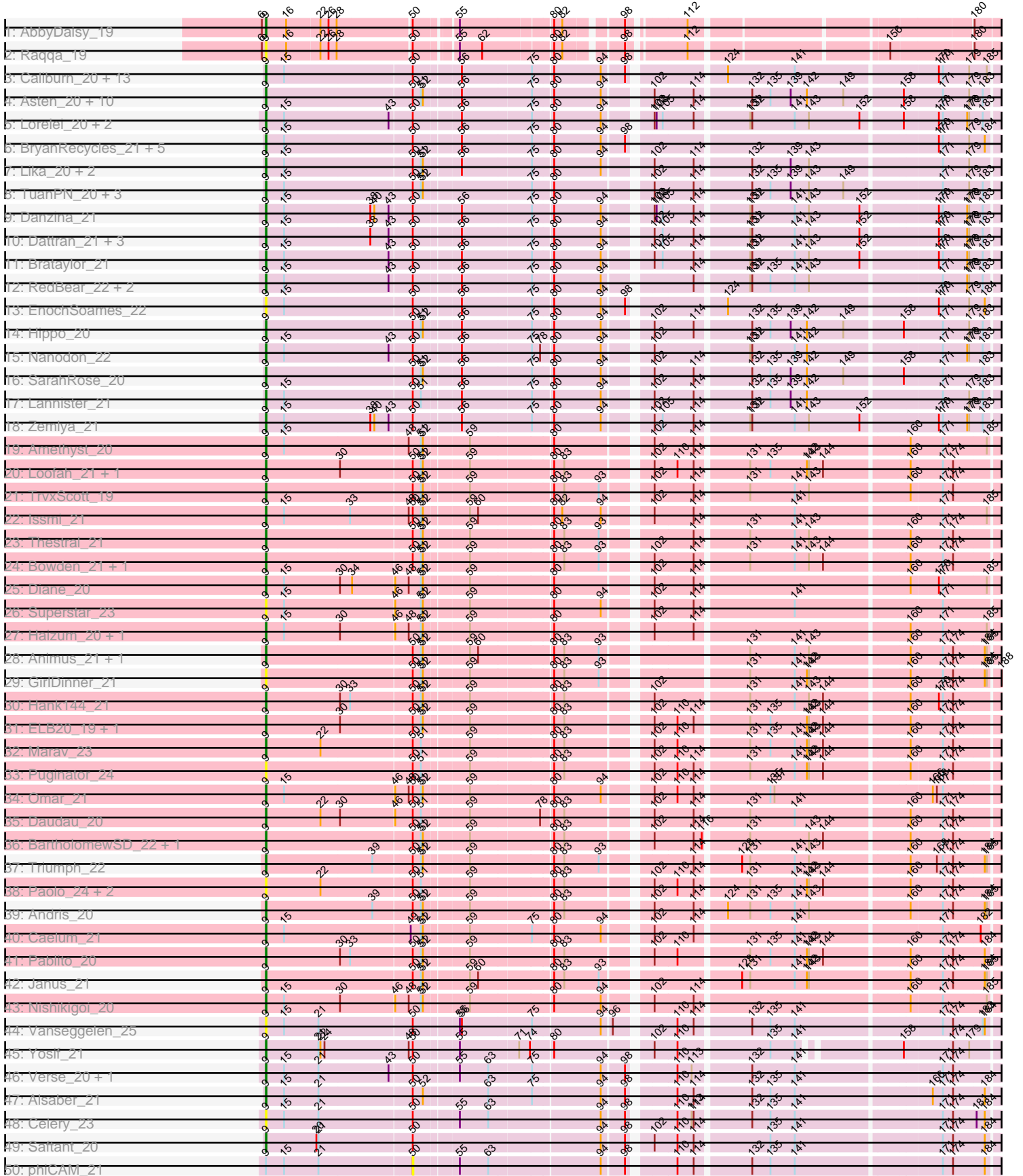


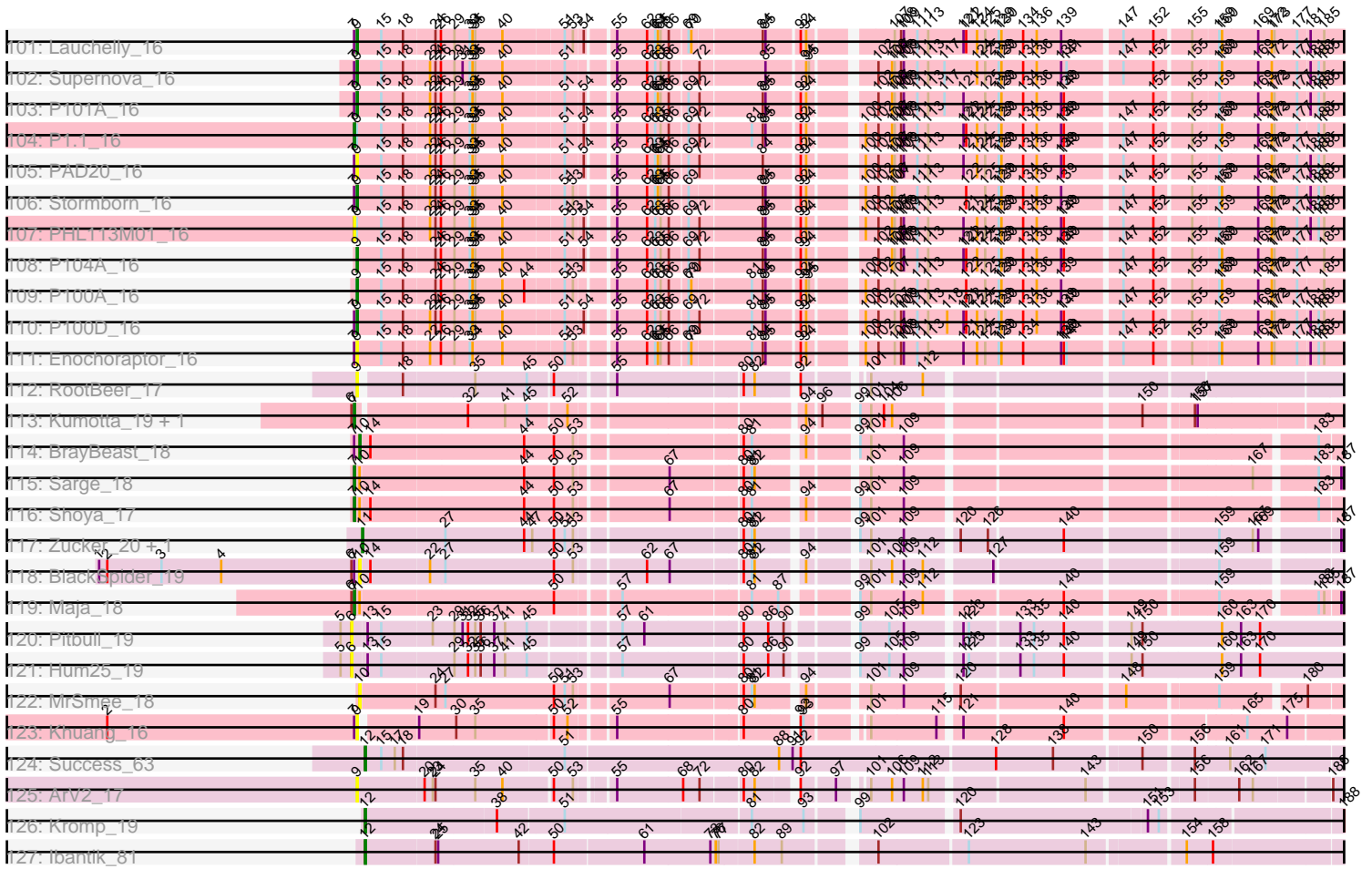
Zoomed Pham 163368



Zoomed Pham 163368

51: ElGato_22	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
52: Conan_23	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
53: Verabelle_21	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
54: Provolone_21	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
55: Dexters_19	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
56: phiHau3_22	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
57: BroPlease_21 + 1	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
58: Itza_20 + 2	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
59: VieEnRose_20	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
60: Keiki_16 + 1	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
61: Kubed_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
62: Attache_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
63: P9.1_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
64: PHLU10MU4_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
65: PHLU71NU5_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
66: MEAK_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
67: LiiBandit_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
68: PHLU67MU_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
69: P106A_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
70: Solid_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
71: P106M_16 + 3	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
72: Ouroboros_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
73: Cola_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
74: P14.4_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
75: MiAK_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
76: Procrass1_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
77: PAS50_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
78: SKKY_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
79: PHLT14LUU_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
80: ATCC29399B1_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
81: PA6_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
82: Enoki_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
83: Leviosa_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
84: ATCC29399BC_16 + 1	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
85: P104B_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
86: Rileysaurus_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
87: BruceLethal_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
88: PHLU37MU2_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
89: PHLU60LUU_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
90: PHLT11MU1_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
91: P100.1_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
92: Wizzo_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
93: Moyashi_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
94: P108C_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
95: QueenBey_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
96: Aquarius_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
97: PHLT12NUU_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
98: P105_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
99: DiParker_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184
100: P107A_16	0	16	21	30	39	48	57	66	75	84	93	102	110	114	132	141	168	174	184

Zoomed Pham 163368



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 163368 Report

This analysis was run 04/28/24 on database version 559.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 163368 has 186 members, 37 are drafts.

Phages represented in each track:

- Track 1 : AbbyDaisy_19
- Track 2 : Raqqa_19
- Track 3 : Caliburn_20, Legacy_20, BeardedLady_21, Nerdos_20, Phettuccine_20, Leviticus_20, Unstoppable_20, Aaronocolus_20, Hydra_22, Indigo_20, SunsetPointe_20, Esperer_20, Bovely_20, Ozzie_20
- Track 4 : Asten_20, Dwayne_20, Werner_20, Chucky_20, OzzyJ_21, TagePhighter_21, Whatever_20, BarryBee_22, Emaanora_22, Snorlax_20, Triste_20
- Track 5 : Lorelei_20, Rana_20, Nabi_20
- Track 6 : BryanRecycles_21, Oliynk_21, Eddasa_21, Izzy_21, Jash_21, Rusticus_21
- Track 7 : Lika_20, Godpower_21, Sujidade_21
- Track 8 : TuanPN_20, Yasdniil_20, Maneekul_20, Ejemplo_20
- Track 9 : Danzina_21
- Track 10 : Dattran_21, Celeste_20, Goby_20, Toma_20
- Track 11 : Brataylor_21
- Track 12 : RedBear_22, South40_21, Katalie_21
- Track 13 : EnochSoames_22
- Track 14 : Hippo_20
- Track 15 : Nanodon_22
- Track 16 : SarahRose_20
- Track 17 : Lannister_21
- Track 18 : Zemlya_21
- Track 19 : Amethyst_20
- Track 20 : Loofah_21, Paedore_20
- Track 21 : TrvxScott_19
- Track 22 : Issmi_21
- Track 23 : Thestral_21
- Track 24 : Bowden_21, TinaBelcher_20
- Track 25 : Diane_20
- Track 26 : Superstar_23
- Track 27 : Haizum_20, Tefunt_20
- Track 28 : Animus_21, SqueakyClean_21
- Track 29 : GirlDinner_21

- Track 30 : Hank144_21
- Track 31 : ELB20_19, R4_20
- Track 32 : Marav_23
- Track 33 : Puginator_24
- Track 34 : Omar_21
- Track 35 : Daudau_20
- Track 36 : BartholomewSD_22, Alvy_22
- Track 37 : Triumph_22
- Track 38 : Paolo_24, Jevington_23, Zainub_26
- Track 39 : Andris_20
- Track 40 : Caelum_21
- Track 41 : Pablito_20
- Track 42 : Janus_21
- Track 43 : Nishikigoi_20
- Track 44 : Vanseggelen_25
- Track 45 : Yosif_21
- Track 46 : Verse_20, Amela_20
- Track 47 : Alsaber_21
- Track 48 : Celery_23
- Track 49 : Saftant_20
- Track 50 : phiCAM_21
- Track 51 : ElGato_22
- Track 52 : Conan_23
- Track 53 : Verabelle_21
- Track 54 : Provolone_21
- Track 55 : Dexers_19
- Track 56 : phiHau3_22
- Track 57 : BroPlease_21, GreenWeasel_22
- Track 58 : Itza_20, Celia_20, Urza_20
- Track 59 : VieEnRose_20
- Track 60 : Keiki_16, Pirate_16
- Track 61 : Kubed_16
- Track 62 : Attacne_16
- Track 63 : P9.1_16
- Track 64 : PHL010M04_16
- Track 65 : PHL071N05_16
- Track 66 : MEAK_16
- Track 67 : LilBandit_16
- Track 68 : PHL067M10_16
- Track 69 : P106A_16
- Track 70 : Solid_16
- Track 71 : P106M_16, P106I_16, P106C_16, P106L_16
- Track 72 : Ouroboros_16
- Track 73 : Cota_16
- Track 74 : P14.4_16
- Track 75 : MrAK_16
- Track 76 : Procrass1_16
- Track 77 : PAS50_16
- Track 78 : SKKY_16
- Track 79 : PHL114L00_16
- Track 80 : ATCC29399BT_16
- Track 81 : PA6_16
- Track 82 : Enoki_16

- Track 83 : Leviosa_16
- Track 84 : ATCC29399BC_16, P107C_16
- Track 85 : P104B_16
- Track 86 : Rileysaurus_16
- Track 87 : BruceLethal_16
- Track 88 : PHL037M02_16
- Track 89 : PHL060L00_16
- Track 90 : PHL111M01_16
- Track 91 : P100.1_16
- Track 92 : Wizzo_16
- Track 93 : Moyashi_16
- Track 94 : P108C_16
- Track 95 : QueenBey_16
- Track 96 : Aquarius_16
- Track 97 : PHL112N00_16
- Track 98 : P105_16
- Track 99 : DrParker_16
- Track 100 : P107A_16
- Track 101 : Lauchelly_16
- Track 102 : Supernova_16
- Track 103 : P101A_16
- Track 104 : P1.1_16
- Track 105 : PAD20_16
- Track 106 : Stormborn_16
- Track 107 : PHL113M01_16
- Track 108 : P104A_16
- Track 109 : P100A_16
- Track 110 : P100D_16
- Track 111 : Enochoraptor_16
- Track 112 : RootBeer_17
- Track 113 : Kumotta_19, MargaretKali_19
- Track 114 : BrayBeast_18
- Track 115 : Sarge_18
- Track 116 : Shoya_17
- Track 117 : Zucker_20, Bauer_21
- Track 118 : BlackSpider_19
- Track 119 : Maja_18
- Track 120 : Pitbull_19
- Track 121 : Hum25_19
- Track 122 : MrSmee_18
- Track 123 : Khuang_16
- Track 124 : Success_63
- Track 125 : ArV2_17
- Track 126 : Kromp_19
- Track 127 : Ibantik_81

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

The start number called the most often in the published annotations is 9, it was called in 133 of the 149 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ATCC29399BC_16, ATCC29399BT_16, Aaronocolus_20, AbbyDaisy_19, Alsaber_21, Alvy_22, Amela_20, Amethyst_20, Andris_20, Animus_21, Aquarius_16, ArV2_17, Asten_20, Attacne_16, BarryBee_22, BartholomewSD_22, BeardedLady_21, Bovely_20, Bowden_21, Brataylor_21, BroPlease_21, BruceLethal_16, BryanRecycles_21, Caelum_21, Caliburn_20, Celery_23, Celeste_20, Celia_20, Chucky_20, Conan_23, Cota_16, Danzina_21, Dattran_21, Daudau_20, Dexers_19, Diane_20, DrParker_16, Dwayne_20, ELB20_19, Eddasa_21, Ejemplo_20, ElGato_22, Emaanora_22, EnochSoames_22, Enochoraptor_16, Enoki_16, Esperer_20, GirlDinner_21, Goby_20, Godpower_21, GreenWeasel_22, Haizum_20, Hank144_21, Hippo_20, Hydra_22, Indigo_20, Issmi_21, Itza_20, Izzy_21, Janus_21, Jash_21, Jevington_23, Katalie_21, Keiki_16, Khuang_16, Kubed_16, Lannister_21, Lauchelly_16, Legacy_20, Leviosa_16, Leviticus_20, Lika_20, Loofah_21, Lorelei_20, MEAK_16, Maneekul_20, Marav_23, Moyashi_16, MrAK_16, Nabi_20, Nanodon_22, Nerdos_20, Nishikigoi_20, Oliynyk_21, Omar_21, Ouroboros_16, Ozzie_20, OzzyJ_21, P100.1_16, P100A_16, P100D_16, P101A_16, P104A_16, P104B_16, P105_16, P106A_16, P106C_16, P106L_16, P106L_16, P106M_16, P107A_16, P107C_16, P108C_16, PA6_16, PAD20_16, PAS50_16, PHL037M02_16, Pablito_20, Paedore_20, Paolo_24, Phettuccine_20, Pirate_16, Procrass1_16, Provolone_21, Puginator_24, QueenBey_16, R4_20, Rana_20, Raqqa_19, RedBear_22, Rileysaurus_16, RootBeer_17, Rusticus_21, SKKY_16, Saftant_20, SarahRose_20, Snorlax_20, Solid_16, South40_21, SqueakyClean_21, Stormborn_16, Sujidade_21, SunsetPointe_20, Supernova_16, Superstar_23, TagePhighter_21, Tefunt_20, Thestral_21, TinaBelcher_20, Toma_20, Triste_20, Triumph_22, TrvxScott_19, TuanPN_20, Unstoppable_20, Urza_20, Vanseggelen_25, Verabelle_21, Verse_20, VieEnRose_20, Werner_20, Whatever_20, Wizzo_16, Yasdnil_20, Yosif_21, Zainub_26, Zemlya_21,

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

- LilBandit_16, P1.1_16, P14.4_16, P9.1_16, PHL010M04_16, PHL060L00_16, PHL067M10_16, PHL071N05_16, PHL112N00_16, PHL113M01_16, PHL114L00_16, phiCAM_21, phiHau3_22,

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

- Bauer_21, BlackSpider_19, BrayBeast_18, Hum25_19, Ibantik_81, Kromp_19, Kumotta_19, Maja_18, MargaretKali_19, MrSmee_18, PHL111M01_16, Pitbull_19, Sarge_18, Shoya_17, Success_63, Zucker_20,

Summary by start number:

Start 6:

- Found in 11 of 186 (5.9%) of genes in pham
- Manual Annotations of this start: 1 of 149
- Called 27.3% of time when present
- Phage (with cluster) where this start called: Hum25_19 (FQ), Pitbull_19 (FQ), phiHau3_22 (BD4),

Start 7:

- Found in 51 of 186 (27.4%) of genes in pham
- Manual Annotations of this start: 9 of 149
- Called 31.4% of time when present

- Phage (with cluster) where this start called: Kumotta_19 (FB), LilBandit_16 (BU), Maja_18 (FO), MargaretKali_19 (FB), P1.1_16 (BU), P14.4_16 (BU), P9.1_16 (BU), PHL010M04_16 (BU), PHL060L00_16 (BU), PHL067M10_16 (BU), PHL071N05_16 (BU), PHL112N00_16 (BU), PHL113M01_16 (BU), PHL114L00_16 (BU), Sarge_18 (FB), Shoya_17 (FB),

Start 8:

- Found in 1 of 186 (0.5%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PHL111M01_16 (BU),

Start 9:

