), (72, 11490), (80, 11595), (86, 11682), (91, 11715), (96, 11751), (112, 11934), (119, 11982), (124, 12033), (125, 12036), (140, 12120), (146, 12207), (148, 12216), (166, 12417), (167, 12426), (174, 12474), (176, 12495), (177, 12498), (185, 12570), (192, 12690), (199, 12732), (209, 12783), (227, 12909), (251, 13047), (263, 13110), (266, 13131), (279, 13221), (293, 13356), (301, 13395), (305, 13431), (308, 13473), (310, 13494), (311, 13512), (315, 13536), (318, 13548), (319, 13557), (323, 13572), (346, 13776), (348, 13785), (355, 13908), (356, 13935), (357, 13941), (361, 14034), (366, 14148), (370, 14196), (371, 14205), (372, 14247), (377, 14310), (378, 14322), (381, 14358), (383, 14400), (385, 14415), (386, 14421), (387, 14433), (392, 14517), (399, 14571), (400, 14580), (411, 14661), (421, 14724),

Gene: Peas_18 Start: 10892, Stop: 14788, Start Num: 23

Candidate Starts for Peas_18:

(Start: 23 @10892 has 46 MA's), (32, 11027), (35, 11051), (37, 11057), (43, 11093), (44, 11105), (45, 11123), (46, 11132), (47, 11165), (48, 11171), (51, 11249), (58, 11330), (60, 11369), (66, 11453), (68, 11468), (72, 11501), (80, 11606), (86, 11693), (91, 11726), (96, 11762), (112, 11945), (119, 11993), (124, 12044), (125, 12047), (129, 12083), (130, 12086), (140, 12131), (146, 12218), (159, 12359), (166, 12428), (167, 12437), (174, 12485), (176, 12506), (177, 12509), (185, 12581), (188, 12644), (199, 12743), (209, 12794), (227, 12920), (251, 13058), (260, 13109), (263, 13121), (266, 13142), (279, 13232), (293, 13367), (301, 13406), (305, 13442), (308, 13484), (310, 13505), (311, 13523), (315, 13547), (318, 13559), (319, 13568), (323, 13583), (348, 13796), (356, 13946), (357, 13952), (361, 14045), (366, 14159), (367, 14177), (370, 14207), (371, 14216), (372, 14258), (377, 14321), (378, 14333), (381, 14369), (383, 14411), (386, 14432), (387, 14444), (397, 14570), (399, 14582), (410, 14669), (413, 14687),

Gene: PeggyLeg03_18 Start: 10931, Stop: 14827, Start Num: 23

Candidate Starts for PeggyLeg03_18:

(Start: 23 @10931 has 46 MA's), (32, 11066), (35, 11090), (37, 11096), (43, 11132), (44, 11144), (45, 11162), (46, 11171), (47, 11204), (48, 11210), (51, 11288), (58, 11369), (60, 11408), (66, 11492), (71, 11531), (72, 11540), (80, 11645), (85, 11726), (86, 11732), (91, 11765), (97, 11801), (119, 12032), (140, 12170), (148, 12266), (166, 12467), (167, 12476), (174, 12524), (176, 12545), (177, 12548), (185, 12620), (196, 12761), (199, 12782), (209, 12833), (227, 12959), (251, 13097), (263, 13160), (266, 13181), (279, 13271), (293, 13406), (301, 13445), (305, 13481), (308, 13523), (311, 13562), (315, 13586), (316, 13589), (318, 13598), (319, 13607), (323, 13622), (346, 13826), (348, 13835), (355, 13958), (356, 13985), (357, 13991), (358, 14012), (361, 14084), (366, 14198), (370, 14246), (371, 14255), (372, 14297), (377, 14360), (378, 14372), (381, 14408), (383, 14450), (386, 14471), (387, 14483), (392, 14567), (399, 14621), (408, 14702), (410, 14708), (412, 14723), (413, 14726), (417, 14762),

Gene: Persistence_18 Start: 10866, Stop: 14705, Start Num: 23

Candidate Starts for Persistence_18:

(Start: 23 @10866 has 46 MA's), (32, 11001), (35, 11025), (37, 11031), (42, 11061), (43, 11067), (45, 11097), (47, 11139), (60, 11343), (63, 11382), (65, 11394), (68, 11442), (77, 11571), (81, 11583), (83, 11616), (96, 11736), (109, 11877), (113, 11922), (119, 11967), (122, 11988), (123, 11997), (125, 12021), (131, 12063), (138, 12093), (140, 12105), (145, 12174), (150, 12216), (159, 12327), (160, 12336), (165, 12384), (171, 12429), (177, 12474), (183, 12537), (191, 12648), (194, 12696), (202, 12753), (209, 12825), (218, 12900), (221, 12915), (230, 12972), (235, 13005), (253, 13077), (254, 13080), (275, 13215), (280, 13254), (282, 13275), (290, 13368), (301, 13422), (307, 13491), (308, 13497), (314, 13545), (318, 13572), (319, 13581), (361, 13965), (362, 13992), (363, 13998), (364, 14028), (366, 14079), (371, 14136), (372, 14178), (377, 14241), (378, 14253), (382, 14298), (383, 14331), (386, 14352), (392, 14448), (399, 14502), (416, 14634),

Gene: PetriParty_17 Start: 11046, Stop: 15431, Start Num: 7

Candidate Starts for PetriParty_17:

(4, 10968), (Start: 7 @11046 has 2 MA's), (9, 11106), (11, 11169), (12, 11181), (13, 11223), (21, 11316), (29, 11433), (45, 11571), (46, 11580), (47, 11613), (50, 11640), (58, 11778), (60, 11817), (63, 11856), (66, 11901), (67, 11910), (68, 11916), (71, 11940), (77, 12045), (83, 12090), (86, 12141), (95, 12201), (100, 12237), (102, 12252), (105, 12306), (119, 12441), (122, 12462), (126, 12513), (127, 12522), (128, 12525), (139, 12576), (140, 12579), (145, 12648), (147, 12672), (148, 12675), (159, 12801), (160, 12810), (164, 12849), (166, 12867), (168, 12879), (182, 13002), (183, 13014), (184, 13023), (185, 13026), (191, 13125), (197, 13194), (198, 13203), (201, 13227), (202, 13230), (222, 13401), (229, 13461), (238, 13548), (242, 13560), (250, 13638), (253, 13653), (257, 13686), (270, 13755), (275, 13797), (276, 13800), (280, 13836), (282, 13857), (299, 13971), (311, 14115), (314, 14124), (320, 14163), (321, 14166), (327, 14205), (338, 14337), (340, 14346), (352, 14454), (363,

14679), (365, 14721), (368, 14781), (372, 14859), (375, 14880), (379, 14949), (381, 14970), (383, 15012), (386, 15033), (389, 15096), (393, 15135), (399, 15186), (407, 15255), (414, 15300), (425, 15417),

Gene: Phrank15_18 Start: 10912, Stop: 14718, Start Num: 23

Candidate Starts for Phrank15_18:

(15, 10822), (Start: 23 @10912 has 46 MA's), (26, 10951), (32, 11047), (35, 11071), (37, 11077), (38, 11089), (39, 11092), (41, 11101), (43, 11113), (44, 11125), (45, 11143), (46, 11152), (47, 11185), (48, 11191), (51, 11269), (58, 11350), (60, 11389), (67, 11482), (68, 11488), (72, 11521), (80, 11626), (86, 11713), (91, 11746), (96, 11782), (107, 11908), (109, 11923), (112, 11965), (129, 12103), (140, 12151), (155, 12307), (159, 12379), (166, 12448), (167, 12457), (174, 12505), (176, 12526), (177, 12529), (179, 12535), (185, 12601), (188, 12664), (199, 12763), (202, 12772), (209, 12814), (216, 12868), (227, 12940), (235, 12994), (251, 13078), (260, 13129), (263, 13141), (266, 13162), (277, 13246), (283, 13297), (301, 13423), (308, 13501), (311, 13540), (316, 13567), (318, 13576), (323, 13600), (324, 13603), (352, 13777), (361, 13969), (363, 14002), (366, 14083), (367, 14101), (371, 14140), (372, 14182), (377, 14245), (378, 14257), (381, 14293), (383, 14335), (386, 14356), (387, 14368), (392, 14452), (399, 14506), (408, 14581), (410, 14587), (412, 14602), (413, 14605),

Gene: Pucara_18 Start: 10892, Stop: 14788, Start Num: 23

Candidate Starts for Pucara_18:

(Start: 23 @10892 has 46 MA's), (28, 10952), (32, 11027), (35, 11051), (37, 11057), (43, 11093), (44, 11105), (45, 11123), (46, 11132), (47, 11165), (48, 11171), (51, 11249), (58, 11330), (60, 11369), (66, 11453), (68, 11468), (71, 11492), (72, 11501), (80, 11606), (86, 11693), (91, 11726), (96, 11762), (112, 11945), (119, 11993), (124, 12044), (125, 12047), (130, 12086), (140, 12131), (146, 12218), (148, 12227), (166, 12428), (167, 12437), (174, 12485), (176, 12506), (177, 12509), (185, 12581), (188, 12644), (209, 12794), (227, 12920), (251, 13058), (260, 13109), (263, 13121), (266, 13142), (279, 13232), (293, 13367), (301, 13406), (305, 13442), (308, 13484), (310, 13505), (311, 13523), (318, 13559), (323, 13583), (348, 13796), (356, 13946), (357, 13952), (361, 14045), (366, 14159), (367, 14177), (370, 14207), (371, 14216), (372, 14258), (377, 14321), (378, 14333), (383, 14411), (386, 14432), (387, 14444), (395, 14549), (397, 14570), (399, 14582), (410, 14669), (413, 14687),

Gene: RadFad_19 Start: 10843, Stop: 14784, Start Num: 23

Candidate Starts for RadFad_19:

(Start: 23 @10843 has 46 MA's), (26, 10882), (30, 10945), (32, 10978), (35, 11002), (37, 11008), (38, 11020), (43, 11044), (44, 11056), (45, 11074), (47, 11116), (58, 11281), (77, 11548), (79, 11554), (83, 11593), (93, 11686), (109, 11854), (113, 11899), (124, 11995), (138, 12070), (142, 12100), (149, 12187), (151, 12199), (158, 12268), (159, 12304), (162, 12334), (166, 12370), (173, 12418), (174, 12430), (179, 12460), (183, 12517), (184, 12526), (186, 12571), (187, 12574), (191, 12628), (199, 12712), (200, 12721), (202, 12733), (204, 12754), (209, 12805), (211, 12832), (222, 12904), (234, 13012), (238, 13051), (250, 13141), (253, 13156), (270, 13258), (274, 13288), (280, 13339), (282, 13360), (286, 13408), (287, 13411), (301, 13495), (302, 13498), (308, 13576), (318, 13651), (319, 13660), (323, 13675), (344, 13834), (349, 13852), (357, 13951), (361, 14044), (366, 14158), (367, 14176), (371, 14215), (372, 14257), (377, 14320), (378, 14332), (381, 14368), (383, 14410), (386, 14431), (392, 14527), (399, 14581), (411, 14671), (421, 14734),

Gene: Raphaella_19 Start: 10843, Stop: 14784, Start Num: 23

Candidate Starts for Raphaella_19:

(Start: 23 @10843 has 46 MA's), (26, 10882), (30, 10945), (32, 10978), (35, 11002), (37, 11008), (38, 11020), (43, 11044), (44, 11056), (45, 11074), (47, 11116), (58, 11281), (77, 11548), (79, 11554), (83, 11593), (93, 11686), (109, 11854), (113, 11899), (124, 11995), (138, 12070), (142, 12100), (149, 12187), (151, 12199), (158, 12268), (159, 12304), (162, 12334), (166, 12370), (173, 12418), (174, 12430), (179, 12460), (183, 12517), (184, 12526), (186, 12571), (187, 12574), (189, 12619), (191, 12628), (199, 12712), (200, 12721), (202, 12733), (204, 12754), (208, 12793), (209, 12805), (218,

12880), (222, 12904), (234, 13012), (238, 13051), (250, 13141), (253, 13156), (270, 13258), (274, 13288), (280, 13339), (282, 13360), (286, 13408), (287, 13411), (301, 13495), (302, 13498), (308, 13576), (318, 13651), (319, 13660), (323, 13675), (344, 13834), (349, 13852), (357, 13951), (361, 14044), (366, 14158), (367, 14176), (371, 14215), (372, 14257), (377, 14320), (378, 14332), (381, 14368), (383, 14410), (386, 14431), (392, 14527), (399, 14581), (421, 14734),

Gene: Richie_19 Start: 10858, Stop: 14799, Start Num: 23

Candidate Starts for Richie_19:

(Start: 23 @10858 has 46 MA's), (26, 10897), (30, 10960), (32, 10993), (35, 11017), (37, 11023), (38, 11035), (43, 11059), (44, 11071), (45, 11089), (47, 11131), (58, 11296), (77, 11563), (79, 11569), (83, 11608), (93, 11701), (109, 11869), (113, 11914), (124, 12010), (138, 12085), (142, 12115), (149, 12202), (151, 12214), (158, 12283), (159, 12319), (162, 12349), (166, 12385), (173, 12433), (174, 12445), (179, 12475), (183, 12532), (184, 12541), (186, 12586), (187, 12589), (189, 12634), (191, 12643), (199, 12727), (200, 12736), (202, 12748), (204, 12769), (208, 12808), (209, 12820), (218, 12895), (222, 12919), (234, 13027), (238, 13066), (250, 13156), (253, 13171), (270, 13273), (274, 13303), (280, 13354), (282, 13375), (286, 13423), (287, 13426), (301, 13510), (302, 13513), (308, 13591), (318, 13666), (319, 13675), (323, 13690), (337, 13810), (344, 13849), (349, 13867), (357, 13966), (361, 14059), (366, 14173), (367, 14191), (371, 14230), (372, 14272), (377, 14335), (378, 14347), (381, 14383), (383, 14425), (386, 14446), (392, 14542), (399, 14596), (421, 14749),

Gene: Sakai_19 Start: 10852, Stop: 14793, Start Num: 23

Candidate Starts for Sakai_19:

(Start: 23 @10852 has 46 MA's), (26, 10891), (30, 10954), (32, 10987), (35, 11011), (37, 11017), (38, 11029), (43, 11053), (44, 11065), (45, 11083), (47, 11125), (58, 11290), (77, 11557), (79, 11563), (83, 11602), (93, 11695), (109, 11863), (113, 11908), (124, 12004), (138, 12079), (142, 12109), (149, 12196), (151, 12208), (158, 12277), (159, 12313), (162, 12343), (166, 12379), (173, 12427), (174, 12439), (179, 12469), (183, 12526), (184, 12535), (186, 12580), (187, 12583), (189, 12628), (191, 12637), (199, 12721), (200, 12730), (202, 12742), (204, 12763), (208, 12802), (209, 12814), (218, 12889), (222, 12913), (234, 13021), (238, 13060), (250, 13150), (253, 13165), (270, 13267), (274, 13297), (280, 13348), (282, 13369), (286, 13417), (287, 13420), (301, 13504), (302, 13507), (308, 13585), (318, 13660), (319, 13669), (323, 13684), (337, 13804), (344, 13843), (349, 13861), (357, 13960), (361, 14053), (366, 14167), (367, 14185), (371, 14224), (372, 14266), (377, 14329), (378, 14341), (381, 14377), (383, 14419), (386, 14440), (392, 14536), (399, 14590), (421, 14743),

Gene: Sashimi_20 Start: 11112, Stop: 15146, Start Num: 16

Candidate Starts for Sashimi_20:

(Start: 16 @11112 has 2 MA's), (24, 11172), (29, 11247), (31, 11259), (34, 11310), (38, 11331), (39, 11334), (41, 11343), (45, 11385), (47, 11427), (52, 11526), (58, 11592), (59, 11598), (60, 11631), (63, 11670), (67, 11724), (68, 11730), (74, 11787), (77, 11859), (83, 11904), (84, 11913), (89, 11982), (91, 11988), (93, 11997), (96, 12024), (102, 12066), (105, 12120), (116, 12240), (119, 12255), (126, 12327), (133, 12357), (140, 12393), (153, 12522), (158, 12579), (160, 12624), (166, 12681), (169, 12702), (176, 12762), (183, 12828), (185, 12840), (186, 12882), (190, 12936), (191, 12939), (194, 12987), (202, 13044), (203, 13056), (213, 13161), (222, 13215), (229, 13275), (232, 13296), (234, 13323), (238, 13362), (253, 13467), (258, 13506), (264, 13530), (267, 13551), (270, 13569), (275, 13611), (280, 13650), (282, 13671), (284, 13695), (299, 13785), (310, 13911), (311, 13929), (314, 13938), (319, 13974), (348, 14118), (352, 14175), (363, 14400), (365, 14442), (372, 14580), (375, 14601), (381, 14691), (383, 14733), (386, 14754), (389, 14817), (396, 14880), (401, 14925), (414, 15015), (423, 15114), (425, 15132),