- Found in 170 of 186 (91.4%) of genes in pham
- Manual Annotations of this start: 133 of 149
- Called 92.4% of time when present
- Phage (with cluster) where this start called: ATCC29399BC_16 (BU), ATCC29399BT_16 (BU), Aaronocolus_20 (BD1), AbbyDaisy_19 (AY), Alsaber_21 (BD3), Alvy_22 (BD2), Amela_20 (BD3), Amethyst_20 (BD2), Andris_20 (BD2), Animus_21 (BD2), Aquarius_16 (BU), ArV2_17 (singleton), Asten_20 (BD1), Attacne_16 (BU), BarryBee_22 (BD1), BartholomewSD_22 (BD2), BeardedLady_21 (BD1), Bovely_20 (BD1), Bowden_21 (BD2), Brataylor_21 (BD1), BroPlease_21 (BD4), BruceLethal_16 (BU), BryanRecycles_21 (BD1), Caelum_21 (BD2), Caliburn_20 (BD1), Celery_23 (BD3), Celeste_20 (BD1), Celia_20 (BD6), Chucky_20 (BD1), Conan_23 (BD3), Cota_16 (BU), Danzina_21 (BD1), Dattran_21 (BD1), Daudau_20 (BD2), Dexers_19 (BD3), Diane_20 (BD2), DrParker_16 (BU), Dwayne_20 (BD1), ELB20_19 (BD2), Eddasa_21 (BD1), Ejemplo_20 (BD1), ElGato_22 (BD3), Emaanora_22 (BD1), EnochSoames_22 (BD1), Enochoraptor_16 (BU), Enoki_16 (BU), Esperer_20 (BD1), GirlDinner_21 (BD2), Goby_20 (BD1), Godpower_21 (BD1), GreenWeasel_22 (BD4), Haizum_20 (BD2), Hank144_21 (BD2), Hippo_20 (BD1), Hydra_22 (BD1), Indigo_20 (BD1), Issmi_21 (BD2), Itza_20 (BD6), Izzy_21 (BD1), Janus_21 (BD2), Jash_21 (BD1), Jevington_23 (BD2), Katalie_21 (BD1), Keiki_16 (BU), Khuang_16 (UNK), Kubed_16 (BU), Lannister_21 (BD1), Lauchelly_16 (BU), Legacy_20 (BD1), Leviosa_16 (BU), Leviticus_20 (BD1), Lika_20 (BD1), Loofah_21 (BD2), Lorelei_20 (BD1), MEAK_16 (BU), Maneekul_20 (BD1), Marav_23 (BD2), Moyashi_16 (BU), MrAK_16 (BU), Nabi_20 (BD1), Nanodon_22 (BD1), Nerdos_20 (BD1), Nishikigoi_20 (BD2), Oliynyk_21 (BD1), Omar_21 (BD2), Ouroboros_16 (BU), Ozzie_20 (BD1), OzzyJ_21 (BD1), P100.1_16 (BU), P100A_16 (BU), P100D_16 (BU), P101A_16 (BU), P104A_16 (BU), P104B_16 (BU), P105_16 (BU), P106A_16 (BU), P106C_16 (BU), P106I_16 (BU), P106L_16 (BU), P106M_16 (BU), P107A_16 (BU), P107C_16 (BU), P108C_16 (BU), PA6_16 (BU), PAD20_16 (BU), PAS50_16 (BU), PHL037M02_16 (BU), Pablito_20 (BD2), Paedore_20 (BD2), Paolo_24 (BD2), Phettuccine_20 (BD1), Pirate_16 (BU), Procrass1_16 (BU), Provolone_21 (BD3), Puginator_24 (BD2), QueenBey_16 (BU), R4_20 (BD2), Rana_20 (BD1), Raqqa_19 (AY), RedBear_22 (BD1), Rileysaurus_16 (BU), RootBeer_17 (FA), Rusticus_21 (BD1), SKKY_16 (BU), Saftant_20 (BD3), SarahRose_20 (BD1), Snorlax_20 (BD1), Solid_16 (BU), South40_21 (BD1), SqueakyClean_21 (BD2), Stormborn_16 (BU), Sujidade_21 (BD1), SunsetPointe_20 (BD1), Supernova_16 (BU), Superstar_23 (BD2), TagePhighter_21 (BD1), Tefunt_20 (BD2), Thestral_21 (BD2), TinaBelcher_20 (BD2), Toma_20 (BD1), Triste_20 (BD1), Triumph_22 (BD2), TrvxScott_19 (BD2), TuanPN_20 (BD1), Unstoppable_20 (BD1), Urza_20 (BD6), Vanseggelen_25 (BD3), Verabelle_21 (BD3), Verse_20 (BD3), VieEnRose_20 (BD6), Werner_20 (BD1), Whatever_20 (BD1), Wizzo_16 (BU),

Yasdnil_20 (BD1), Yosif_21 (BD3), Zainub_26 (BD2), Zemlya_21 (BD1),

Start 10:

- Found in 6 of 186 (3.2%) of genes in pham
- Manual Annotations of this start: 1 of 149
- Called 50.0% of time when present
- Phage (with cluster) where this start called: BlackSpider_19 (FN), BrayBeast_18 (FB), MrSmee_18 (UNK),

Start 11:

- Found in 2 of 186 (1.1%) of genes in pham
- Manual Annotations of this start: 2 of 149
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bauer_21 (FN), Zucker_20 (FN),

Start 12:

- Found in 3 of 186 (1.6%) of genes in pham
- Manual Annotations of this start: 3 of 149
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ibantik_81 (singleton), Kromp_19 (singleton), Success_63 (singleton),

Start 50:

- Found in 113 of 186 (60.8%) of genes in pham
- No Manual Annotations of this start.
- Called 0.9% of time when present
- Phage (with cluster) where this start called: phiCAM_21 (BD3),

Summary by clusters:

There are 14 clusters represented in this pham: FQ, singleton, FA, BU, FB, BD6, BD1, BD3, BD2, AY, BD4, UNK, FN, FO,

Info for manual annotations of cluster AY:

- Start number 9 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster BD1:

- Start number 9 was manually annotated 54 times for cluster BD1.

Info for manual annotations of cluster BD2:

- Start number 9 was manually annotated 26 times for cluster BD2.

Info for manual annotations of cluster BD3:

- Start number 9 was manually annotated 7 times for cluster BD3.

Info for manual annotations of cluster BD4:

- Start number 6 was manually annotated 1 time for cluster BD4.
- Start number 9 was manually annotated 2 times for cluster BD4.

Info for manual annotations of cluster BD6:

- Start number 9 was manually annotated 4 times for cluster BD6.

Info for manual annotations of cluster BU:

- Start number 7 was manually annotated 4 times for cluster BU.
- Start number 9 was manually annotated 39 times for cluster BU.

Info for manual annotations of cluster FB:

- Start number 7 was manually annotated 4 times for cluster FB.
- Start number 10 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster FN:

- Start number 11 was manually annotated 2 times for cluster FN.

Info for manual annotations of cluster FO:

- Start number 7 was manually annotated 1 time for cluster FO.

Gene Information:

Gene: ATCC29399BC_16 Start: 12232, Stop: 13389, Start Num: 9

Candidate Starts for ATCC29399BC_16:

(Start: 7 @12229 has 9 MA's), (Start: 9 @12232 has 133 MA's), (15, 12259), (18, 12283), (22, 12310), (24, 12316), (26, 12322), (29, 12337), (33, 12352), (34, 12355), (35, 12358), (40, 12388), (51, 12451), (55, 12493), (62, 12526), (63, 12535), (65, 12541), (66, 12550), (69, 12568), (70, 12571), (84, 12643), (85, 12646), (92, 12679), (94, 12685), (100, 12730), (102, 12742), (106, 12757), (108, 12766), (109, 12769), (111, 12784), (113, 12796), (122, 12838), (124, 12850), (125, 12859), (129, 12874), (130, 12877), (134, 12901), (136, 12916), (139, 12943), (140, 12946), (147, 13003), (152, 13036), (155, 13072), (159, 13099), (169, 13141), (172, 13156), (173, 13159), (177, 13183), (181, 13195), (183, 13204), (185, 13210), (195, 13252), (203, 13288), (214, 13333), (218, 13345), (219, 13354), (221, 13366), (222, 13375),

Gene: ATCC29399BT_16 Start: 12235, Stop: 13392, Start Num: 9

Candidate Starts for ATCC29399BT_16:

(Start: 9 @12235 has 133 MA's), (15, 12262), (18, 12286), (26, 12325), (29, 12340), (33, 12355), (34, 12358), (35, 12361), (40, 12391), (51, 12454), (55, 12496), (62, 12529), (63, 12538), (64, 12541), (65, 12544), (66, 12553), (69, 12571), (70, 12574), (81, 12634), (84, 12646), (85, 12649), (92, 12682), (94, 12688), (102, 12745), (106, 12760), (107, 12763), (108, 12769), (109, 12772), (111, 12787), (113, 12799), (118, 12820), (121, 12838), (122, 12841), (124, 12853), (125, 12862), (130, 12880), (134, 12904), (136, 12919), (139, 12946), (147, 13006), (152, 13039), (155, 13075), (159, 13102), (169, 13144), (172, 13159), (173, 13162), (177, 13186), (181, 13198), (185, 13213), (190, 13240), (195, 13255), (203, 13291), (214, 13336), (219, 13357), (221, 13369), (222, 13378),

Gene: Aaronocolus_20 Start: 15854, Stop: 17068, Start Num: 9

Candidate Starts for Aaronocolus_20:

(Start: 9 @15854 has 133 MA's), (15, 15881), (50, 16064), (56, 16127), (75, 16226), (80, 16253), (94, 16322), (98, 16352), (124, 16472), (141, 16571), (170, 16769), (171, 16775), (179, 16814), (185, 16838), (193, 16865), (195, 16874), (202, 16907), (218, 16967), (222, 16997), (233, 17045), (235, 17054), (236, 17060),

Gene: AbbyDaisy_19 Start: 15422, Stop: 16528, Start Num: 9

Candidate Starts for AbbyDaisy_19:

(Start: 6 @15416 has 1 MA's), (Start: 9 @15422 has 133 MA's), (16, 15452), (22, 15500), (26, 15512), (28, 15524), (50, 15629), (55, 15680), (80, 15806), (82, 15818), (98, 15887), (112, 15959), (180, 16334), (196, 16394), (220, 16493),

Gene: Alsaber_21 Start: 16538, Stop: 17755, Start Num: 9

Candidate Starts for Alsaber_21:

(Start: 9 @16538 has 133 MA's), (15, 16565), (21, 16616), (50, 16748), (52, 16763), (63, 16850), (75, 16910), (94, 17006), (98, 17036), (110, 17093), (114, 17117), (132, 17192), (135, 17219), (141, 17255), (166, 17444), (171, 17459), (174, 17474), (184, 17519), (189, 17540), (195, 17558), (218, 17651), (222, 17681), (235, 17741), (236, 17747),

Gene: Alvy_22 Start: 15862, Stop: 17073, Start Num: 9

Candidate Starts for Alvy_22:

(Start: 9 @15862 has 133 MA's), (50, 16072), (51, 16084), (52, 16087), (59, 16147), (80, 16261), (83, 16276), (102, 16384), (114, 16441), (116, 16453), (131, 16513), (143, 16600), (144, 16621), (160, 16738), (171, 16783), (174, 16798), (189, 16864), (195, 16882), (205, 16924), (210, 16951), (218, 16975), (235, 17059), (236, 17065),

Gene: Amela_20 Start: 16831, Stop: 18048, Start Num: 9

Candidate Starts for Amela_20:

(Start: 9 @16831 has 133 MA's), (15, 16858), (21, 16909), (43, 17011), (50, 17041), (55, 17101), (63, 17143), (75, 17203), (94, 17299), (98, 17329), (110, 17386), (113, 17407), (132, 17485), (141, 17548), (171, 17752), (174, 17767), (189, 17833), (195, 17851), (218, 17944), (222, 17974), (235, 18034), (236, 18040),

Gene: Amethyst_20 Start: 16313, Stop: 17527, Start Num: 9

Candidate Starts for Amethyst_20:

(Start: 9 @16313 has 133 MA's), (15, 16340), (48, 16517), (51, 16535), (52, 16538), (59, 16598), (80, 16712), (102, 16835), (114, 16892), (160, 17189), (171, 17234), (185, 17297), (218, 17426), (233, 17504), (235, 17513), (236, 17519),

Gene: Andris_20 Start: 15567, Stop: 16778, Start Num: 9

Candidate Starts for Andris_20:

(Start: 9 @15567 has 133 MA's), (39, 15723), (50, 15777), (51, 15789), (52, 15792), (59, 15852), (80, 15966), (83, 15981), (102, 16089), (114, 16146), (124, 16185), (131, 16218), (135, 16248), (141, 16284), (143, 16305), (160, 16443), (171, 16488), (174, 16503), (184, 16548), (185, 16551), (193, 16578), (195, 16587), (218, 16680), (235, 16764), (236, 16770),

Gene: Animus_21 Start: 15903, Stop: 17114, Start Num: 9

Candidate Starts for Animus_21:

(Start: 9 @15903 has 133 MA's), (50, 16113), (51, 16125), (52, 16128), (59, 16188), (60, 16200), (80, 16302), (83, 16317), (93, 16368), (131, 16554), (141, 16620), (143, 16641), (160, 16779), (171, 16824), (174, 16839), (184, 16884), (185, 16887), (193, 16914), (195, 16923), (218, 17016), (235, 17100), (236, 17106),

Gene: Aquarius_16 Start: 12255, Stop: 13412, Start Num: 9

Candidate Starts for Aquarius_16:

(Start: 7 @12252 has 9 MA's), (Start: 9 @12255 has 133 MA's), (15, 12282), (18, 12306), (22, 12333), (24, 12339), (26, 12345), (29, 12360), (33, 12375), (34, 12378), (35, 12381), (40, 12411), (51, 12474), (53, 12483), (54, 12492), (55, 12516), (62, 12549), (63, 12558), (64, 12561), (65, 12564), (66, 12573), (69, 12591), (72, 12600), (81, 12654), (84, 12666), (85, 12669), (92, 12702), (94, 12708), (100, 12753), (102, 12765), (106, 12780), (107, 12783), (108, 12789), (109, 12792), (111, 12807), (113, 12819), (121, 12858), (122, 12861), (124, 12873), (125, 12882), (129, 12897), (130, 12900), (134,

12924), (136, 12939), (139, 12966), (140, 12969), (147, 13026), (152, 13059), (155, 13095), (159, 13122), (169, 13164), (172, 13179), (173, 13182), (177, 13206), (181, 13218), (183, 13227), (185, 13233), (190, 13260), (195, 13275), (203, 13311), (212, 13353), (214, 13356), (218, 13368), (219, 13377), (221, 13389), (222, 13398),

Gene: ArV2_17 Start: 13763, Stop: 14869, Start Num: 9

Candidate Starts for ArV2_17:

(Start: 9 @13763 has 133 MA's), (20, 13835), (23, 13844), (24, 13847), (35, 13889), (40, 13919), (50, 13970), (53, 13991), (55, 14021), (68, 14093), (72, 14108), (80, 14147), (82, 14159), (92, 14192), (97, 14225), (101, 14246), (106, 14267), (109, 14279), (112, 14300), (113, 14306), (143, 14462), (156, 14564), (162, 14609), (167, 14624), (186, 14699), (212, 14807), (223, 14849), (226, 14858),

Gene: Asten_20 Start: 15820, Stop: 17031, Start Num: 9

Candidate Starts for Asten_20:

(Start: 9 @15820 has 133 MA's), (50, 16030), (51, 16042), (52, 16045), (56, 16093), (75, 16192), (80, 16219), (94, 16288), (102, 16342), (114, 16399), (132, 16474), (135, 16501), (139, 16531), (142, 16555), (149, 16609), (158, 16687), (171, 16741), (179, 16780), (183, 16798), (193, 16831), (195, 16840), (202, 16873), (205, 16882), (218, 16933), (235, 17017), (236, 17023),

Gene: Attacne_16 Start: 12235, Stop: 13392, Start Num: 9

Candidate Starts for Attacne_16:

(Start: 9 @12235 has 133 MA's), (15, 12262), (18, 12286), (22, 12313), (24, 12319), (26, 12325), (29, 12340), (31, 12349), (33, 12355), (34, 12358), (35, 12361), (40, 12391), (51, 12454), (54, 12472), (55, 12496), (62, 12529), (63, 12538), (64, 12541), (65, 12544), (66, 12553), (69, 12571), (81, 12634), (84, 12646), (85, 12649), (92, 12682), (94, 12688), (102, 12745), (106, 12760), (107, 12763), (108, 12769), (109, 12772), (111, 12787), (113, 12799), (122, 12841), (124, 12853), (125, 12862), (129, 12877), (130, 12880), (134, 12904), (136, 12919), (139, 12946), (141, 12952), (147, 13006), (152, 13039), (155, 13075), (159, 13102), (169, 13144), (172, 13159), (173, 13162), (177, 13186), (181, 13198), (183, 13207), (185, 13213), (190, 13240), (195, 13255), (203, 13291), (212, 13333), (214, 13336), (219, 13357), (221, 13369), (222, 13378),

Gene: BarryBee_22 Start: 15830, Stop: 17041, Start Num: 9

Candidate Starts for BarryBee_22:

(Start: 9 @15830 has 133 MA's), (50, 16040), (51, 16052), (52, 16055), (56, 16103), (75, 16202), (80, 16229), (94, 16298), (102, 16352), (114, 16409), (132, 16484), (135, 16511), (139, 16541), (142, 16565), (149, 16619), (158, 16697), (171, 16751), (179, 16790), (183, 16808), (193, 16841), (195, 16850), (202, 16883), (205, 16892), (218, 16943), (235, 17027), (236, 17033),

Gene: BartholomewSD_22 Start: 15862, Stop: 17073, Start Num: 9

Candidate Starts for BartholomewSD_22:

(Start: 9 @15862 has 133 MA's), (50, 16072), (51, 16084), (52, 16087), (59, 16147), (80, 16261), (83, 16276), (102, 16384), (114, 16441), (116, 16453), (131, 16513), (143, 16600), (144, 16621), (160, 16738), (171, 16783), (174, 16798), (189, 16864), (195, 16882), (205, 16924), (210, 16951), (218, 16975), (235, 17059), (236, 17065),

Gene: Bauer_21 Start: 16040, Stop: 17158, Start Num: 11

Candidate Starts for Bauer_21:

(Start: 11 @16040 has 2 MA's), (27, 16127), (44, 16214), (47, 16223), (50, 16247), (51, 16259), (53, 16268), (80, 16430), (81, 16439), (82, 16442), (99, 16526), (101, 16538), (109, 16571), (120, 16622), (126, 16652), (140, 16730), (159, 16880), (167, 16916), (169, 16922), (187, 16994), (191, 17003), (227, 17150),

Gene: BeardedLady_21 Start: 16101, Stop: 17315, Start Num: 9

Candidate Starts for BeardedLady_21:

(Start: 9 @16101 has 133 MA's), (15, 16128), (50, 16311), (56, 16374), (75, 16473), (80, 16500), (94, 16569), (98, 16599), (124, 16719), (141, 16818), (170, 17016), (171, 17022), (179, 17061), (185, 17085), (193, 17112), (195, 17121), (202, 17154), (218, 17214), (222, 17244), (233, 17292), (235, 17301), (236, 17307),

Gene: BlackSpider_19 Start: 15684, Stop: 16802, Start Num: 10

Candidate Starts for BlackSpider_19:

(1, 15396), (2, 15405), (3, 15465), (4, 15531), (Start: 6 @15675 has 1 MA's), (Start: 7 @15678 has 9 MA's), (Start: 10 @15684 has 1 MA's), (14, 15693), (22, 15756), (27, 15771), (50, 15891), (53, 15912), (62, 15978), (67, 16002), (80, 16074), (81, 16083), (82, 16086), (94, 16128), (101, 16182), (106, 16203), (109, 16215), (112, 16236), (127, 16302), (159, 16524), (193, 16653), (204, 16701), (207, 16710), (217, 16749), (224, 16788),

Gene: Bovely_20 Start: 15860, Stop: 17074, Start Num: 9

Candidate Starts for Bovely_20:

(Start: 9 @15860 has 133 MA's), (15, 15887), (50, 16070), (56, 16133), (75, 16232), (80, 16259), (94, 16328), (98, 16358), (124, 16478), (141, 16577), (170, 16775), (171, 16781), (179, 16820), (185, 16844), (193, 16871), (195, 16880), (202, 16913), (218, 16973), (222, 17003), (233, 17051), (235, 17060), (236, 17066),

Gene: Bowden_21 Start: 15794, Stop: 17005, Start Num: 9

Candidate Starts for Bowden_21:

(Start: 9 @15794 has 133 MA's), (50, 16004), (51, 16016), (52, 16019), (59, 16079), (80, 16193), (83, 16208), (93, 16259), (102, 16316), (114, 16373), (131, 16445), (141, 16511), (143, 16532), (144, 16553), (160, 16670), (171, 16715), (174, 16730), (189, 16796), (195, 16814), (205, 16856), (210, 16883), (218, 16907), (235, 16991), (236, 16997),

Gene: Brataylor_21 Start: 15847, Stop: 17058, Start Num: 9

Candidate Starts for Brataylor_21:

(Start: 9 @15847 has 133 MA's), (15, 15874), (43, 16027), (50, 16057), (56, 16120), (75, 16219), (80, 16246), (94, 16315), (102, 16369), (105, 16381), (114, 16426), (131, 16498), (132, 16501), (141, 16564), (143, 16585), (152, 16660), (170, 16762), (171, 16768), (178, 16804), (179, 16807), (183, 16825), (195, 16867), (234, 17041), (235, 17044), (236, 17050),

Gene: BrayBeast_18 Start: 14080, Stop: 15198, Start Num: 10

Candidate Starts for BrayBeast_18:

(Start: 7 @14074 has 9 MA's), (Start: 10 @14080 has 1 MA's), (14, 14089), (44, 14254), (50, 14287), (53, 14308), (80, 14470), (81, 14479), (94, 14524), (99, 14566), (101, 14578), (109, 14611), (183, 15013), (193, 15049), (217, 15145), (224, 15184), (227, 15190),

Gene: BroPlease_21 Start: 16546, Stop: 17751, Start Num: 9

Candidate Starts for BroPlease_21:

(5, 16528), (Start: 6 @16540 has 1 MA's), (Start: 9 @16546 has 133 MA's), (24, 16633), (46, 16732), (51, 16768), (59, 16831), (80, 16945), (82, 16957), (93, 17011), (94, 17014), (98, 17044), (102, 17068), (114, 17125), (124, 17164), (131, 17197), (132, 17200), (138, 17248), (171, 17467), (174, 17482), (184, 17527), (193, 17557), (197, 17572), (205, 17608), (233, 17728), (235, 17737), (236, 17743),

Gene: BruceLethal_16 Start: 12244, Stop: 13401, Start Num: 9

Candidate Starts for BruceLethal_16:

(Start: 9 @12244 has 133 MA's), (15, 12271), (18, 12295), (24, 12328), (26, 12334), (29, 12349), (33, 12364), (34, 12367), (35, 12370), (40, 12400), (51, 12463), (53, 12472), (55, 12505), (62, 12538), (63,

12547), (64, 12550), (65, 12553), (69, 12580), (81, 12643), (84, 12655), (85, 12658), (92, 12691), (94, 12697), (100, 12742), (102, 12754), (106, 12769), (107, 12772), (108, 12778), (109, 12781), (111, 12796), (113, 12808), (118, 12829), (122, 12850), (124, 12862), (125, 12871), (129, 12886), (130, 12889), (134, 12913), (136, 12928), (139, 12955), (147, 13015), (152, 13048), (155, 13084), (159, 13111), (161, 13123), (169, 13153), (172, 13168), (173, 13171), (177, 13195), (181, 13207), (183, 13216), (185, 13222), (195, 13264), (203, 13300), (219, 13366), (221, 13378), (222, 13387),

Gene: BryanRecycles_21 Start: 16017, Stop: 17219, Start Num: 9

Candidate Starts for BryanRecycles_21:

(Start: 9 @16017 has 133 MA's), (15, 16044), (50, 16227), (56, 16290), (75, 16389), (80, 16416), (94, 16485), (98, 16515), (170, 16932), (171, 16938), (179, 16977), (184, 16998), (193, 17028), (195, 17037), (202, 17070), (221, 17151), (232, 17193), (233, 17196), (235, 17205), (236, 17211),

Gene: Caelum_21 Start: 16340, Stop: 17551, Start Num: 9

Candidate Starts for Caelum_21:

(Start: 9 @16340 has 133 MA's), (15, 16367), (49, 16547), (51, 16562), (52, 16565), (59, 16625), (75, 16712), (80, 16739), (94, 16808), (102, 16862), (114, 16919), (141, 17057), (171, 17261), (182, 17315), (218, 17453), (233, 17528), (235, 17537), (236, 17543),

Gene: Caliburn_20 Start: 15834, Stop: 17048, Start Num: 9

Candidate Starts for Caliburn_20:

(Start: 9 @15834 has 133 MA's), (15, 15861), (50, 16044), (56, 16107), (75, 16206), (80, 16233), (94, 16302), (98, 16332), (124, 16452), (141, 16551), (170, 16749), (171, 16755), (179, 16794), (185, 16818), (193, 16845), (195, 16854), (202, 16887), (218, 16947), (222, 16977), (233, 17025), (235, 17034), (236, 17040),

Gene: Celery_23 Start: 16489, Stop: 17706, Start Num: 9

Candidate Starts for Celery_23:

(Start: 9 @16489 has 133 MA's), (15, 16516), (21, 16567), (50, 16699), (55, 16759), (63, 16801), (94, 16957), (98, 16987), (110, 17044), (113, 17065), (114, 17068), (132, 17143), (135, 17170), (141, 17206), (171, 17410), (174, 17425), (181, 17458), (184, 17470), (195, 17509), (218, 17602), (222, 17632), (235, 17692), (236, 17698),

Gene: Celeste_20 Start: 15839, Stop: 17050, Start Num: 9

Candidate Starts for Celeste_20:

(Start: 9 @15839 has 133 MA's), (15, 15866), (38, 15992), (43, 16019), (50, 16049), (56, 16112), (75, 16211), (80, 16238), (94, 16307), (102, 16361), (105, 16373), (114, 16418), (131, 16490), (132, 16493), (141, 16556), (143, 16577), (152, 16652), (170, 16754), (171, 16760), (178, 16796), (179, 16799), (183, 16817), (195, 16859), (234, 17033), (235, 17036), (236, 17042),

Gene: Celia_20 Start: 16277, Stop: 17497, Start Num: 9

Candidate Starts for Celia_20:

(Start: 9 @16277 has 133 MA's), (17, 16319), (24, 16364), (39, 16433), (48, 16481), (50, 16487), (79, 16673), (80, 16676), (85, 16700), (94, 16745), (102, 16799), (135, 16958), (141, 16994), (164, 17177), (174, 17213), (179, 17237), (183, 17255), (185, 17261), (195, 17297), (205, 17339), (231, 17465), (235, 17483), (236, 17489),

Gene: Chucky_20 Start: 15831, Stop: 17042, Start Num: 9

Candidate Starts for Chucky_20:

(Start: 9 @15831 has 133 MA's), (50, 16041), (51, 16053), (52, 16056), (56, 16104), (75, 16203), (80, 16230), (94, 16299), (102, 16353), (114, 16410), (132, 16485), (135, 16512), (139, 16542), (142, 16566), (149, 16620), (158, 16698), (171, 16752), (179, 16791), (183, 16809), (193, 16842), (195, 16851), (202, 16884), (205, 16893), (218, 16944), (235, 17028), (236, 17034),

Gene: Conan_23 Start: 16260, Stop: 17477, Start Num: 9

Candidate Starts for Conan_23:

(Start: 9 @16260 has 133 MA's), (15, 16287), (21, 16338), (50, 16470), (63, 16572), (94, 16728), (98, 16758), (102, 16782), (110, 16815), (114, 16839), (132, 16914), (141, 16977), (171, 17181), (174, 17196), (184, 17241), (189, 17262), (195, 17280), (218, 17373), (222, 17403), (235, 17463), (236, 17469),

Gene: Cota_16 Start: 12250, Stop: 13407, Start Num: 9

Candidate Starts for Cota_16:

(Start: 7 @12247 has 9 MA's), (Start: 9 @12250 has 133 MA's), (15, 12277), (18, 12301), (22, 12328), (24, 12334), (26, 12340), (29, 12355), (33, 12370), (34, 12373), (35, 12376), (40, 12406), (51, 12469), (54, 12487), (55, 12511), (62, 12544), (63, 12553), (65, 12559), (66, 12568), (69, 12586), (72, 12595), (81, 12649), (85, 12664), (94, 12703), (95, 12706), (100, 12748), (102, 12760), (106, 12775), (107, 12778), (108, 12784), (109, 12787), (111, 12802), (113, 12814), (117, 12832), (124, 12868), (125, 12877), (129, 12892), (130, 12895), (134, 12919), (136, 12934), (139, 12961), (140, 12964), (147, 13021), (152, 13054), (155, 13090), (159, 13117), (169, 13159), (172, 13174), (173, 13177), (177, 13201), (183, 13222), (185, 13228), (195, 13270), (203, 13306), (212, 13348), (219, 13372), (221, 13384), (222, 13393),

Gene: Danzina_21 Start: 16049, Stop: 17260, Start Num: 9

Candidate Starts for Danzina_21:

(Start: 9 @16049 has 133 MA's), (15, 16076), (38, 16202), (40, 16208), (43, 16229), (50, 16259), (56, 16322), (75, 16421), (80, 16448), (94, 16517), (102, 16571), (103, 16574), (105, 16583), (114, 16628), (131, 16700), (132, 16703), (141, 16766), (143, 16787), (152, 16862), (170, 16964), (171, 16970), (178, 17006), (179, 17009), (183, 17027), (195, 17069), (234, 17243), (235, 17246), (236, 17252),

Gene: Dattran_21 Start: 15838, Stop: 17049, Start Num: 9

Candidate Starts for Dattran_21:

(Start: 9 @15838 has 133 MA's), (15, 15865), (38, 15991), (43, 16018), (50, 16048), (56, 16111), (75, 16210), (80, 16237), (94, 16306), (102, 16360), (105, 16372), (114, 16417), (131, 16489), (132, 16492), (141, 16555), (143, 16576), (152, 16651), (170, 16753), (171, 16759), (178, 16795), (179, 16798), (183, 16816), (195, 16858), (234, 17032), (235, 17035), (236, 17041),

Gene: Daudau_20 Start: 15774, Stop: 16985, Start Num: 9

Candidate Starts for Daudau_20:

(Start: 9 @15774 has 133 MA's), (22, 15855), (30, 15882), (46, 15960), (50, 15984), (51, 15996), (59, 16059), (78, 16158), (80, 16173), (83, 16188), (102, 16296), (114, 16353), (131, 16425), (141, 16491), (160, 16650), (171, 16695), (174, 16710), (195, 16794), (197, 16800), (205, 16836), (210, 16863), (218, 16887), (235, 16971), (236, 16977),

Gene: Dexers_19 Start: 16241, Stop: 17458, Start Num: 9

Candidate Starts for Dexers_19:

(Start: 9 @16241 has 133 MA's), (15, 16268), (21, 16319), (50, 16451), (52, 16466), (63, 16553), (75, 16613), (94, 16709), (98, 16739), (114, 16820), (132, 16895), (135, 16922), (141, 16958), (166, 17147), (171, 17162), (174, 17177), (184, 17222), (189, 17243), (195, 17261), (218, 17354), (222, 17384), (235, 17444), (236, 17450),

Gene: Diane_20 Start: 16306, Stop: 17520, Start Num: 9

Candidate Starts for Diane_20:

(Start: 9 @16306 has 133 MA's), (15, 16333), (30, 16414), (34, 16432), (46, 16492), (48, 16510), (51, 16528), (52, 16531), (59, 16591), (80, 16705), (102, 16828), (114, 16885), (160, 17182), (170, 17221), (171, 17227), (185, 17290), (218, 17419), (233, 17497), (235, 17506), (236, 17512),

Gene: DrParker_16 Start: 12276, Stop: 13433, Start Num: 9

Candidate Starts for DrParker_16:

(Start: 7 @12273 has 9 MA's), (Start: 9 @12276 has 133 MA's), (15, 12303), (18, 12327), (22, 12354), (26, 12366), (29, 12381), (31, 12390), (33, 12396), (34, 12399), (35, 12402), (40, 12432), (51, 12495), (54, 12513), (55, 12537), (62, 12570), (63, 12579), (64, 12582), (65, 12585), (66, 12594), (69, 12612), (72, 12621), (81, 12675), (84, 12687), (85, 12690), (92, 12723), (94, 12729), (102, 12786), (106, 12801), (107, 12804), (108, 12810), (109, 12813), (111, 12828), (113, 12840), (117, 12858), (121, 12879), (125, 12903), (129, 12918), (130, 12921), (134, 12945), (136, 12960), (139, 12987), (140, 12990), (152, 13080), (155, 13116), (159, 13143), (169, 13185), (172, 13200), (173, 13203), (177, 13227), (181, 13239), (183, 13248), (185, 13254), (195, 13296), (203, 13332), (212, 13374), (214, 13377), (218, 13389), (219, 13398), (221, 13410), (222, 13419),

Gene: Dwayne_20 Start: 15827, Stop: 17038, Start Num: 9

Candidate Starts for Dwayne_20:

(Start: 9 @15827 has 133 MA's), (50, 16037), (51, 16049), (52, 16052), (56, 16100), (75, 16199), (80, 16226), (94, 16295), (102, 16349), (114, 16406), (132, 16481), (135, 16508), (139, 16538), (142, 16562), (149, 16616), (158, 16694), (171, 16748), (179, 16787), (183, 16805), (193, 16838), (195, 16847), (202, 16880), (205, 16889), (218, 16940), (235, 17024), (236, 17030),

Gene: ELB20_19 Start: 15893, Stop: 17104, Start Num: 9

Candidate Starts for ELB20_19:

(Start: 9 @15893 has 133 MA's), (30, 16001), (50, 16103), (51, 16115), (52, 16118), (59, 16178), (80, 16292), (83, 16307), (102, 16415), (110, 16448), (114, 16472), (131, 16544), (135, 16574), (142, 16628), (143, 16631), (144, 16652), (160, 16769), (171, 16814), (174, 16829), (195, 16913), (196, 16916), (197, 16919), (205, 16955), (214, 16994), (218, 17006), (225, 17045), (233, 17081), (235, 17090), (236, 17096),

Gene: Eddasa_21 Start: 16017, Stop: 17219, Start Num: 9

Candidate Starts for Eddasa_21:

(Start: 9 @16017 has 133 MA's), (15, 16044), (50, 16227), (56, 16290), (75, 16389), (80, 16416), (94, 16485), (98, 16515), (170, 16932), (171, 16938), (179, 16977), (184, 16998), (193, 17028), (195, 17037), (202, 17070), (221, 17151), (232, 17193), (233, 17196), (235, 17205), (236, 17211),

Gene: Ejemplo_20 Start: 15827, Stop: 17038, Start Num: 9

Candidate Starts for Ejemplo_20:

(Start: 9 @15827 has 133 MA's), (15, 15854), (50, 16037), (51, 16049), (52, 16052), (75, 16199), (80, 16226), (102, 16349), (114, 16406), (132, 16481), (135, 16508), (139, 16538), (143, 16565), (149, 16616), (171, 16748), (179, 16787), (183, 16805), (192, 16835), (193, 16838), (195, 16847), (202, 16880), (205, 16889), (218, 16940), (229, 17000), (235, 17024), (236, 17030),

Gene: ElGato_22 Start: 16263, Stop: 17480, Start Num: 9

Candidate Starts for ElGato_22:

(Start: 9 @16263 has 133 MA's), (15, 16290), (21, 16341), (50, 16473), (63, 16575), (94, 16731), (98, 16761), (102, 16785), (110, 16818), (114, 16842), (132, 16917), (141, 16980), (166, 17169), (171, 17184), (174, 17199), (184, 17244), (189, 17265), (195, 17283), (218, 17376), (222, 17406), (235, 17466), (236, 17472),

Gene: Emaanora_22 Start: 15830, Stop: 17041, Start Num: 9

Candidate Starts for Emaanora_22:

(Start: 9 @15830 has 133 MA's), (50, 16040), (51, 16052), (52, 16055), (56, 16103), (75, 16202), (80, 16229), (94, 16298), (102, 16352), (114, 16409), (132, 16484), (135, 16511), (139, 16541), (142, 16565), (149, 16619), (158, 16697), (171, 16751), (179, 16790), (183, 16808), (193, 16841), (195,

16850), (202, 16883), (205, 16892), (218, 16943), (235, 17027), (236, 17033),

Gene: EnochSoames_22 Start: 16013, Stop: 17215, Start Num: 9

Candidate Starts for EnochSoames_22:

(Start: 9 @16013 has 133 MA's), (15, 16040), (50, 16223), (56, 16286), (75, 16385), (80, 16412), (94, 16481), (98, 16511), (124, 16631), (170, 16928), (171, 16934), (179, 16973), (184, 16994), (193, 17024), (195, 17033), (202, 17066), (221, 17147), (232, 17189), (233, 17192), (235, 17201), (236, 17207),

Gene: Enochoraptor_16 Start: 12247, Stop: 13404, Start Num: 9

Candidate Starts for Enochoraptor_16:

(Start: 7 @12244 has 9 MA's), (Start: 9 @12247 has 133 MA's), (15, 12274), (18, 12298), (22, 12325), (26, 12337), (29, 12352), (33, 12367), (34, 12370), (40, 12403), (51, 12466), (53, 12475), (55, 12508), (62, 12541), (63, 12550), (64, 12553), (65, 12556), (66, 12565), (69, 12583), (70, 12586), (81, 12646), (84, 12658), (85, 12661), (92, 12694), (94, 12700), (100, 12745), (102, 12757), (107, 12775), (108, 12781), (109, 12784), (111, 12799), (113, 12811), (121, 12850), (124, 12865), (125, 12874), (129, 12889), (130, 12892), (134, 12916), (139, 12958), (140, 12961), (141, 12964), (147, 13018), (152, 13051), (155, 13087), (159, 13114), (160, 13117), (169, 13156), (172, 13171), (173, 13174), (177, 13198), (181, 13210), (183, 13219), (185, 13225), (190, 13252), (195, 13267), (203, 13303), (212, 13345), (214, 13348), (218, 13360), (219, 13369), (221, 13381), (222, 13390),

Gene: Enoki_16 Start: 12229, Stop: 13386, Start Num: 9

Candidate Starts for Enoki_16:

(Start: 7 @12226 has 9 MA's), (Start: 9 @12229 has 133 MA's), (15, 12256), (18, 12280), (22, 12307), (24, 12313), (26, 12319), (29, 12334), (33, 12349), (34, 12352), (35, 12355), (40, 12385), (51, 12448), (54, 12466), (55, 12490), (62, 12523), (63, 12532), (65, 12538), (66, 12547), (69, 12565), (72, 12574), (85, 12643), (92, 12676), (94, 12682), (102, 12739), (106, 12754), (107, 12757), (108, 12763), (109, 12766), (111, 12781), (113, 12793), (121, 12832), (122, 12835), (124, 12847), (125, 12856), (129, 12871), (130, 12874), (134, 12898), (136, 12913), (139, 12940), (140, 12943), (147, 13000), (152, 13033), (155, 13069), (159, 13096), (160, 13099), (169, 13138), (172, 13153), (173, 13156), (177, 13180), (181, 13192), (183, 13201), (185, 13207), (203, 13285), (212, 13327), (218, 13342), (219, 13351), (221, 13363), (222, 13372),