Gene: Satrap_19 Start: 10893, Stop: 14705, Start Num: 32

Candidate Starts for Satrap_19:

(Start: 23 @10758 has 46 MA's), (26, 10797), (28, 10818), (32, 10893), (35, 10917), (37, 10923), (39, 10938), (41, 10947), (45, 10989), (46, 10998), (47, 11031), (60, 11235), (65, 11286), (66, 11319), (77,

11463), (81, 11475), (83, 11508), (109, 11769), (110, 11781), (123, 11889), (125, 11913), (131, 11955), (136, 11976), (140, 11997), (150, 12108), (153, 12126), (160, 12228), (165, 12276), (183, 12429), (195, 12591), (199, 12624), (200, 12633), (202, 12645), (209, 12717), (210, 12738), (218, 12792), (235, 12897), (253, 12969), (254, 12972), (275, 13107), (280, 13146), (282, 13167), (308, 13386), (312, 13428), (313, 13431), (314, 13434), (319, 13470), (322, 13479), (332, 13593), (335, 13623), (349, 13734), (357, 13872), (361, 13965), (366, 14079), (367, 14097), (371, 14136), (372, 14178), (374, 14196), (378, 14253), (381, 14289), (383, 14331), (386, 14352), (387, 14364), (399, 14502), (409, 14586), (411, 14592), (417, 14640), (419, 14652),

Gene: Seahorse_20 Start: 11096, Stop: 15148, Start Num: 23

Candidate Starts for Seahorse_20:

(Start: 23 @11096 has 46 MA's), (32, 11231), (45, 11327), (47, 11369), (51, 11453), (63, 11612), (65, 11624), (71, 11696), (77, 11801), (82, 11843), (83, 11846), (102, 12008), (110, 12119), (115, 12173), (122, 12218), (124, 12248), (132, 12296), (143, 12362), (150, 12446), (154, 12479), (161, 12596), (170, 12659), (179, 12716), (183, 12767), (187, 12824), (191, 12878), (199, 12962), (235, 13253), (261, 13424), (262, 13427), (265, 13445), (278, 13565), (281, 13589), (292, 13751), (302, 13853), (308, 13931), (316, 13997), (318, 14006), (319, 14015), (345, 14138), (352, 14207), (357, 14306), (360, 14369), (361, 14399), (364, 14462), (366, 14513), (367, 14531), (371, 14570), (372, 14612), (377, 14675), (378, 14687), (381, 14723), (383, 14765), (384, 14768), (386, 14786), (399, 14936), (415, 15050), (418, 15083),

Gene: Shukran_19 Start: 10758, Stop: 14705, Start Num: 23

Candidate Starts for Shukran_19:

(Start: 23 @10758 has 46 MA's), (26, 10797), (28, 10818), (32, 10893), (35, 10917), (37, 10923), (39, 10938), (41, 10947), (45, 10989), (46, 10998), (47, 11031), (60, 11235), (65, 11286), (66, 11319), (77, 11463), (81, 11475), (83, 11508), (109, 11769), (110, 11781), (123, 11889), (125, 11913), (131, 11955), (136, 11976), (140, 11997), (150, 12108), (153, 12126), (160, 12228), (165, 12276), (183, 12429), (195, 12591), (199, 12624), (200, 12633), (202, 12645), (209, 12717), (210, 12738), (218, 12792), (235, 12897), (253, 12969), (254, 12972), (275, 13107), (280, 13146), (282, 13167), (308, 13386), (312, 13428), (313, 13431), (314, 13434), (319, 13470), (322, 13479), (332, 13593), (335, 13623), (349, 13734), (357, 13872), (361, 13965), (366, 14079), (367, 14097), (371, 14136), (372, 14178), (374, 14196), (378, 14253), (381, 14289), (383, 14331), (386, 14352), (387, 14364), (399, 14502), (409, 14586), (411, 14592), (417, 14640), (419, 14652),

Gene: SonDevVon_18 Start: 10884, Stop: 14786, Start Num: 26

Candidate Starts for SonDevVon_18:

(Start: 23 @10845 has 46 MA's), (26, 10884), (30, 10947), (32, 10980), (35, 11004), (37, 11010), (38, 11022), (43, 11046), (44, 11058), (45, 11076), (47, 11118), (58, 11283), (77, 11550), (79, 11556), (83, 11595), (93, 11688), (109, 11856), (113, 11901), (124, 11997), (138, 12072), (142, 12102), (149, 12189), (151, 12201), (158, 12270), (159, 12306), (162, 12336), (166, 12372), (173, 12420), (174, 12432), (179, 12462), (183, 12519), (184, 12528), (186, 12573), (187, 12576), (189, 12621), (191, 12630), (199, 12714), (200, 12723), (202, 12735), (204, 12756), (208, 12795), (209, 12807), (218, 12882), (222, 12906), (234, 13014), (238, 13053), (250, 13143), (253, 13158), (270, 13260), (274, 13290), (280, 13341), (282, 13362), (286, 13410), (287, 13413), (301, 13497), (302, 13500), (308, 13578), (318, 13653), (319, 13662), (323, 13677), (337, 13797), (344, 13836), (349, 13854), (357, 13953), (361, 14046), (366, 14160), (367, 14178), (370, 14208), (371, 14217), (372, 14259), (377, 14322), (378, 14334), (381, 14370), (383, 14412), (386, 14433), (387, 14445), (397, 14571), (399, 14583), (411, 14673), (421, 14736),

Gene: SpicyFrank_19 Start: 10920, Stop: 14861, Start Num: 23

Candidate Starts for SpicyFrank_19:

(Start: 23 @10920 has 46 MA's), (26, 10959), (30, 11022), (32, 11055), (35, 11079), (37, 11085), (43, 11121), (44, 11133), (45, 11151), (47, 11193), (55, 11322), (77, 11625), (83, 11670), (93, 11763), (109,

11931), (113, 11976), (138, 12147), (149, 12264), (151, 12276), (157, 12336), (158, 12345), (162, 12411), (166, 12447), (173, 12495), (174, 12507), (179, 12537), (183, 12594), (187, 12651), (191, 12705), (192, 12726), (199, 12789), (200, 12798), (202, 12810), (206, 12861), (209, 12882), (222, 12981), (234, 13089), (238, 13128), (250, 13218), (253, 13233), (270, 13335), (274, 13365), (280, 13416), (282, 13437), (286, 13485), (287, 13488), (301, 13572), (302, 13575), (308, 13653), (318, 13728), (323, 13752), (349, 13929), (357, 14028), (361, 14121), (366, 14235), (367, 14253), (371, 14292), (372, 14334), (377, 14397), (378, 14409), (381, 14445), (383, 14487), (385, 14502), (386, 14508), (399, 14658), (411, 14748), (417, 14796), (421, 14811),

Gene: Sporco_20 Start: 10900, Stop: 14841, Start Num: 23

Candidate Starts for Sporco_20:

(Start: 23 @10900 has 46 MA's), (26, 10939), (30, 11002), (32, 11035), (35, 11059), (37, 11065), (38, 11077), (43, 11101), (44, 11113), (45, 11131), (47, 11173), (58, 11338), (77, 11605), (79, 11611), (83, 11650), (93, 11743), (109, 11911), (113, 11956), (124, 12052), (138, 12127), (142, 12157), (149, 12244), (151, 12256), (158, 12325), (159, 12361), (162, 12391), (166, 12427), (173, 12475), (174, 12487), (179, 12517), (183, 12574), (184, 12583), (186, 12628), (187, 12631), (189, 12676), (191, 12685), (199, 12769), (200, 12778), (202, 12790), (204, 12811), (208, 12850), (209, 12862), (218, 12937), (222, 12961), (234, 13069), (238, 13108), (250, 13198), (253, 13213), (270, 13315), (274, 13345), (280, 13396), (282, 13417), (286, 13465), (287, 13468), (301, 13552), (302, 13555), (308, 13633), (318, 13708), (319, 13717), (323, 13732), (337, 13852), (344, 13891), (349, 13909), (357, 14008), (361, 14101), (366, 14215), (367, 14233), (371, 14272), (372, 14314), (377, 14377), (378, 14389), (381, 14425), (383, 14467), (386, 14488), (392, 14584), (399, 14638), (421, 14791),

Gene: ThayneTheZag_19 Start: 10917, Stop: 14951, Start Num: 23

Candidate Starts for ThayneTheZag_19:

(Start: 23 @10917 has 46 MA's), (26, 10956), (30, 11019), (32, 11052), (35, 11076), (37, 11082), (41, 11106), (44, 11130), (45, 11148), (47, 11190), (58, 11355), (59, 11361), (77, 11622), (83, 11667), (102, 11829), (109, 11928), (118, 12015), (138, 12144), (149, 12261), (151, 12273), (157, 12333), (162, 12408), (166, 12444), (173, 12492), (174, 12504), (179, 12534), (183, 12591), (187, 12648), (191, 12702), (199, 12786), (200, 12795), (202, 12807), (206, 12858), (209, 12879), (222, 12978), (236, 13110), (238, 13125), (250, 13215), (253, 13230), (267, 13314), (268, 13323), (270, 13332), (280, 13413), (282, 13434), (285, 13476), (290, 13527), (291, 13530), (300, 13557), (314, 13707), (316, 13725), (319, 13743), (322, 13752), (331, 13833), (341, 13926), (347, 13959), (351, 14010), (354, 14076), (358, 14139), (359, 14157), (361, 14211), (363, 14244), (366, 14325), (367, 14343), (371, 14382), (372, 14424), (377, 14487), (378, 14499), (383, 14577), (386, 14598), (390, 14682), (394, 14712), (395, 14715), (399, 14748), (400, 14757), (409, 14832), (411, 14838),

Gene: Tiff81_20 Start: 10986, Stop: 14879, Start Num: 23

Candidate Starts for Tiff81_20:

(15, 10893), (Start: 23 @10986 has 46 MA's), (32, 11121), (35, 11145), (38, 11163), (43, 11187), (44, 11199), (45, 11217), (46, 11226), (47, 11259), (48, 11265), (51, 11343), (58, 11424), (60, 11463), (66, 11547), (68, 11562), (72, 11595), (80, 11700), (86, 11787), (91, 11820), (96, 11856), (112, 12039), (119, 12087), (124, 12138), (125, 12141), (140, 12225), (146, 12312), (148, 12321), (166, 12522), (167, 12531), (174, 12579), (176, 12600), (177, 12603), (185, 12675), (192, 12795), (199, 12837), (209, 12888), (227, 13014), (251, 13152), (263, 13215), (266, 13236), (279, 13326), (293, 13461), (301, 13500), (305, 13536), (308, 13578), (310, 13599), (311, 13617), (315, 13641), (318, 13653), (319, 13662), (323, 13677), (346, 13881), (348, 13890), (355, 14013), (356, 14040), (357, 14046), (361, 14139), (366, 14253), (370, 14301), (371, 14310), (372, 14352), (377, 14415), (378, 14427), (381, 14463), (383, 14505), (385, 14520), (386, 14526), (387, 14538), (392, 14622), (399, 14676), (400, 14685), (411, 14766), (421, 14829),

Gene: TripleJ_18 Start: 11061, Stop: 15446, Start Num: 7

Candidate Starts for TripleJ_18:

(4, 10983), (Start: 7 @11061 has 2 MA's), (9, 11121), (11, 11184), (12, 11196), (13, 11238), (21, 11331), (29, 11448), (45, 11586), (46, 11595), (47, 11628), (52, 11727), (58, 11793), (60, 11832), (63, 11871), (66, 11916), (67, 11925), (68, 11931), (71, 11955), (77, 12060), (83, 12105), (86, 12156), (95, 12216), (100, 12252), (102, 12267), (105, 12321), (122, 12477), (126, 12528), (140, 12594), (159, 12816), (160, 12825), (164, 12864), (166, 12882), (168, 12894), (169, 12903), (176, 12963), (182, 13017), (183, 13029), (184, 13038), (191, 13140), (197, 13209), (201, 13242), (202, 13245), (229, 13476), (238, 13563), (240, 13569), (242, 13575), (253, 13668), (257, 13701), (270, 13770), (276, 13815), (280, 13851), (282, 13872), (299, 13986), (306, 14082), (310, 14112), (311, 14130), (314, 14139), (321, 14181), (338, 14352), (340, 14361), (350, 14451), (352, 14469), (363, 14694), (365, 14736), (368, 14796), (372, 14874), (375, 14895), (379, 14964), (381, 14985), (383, 15027), (386, 15048), (389, 15111), (393, 15150), (399, 15201), (404, 15240), (414, 15315), (423, 15414), (425, 15432),

Gene: Vopal_20 Start: 10915, Stop: 14856, Start Num: 23

Candidate Starts for Vopal_20:

(Start: 23 @10915 has 46 MA's), (26, 10954), (30, 11017), (32, 11050), (35, 11074), (37, 11080), (38, 11092), (43, 11116), (44, 11128), (45, 11146), (47, 11188), (58, 11353), (77, 11620), (79, 11626), (83, 11665), (93, 11758), (109, 11926), (113, 11971), (124, 12067), (138, 12142), (142, 12172), (149, 12259), (151, 12271), (158, 12340), (159, 12376), (162, 12406), (166, 12442), (173, 12490), (174, 12502), (179, 12532), (183, 12589), (184, 12598), (186, 12643), (187, 12646), (189, 12691), (191, 12700), (199, 12784), (200, 12793), (202, 12805), (204, 12826), (208, 12865), (209, 12877), (218, 12952), (222, 12976), (234, 13084), (238, 13123), (250, 13213), (253, 13228), (270, 13330), (274, 13360), (280, 13411), (282, 13432), (286, 13480), (287, 13483), (301, 13567), (302, 13570), (308, 13648), (318, 13723), (319, 13732), (323, 13747), (337, 13867), (344, 13906), (349, 13924), (357, 14023), (361, 14116), (366, 14230), (367, 14248), (371, 14287), (372, 14329), (377, 14392), (378, 14404), (381, 14440), (383, 14482), (386, 14503), (392, 14599), (399, 14653), (421, 14806),

Gene: Windest_20 Start: 10899, Stop: 14840, Start Num: 23

Candidate Starts for Windest_20:

(Start: 23 @10899 has 46 MA's), (26, 10938), (30, 11001), (32, 11034), (35, 11058), (37, 11064), (38, 11076), (43, 11100), (44, 11112), (45, 11130), (47, 11172), (58, 11337), (77, 11604), (79, 11610), (83, 11649), (93, 11742), (109, 11910), (113, 11955), (124, 12051), (138, 12126), (142, 12156), (149, 12243), (151, 12255), (158, 12324), (159, 12360), (162, 12390), (166, 12426), (173, 12474), (174, 12486), (179, 12516), (183, 12573), (184, 12582), (186, 12627), (187, 12630), (189, 12675), (191, 12684), (199, 12768), (200, 12777), (202, 12789), (204, 12810), (208, 12849), (209, 12861), (218, 12936), (222, 12960), (234, 13068), (238, 13107), (250, 13197), (253, 13212), (270, 13314), (274, 13344), (280, 13395), (282, 13416), (286, 13464), (287, 13467), (301, 13551), (302, 13554), (308, 13632), (318, 13707), (319, 13716), (323, 13731), (337, 13851), (344, 13890), (349, 13908), (357, 14007), (361, 14100), (366, 14214), (367, 14232), (371, 14271), (372, 14313), (377, 14376), (378, 14388), (381, 14424), (383, 14466), (386, 14487), (392, 14583), (399, 14637), (411, 14727), (421, 14790),

Gene: YoungHarleezy_19 Start: 10856, Stop: 14797, Start Num: 23

Candidate Starts for YoungHarleezy_19:

(Start: 23 @10856 has 46 MA's), (26, 10895), (28, 10916), (30, 10958), (32, 10991), (35, 11015), (37, 11021), (38, 11033), (44, 11069), (45, 11087), (47, 11129), (58, 11294), (77, 11561), (79, 11567), (83, 11606), (93, 11699), (109, 11867), (113, 11912), (124, 12008), (138, 12083), (142, 12113), (149, 12200), (151, 12212), (158, 12281), (159, 12317), (162, 12347), (166, 12383), (173, 12431), (174, 12443), (179, 12473), (183, 12530), (184, 12539), (186, 12584), (187, 12587), (189, 12632), (191, 12641), (199, 12725), (200, 12734), (202, 12746), (204, 12767), (208, 12806), (209, 12818), (218, 12893), (222, 12917), (234, 13025), (238, 13064), (250, 13154), (253, 13169), (270, 13271), (274, 13301), (280, 13352), (282, 13373), (286, 13421), (287, 13424), (301, 13508), (302, 13511), (308, 13589), (318, 13664), (319, 13673), (323, 13688), (337, 13808), (344, 13847), (349, 13865), (357,

13964), (361, 14057), (366, 14171), (367, 14189), (371, 14228), (372, 14270), (377, 14333), (378,
14345), (381, 14381), (383, 14423), (386, 14444), (392, 14540), (399, 14594), (421, 14747),