Gene: Esperer_20 Start: 15854, Stop: 17068, Start Num: 9

Candidate Starts for Esperer_20:

(Start: 9 @15854 has 133 MA's), (15, 15881), (50, 16064), (56, 16127), (75, 16226), (80, 16253), (94, 16322), (98, 16352), (124, 16472), (141, 16571), (170, 16769), (171, 16775), (179, 16814), (185, 16838), (193, 16865), (195, 16874), (202, 16907), (218, 16967), (222, 16997), (233, 17045), (235, 17054), (236, 17060),

Gene: GirlDinner_21 Start: 15565, Stop: 16776, Start Num: 9

Candidate Starts for GirlDinner_21:

(Start: 9 @15565 has 133 MA's), (50, 15775), (51, 15787), (52, 15790), (59, 15850), (80, 15964), (83, 15979), (93, 16030), (131, 16216), (141, 16282), (142, 16300), (143, 16303), (160, 16441), (171, 16486), (174, 16501), (184, 16546), (185, 16549), (188, 16564), (193, 16576), (195, 16585), (218, 16678), (235, 16762), (236, 16768),

Gene: Goby_20 Start: 15844, Stop: 17055, Start Num: 9

Candidate Starts for Goby_20:

(Start: 9 @15844 has 133 MA's), (15, 15871), (38, 15997), (43, 16024), (50, 16054), (56, 16117), (75, 16216), (80, 16243), (94, 16312), (102, 16366), (105, 16378), (114, 16423), (131, 16495), (132, 16498), (141, 16561), (143, 16582), (152, 16657), (170, 16759), (171, 16765), (178, 16801), (179, 16804), (183, 16822), (195, 16864), (234, 17038), (235, 17041), (236, 17047),

Gene: Godpower_21 Start: 15855, Stop: 17066, Start Num: 9

Candidate Starts for Godpower_21:

(Start: 9 @15855 has 133 MA's), (15, 15882), (50, 16065), (51, 16077), (52, 16080), (56, 16128), (75, 16227), (80, 16254), (94, 16323), (102, 16377), (114, 16434), (132, 16509), (139, 16566), (143, 16593), (171, 16776), (179, 16815), (192, 16863), (193, 16866), (195, 16875), (202, 16908), (235, 17052), (236, 17058),

Gene: GreenWeasel_22 Start: 16555, Stop: 17760, Start Num: 9

Candidate Starts for GreenWeasel_22:

(5, 16537), (Start: 6 @16549 has 1 MA's), (Start: 9 @16555 has 133 MA's), (24, 16642), (46, 16741), (51, 16777), (59, 16840), (80, 16954), (82, 16966), (93, 17020), (94, 17023), (98, 17053), (102, 17077), (114, 17134), (124, 17173), (131, 17206), (132, 17209), (138, 17257), (171, 17476), (174, 17491), (184, 17536), (193, 17566), (197, 17581), (205, 17617), (233, 17737), (235, 17746), (236, 17752),

Gene: Haizum_20 Start: 16338, Stop: 17552, Start Num: 9

Candidate Starts for Haizum_20:

(Start: 9 @16338 has 133 MA's), (15, 16365), (30, 16446), (46, 16524), (48, 16542), (51, 16560), (52, 16563), (59, 16623), (80, 16737), (102, 16860), (114, 16917), (160, 17214), (171, 17259), (185, 17322), (218, 17451), (233, 17529), (235, 17538), (236, 17544),

Gene: Hank144_21 Start: 15960, Stop: 17171, Start Num: 9

Candidate Starts for Hank144_21:

(Start: 9 @15960 has 133 MA's), (30, 16068), (33, 16083), (50, 16170), (51, 16182), (52, 16185), (59, 16245), (80, 16359), (83, 16374), (102, 16482), (131, 16611), (141, 16677), (143, 16698), (144, 16719), (160, 16836), (170, 16875), (171, 16881), (174, 16896), (193, 16971), (195, 16980), (218, 17073), (235, 17157), (236, 17163),

Gene: Hippo_20 Start: 15830, Stop: 17041, Start Num: 9

Candidate Starts for Hippo_20:

(Start: 9 @15830 has 133 MA's), (50, 16040), (51, 16052), (52, 16055), (56, 16103), (75, 16202), (80, 16229), (94, 16298), (102, 16352), (114, 16409), (132, 16484), (135, 16511), (139, 16541), (142, 16565), (149, 16619), (158, 16697), (171, 16751), (179, 16790), (183, 16808), (193, 16841), (195, 16850), (202, 16883), (205, 16892), (218, 16943), (222, 16973), (235, 17027), (236, 17033),

Gene: Hum25_19 Start: 13554, Stop: 15002, Start Num: 6

Candidate Starts for Hum25_19:

(5, 13542), (Start: 6 @13554 has 1 MA's), (13, 13569), (15, 13584), (29, 13662), (32, 13677), (35, 13683), (36, 13689), (37, 13704), (41, 13716), (45, 13740), (57, 13824), (80, 13947), (86, 13974), (90, 13989), (99, 14046), (105, 14076), (109, 14091), (121, 14145), (123, 14151), (133, 14202), (135, 14217), (140, 14250), (149, 14316), (150, 14328), (160, 14415), (163, 14436), (170, 14457), (191, 14556), (204, 14610), (213, 14649), (215, 14652), (223, 14694), (238, 14820), (239, 14853), (240, 14901),

Gene: Hydra_22 Start: 16382, Stop: 17596, Start Num: 9

Candidate Starts for Hydra_22:

(Start: 9 @16382 has 133 MA's), (15, 16409), (50, 16592), (56, 16655), (75, 16754), (80, 16781), (94, 16850), (98, 16880), (124, 17000), (141, 17099), (170, 17297), (171, 17303), (179, 17342), (185, 17366), (193, 17393), (195, 17402), (202, 17435), (218, 17495), (222, 17525), (233, 17573), (235, 17582), (236, 17588),

Gene: Ibantik_81 Start: 42960, Stop: 44192, Start Num: 12

Candidate Starts for Ibantik_81:

(Start: 12 @42960 has 3 MA's), (24, 43035), (25, 43038), (42, 43125), (50, 43161), (61, 43257), (73, 43329), (76, 43335), (77, 43338), (82, 43374), (89, 43404), (102, 43485), (123, 43578), (143, 43707), (154, 43803), (158, 43830), (196, 43989), (199, 43998), (201, 44013), (206, 44031), (208, 44037), (211, 44061), (219, 44088), (230, 44154), (237, 44187),

Gene: Indigo_20 Start: 15854, Stop: 17068, Start Num: 9

Candidate Starts for Indigo_20:

(Start: 9 @15854 has 133 MA's), (15, 15881), (50, 16064), (56, 16127), (75, 16226), (80, 16253), (94, 16322), (98, 16352), (124, 16472), (141, 16571), (170, 16769), (171, 16775), (179, 16814), (185, 16838), (193, 16865), (195, 16874), (202, 16907), (218, 16967), (222, 16997), (233, 17045), (235, 17054), (236, 17060),

Gene: Issmi_21 Start: 16769, Stop: 17983, Start Num: 9

Candidate Starts for Issmi_21:

(Start: 9 @16769 has 133 MA's), (15, 16796), (33, 16892), (48, 16973), (50, 16979), (51, 16991), (52, 16994), (59, 17054), (60, 17066), (80, 17168), (82, 17180), (94, 17237), (102, 17291), (114, 17348), (141, 17486), (171, 17690), (185, 17753), (193, 17780), (196, 17792), (218, 17882), (233, 17960), (235, 17969), (236, 17975),

Gene: Itza_20 Start: 16200, Stop: 17420, Start Num: 9

Candidate Starts for Itza_20:

(Start: 9 @16200 has 133 MA's), (17, 16242), (24, 16287), (39, 16356), (48, 16404), (50, 16410), (79, 16596), (80, 16599), (85, 16623), (94, 16668), (102, 16722), (135, 16881), (141, 16917), (164, 17100), (174, 17136), (179, 17160), (183, 17178), (185, 17184), (195, 17220), (205, 17262), (231, 17388), (235, 17406), (236, 17412),

Gene: Izzy_21 Start: 16064, Stop: 17266, Start Num: 9

Candidate Starts for Izzy_21:

(Start: 9 @16064 has 133 MA's), (15, 16091), (50, 16274), (56, 16337), (75, 16436), (80, 16463), (94, 16532), (98, 16562), (170, 16979), (171, 16985), (179, 17024), (184, 17045), (193, 17075), (195, 17084), (202, 17117), (221, 17198), (232, 17240), (233, 17243), (235, 17252), (236, 17258),

Gene: Janus_21 Start: 15903, Stop: 17114, Start Num: 9

Candidate Starts for Janus_21:

(Start: 9 @15903 has 133 MA's), (50, 16113), (51, 16125), (52, 16128), (59, 16188), (60, 16200), (80, 16302), (83, 16317), (93, 16368), (128, 16542), (131, 16554), (141, 16620), (142, 16638), (143, 16641), (160, 16779), (171, 16824), (174, 16839), (184, 16884), (185, 16887), (193, 16914), (195, 16923), (218, 17016), (235, 17100), (236, 17106),

Gene: Jash_21 Start: 16017, Stop: 17219, Start Num: 9

Candidate Starts for Jash_21:

(Start: 9 @16017 has 133 MA's), (15, 16044), (50, 16227), (56, 16290), (75, 16389), (80, 16416), (94, 16485), (98, 16515), (170, 16932), (171, 16938), (179, 16977), (184, 16998), (193, 17028), (195, 17037), (202, 17070), (221, 17151), (232, 17193), (233, 17196), (235, 17205), (236, 17211),

Gene: Jevington_23 Start: 16207, Stop: 17418, Start Num: 9

Candidate Starts for Jevington_23:

(Start: 9 @16207 has 133 MA's), (22, 16288), (50, 16417), (51, 16429), (59, 16492), (80, 16606), (83, 16621), (102, 16729), (110, 16762), (114, 16786), (131, 16858), (141, 16924), (142, 16942), (143, 16945), (144, 16966), (160, 17083), (171, 17128), (174, 17143), (195, 17227), (197, 17233), (214, 17308), (218, 17320), (233, 17395), (235, 17404), (236, 17410),

Gene: Katalie_21 Start: 16096, Stop: 17307, Start Num: 9

Candidate Starts for Katalie_21:

(Start: 9 @16096 has 133 MA's), (15, 16123), (43, 16276), (50, 16306), (56, 16369), (75, 16468), (80, 16495), (94, 16564), (114, 16675), (131, 16747), (132, 16750), (135, 16777), (141, 16813), (143, 16834), (171, 17017), (178, 17053), (179, 17056), (183, 17074), (195, 17116), (218, 17209), (235, 17293), (236, 17299),

Gene: Keiki_16 Start: 12250, Stop: 13407, Start Num: 9

Candidate Starts for Keiki_16:

(Start: 9 @12250 has 133 MA's), (15, 12277), (18, 12301), (24, 12334), (26, 12340), (29, 12355), (33, 12370), (34, 12373), (35, 12376), (40, 12406), (51, 12469), (53, 12478), (55, 12511), (62, 12544), (63, 12553), (64, 12556), (65, 12559), (66, 12568), (69, 12586), (70, 12589), (81, 12649), (84, 12661), (85, 12664), (94, 12703), (95, 12706), (100, 12748), (102, 12760), (106, 12775), (107, 12778), (108, 12784), (109, 12787), (111, 12802), (113, 12814), (118, 12835), (122, 12856), (124, 12868), (125, 12877), (129, 12892), (130, 12895), (134, 12919), (136, 12934), (139, 12961), (147, 13021), (152, 13054), (155, 13090), (159, 13117), (169, 13159), (172, 13174), (173, 13177), (177, 13201), (181, 13213), (185, 13228), (195, 13270), (203, 13306), (212, 13348), (214, 13351), (219, 13372), (221, 13384), (222, 13393),

Gene: Khuang_16 Start: 13963, Stop: 15075, Start Num: 9

Candidate Starts for Khuang_16:

(2, 13687), (Start: 7 @13960 has 9 MA's), (Start: 9 @13963 has 133 MA's), (19, 14017), (30, 14056), (35, 14077), (50, 14158), (52, 14173), (55, 14212), (80, 14341), (92, 14389), (93, 14392), (101, 14443), (115, 14512), (121, 14530), (140, 14635), (165, 14815), (175, 14857), (194, 14929), (198, 14944), (224, 15058),

Gene: Kromp_19 Start: 17084, Stop: 18241, Start Num: 12

Candidate Starts for Kromp_19:

(Start: 12 @17084 has 3 MA's), (38, 17225), (51, 17294), (81, 17492), (93, 17549), (99, 17588), (120, 17687), (151, 17888), (153, 17900), (188, 18083), (203, 18140), (214, 18185), (216, 18188),

Gene: Kubed_16 Start: 12239, Stop: 13396, Start Num: 9

Candidate Starts for Kubed_16:

(Start: 9 @12239 has 133 MA's), (15, 12266), (18, 12290), (22, 12317), (26, 12329), (29, 12344), (33, 12359), (34, 12362), (35, 12365), (40, 12395), (45, 12422), (51, 12458), (53, 12467), (55, 12500), (62, 12533), (63, 12542), (64, 12545), (65, 12548), (66, 12557), (81, 12638), (84, 12650), (85, 12653), (92, 12686), (94, 12692), (102, 12749), (106, 12764), (107, 12767), (108, 12773), (109, 12776), (111, 12791), (121, 12842), (122, 12845), (124, 12857), (125, 12866), (129, 12881), (130, 12884), (134, 12908), (136, 12923), (139, 12950), (141, 12956), (145, 13001), (152, 13043), (155, 13079), (157, 13085), (159, 13106), (160, 13109), (169, 13148), (172, 13163), (173, 13166), (176, 13187), (177, 13190), (181, 13202), (185, 13217), (190, 13244), (195, 13259), (203, 13295), (212, 13337), (214, 13340), (219, 13361), (221, 13373), (222, 13382),

Gene: Kumotta_19 Start: 15048, Stop: 16172, Start Num: 7

Candidate Starts for Kumotta_19:

(Start: 6 @15045 has 1 MA's), (Start: 7 @15048 has 9 MA's), (32, 15162), (41, 15201), (45, 15225), (52, 15264), (94, 15489), (96, 15501), (99, 15531), (101, 15543), (104, 15555), (106, 15564), (150, 15813), (156, 15861), (157, 15864),

Gene: Lannister_21 Start: 15861, Stop: 17075, Start Num: 9

Candidate Starts for Lannister_21:

(Start: 9 @15861 has 133 MA's), (15, 15888), (50, 16071), (51, 16083), (56, 16134), (75, 16233), (80, 16260), (94, 16329), (102, 16383), (114, 16440), (132, 16515), (135, 16542), (139, 16572), (142,

16596), (171, 16782), (179, 16821), (183, 16839), (192, 16869), (193, 16872), (195, 16881), (202, 16914), (205, 16923), (234, 17058), (235, 17061), (236, 17067),

Gene: Lauchelly_16 Start: 12253, Stop: 13410, Start Num: 9

Candidate Starts for Lauchelly_16:

(Start: 7 @12250 has 9 MA's), (Start: 9 @12253 has 133 MA's), (15, 12280), (18, 12304), (24, 12337), (26, 12343), (29, 12358), (33, 12373), (34, 12376), (35, 12379), (40, 12409), (51, 12472), (53, 12481), (54, 12490), (55, 12514), (62, 12547), (63, 12556), (64, 12559), (65, 12562), (66, 12571), (69, 12589), (70, 12592), (84, 12664), (85, 12667), (92, 12700), (94, 12706), (107, 12781), (108, 12787), (109, 12790), (111, 12805), (113, 12817), (121, 12856), (122, 12859), (124, 12871), (125, 12880), (129, 12895), (130, 12898), (134, 12922), (136, 12937), (139, 12964), (147, 13024), (152, 13057), (155, 13093), (159, 13120), (160, 13123), (169, 13162), (172, 13177), (173, 13180), (177, 13204), (181, 13216), (185, 13231), (195, 13273), (203, 13309), (212, 13351), (214, 13354), (218, 13366), (219, 13375), (221, 13387), (222, 13396),

Gene: Legacy_20 Start: 15825, Stop: 17039, Start Num: 9

Candidate Starts for Legacy_20:

(Start: 9 @15825 has 133 MA's), (15, 15852), (50, 16035), (56, 16098), (75, 16197), (80, 16224), (94, 16293), (98, 16323), (124, 16443), (141, 16542), (170, 16740), (171, 16746), (179, 16785), (185, 16809), (193, 16836), (195, 16845), (202, 16878), (218, 16938), (222, 16968), (233, 17016), (235, 17025), (236, 17031),

Gene: Leviosa_16 Start: 12267, Stop: 13424, Start Num: 9

Candidate Starts for Leviosa_16:

(Start: 9 @12267 has 133 MA's), (15, 12294), (18, 12318), (24, 12351), (26, 12357), (29, 12372), (33, 12387), (34, 12390), (35, 12393), (40, 12423), (51, 12486), (55, 12528), (62, 12561), (63, 12570), (64, 12573), (65, 12576), (69, 12603), (70, 12606), (84, 12678), (85, 12681), (92, 12714), (94, 12720), (100, 12765), (102, 12777), (107, 12795), (108, 12801), (109, 12804), (111, 12819), (113, 12831), (121, 12870), (122, 12873), (124, 12885), (125, 12894), (129, 12909), (130, 12912), (134, 12936), (136, 12951), (139, 12978), (140, 12981), (147, 13038), (152, 13071), (155, 13107), (159, 13134), (160, 13137), (169, 13176), (172, 13191), (173, 13194), (177, 13218), (181, 13230), (185, 13245), (190, 13272), (195, 13287), (203, 13323), (212, 13365), (214, 13368), (219, 13389), (221, 13401),

Gene: Leviticus_20 Start: 15854, Stop: 17068, Start Num: 9

Candidate Starts for Leviticus_20:

(Start: 9 @15854 has 133 MA's), (15, 15881), (50, 16064), (56, 16127), (75, 16226), (80, 16253), (94, 16322), (98, 16352), (124, 16472), (141, 16571), (170, 16769), (171, 16775), (179, 16814), (185, 16838), (193, 16865), (195, 16874), (202, 16907), (218, 16967), (222, 16997), (233, 17045), (235, 17054), (236, 17060),

Gene: Lika_20 Start: 15859, Stop: 17070, Start Num: 9

Candidate Starts for Lika_20:

(Start: 9 @15859 has 133 MA's), (15, 15886), (50, 16069), (51, 16081), (52, 16084), (56, 16132), (75, 16231), (80, 16258), (94, 16327), (102, 16381), (114, 16438), (132, 16513), (139, 16570), (143, 16597), (171, 16780), (179, 16819), (192, 16867), (193, 16870), (195, 16879), (202, 16912), (235, 17056), (236, 17062),

Gene: LilBandit_16 Start: 12248, Stop: 13408, Start Num: 7

Candidate Starts for LilBandit_16:

(Start: 7 @12248 has 9 MA's), (Start: 9 @12251 has 133 MA's), (15, 12278), (18, 12302), (22, 12329), (24, 12335), (26, 12341), (33, 12371), (34, 12374), (35, 12377), (40, 12407), (51, 12470), (53, 12479), (54, 12488), (55, 12512), (62, 12545), (63, 12554), (64, 12557), (65, 12560), (66, 12569), (69, 12587), (72, 12596), (81, 12650), (84, 12662), (85, 12665), (92, 12698), (94, 12704), (100, 12749), (102,

12761), (106, 12776), (107, 12779), (108, 12785), (109, 12788), (111, 12803), (113, 12815), (121, 12854), (122, 12857), (124, 12869), (125, 12878), (129, 12893), (130, 12896), (134, 12920), (136, 12935), (139, 12962), (140, 12965), (152, 13055), (155, 13091), (159, 13118), (169, 13160), (172, 13175), (173, 13178), (177, 13202), (181, 13214), (183, 13223), (185, 13229), (195, 13271), (212, 13349), (218, 13364), (219, 13373), (221, 13385), (222, 13394),

Gene: Loofah_21 Start: 15822, Stop: 17033, Start Num: 9

Candidate Starts for Loofah_21:

(Start: 9 @15822 has 133 MA's), (30, 15930), (50, 16032), (51, 16044), (52, 16047), (59, 16107), (80, 16221), (83, 16236), (102, 16344), (110, 16377), (114, 16401), (131, 16473), (135, 16503), (142, 16557), (143, 16560), (144, 16581), (160, 16698), (171, 16743), (174, 16758), (195, 16842), (196, 16845), (197, 16848), (205, 16884), (214, 16923), (218, 16935), (225, 16974), (232, 17007), (233, 17010), (235, 17019), (236, 17025),

Gene: Lorelei_20 Start: 15829, Stop: 17040, Start Num: 9

Candidate Starts for Lorelei_20:

(Start: 9 @15829 has 133 MA's), (15, 15856), (43, 16009), (50, 16039), (56, 16102), (75, 16201), (80, 16228), (94, 16297), (102, 16351), (103, 16354), (105, 16363), (114, 16408), (131, 16480), (132, 16483), (141, 16546), (143, 16567), (152, 16642), (158, 16696), (170, 16744), (171, 16750), (178, 16786), (179, 16789), (183, 16807), (195, 16849), (234, 17023), (235, 17026), (236, 17032),

Gene: MEAK_16 Start: 12237, Stop: 13394, Start Num: 9

Candidate Starts for MEAK_16:

(Start: 7 @12234 has 9 MA's), (Start: 9 @12237 has 133 MA's), (15, 12264), (18, 12288), (22, 12315), (24, 12321), (26, 12327), (29, 12342), (33, 12357), (34, 12360), (35, 12363), (40, 12393), (51, 12456), (53, 12465), (55, 12498), (62, 12531), (63, 12540), (65, 12546), (66, 12555), (69, 12573), (70, 12576), (72, 12582), (81, 12636), (84, 12648), (85, 12651), (92, 12684), (94, 12690), (102, 12747), (106, 12762), (107, 12765), (108, 12771), (109, 12774), (111, 12789), (113, 12801), (118, 12822), (121, 12840), (122, 12843), (124, 12855), (125, 12864), (129, 12879), (130, 12882), (134, 12906), (136, 12921), (139, 12948), (140, 12951), (147, 13008), (152, 13041), (155, 13077), (159, 13104), (169, 13146), (172, 13161), (173, 13164), (177, 13188), (181, 13200), (183, 13209), (185, 13215), (195, 13257), (203, 13293), (214, 13338), (219, 13359), (222, 13380),

Gene: Maja_18 Start: 14689, Stop: 15813, Start Num: 7

Candidate Starts for Maja_18:

(Start: 6 @14686 has 1 MA's), (Start: 7 @14689 has 9 MA's), (Start: 10 @14695 has 1 MA's), (50, 14902), (57, 14962), (81, 15094), (87, 15121), (99, 15181), (101, 15193), (109, 15226), (112, 15247), (140, 15385), (159, 15535), (183, 15628), (185, 15634), (187, 15649), (227, 15805),

Gene: Maneekul_20 Start: 15826, Stop: 17037, Start Num: 9

Candidate Starts for Maneekul_20:

(Start: 9 @15826 has 133 MA's), (15, 15853), (50, 16036), (51, 16048), (52, 16051), (75, 16198), (80, 16225), (102, 16348), (114, 16405), (132, 16480), (135, 16507), (139, 16537), (143, 16564), (149, 16615), (171, 16747), (179, 16786), (183, 16804), (192, 16834), (193, 16837), (195, 16846), (202, 16879), (205, 16888), (218, 16939), (229, 16999), (235, 17023), (236, 17029),

Gene: Marav_23 Start: 16557, Stop: 17768, Start Num: 9

Candidate Starts for Marav_23:

(Start: 9 @16557 has 133 MA's), (22, 16638), (50, 16767), (51, 16779), (59, 16842), (80, 16956), (83, 16971), (102, 17079), (110, 17112), (131, 17208), (135, 17238), (141, 17274), (142, 17292), (143, 17295), (144, 17316), (160, 17433), (171, 17478), (174, 17493), (195, 17577), (197, 17583), (214, 17658), (218, 17670), (233, 17745), (235, 17754), (236, 17760),

Gene: MargaretKali_19 Start: 14683, Stop: 15807, Start Num: 7

Candidate Starts for MargaretKali_19:

(Start: 6 @14680 has 1 MA's), (Start: 7 @14683 has 9 MA's), (32, 14797), (41, 14836), (45, 14860), (52, 14899), (94, 15124), (96, 15136), (99, 15166), (101, 15178), (104, 15190), (106, 15199), (150, 15448), (156, 15496), (157, 15499),

Gene: Moyashi_16 Start: 12273, Stop: 13430, Start Num: 9

Candidate Starts for Moyashi_16:

(Start: 7 @12270 has 9 MA's), (Start: 9 @12273 has 133 MA's), (15, 12300), (18, 12324), (22, 12351), (26, 12363), (29, 12378), (31, 12387), (33, 12393), (34, 12396), (35, 12399), (40, 12429), (51, 12492), (54, 12510), (55, 12534), (62, 12567), (63, 12576), (65, 12582), (66, 12591), (72, 12618), (85, 12687), (94, 12726), (95, 12729), (102, 12783), (106, 12798), (107, 12801), (108, 12807), (109, 12810), (111, 12825), (113, 12837), (117, 12855), (124, 12891), (125, 12900), (129, 12915), (130, 12918), (134, 12942), (136, 12957), (139, 12984), (141, 12990), (147, 13044), (152, 13077), (155, 13113), (159, 13140), (160, 13143), (169, 13182), (172, 13197), (173, 13200), (177, 13224), (181, 13236), (183, 13245), (185, 13251), (195, 13293), (203, 13329), (214, 13374), (218, 13386), (219, 13395), (221, 13407), (222, 13416), (225, 13425),

Gene: MrAK_16 Start: 12284, Stop: 13441, Start Num: 9

Candidate Starts for MrAK_16:

(Start: 7 @12281 has 9 MA's), (Start: 9 @12284 has 133 MA's), (15, 12311), (18, 12335), (22, 12362), (24, 12368), (26, 12374), (29, 12389), (31, 12398), (33, 12404), (34, 12407), (35, 12410), (40, 12440), (51, 12503), (54, 12521), (55, 12545), (62, 12578), (63, 12587), (65, 12593), (66, 12602), (72, 12629), (85, 12698), (94, 12737), (95, 12740), (102, 12794), (106, 12809), (107, 12812), (108, 12818), (109, 12821), (111, 12836), (113, 12848), (117, 12866), (124, 12902), (125, 12911), (129, 12926), (130, 12929), (134, 12953), (136, 12968), (139, 12995), (141, 13001), (147, 13055), (152, 13088), (155, 13124), (159, 13151), (160, 13154), (169, 13193), (172, 13208), (173, 13211), (177, 13235), (181, 13247), (183, 13256), (185, 13262), (195, 13304), (203, 13340), (214, 13385), (218, 13397), (219, 13406), (221, 13418), (222, 13427),

Gene: MrSmee_18 Start: 13774, Stop: 14892, Start Num: 10

Candidate Starts for MrSmee_18:

(Start: 10 @13774 has 1 MA's), (24, 13852), (27, 13861), (50, 13981), (51, 13993), (53, 14002), (67, 14092), (80, 14164), (81, 14173), (82, 14176), (94, 14218), (101, 14272), (109, 14305), (120, 14356), (148, 14524), (159, 14614), (180, 14695), (193, 14743), (204, 14791), (207, 14800), (217, 14839), (224, 14878),

Gene: Nabi_20 Start: 15829, Stop: 17040, Start Num: 9

Candidate Starts for Nabi_20:

(Start: 9 @15829 has 133 MA's), (15, 15856), (43, 16009), (50, 16039), (56, 16102), (75, 16201), (80, 16228), (94, 16297), (102, 16351), (103, 16354), (105, 16363), (114, 16408), (131, 16480), (132, 16483), (141, 16546), (143, 16567), (152, 16642), (158, 16696), (170, 16744), (171, 16750), (178, 16786), (179, 16789), (183, 16807), (195, 16849), (234, 17023), (235, 17026), (236, 17032),

Gene: Nanodon_22 Start: 16037, Stop: 17248, Start Num: 9

Candidate Starts for Nanodon_22:

(Start: 9 @16037 has 133 MA's), (15, 16064), (43, 16217), (50, 16247), (56, 16310), (75, 16409), (78, 16421), (80, 16436), (94, 16505), (102, 16559), (131, 16688), (132, 16691), (141, 16754), (142, 16772), (171, 16958), (178, 16994), (179, 16997), (183, 17015), (195, 17057), (218, 17150), (235, 17234), (236, 17240),

Gene: Nerdos_20 Start: 15854, Stop: 17068, Start Num: 9

Candidate Starts for Nerdos_20:

(Start: 9 @15854 has 133 MA's), (15, 15881), (50, 16064), (56, 16127), (75, 16226), (80, 16253), (94, 16322), (98, 16352), (124, 16472), (141, 16571), (170, 16769), (171, 16775), (179, 16814), (185, 16838), (193, 16865), (195, 16874), (202, 16907), (218, 16967), (222, 16997), (233, 17045), (235, 17054), (236, 17060),

Gene: Nishikigoi_20 Start: 16338, Stop: 17552, Start Num: 9

Candidate Starts for Nishikigoi_20:

(Start: 9 @16338 has 133 MA's), (15, 16365), (30, 16446), (46, 16524), (48, 16542), (51, 16560), (52, 16563), (59, 16623), (80, 16737), (94, 16806), (102, 16860), (114, 16917), (160, 17214), (171, 17259), (185, 17322), (218, 17451), (233, 17529), (235, 17538), (236, 17544),

Gene: Oliynyk_21 Start: 16017, Stop: 17219, Start Num: 9

Candidate Starts for Oliynyk_21:

(Start: 9 @16017 has 133 MA's), (15, 16044), (50, 16227), (56, 16290), (75, 16389), (80, 16416), (94, 16485), (98, 16515), (170, 16932), (171, 16938), (179, 16977), (184, 16998), (193, 17028), (195, 17037), (202, 17070), (221, 17151), (232, 17193), (233, 17196), (235, 17205), (236, 17211),

Gene: Omar_21 Start: 16673, Stop: 17887, Start Num: 9

Candidate Starts for Omar_21:

(Start: 9 @16673 has 133 MA's), (15, 16700), (46, 16859), (48, 16877), (50, 16883), (51, 16895), (52, 16898), (59, 16958), (80, 17072), (94, 17141), (102, 17195), (110, 17228), (114, 17252), (135, 17354), (137, 17360), (166, 17579), (168, 17585), (171, 17594), (196, 17696), (218, 17786), (233, 17864), (235, 17873), (236, 17879),

Gene: Ouroboros_16 Start: 12239, Stop: 13396, Start Num: 9

Candidate Starts for Ouroboros_16:

(Start: 9 @12239 has 133 MA's), (15, 12266), (18, 12290), (22, 12317), (24, 12323), (26, 12329), (29, 12344), (33, 12359), (34, 12362), (35, 12365), (40, 12395), (51, 12458), (53, 12467), (55, 12500), (62, 12533), (63, 12542), (64, 12545), (65, 12548), (66, 12557), (69, 12575), (70, 12578), (81, 12638), (84, 12650), (85, 12653), (92, 12686), (94, 12692), (95, 12695), (100, 12737), (102, 12749), (106, 12764), (107, 12767), (108, 12773), (109, 12776), (111, 12791), (113, 12803), (118, 12824), (122, 12845), (124, 12857), (125, 12866), (129, 12881), (130, 12884), (134, 12908), (136, 12923), (139, 12950), (147, 13010), (152, 13043), (155, 13079), (159, 13106), (169, 13148), (172, 13163), (177, 13190), (181, 13202), (185, 13217), (190, 13244), (195, 13259), (203, 13295), (212, 13337), (219, 13361), (221, 13373),

Gene: Ozzie_20 Start: 15834, Stop: 17048, Start Num: 9

Candidate Starts for Ozzie_20:

(Start: 9 @15834 has 133 MA's), (15, 15861), (50, 16044), (56, 16107), (75, 16206), (80, 16233), (94, 16302), (98, 16332), (124, 16452), (141, 16551), (170, 16749), (171, 16755), (179, 16794), (185, 16818), (193, 16845), (195, 16854), (202, 16887), (218, 16947), (222, 16977), (233, 17025), (235, 17034), (236, 17040),

Gene: OzzyJ_21 Start: 15821, Stop: 17032, Start Num: 9

Candidate Starts for OzzyJ_21:

(Start: 9 @15821 has 133 MA's), (50, 16031), (51, 16043), (52, 16046), (56, 16094), (75, 16193), (80, 16220), (94, 16289), (102, 16343), (114, 16400), (132, 16475), (135, 16502), (139, 16532), (142, 16556), (149, 16610), (158, 16688), (171, 16742), (179, 16781), (183, 16799), (193, 16832), (195, 16841), (202, 16874), (205, 16883), (218, 16934), (235, 17018), (236, 17024),

Gene: P1.1_16 Start: 12239, Stop: 13399, Start Num: 7

Candidate Starts for P1.1_16:

(Start: 7 @12239 has 9 MA's), (Start: 9 @12242 has 133 MA's), (15, 12269), (18, 12293), (22, 12320), (24, 12326), (26, 12332), (29, 12347), (33, 12362), (34, 12365), (35, 12368), (40, 12398), (51, 12461), (54, 12479), (55, 12503), (62, 12536), (63, 12545), (65, 12551), (66, 12560), (69, 12578), (72, 12587), (81, 12641), (84, 12653), (85, 12656), (92, 12689), (94, 12695), (100, 12740), (102, 12752), (106, 12767), (107, 12770), (108, 12776), (109, 12779), (111, 12794), (113, 12806), (121, 12845), (122, 12848), (124, 12860), (125, 12869), (129, 12884), (130, 12887), (134, 12911), (136, 12926), (139, 12953), (140, 12956), (147, 13013), (152, 13046), (155, 13082), (159, 13109), (160, 13112), (169, 13151), (172, 13166), (173, 13169), (177, 13193), (183, 13214), (185, 13220), (195, 13262), (203, 13298), (214, 13343), (218, 13355), (219, 13364), (222, 13385),

Gene: P100.1_16 Start: 12249, Stop: 13406, Start Num: 9

Candidate Starts for P100.1_16:

(Start: 7 @12246 has 9 MA's), (Start: 9 @12249 has 133 MA's), (15, 12276), (18, 12300), (22, 12327), (26, 12339), (29, 12354), (31, 12363), (33, 12369), (34, 12372), (35, 12375), (39, 12402), (40, 12405), (51, 12468), (54, 12486), (55, 12510), (62, 12543), (63, 12552), (64, 12555), (65, 12558), (66, 12567), (69, 12585), (72, 12594), (84, 12660), (85, 12663), (92, 12696), (94, 12702), (102, 12759), (107, 12777), (108, 12783), (109, 12786), (111, 12801), (113, 12813), (117, 12831), (121, 12852), (125, 12876), (129, 12891), (130, 12894), (134, 12918), (136, 12933), (139, 12960), (140, 12963), (147, 13020), (152, 13053), (155, 13089), (159, 13116), (169, 13158), (172, 13173), (173, 13176), (177, 13200), (181, 13212), (183, 13221), (185, 13227), (195, 13269), (203, 13305), (212, 13347), (214, 13350), (218, 13362), (219, 13371), (221, 13383), (222, 13392),

Gene: P100A_16 Start: 12249, Stop: 13406, Start Num: 9

Candidate Starts for P100A_16:

(Start: 9 @12249 has 133 MA's), (15, 12276), (18, 12300), (24, 12333), (26, 12339), (29, 12354), (33, 12369), (34, 12372), (35, 12375), (40, 12405), (44, 12429), (51, 12468), (53, 12477), (55, 12510), (62, 12543), (63, 12552), (65, 12558), (66, 12567), (69, 12585), (70, 12588), (81, 12648), (84, 12660), (85, 12663), (92, 12696), (94, 12702), (95, 12705), (100, 12747), (102, 12759), (107, 12777), (111, 12801), (113, 12813), (122, 12855), (125, 12876), (129, 12891), (130, 12894), (134, 12918), (136, 12933), (139, 12960), (147, 13020), (152, 13053), (155, 13089), (159, 13116), (160, 13119), (169, 13158), (172, 13173), (173, 13176), (177, 13200), (185, 13227), (190, 13254), (195, 13269), (203, 13305), (214, 13350), (219, 13371), (221, 13383), (222, 13392),

Gene: P100D_16 Start: 12245, Stop: 13402, Start Num: 9

Candidate Starts for P100D_16:

(Start: 7 @12242 has 9 MA's), (Start: 9 @12245 has 133 MA's), (15, 12272), (18, 12296), (22, 12323), (24, 12329), (26, 12335), (29, 12350), (33, 12365), (34, 12368), (35, 12371), (40, 12401), (51, 12464), (54, 12482), (55, 12506), (62, 12539), (63, 12548), (65, 12554), (66, 12563), (69, 12581), (72, 12590), (81, 12644), (84, 12656), (85, 12659), (92, 12692), (94, 12698), (100, 12743), (102, 12755), (107, 12773), (108, 12779), (109, 12782), (111, 12797), (113, 12809), (118, 12830), (121, 12848), (122, 12851), (124, 12863), (125, 12872), (129, 12887), (130, 12890), (134, 12914), (136, 12929), (139, 12956), (140, 12959), (147, 13016), (152, 13049), (155, 13085), (159, 13112), (169, 13154), (172, 13169), (173, 13172), (177, 13196), (181, 13208), (183, 13217), (185, 13223), (195, 13265), (203, 13301), (212, 13343), (219, 13367), (221, 13379), (222, 13388),

Gene: P101A_16 Start: 12257, Stop: 13414, Start Num: 9

Candidate Starts for P101A_16:

(Start: 7 @12254 has 9 MA's), (Start: 9 @12257 has 133 MA's), (15, 12284), (18, 12308), (22, 12335), (24, 12341), (26, 12347), (29, 12362), (33, 12377), (34, 12380), (35, 12383), (40, 12413), (51, 12476), (54, 12494), (55, 12518), (62, 12551), (63, 12560), (64, 12563), (65, 12566), (66, 12575), (69, 12593), (72, 12602), (84, 12668), (85, 12671), (92, 12704), (94, 12710), (102, 12767), (106, 12782), (107, 12785), (108, 12791), (109, 12794), (111, 12809), (113, 12821), (117, 12839), (121, 12860), (125, 12884), (129, 12899), (130, 12902), (134, 12926), (136, 12941), (139, 12968), (140, 12971), (152,

13061), (155, 13097), (159, 13124), (169, 13166), (172, 13181), (173, 13184), (177, 13208), (181, 13220), (183, 13229), (185, 13235), (195, 13277), (203, 13313), (212, 13355), (214, 13358), (218, 13370), (219, 13379), (221, 13391), (222, 13400),

Gene: P104A_16 Start: 12234, Stop: 13391, Start Num: 9

Candidate Starts for P104A_16:

(Start: 9 @12234 has 133 MA's), (15, 12261), (18, 12285), (24, 12318), (26, 12324), (29, 12339), (33, 12354), (34, 12357), (35, 12360), (40, 12390), (51, 12453), (54, 12471), (55, 12495), (62, 12528), (63, 12537), (65, 12543), (66, 12552), (69, 12570), (72, 12579), (84, 12645), (85, 12648), (92, 12681), (94, 12687), (102, 12744), (106, 12759), (107, 12762), (108, 12768), (109, 12771), (111, 12786), (113, 12798), (121, 12837), (122, 12840), (124, 12852), (125, 12861), (129, 12876), (130, 12879), (134, 12903), (136, 12918), (139, 12945), (140, 12948), (147, 13005), (152, 13038), (155, 13074), (159, 13101), (160, 13104), (169, 13143), (172, 13158), (173, 13161), (177, 13185), (185, 13212), (190, 13239), (195, 13254), (203, 13290), (212, 13332), (219, 13356), (221, 13368), (222, 13377),

Gene: P104B_16 Start: 12251, Stop: 13408, Start Num: 9

Candidate Starts for P104B_16:

(Start: 7 @12248 has 9 MA's), (Start: 9 @12251 has 133 MA's), (15, 12278), (18, 12302), (22, 12329), (24, 12335), (26, 12341), (29, 12356), (33, 12371), (34, 12374), (35, 12377), (40, 12407), (51, 12470), (53, 12479), (54, 12488), (55, 12512), (62, 12545), (63, 12554), (65, 12560), (66, 12569), (69, 12587), (72, 12596), (84, 12662), (85, 12665), (92, 12698), (94, 12704), (100, 12749), (106, 12776), (107, 12779), (108, 12785), (109, 12788), (111, 12803), (113, 12815), (121, 12854), (124, 12869), (125, 12878), (129, 12893), (130, 12896), (134, 12920), (136, 12935), (139, 12962), (140, 12965), (147, 13022), (152, 13055), (159, 13118), (169, 13160), (172, 13175), (173, 13178), (177, 13202), (181, 13214), (183, 13223), (185, 13229), (190, 13256), (195, 13271), (203, 13307), (214, 13352), (219, 13373), (221, 13385), (222, 13394),

Gene: P105_16 Start: 12154, Stop: 13311, Start Num: 9

Candidate Starts for P105_16:

(Start: 7 @12151 has 9 MA's), (Start: 9 @12154 has 133 MA's), (15, 12181), (18, 12205), (22, 12232), (24, 12238), (26, 12244), (29, 12259), (33, 12274), (34, 12277), (35, 12280), (40, 12310), (51, 12373), (54, 12391), (55, 12415), (62, 12448), (63, 12457), (65, 12463), (66, 12472), (72, 12499), (85, 12568), (94, 12607), (95, 12610), (102, 12664), (106, 12679), (107, 12682), (108, 12688), (109, 12691), (111, 12706), (113, 12718), (117, 12736), (124, 12772), (125, 12781), (129, 12796), (130, 12799), (134, 12823), (136, 12838), (139, 12865), (141, 12871), (147, 12925), (152, 12958), (155, 12994), (159, 13021), (160, 13024), (169, 13063), (172, 13078), (173, 13081), (177, 13105), (181, 13117), (183, 13126), (185, 13132), (203, 13210), (214, 13255), (218, 13267), (219, 13276), (221, 13288), (222, 13297),

Gene: P106A_16 Start: 12279, Stop: 13436, Start Num: 9

Candidate Starts for P106A_16:

(Start: 7 @12276 has 9 MA's), (Start: 9 @12279 has 133 MA's), (15, 12306), (18, 12330), (22, 12357), (26, 12369), (29, 12384), (31, 12393), (33, 12399), (34, 12402), (35, 12405), (40, 12435), (51, 12498), (54, 12516), (55, 12540), (62, 12573), (63, 12582), (64, 12585), (65, 12588), (66, 12597), (69, 12615), (72, 12624), (81, 12678), (84, 12690), (85, 12693), (92, 12726), (94, 12732), (102, 12789), (106, 12804), (107, 12807), (108, 12813), (109, 12816), (111, 12831), (113, 12843), (117, 12861), (121, 12882), (124, 12897), (125, 12906), (129, 12921), (130, 12924), (134, 12948), (136, 12963), (139, 12990), (140, 12993), (152, 13083), (155, 13119), (159, 13146), (169, 13188), (172, 13203), (173, 13206), (177, 13230), (183, 13251), (185, 13257), (190, 13284), (195, 13299), (203, 13335), (214, 13380), (219, 13401), (221, 13413), (222, 13422),

Gene: P106C_16 Start: 12279, Stop: 13436, Start Num: 9

Candidate Starts for P106C_16:

(Start: 7 @12276 has 9 MA's), (Start: 9 @12279 has 133 MA's), (15, 12306), (18, 12330), (22, 12357), (26, 12369), (29, 12384), (31, 12393), (33, 12399), (34, 12402), (35, 12405), (40, 12435), (51, 12498), (54, 12516), (55, 12540), (62, 12573), (63, 12582), (64, 12585), (65, 12588), (66, 12597), (69, 12615), (72, 12624), (81, 12678), (84, 12690), (85, 12693), (92, 12726), (94, 12732), (102, 12789), (106, 12804), (107, 12807), (108, 12813), (109, 12816), (111, 12831), (113, 12843), (117, 12861), (121, 12882), (124, 12897), (125, 12906), (129, 12921), (130, 12924), (134, 12948), (136, 12963), (139, 12990), (140, 12993), (152, 13083), (155, 13119), (159, 13146), (169, 13188), (172, 13203), (173, 13206), (177, 13230), (183, 13251), (185, 13257), (190, 13284), (195, 13299), (203, 13335), (214, 13380), (218, 13392), (219, 13401), (221, 13413), (222, 13422),

Gene: P106I_16 Start: 12279, Stop: 13436, Start Num: 9

Candidate Starts for P106I_16:

(Start: 7 @12276 has 9 MA's), (Start: 9 @12279 has 133 MA's), (15, 12306), (18, 12330), (22, 12357), (26, 12369), (29, 12384), (31, 12393), (33, 12399), (34, 12402), (35, 12405), (40, 12435), (51, 12498), (54, 12516), (55, 12540), (62, 12573), (63, 12582), (64, 12585), (65, 12588), (66, 12597), (69, 12615), (72, 12624), (81, 12678), (84, 12690), (85, 12693), (92, 12726), (94, 12732), (102, 12789), (106, 12804), (107, 12807), (108, 12813), (109, 12816), (111, 12831), (113, 12843), (117, 12861), (121, 12882), (124, 12897), (125, 12906), (129, 12921), (130, 12924), (134, 12948), (136, 12963), (139, 12990), (140, 12993), (152, 13083), (155, 13119), (159, 13146), (169, 13188), (172, 13203), (173, 13206), (177, 13230), (183, 13251), (185, 13257), (190, 13284), (195, 13299), (203, 13335), (214, 13380), (218, 13392), (219, 13401), (221, 13413), (222, 13422),

Gene: P106L_16 Start: 12279, Stop: 13436, Start Num: 9

Candidate Starts for P106L_16:

(Start: 7 @12276 has 9 MA's), (Start: 9 @12279 has 133 MA's), (15, 12306), (18, 12330), (22, 12357), (26, 12369), (29, 12384), (31, 12393), (33, 12399), (34, 12402), (35, 12405), (40, 12435), (51, 12498), (54, 12516), (55, 12540), (62, 12573), (63, 12582), (64, 12585), (65, 12588), (66, 12597), (69, 12615), (72, 12624), (81, 12678), (84, 12690), (85, 12693), (92, 12726), (94, 12732), (102, 12789), (106, 12804), (107, 12807), (108, 12813), (109, 12816), (111, 12831), (113, 12843), (117, 12861), (121, 12882), (124, 12897), (125, 12906), (129, 12921), (130, 12924), (134, 12948), (136, 12963), (139, 12990), (140, 12993), (152, 13083), (155, 13119), (159, 13146), (169, 13188), (172, 13203), (173, 13206), (177, 13230), (183, 13251), (185, 13257), (190, 13284), (195, 13299), (203, 13335), (214, 13380), (218, 13392), (219, 13401), (221, 13413), (222, 13422),

Gene: P106M_16 Start: 12279, Stop: 13436, Start Num: 9

Candidate Starts for P106M_16:

(Start: 7 @12276 has 9 MA's), (Start: 9 @12279 has 133 MA's), (15, 12306), (18, 12330), (22, 12357), (26, 12369), (29, 12384), (31, 12393), (33, 12399), (34, 12402), (35, 12405), (40, 12435), (51, 12498), (54, 12516), (55, 12540), (62, 12573), (63, 12582), (64, 12585), (65, 12588), (66, 12597), (69, 12615), (72, 12624), (81, 12678), (84, 12690), (85, 12693), (92, 12726), (94, 12732), (102, 12789), (106, 12804), (107, 12807), (108, 12813), (109, 12816), (111, 12831), (113, 12843), (117, 12861), (121, 12882), (124, 12897), (125, 12906), (129, 12921), (130, 12924), (134, 12948), (136, 12963), (139, 12990), (140, 12993), (152, 13083), (155, 13119), (159, 13146), (169, 13188), (172, 13203), (173, 13206), (177, 13230), (183, 13251), (185, 13257), (190, 13284), (195, 13299), (203, 13335), (214, 13380), (218, 13392), (219, 13401), (221, 13413), (222, 13422),

Gene: P107A_16 Start: 12255, Stop: 13412, Start Num: 9

Candidate Starts for P107A_16:

(Start: 9 @12255 has 133 MA's), (15, 12282), (18, 12306), (22, 12333), (24, 12339), (26, 12345), (29, 12360), (33, 12375), (34, 12378), (35, 12381), (40, 12411), (51, 12474), (53, 12483), (54, 12492), (55, 12516), (62, 12549), (63, 12558), (64, 12561), (65, 12564), (66, 12573), (69, 12591), (70, 12594), (84, 12666), (85, 12669), (92, 12702), (94, 12708), (102, 12765), (107, 12783), (108, 12789), (109, 12792), (111, 12807), (113, 12819), (118, 12840), (122, 12861), (124, 12873), (125, 12882), (129, 12897),

(130, 12900), (134, 12924), (136, 12939), (139, 12966), (140, 12969), (147, 13026), (152, 13059), (155, 13095), (159, 13122), (160, 13125), (169, 13164), (172, 13179), (173, 13182), (177, 13206), (181, 13218), (185, 13233), (190, 13260), (195, 13275), (203, 13311), (214, 13356), (219, 13377), (221, 13389), (222, 13398),

Gene: P107C_16 Start: 12232, Stop: 13389, Start Num: 9

Candidate Starts for P107C_16:

(Start: 7 @12229 has 9 MA's), (Start: 9 @12232 has 133 MA's), (15, 12259), (18, 12283), (22, 12310), (24, 12316), (26, 12322), (29, 12337), (33, 12352), (34, 12355), (35, 12358), (40, 12388), (51, 12451), (55, 12493), (62, 12526), (63, 12535), (65, 12541), (66, 12550), (69, 12568), (70, 12571), (84, 12643), (85, 12646), (92, 12679), (94, 12685), (100, 12730), (102, 12742), (106, 12757), (108, 12766), (109, 12769), (111, 12784), (113, 12796), (122, 12838), (124, 12850), (125, 12859), (129, 12874), (130, 12877), (134, 12901), (136, 12916), (139, 12943), (140, 12946), (147, 13003), (152, 13036), (155, 13072), (159, 13099), (169, 13141), (172, 13156), (173, 13159), (177, 13183), (181, 13195), (183, 13204), (185, 13210), (195, 13252), (203, 13288), (214, 13333), (218, 13345), (219, 13354), (221, 13366), (222, 13375),

Gene: P108C_16 Start: 12240, Stop: 13397, Start Num: 9

Candidate Starts for P108C_16:

(Start: 7 @12237 has 9 MA's), (Start: 9 @12240 has 133 MA's), (15, 12267), (18, 12291), (24, 12324), (26, 12330), (29, 12345), (33, 12360), (34, 12363), (35, 12366), (40, 12396), (51, 12459), (54, 12477), (55, 12501), (62, 12534), (63, 12543), (64, 12546), (65, 12549), (66, 12558), (69, 12576), (72, 12585), (81, 12639), (84, 12651), (85, 12654), (92, 12687), (94, 12693), (102, 12750), (106, 12765), (107, 12768), (108, 12774), (111, 12792), (113, 12804), (117, 12822), (121, 12843), (124, 12858), (125, 12867), (129, 12882), (130, 12885), (134, 12909), (136, 12924), (139, 12951), (140, 12954), (152, 13044), (155, 13080), (159, 13107), (169, 13149), (172, 13164), (173, 13167), (177, 13191), (181, 13203), (185, 13218), (195, 13260), (203, 13296), (212, 13338), (214, 13341), (218, 13353), (219, 13362), (221, 13374), (222, 13383),

Gene: P14.4_16 Start: 12243, Stop: 13403, Start Num: 7

Candidate Starts for P14.4_16:

(Start: 7 @12243 has 9 MA's), (Start: 9 @12246 has 133 MA's), (15, 12273), (18, 12297), (22, 12324), (24, 12330), (26, 12336), (29, 12351), (33, 12366), (34, 12369), (35, 12372), (40, 12402), (51, 12465), (54, 12483), (55, 12507), (62, 12540), (63, 12549), (64, 12552), (65, 12555), (66, 12564), (69, 12582), (72, 12591), (81, 12645), (84, 12657), (85, 12660), (92, 12693), (94, 12699), (100, 12744), (102, 12756), (106, 12771), (107, 12774), (108, 12780), (109, 12783), (111, 12798), (113, 12810), (121, 12849), (122, 12852), (124, 12864), (125, 12873), (129, 12888), (130, 12891), (134, 12915), (136, 12930), (139, 12957), (140, 12960), (147, 13017), (155, 13086), (159, 13113), (160, 13116), (169, 13155), (172, 13170), (173, 13173), (177, 13197), (183, 13218), (185, 13224), (195, 13266), (203, 13302), (212, 13344), (218, 13359), (219, 13368), (221, 13380), (222, 13389),

Gene: P9.1_16 Start: 12238, Stop: 13398, Start Num: 7

Candidate Starts for P9.1_16:

(Start: 7 @12238 has 9 MA's), (Start: 9 @12241 has 133 MA's), (15, 12268), (18, 12292), (22, 12319), (26, 12331), (29, 12346), (31, 12355), (33, 12361), (34, 12364), (35, 12367), (40, 12397), (51, 12460), (54, 12478), (55, 12502), (62, 12535), (63, 12544), (65, 12550), (66, 12559), (69, 12577), (72, 12586), (84, 12652), (85, 12655), (86, 12658), (92, 12688), (94, 12694), (100, 12739), (102, 12751), (106, 12766), (107, 12769), (108, 12775), (109, 12778), (111, 12793), (113, 12805), (121, 12844), (124, 12859), (125, 12868), (129, 12883), (130, 12886), (134, 12910), (136, 12925), (139, 12952), (140, 12955), (152, 13045), (155, 13081), (159, 13108), (160, 13111), (169, 13150), (172, 13165), (173, 13168), (177, 13192), (185, 13219), (195, 13261), (203, 13297), (212, 13339), (218, 13354), (219, 13363), (221, 13375), (222, 13384),

Gene: PA6_16 Start: 12270, Stop: 13427, Start Num: 9

Candidate Starts for PA6_16:

(Start: 7 @12267 has 9 MA's), (Start: 9 @12270 has 133 MA's), (15, 12297), (18, 12321), (22, 12348), (24, 12354), (26, 12360), (29, 12375), (31, 12384), (33, 12390), (34, 12393), (35, 12396), (40, 12426), (51, 12489), (53, 12498), (54, 12507), (55, 12531), (62, 12564), (63, 12573), (64, 12576), (65, 12579), (66, 12588), (69, 12606), (72, 12615), (84, 12681), (85, 12684), (92, 12717), (94, 12723), (100, 12768), (102, 12780), (106, 12795), (107, 12798), (108, 12804), (109, 12807), (111, 12822), (113, 12834), (121, 12873), (122, 12876), (124, 12888), (125, 12897), (129, 12912), (130, 12915), (134, 12939), (136, 12954), (139, 12981), (140, 12984), (147, 13041), (152, 13074), (155, 13110), (159, 13137), (160, 13140), (169, 13179), (172, 13194), (173, 13197), (177, 13221), (183, 13242), (185, 13248), (190, 13275), (195, 13290), (203, 13326), (214, 13371), (218, 13383), (219, 13392), (221, 13404), (222, 13413),

Gene: PAD20_16 Start: 12238, Stop: 13395, Start Num: 9

Candidate Starts for PAD20_16:

(Start: 7 @12235 has 9 MA's), (Start: 9 @12238 has 133 MA's), (15, 12265), (18, 12289), (22, 12316), (24, 12322), (26, 12328), (29, 12343), (33, 12358), (34, 12361), (35, 12364), (40, 12394), (51, 12457), (54, 12475), (55, 12499), (62, 12532), (63, 12541), (64, 12544), (65, 12547), (66, 12556), (69, 12574), (72, 12583), (84, 12649), (92, 12685), (94, 12691), (100, 12736), (102, 12748), (106, 12763), (107, 12766), (108, 12772), (109, 12775), (111, 12790), (113, 12802), (121, 12841), (124, 12856), (125, 12865), (129, 12880), (130, 12883), (134, 12907), (136, 12922), (139, 12949), (140, 12952), (147, 13009), (152, 13042), (155, 13078), (159, 13105), (169, 13147), (172, 13162), (173, 13165), (177, 13189), (181, 13201), (183, 13210), (185, 13216), (195, 13258), (203, 13294), (214, 13339), (218, 13351), (219, 13360), (221, 13372), (222, 13381),

Gene: PAS50_16 Start: 12247, Stop: 13404, Start Num: 9

Candidate Starts for PAS50_16:

(Start: 7 @12244 has 9 MA's), (Start: 9 @12247 has 133 MA's), (15, 12274), (18, 12298), (22, 12325), (24, 12331), (26, 12337), (29, 12352), (33, 12367), (34, 12370), (35, 12373), (40, 12403), (51, 12466), (54, 12484), (55, 12508), (62, 12541), (63, 12550), (64, 12553), (65, 12556), (66, 12565), (69, 12583), (72, 12592), (84, 12658), (85, 12661), (94, 12700), (102, 12757), (106, 12772), (107, 12775), (108, 12781), (109, 12784), (111, 12799), (113, 12811), (117, 12829), (121, 12850), (125, 12874), (129, 12889), (130, 12892), (134, 12916), (136, 12931), (139, 12958), (140, 12961), (152, 13051), (155, 13087), (159, 13114), (169, 13156), (172, 13171), (173, 13174), (177, 13198), (181, 13210), (183, 13219), (185, 13225), (195, 13267), (203, 13303), (212, 13345), (214, 13348), (219, 13369), (221, 13381), (222, 13390),

Gene: PHL010M04_16 Start: 12238, Stop: 13398, Start Num: 7

Candidate Starts for PHL010M04_16:

(Start: 7 @12238 has 9 MA's), (Start: 9 @12241 has 133 MA's), (15, 12268), (18, 12292), (24, 12325), (26, 12331), (29, 12346), (33, 12361), (34, 12364), (35, 12367), (40, 12397), (51, 12460), (53, 12469), (54, 12478), (55, 12502), (62, 12535), (63, 12544), (64, 12547), (65, 12550), (66, 12559), (69, 12577), (70, 12580), (84, 12652), (85, 12655), (94, 12694), (100, 12739), (102, 12751), (106, 12766), (107, 12769), (108, 12775), (109, 12778), (111, 12793), (113, 12805), (118, 12826), (122, 12847), (124, 12859), (125, 12868), (129, 12883), (130, 12886), (134, 12910), (136, 12925), (139, 12952), (147, 13012), (152, 13045), (155, 13081), (159, 13108), (160, 13111), (169, 13150), (172, 13165), (173, 13168), (177, 13192), (181, 13204), (183, 13213), (185, 13219), (195, 13261), (203, 13297), (214, 13342), (218, 13354), (219, 13363), (221, 13375), (222, 13384),

Gene: PHL037M02_16 Start: 12249, Stop: 13406, Start Num: 9

Candidate Starts for PHL037M02_16:

(Start: 9 @12249 has 133 MA's), (15, 12276), (18, 12300), (24, 12333), (26, 12339), (29, 12354), (33, 12369), (34, 12372), (35, 12375), (40, 12405), (51, 12468), (53, 12477), (55, 12510), (62, 12543), (63,

12552), (64, 12555), (65, 12558), (69, 12585), (70, 12588), (84, 12660), (85, 12663), (92, 12696), (94, 12702), (100, 12747), (102, 12759), (106, 12774), (107, 12777), (111, 12801), (113, 12813), (122, 12855), (125, 12876), (129, 12891), (130, 12894), (134, 12918), (136, 12933), (139, 12960), (147, 13020), (152, 13053), (155, 13089), (159, 13116), (160, 13119), (169, 13158), (172, 13173), (173, 13176), (177, 13200), (181, 13212), (183, 13221), (185, 13227), (195, 13269), (203, 13305), (212, 13347), (214, 13350), (218, 13362), (219, 13371), (221, 13383), (222, 13392),

Gene: PHL060L00_16 Start: 12254, Stop: 13414, Start Num: 7

Candidate Starts for PHL060L00_16:

(Start: 7 @12254 has 9 MA's), (Start: 9 @12257 has 133 MA's), (15, 12284), (18, 12308), (22, 12335), (24, 12341), (26, 12347), (29, 12362), (31, 12371), (33, 12377), (34, 12380), (35, 12383), (39, 12410), (40, 12413), (51, 12476), (54, 12494), (55, 12518), (62, 12551), (63, 12560), (64, 12563), (65, 12566), (66, 12575), (69, 12593), (72, 12602), (84, 12668), (85, 12671), (92, 12704), (94, 12710), (100, 12755), (102, 12767), (107, 12785), (108, 12791), (109, 12794), (111, 12809), (113, 12821), (121, 12860), (122, 12863), (124, 12875), (125, 12884), (129, 12899), (130, 12902), (134, 12926), (136, 12941), (139, 12968), (140, 12971), (147, 13028), (152, 13061), (155, 13097), (159, 13124), (160, 13127), (161, 13136), (169, 13166), (172, 13181), (173, 13184), (177, 13208), (181, 13220), (183, 13229), (195, 13277), (203, 13313), (212, 13355), (214, 13358), (218, 13370), (219, 13379), (221, 13391), (222, 13400),

Gene: PHL067M10_16 Start: 12215, Stop: 13375, Start Num: 7

Candidate Starts for PHL067M10_16:

(Start: 7 @12215 has 9 MA's), (Start: 9 @12218 has 133 MA's), (15, 12245), (18, 12269), (22, 12296), (26, 12308), (29, 12323), (33, 12338), (34, 12341), (35, 12344), (40, 12374), (51, 12437), (54, 12455), (55, 12479), (62, 12512), (63, 12521), (64, 12524), (65, 12527), (66, 12536), (69, 12554), (70, 12557), (72, 12563), (84, 12629), (85, 12632), (92, 12665), (94, 12671), (102, 12728), (106, 12743), (107, 12746), (108, 12752), (109, 12755), (111, 12770), (113, 12782), (121, 12821), (124, 12836), (125, 12845), (129, 12860), (130, 12863), (134, 12887), (136, 12902), (139, 12929), (140, 12932), (152, 13022), (155, 13058), (159, 13085), (160, 13088), (169, 13127), (172, 13142), (173, 13145), (177, 13169), (181, 13181), (183, 13190), (185, 13196), (195, 13238), (203, 13274), (212, 13316), (214, 13319), (218, 13331), (219, 13340), (221, 13352), (222, 13361),

Gene: PHL071N05_16 Start: 12243, Stop: 13403, Start Num: 7

Candidate Starts for PHL071N05_16:

(Start: 7 @12243 has 9 MA's), (Start: 9 @12246 has 133 MA's), (15, 12273), (18, 12297), (22, 12324), (24, 12330), (26, 12336), (29, 12351), (33, 12366), (34, 12369), (35, 12372), (40, 12402), (51, 12465), (54, 12483), (55, 12507), (62, 12540), (63, 12549), (64, 12552), (65, 12555), (66, 12564), (69, 12582), (70, 12585), (81, 12645), (84, 12657), (85, 12660), (92, 12693), (94, 12699), (100, 12744), (102, 12756), (107, 12774), (108, 12780), (109, 12783), (111, 12798), (113, 12810), (117, 12828), (118, 12831), (121, 12849), (122, 12852), (124, 12864), (125, 12873), (129, 12888), (130, 12891), (134, 12915), (136, 12930), (139, 12957), (140, 12960), (147, 13017), (152, 13050), (155, 13086), (159, 13113), (160, 13116), (169, 13155), (172, 13170), (173, 13173), (177, 13197), (181, 13209), (183, 13218), (185, 13224), (195, 13266), (203, 13302), (212, 13344), (214, 13347), (218, 13359), (219, 13368), (221, 13380), (222, 13389),

Gene: PHL111M01_16 Start: 12241, Stop: 13398, Start Num: 8

Candidate Starts for PHL111M01_16:

(8, 12241), (15, 12268), (18, 12292), (22, 12319), (24, 12325), (26, 12331), (29, 12346), (31, 12355), (33, 12361), (34, 12364), (35, 12367), (40, 12397), (51, 12460), (54, 12478), (55, 12502), (62, 12535), (63, 12544), (64, 12547), (65, 12550), (66, 12559), (69, 12577), (72, 12586), (84, 12652), (85, 12655), (92, 12688), (94, 12694), (100, 12739), (102, 12751), (106, 12766), (107, 12769), (108, 12775), (109, 12778), (111, 12793), (113, 12805), (117, 12823), (121, 12844), (124, 12859), (125, 12868), (129, 12883), (130, 12886), (134, 12910), (136, 12925), (139, 12952), (141, 12958), (147, 13012), (152,

13045), (155, 13081), (159, 13108), (160, 13111), (169, 13150), (172, 13165), (173, 13168), (177, 13192), (181, 13204), (183, 13213), (185, 13219), (190, 13246), (195, 13261), (203, 13297), (214, 13342), (218, 13354), (219, 13363), (221, 13375), (222, 13384),

Gene: PHL112N00_16 Start: 12236, Stop: 13396, Start Num: 7

Candidate Starts for PHL112N00_16:

(Start: 7 @12236 has 9 MA's), (Start: 9 @12239 has 133 MA's), (15, 12266), (18, 12290), (22, 12317), (24, 12323), (26, 12329), (29, 12344), (33, 12359), (34, 12362), (35, 12365), (37, 12386), (40, 12395), (51, 12458), (54, 12476), (55, 12500), (62, 12533), (63, 12542), (64, 12545), (65, 12548), (66, 12557), (69, 12575), (70, 12578), (72, 12584), (81, 12638), (84, 12650), (85, 12653), (92, 12686), (94, 12692), (100, 12737), (102, 12749), (106, 12764), (107, 12767), (108, 12773), (109, 12776), (111, 12791), (113, 12803), (118, 12824), (121, 12842), (122, 12845), (124, 12857), (125, 12866), (129, 12881), (130, 12884), (134, 12908), (136, 12923), (139, 12950), (140, 12953), (147, 13010), (152, 13043), (155, 13079), (159, 13106), (169, 13148), (172, 13163), (173, 13166), (177, 13190), (181, 13202), (183, 13211), (185, 13217), (190, 13244), (195, 13259), (203, 13295), (214, 13340), (218, 13352), (219, 13361), (221, 13373), (222, 13382),

Gene: PHL113M01_16 Start: 12257, Stop: 13417, Start Num: 7

Candidate Starts for PHL113M01_16:

(Start: 7 @12257 has 9 MA's), (Start: 9 @12260 has 133 MA's), (15, 12287), (18, 12311), (22, 12338), (24, 12344), (26, 12350), (29, 12365), (33, 12380), (34, 12383), (35, 12386), (40, 12416), (51, 12479), (53, 12488), (54, 12497), (55, 12521), (62, 12554), (63, 12563), (65, 12569), (66, 12578), (69, 12596), (72, 12605), (84, 12671), (85, 12674), (92, 12707), (94, 12713), (100, 12758), (102, 12770), (106, 12785), (107, 12788), (108, 12794), (109, 12797), (111, 12812), (113, 12824), (121, 12863), (124, 12878), (125, 12887), (129, 12902), (130, 12905), (134, 12929), (136, 12944), (139, 12971), (140, 12974), (147, 13031), (152, 13064), (155, 13100), (159, 13127), (169, 13169), (172, 13184), (173, 13187), (177, 13211), (181, 13223), (183, 13232), (185, 13238), (195, 13280), (203, 13316), (214, 13361), (218, 13373), (219, 13382), (221, 13394), (222, 13403),

Gene: PHL114L00_16 Start: 12241, Stop: 13401, Start Num: 7

Candidate Starts for PHL114L00_16:

(Start: 7 @12241 has 9 MA's), (Start: 9 @12244 has 133 MA's), (15, 12271), (18, 12295), (22, 12322), (24, 12328), (26, 12334), (29, 12349), (34, 12367), (40, 12400), (51, 12463), (53, 12472), (55, 12505), (62, 12538), (63, 12547), (65, 12553), (66, 12562), (70, 12583), (84, 12655), (85, 12658), (92, 12691), (94, 12697), (95, 12700), (100, 12742), (102, 12754), (106, 12769), (107, 12772), (108, 12778), (109, 12781), (111, 12796), (113, 12808), (122, 12850), (124, 12862), (129, 12886), (130, 12889), (134, 12913), (136, 12928), (139, 12955), (141, 12961), (147, 13015), (152, 13048), (155, 13084), (159, 13111), (160, 13114), (169, 13153), (172, 13168), (173, 13171), (177, 13195), (183, 13216), (185, 13222), (195, 13264), (203, 13300), (212, 13342), (219, 13366), (221, 13378), (222, 13387),

Gene: Pablito_20 Start: 15663, Stop: 16874, Start Num: 9

Candidate Starts for Pablito_20:

(Start: 9 @15663 has 133 MA's), (30, 15771), (33, 15786), (50, 15873), (51, 15885), (52, 15888), (59, 15948), (80, 16062), (83, 16077), (102, 16185), (110, 16218), (131, 16314), (135, 16344), (141, 16380), (142, 16398), (143, 16401), (144, 16422), (160, 16539), (171, 16584), (174, 16599), (184, 16644), (193, 16674), (214, 16764), (218, 16776), (232, 16848), (233, 16851), (235, 16860), (236, 16866),

Gene: Paedore_20 Start: 15822, Stop: 17033, Start Num: 9

Candidate Starts for Paedore_20:

(Start: 9 @15822 has 133 MA's), (30, 15930), (50, 16032), (51, 16044), (52, 16047), (59, 16107), (80, 16221), (83, 16236), (102, 16344), (110, 16377), (114, 16401), (131, 16473), (135, 16503), (142, 16557), (143, 16560), (144, 16581), (160, 16698), (171, 16743), (174, 16758), (195, 16842), (196,

16845), (197, 16848), (205, 16884), (214, 16923), (218, 16935), (225, 16974), (232, 17007), (233, 17010), (235, 17019), (236, 17025),

Gene: Paolo_24 Start: 16220, Stop: 17431, Start Num: 9

Candidate Starts for Paolo_24:

(Start: 9 @16220 has 133 MA's), (22, 16301), (50, 16430), (51, 16442), (59, 16505), (80, 16619), (83, 16634), (102, 16742), (110, 16775), (114, 16799), (131, 16871), (141, 16937), (142, 16955), (143, 16958), (144, 16979), (160, 17096), (171, 17141), (174, 17156), (195, 17240), (197, 17246), (214, 17321), (218, 17333), (233, 17408), (235, 17417), (236, 17423),

Gene: Phettuccine_20 Start: 15854, Stop: 17068, Start Num: 9

Candidate Starts for Phettuccine_20:

(Start: 9 @15854 has 133 MA's), (15, 15881), (50, 16064), (56, 16127), (75, 16226), (80, 16253), (94, 16322), (98, 16352), (124, 16472), (141, 16571), (170, 16769), (171, 16775), (179, 16814), (185, 16838), (193, 16865), (195, 16874), (202, 16907), (218, 16967), (222, 16997), (233, 17045), (235, 17054), (236, 17060),

Gene: Pirate_16 Start: 12235, Stop: 13392, Start Num: 9

Candidate Starts for Pirate_16:

(Start: 9 @12235 has 133 MA's), (15, 12262), (18, 12286), (24, 12319), (26, 12325), (29, 12340), (33, 12355), (34, 12358), (35, 12361), (40, 12391), (51, 12454), (53, 12463), (55, 12496), (62, 12529), (63, 12538), (64, 12541), (65, 12544), (66, 12553), (69, 12571), (70, 12574), (81, 12634), (84, 12646), (85, 12649), (94, 12688), (95, 12691), (100, 12733), (102, 12745), (106, 12760), (107, 12763), (108, 12769), (109, 12772), (111, 12787), (113, 12799), (118, 12820), (122, 12841), (124, 12853), (125, 12862), (129, 12877), (130, 12880), (134, 12904), (136, 12919), (139, 12946), (147, 13006), (152, 13039), (155, 13075), (159, 13102), (169, 13144), (172, 13159), (173, 13162), (177, 13186), (181, 13198), (185, 13213), (195, 13255), (203, 13291), (212, 13333), (214, 13336), (219, 13357), (221, 13369), (222, 13378),

Gene: Pitbull_19 Start: 13184, Stop: 14632, Start Num: 6

Candidate Starts for Pitbull_19:

(5, 13172), (Start: 6 @13184 has 1 MA's), (13, 13199), (15, 13214), (23, 13268), (29, 13292), (31, 13301), (32, 13307), (35, 13313), (36, 13319), (37, 13334), (41, 13346), (45, 13370), (57, 13454), (61, 13478), (80, 13577), (86, 13604), (90, 13619), (99, 13676), (105, 13706), (109, 13721), (121, 13775), (123, 13781), (133, 13832), (135, 13847), (140, 13880), (149, 13946), (150, 13958), (160, 14045), (163, 14066), (170, 14087), (191, 14186), (204, 14240), (213, 14279), (223, 14324), (238, 14450), (239, 14483), (240, 14531),

Gene: Procrass1_16 Start: 12243, Stop: 13400, Start Num: 9

Candidate Starts for Procrass1_16:

(Start: 7 @12240 has 9 MA's), (Start: 9 @12243 has 133 MA's), (15, 12270), (18, 12294), (22, 12321), (24, 12327), (26, 12333), (29, 12348), (31, 12357), (33, 12363), (34, 12366), (35, 12369), (40, 12399), (51, 12462), (53, 12471), (55, 12504), (62, 12537), (63, 12546), (65, 12552), (66, 12561), (69, 12579), (70, 12582), (72, 12588), (81, 12642), (84, 12654), (85, 12657), (92, 12690), (94, 12696), (102, 12753), (106, 12768), (107, 12771), (108, 12777), (109, 12780), (111, 12795), (113, 12807), (121, 12846), (124, 12861), (125, 12870), (129, 12885), (130, 12888), (134, 12912), (136, 12927), (139, 12954), (140, 12957), (147, 13014), (152, 13047), (155, 13083), (159, 13110), (160, 13113), (161, 13122), (169, 13152), (172, 13167), (173, 13170), (177, 13194), (183, 13215), (185, 13221), (195, 13263), (203, 13299), (212, 13341), (218, 13356), (219, 13365), (221, 13377), (222, 13386),

Gene: Provolone_21 Start: 16263, Stop: 17480, Start Num: 9

Candidate Starts for Provolone_21:

(Start: 9 @16263 has 133 MA's), (15, 16290), (21, 16341), (50, 16473), (63, 16575), (94, 16731), (98, 16761), (102, 16785), (110, 16818), (114, 16842), (132, 16917), (141, 16980), (144, 17022), (166, 17169), (171, 17184), (174, 17199), (184, 17244), (189, 17265), (195, 17283), (218, 17376), (222, 17406), (235, 17466), (236, 17472),

Gene: Puginator_24 Start: 16265, Stop: 17476, Start Num: 9

Candidate Starts for Puginator_24:

(Start: 9 @16265 has 133 MA's), (50, 16475), (51, 16487), (59, 16550), (80, 16664), (83, 16679), (102, 16787), (110, 16820), (114, 16844), (131, 16916), (141, 16982), (142, 17000), (143, 17003), (144, 17024), (160, 17141), (171, 17186), (174, 17201), (214, 17366), (218, 17378), (233, 17453), (235, 17462), (236, 17468),

Gene: QueenBey_16 Start: 12243, Stop: 13400, Start Num: 9

Candidate Starts for QueenBey_16:

(Start: 7 @12240 has 9 MA's), (Start: 9 @12243 has 133 MA's), (15, 12270), (18, 12294), (24, 12327), (26, 12333), (29, 12348), (33, 12363), (34, 12366), (35, 12369), (40, 12399), (51, 12462), (53, 12471), (54, 12480), (55, 12504), (62, 12537), (63, 12546), (64, 12549), (65, 12552), (66, 12561), (69, 12579), (70, 12582), (81, 12642), (84, 12654), (85, 12657), (94, 12696), (95, 12699), (100, 12741), (102, 12753), (107, 12771), (108, 12777), (109, 12780), (111, 12795), (113, 12807), (118, 12828), (122, 12849), (124, 12861), (125, 12870), (129, 12885), (130, 12888), (134, 12912), (136, 12927), (139, 12954), (147, 13014), (152, 13047), (155, 13083), (159, 13110), (160, 13113), (169, 13152), (172, 13167), (173, 13170), (177, 13194), (183, 13215), (185, 13221), (195, 13263), (203, 13299), (212, 13341), (214, 13344), (218, 13356), (219, 13365), (221, 13377), (222, 13386),

Gene: R4_20 Start: 15904, Stop: 17115, Start Num: 9

Candidate Starts for R4_20:

(Start: 9 @15904 has 133 MA's), (30, 16012), (50, 16114), (51, 16126), (52, 16129), (59, 16189), (80, 16303), (83, 16318), (102, 16426), (110, 16459), (114, 16483), (131, 16555), (135, 16585), (142, 16639), (143, 16642), (144, 16663), (160, 16780), (171, 16825), (174, 16840), (195, 16924), (196, 16927), (197, 16930), (205, 16966), (214, 17005), (218, 17017), (225, 17056), (233, 17092), (235, 17101), (236, 17107),

Gene: Rana_20 Start: 15829, Stop: 17040, Start Num: 9

Candidate Starts for Rana_20:

(Start: 9 @15829 has 133 MA's), (15, 15856), (43, 16009), (50, 16039), (56, 16102), (75, 16201), (80, 16228), (94, 16297), (102, 16351), (103, 16354), (105, 16363), (114, 16408), (131, 16480), (132, 16483), (141, 16546), (143, 16567), (152, 16642), (158, 16696), (170, 16744), (171, 16750), (178, 16786), (179, 16789), (183, 16807), (195, 16849), (234, 17023), (235, 17026), (236, 17032),

Gene: Raqqa_19 Start: 15720, Stop: 16826, Start Num: 9

Candidate Starts for Raqqa_19:

(Start: 6 @15714 has 1 MA's), (Start: 9 @15720 has 133 MA's), (16, 15750), (22, 15798), (26, 15810), (28, 15822), (50, 15927), (55, 15978), (62, 16011), (80, 16104), (82, 16116), (98, 16185), (112, 16257), (156, 16521), (180, 16632), (220, 16791),

Gene: RedBear_22 Start: 16096, Stop: 17307, Start Num: 9

Candidate Starts for RedBear_22:

(Start: 9 @16096 has 133 MA's), (15, 16123), (43, 16276), (50, 16306), (56, 16369), (75, 16468), (80, 16495), (94, 16564), (114, 16675), (131, 16747), (132, 16750), (135, 16777), (141, 16813), (143, 16834), (171, 17017), (178, 17053), (179, 17056), (183, 17074), (195, 17116), (218, 17209), (235, 17293), (236, 17299),

Gene: Rileysaurus_16 Start: 12238, Stop: 13395, Start Num: 9

Candidate Starts for Rileysaurus_16:

(Start: 9 @12238 has 133 MA's), (15, 12265), (18, 12289), (24, 12322), (26, 12328), (29, 12343), (33, 12358), (34, 12361), (35, 12364), (40, 12394), (51, 12457), (53, 12466), (55, 12499), (62, 12532), (63, 12541), (64, 12544), (65, 12547), (66, 12556), (69, 12574), (70, 12577), (81, 12637), (84, 12649), (85, 12652), (92, 12685), (94, 12691), (95, 12694), (100, 12736), (102, 12748), (107, 12766), (108, 12772), (109, 12775), (111, 12790), (113, 12802), (121, 12841), (122, 12844), (124, 12856), (125, 12865), (129, 12880), (130, 12883), (134, 12907), (136, 12922), (139, 12949), (147, 13009), (152, 13042), (155, 13078), (159, 13105), (160, 13108), (169, 13147), (172, 13162), (173, 13165), (177, 13189), (181, 13201), (185, 13216), (190, 13243), (195, 13258), (203, 13294), (214, 13339), (219, 13360), (221, 13372), (222, 13381),

Gene: RootBeer_17 Start: 14184, Stop: 15296, Start Num: 9

Candidate Starts for RootBeer_17:

(Start: 9 @14184 has 133 MA's), (18, 14223), (35, 14298), (45, 14355), (50, 14379), (55, 14433), (80, 14562), (82, 14574), (92, 14610), (101, 14664), (112, 14718), (198, 15165),

Gene: Rusticus_21 Start: 16017, Stop: 17219, Start Num: 9

Candidate Starts for Rusticus_21:

(Start: 9 @16017 has 133 MA's), (15, 16044), (50, 16227), (56, 16290), (75, 16389), (80, 16416), (94, 16485), (98, 16515), (170, 16932), (171, 16938), (179, 16977), (184, 16998), (193, 17028), (195, 17037), (202, 17070), (221, 17151), (232, 17193), (233, 17196), (235, 17205), (236, 17211),

Gene: SKKY_16 Start: 12278, Stop: 13435, Start Num: 9

Candidate Starts for SKKY_16:

(Start: 7 @12275 has 9 MA's), (Start: 9 @12278 has 133 MA's), (15, 12305), (18, 12329), (22, 12356), (26, 12368), (29, 12383), (31, 12392), (33, 12398), (34, 12401), (35, 12404), (40, 12434), (51, 12497), (54, 12515), (55, 12539), (62, 12572), (63, 12581), (65, 12587), (66, 12596), (72, 12623), (85, 12692), (94, 12731), (95, 12734), (102, 12788), (106, 12803), (107, 12806), (108, 12812), (109, 12815), (111, 12830), (113, 12842), (117, 12860), (124, 12896), (125, 12905), (129, 12920), (130, 12923), (134, 12947), (136, 12962), (139, 12989), (141, 12995), (147, 13049), (152, 13082), (155, 13118), (159, 13145), (160, 13148), (169, 13187), (172, 13202), (173, 13205), (177, 13229), (183, 13250), (185, 13256), (195, 13298), (203, 13334), (214, 13379), (218, 13391), (219, 13400), (221, 13412), (222, 13421),

Gene: Saftant_20 Start: 16811, Stop: 18028, Start Num: 9

Candidate Starts for Saftant_20:

(Start: 9 @16811 has 133 MA's), (20, 16886), (21, 16889), (50, 17021), (94, 17279), (98, 17309), (102, 17333), (110, 17366), (114, 17390), (135, 17492), (141, 17528), (171, 17732), (174, 17747), (184, 17792), (193, 17822), (195, 17831), (221, 17945), (222, 17954), (235, 18014), (236, 18020),

Gene: SarahRose_20 Start: 15827, Stop: 17038, Start Num: 9

Candidate Starts for SarahRose_20:

(Start: 9 @15827 has 133 MA's), (50, 16037), (51, 16049), (52, 16052), (56, 16100), (75, 16199), (80, 16226), (94, 16295), (102, 16349), (114, 16406), (132, 16481), (135, 16508), (139, 16538), (142, 16562), (149, 16616), (158, 16694), (171, 16748), (183, 16805), (193, 16838), (195, 16847), (202, 16880), (205, 16889), (218, 16940), (235, 17024), (236, 17030),

Gene: Sarge_18 Start: 13985, Stop: 15109, Start Num: 7

Candidate Starts for Sarge_18:

(Start: 7 @13985 has 9 MA's), (Start: 10 @13991 has 1 MA's), (44, 14165), (50, 14198), (53, 14219), (67, 14309), (80, 14381), (81, 14390), (82, 14393), (101, 14489), (109, 14522), (167, 14867), (183, 14924), (187, 14945), (217, 15056), (224, 15095), (227, 15101),

Gene: Shoya_17 Start: 13621, Stop: 14745, Start Num: 7

Candidate Starts for Shoya_17:

(Start: 7 @13621 has 9 MA's), (Start: 10 @13627 has 1 MA's), (14, 13636), (44, 13801), (50, 13834), (53, 13855), (67, 13945), (80, 14017), (81, 14026), (94, 14071), (99, 14113), (101, 14125), (109, 14158), (183, 14560), (193, 14596), (217, 14692), (224, 14731), (227, 14737),

Gene: Snorlax_20 Start: 15830, Stop: 17041, Start Num: 9

Candidate Starts for Snorlax_20:

(Start: 9 @15830 has 133 MA's), (50, 16040), (51, 16052), (52, 16055), (56, 16103), (75, 16202), (80, 16229), (94, 16298), (102, 16352), (114, 16409), (132, 16484), (135, 16511), (139, 16541), (142, 16565), (149, 16619), (158, 16697), (171, 16751), (179, 16790), (183, 16808), (193, 16841), (195, 16850), (202, 16883), (205, 16892), (218, 16943), (235, 17027), (236, 17033),

Gene: Solid_16 Start: 12232, Stop: 13389, Start Num: 9

Candidate Starts for Solid_16:

(Start: 7 @12229 has 9 MA's), (Start: 9 @12232 has 133 MA's), (15, 12259), (18, 12283), (22, 12310), (24, 12316), (26, 12322), (29, 12337), (33, 12352), (34, 12355), (35, 12358), (40, 12388), (51, 12451), (55, 12493), (62, 12526), (63, 12535), (64, 12538), (65, 12541), (66, 12550), (69, 12568), (72, 12577), (81, 12631), (84, 12643), (85, 12646), (92, 12679), (94, 12685), (100, 12730), (102, 12742), (106, 12757), (107, 12760), (108, 12766), (109, 12769), (111, 12784), (113, 12796), (121, 12835), (122, 12838), (124, 12850), (125, 12859), (129, 12874), (130, 12877), (134, 12901), (136, 12916), (139, 12943), (140, 12946), (147, 13003), (152, 13036), (155, 13072), (159, 13099), (172, 13156), (173, 13159), (177, 13183), (183, 13204), (185, 13210), (190, 13237), (195, 13252), (203, 13288), (214, 13333), (218, 13345), (219, 13354), (221, 13366), (222, 13375),

Gene: South40_21 Start: 16096, Stop: 17307, Start Num: 9

Candidate Starts for South40_21:

(Start: 9 @16096 has 133 MA's), (15, 16123), (43, 16276), (50, 16306), (56, 16369), (75, 16468), (80, 16495), (94, 16564), (114, 16675), (131, 16747), (132, 16750), (135, 16777), (141, 16813), (143, 16834), (171, 17017), (178, 17053), (179, 17056), (183, 17074), (195, 17116), (218, 17209), (235, 17293), (236, 17299),

Gene: SqueakyClean_21 Start: 15829, Stop: 17040, Start Num: 9

Candidate Starts for SqueakyClean_21:

(Start: 9 @15829 has 133 MA's), (50, 16039), (51, 16051), (52, 16054), (59, 16114), (60, 16126), (80, 16228), (83, 16243), (93, 16294), (131, 16480), (141, 16546), (143, 16567), (160, 16705), (171, 16750), (174, 16765), (184, 16810), (185, 16813), (193, 16840), (195, 16849), (218, 16942), (235, 17026), (236, 17032),

Gene: Stormborn_16 Start: 12254, Stop: 13411, Start Num: 9

Candidate Starts for Stormborn_16:

(Start: 7 @12251 has 9 MA's), (Start: 9 @12254 has 133 MA's), (15, 12281), (18, 12305), (22, 12332), (24, 12338), (26, 12344), (29, 12359), (33, 12374), (34, 12377), (35, 12380), (40, 12410), (51, 12473), (53, 12482), (55, 12515), (62, 12548), (63, 12557), (64, 12560), (65, 12563), (66, 12572), (69, 12590), (84, 12665), (85, 12668), (92, 12701), (94, 12707), (100, 12752), (102, 12764), (106, 12779), (107, 12782), (111, 12806), (113, 12818), (122, 12860), (125, 12881), (129, 12896), (130, 12899), (134, 12923), (136, 12938), (139, 12965), (147, 13025), (152, 13058), (155, 13094), (159, 13121), (160, 13124), (169, 13163), (172, 13178), (173, 13181), (177, 13205), (181, 13217), (183, 13226), (185, 13232), (195, 13274), (203, 13310), (212, 13352), (219, 13376), (221, 13388), (222, 13397),

Gene: Success_63 Start: 39166, Stop: 40425, Start Num: 12

Candidate Starts for Success_63:

(Start: 12 @39166 has 3 MA's), (15, 39184), (17, 39199), (18, 39208), (51, 39379), (88, 39610), (91, 39625), (92, 39634), (128, 39841), (138, 39904), (150, 39994), (156, 40045), (161, 40081), (171, 40117), (200, 40234), (201, 40246), (209, 40273), (211, 40294), (218, 40312), (230, 40387), (237, 40420),

Gene: Sujidade_21 Start: 16135, Stop: 17346, Start Num: 9

Candidate Starts for Sujidade_21:

(Start: 9 @16135 has 133 MA's), (15, 16162), (50, 16345), (51, 16357), (52, 16360), (56, 16408), (75, 16507), (80, 16534), (94, 16603), (102, 16657), (114, 16714), (132, 16789), (139, 16846), (143, 16873), (171, 17056), (179, 17095), (192, 17143), (193, 17146), (195, 17155), (202, 17188), (235, 17332), (236, 17338),

Gene: SunsetPointe_20 Start: 15844, Stop: 17058, Start Num: 9

Candidate Starts for SunsetPointe_20:

(Start: 9 @15844 has 133 MA's), (15, 15871), (50, 16054), (56, 16117), (75, 16216), (80, 16243), (94, 16312), (98, 16342), (124, 16462), (141, 16561), (170, 16759), (171, 16765), (179, 16804), (185, 16828), (193, 16855), (195, 16864), (202, 16897), (218, 16957), (222, 16987), (233, 17035), (235, 17044), (236, 17050),

Gene: Supernova_16 Start: 12250, Stop: 13407, Start Num: 9

Candidate Starts for Supernova_16:

(Start: 7 @12247 has 9 MA's), (Start: 9 @12250 has 133 MA's), (15, 12277), (18, 12301), (22, 12328), (24, 12334), (26, 12340), (29, 12355), (31, 12364), (33, 12370), (34, 12373), (35, 12376), (40, 12406), (51, 12469), (55, 12511), (62, 12544), (63, 12553), (65, 12559), (66, 12568), (72, 12595), (85, 12664), (94, 12703), (95, 12706), (102, 12760), (106, 12775), (107, 12778), (108, 12784), (109, 12787), (111, 12802), (113, 12814), (117, 12832), (124, 12868), (125, 12877), (129, 12892), (130, 12895), (134, 12919), (136, 12934), (139, 12961), (141, 12967), (147, 13021), (152, 13054), (155, 13090), (159, 13117), (160, 13120), (169, 13159), (172, 13174), (177, 13201), (181, 13213), (183, 13222), (185, 13228), (190, 13255), (195, 13270), (203, 13306), (214, 13351), (218, 13363), (219, 13372), (221, 13384), (222, 13393),

Gene: Superstar_23 Start: 17541, Stop: 18755, Start Num: 9

Candidate Starts for Superstar_23:

(Start: 9 @17541 has 133 MA's), (15, 17568), (46, 17727), (51, 17763), (52, 17766), (59, 17826), (80, 17940), (94, 18009), (102, 18063), (114, 18120), (141, 18258), (171, 18462), (205, 18603), (218, 18654), (233, 18732), (235, 18741), (236, 18747),

Gene: TagePighther_21 Start: 15830, Stop: 17041, Start Num: 9

Candidate Starts for TagePighther_21:

(Start: 9 @15830 has 133 MA's), (50, 16040), (51, 16052), (52, 16055), (56, 16103), (75, 16202), (80, 16229), (94, 16298), (102, 16352), (114, 16409), (132, 16484), (135, 16511), (139, 16541), (142, 16565), (149, 16619), (158, 16697), (171, 16751), (179, 16790), (183, 16808), (193, 16841), (195, 16850), (202, 16883), (205, 16892), (218, 16943), (235, 17027), (236, 17033),

Gene: Tefunt_20 Start: 16338, Stop: 17552, Start Num: 9

Candidate Starts for Tefunt_20:

(Start: 9 @16338 has 133 MA's), (15, 16365), (30, 16446), (46, 16524), (48, 16542), (51, 16560), (52, 16563), (59, 16623), (80, 16737), (102, 16860), (114, 16917), (160, 17214), (171, 17259), (185, 17322), (218, 17451), (233, 17529), (235, 17538), (236, 17544),

Gene: Thestral_21 Start: 15797, Stop: 17008, Start Num: 9

Candidate Starts for Thestral_21:

(Start: 9 @15797 has 133 MA's), (50, 16007), (51, 16019), (52, 16022), (59, 16082), (80, 16196), (83, 16211), (93, 16262), (114, 16376), (131, 16448), (141, 16514), (143, 16535), (160, 16673), (171, 16718), (174, 16733), (189, 16799), (195, 16817), (205, 16859), (210, 16886), (218, 16910), (235, 16994), (236, 17000),

Gene: TinaBelcher_20 Start: 15745, Stop: 16956, Start Num: 9

Candidate Starts for TinaBelcher_20:

(Start: 9 @15745 has 133 MA's), (50, 15955), (51, 15967), (52, 15970), (59, 16030), (80, 16144), (83, 16159), (93, 16210), (102, 16267), (114, 16324), (131, 16396), (141, 16462), (143, 16483), (144, 16504), (160, 16621), (171, 16666), (174, 16681), (189, 16747), (195, 16765), (205, 16807), (210, 16834), (218, 16858), (235, 16942), (236, 16948),

Gene: Toma_20 Start: 15844, Stop: 17055, Start Num: 9

Candidate Starts for Toma_20:

(Start: 9 @15844 has 133 MA's), (15, 15871), (38, 15997), (43, 16024), (50, 16054), (56, 16117), (75, 16216), (80, 16243), (94, 16312), (102, 16366), (105, 16378), (114, 16423), (131, 16495), (132, 16498), (141, 16561), (143, 16582), (152, 16657), (170, 16759), (171, 16765), (178, 16801), (179, 16804), (183, 16822), (195, 16864), (234, 17038), (235, 17041), (236, 17047),

Gene: Triste_20 Start: 15821, Stop: 17032, Start Num: 9

Candidate Starts for Triste_20:

(Start: 9 @15821 has 133 MA's), (50, 16031), (51, 16043), (52, 16046), (56, 16094), (75, 16193), (80, 16220), (94, 16289), (102, 16343), (114, 16400), (132, 16475), (135, 16502), (139, 16532), (142, 16556), (149, 16610), (158, 16688), (171, 16742), (179, 16781), (183, 16799), (193, 16832), (195, 16841), (202, 16874), (205, 16883), (218, 16934), (235, 17018), (236, 17024),

Gene: Triumph_22 Start: 15746, Stop: 16957, Start Num: 9

Candidate Starts for Triumph_22:

(Start: 9 @15746 has 133 MA's), (39, 15902), (50, 15956), (51, 15968), (52, 15971), (59, 16031), (80, 16145), (83, 16160), (93, 16211), (114, 16325), (128, 16385), (131, 16397), (141, 16463), (143, 16484), (160, 16622), (168, 16658), (171, 16667), (174, 16682), (184, 16727), (185, 16730), (193, 16757), (195, 16766), (218, 16859), (228, 16907), (233, 16934), (235, 16943), (236, 16949),

Gene: TrvxScott_19 Start: 15747, Stop: 16958, Start Num: 9

Candidate Starts for TrvxScott_19:

(Start: 9 @15747 has 133 MA's), (50, 15957), (51, 15969), (52, 15972), (59, 16032), (80, 16146), (83, 16161), (93, 16212), (102, 16269), (114, 16326), (131, 16398), (141, 16464), (143, 16485), (160, 16623), (171, 16668), (174, 16683), (189, 16749), (195, 16767), (205, 16809), (210, 16836), (218, 16860), (235, 16944), (236, 16950),

Gene: TuanPN_20 Start: 15827, Stop: 17038, Start Num: 9

Candidate Starts for TuanPN_20:

(Start: 9 @15827 has 133 MA's), (15, 15854), (50, 16037), (51, 16049), (52, 16052), (75, 16199), (80, 16226), (102, 16349), (114, 16406), (132, 16481), (135, 16508), (139, 16538), (143, 16565), (149, 16616), (171, 16748), (179, 16787), (183, 16805), (192, 16835), (193, 16838), (195, 16847), (202, 16880), (205, 16889), (218, 16940), (229, 17000), (235, 17024), (236, 17030),

Gene: Unstoppable_20 Start: 15845, Stop: 17059, Start Num: 9

Candidate Starts for Unstoppable_20:

(Start: 9 @15845 has 133 MA's), (15, 15872), (50, 16055), (56, 16118), (75, 16217), (80, 16244), (94, 16313), (98, 16343), (124, 16463), (141, 16562), (170, 16760), (171, 16766), (179, 16805), (185, 16829), (193, 16856), (195, 16865), (202, 16898), (218, 16958), (222, 16988), (233, 17036), (235, 17045), (236, 17051),

Gene: Urza_20 Start: 16212, Stop: 17432, Start Num: 9

Candidate Starts for Urza_20:

(Start: 9 @16212 has 133 MA's), (17, 16254), (24, 16299), (39, 16368), (48, 16416), (50, 16422), (79, 16608), (80, 16611), (85, 16635), (94, 16680), (102, 16734), (135, 16893), (141, 16929), (164, 17112), (174, 17148), (179, 17172), (183, 17190), (185, 17196), (195, 17232), (205, 17274), (231, 17400), (235, 17418), (236, 17424),

Gene: Vanseggelen_25 Start: 16195, Stop: 17409, Start Num: 9

Candidate Starts for Vanseggelen_25:

(Start: 9 @16195 has 133 MA's), (15, 16222), (21, 16273), (50, 16405), (55, 16465), (56, 16468), (75, 16567), (94, 16663), (96, 16675), (110, 16750), (114, 16774), (132, 16849), (135, 16876), (141, 16912), (171, 17116), (174, 17131), (183, 17173), (184, 17176), (195, 17215), (221, 17329), (235, 17395), (236, 17401),

Gene: Verabelle_21 Start: 16526, Stop: 17743, Start Num: 9

Candidate Starts for Verabelle_21:

(Start: 9 @16526 has 133 MA's), (15, 16553), (21, 16604), (43, 16706), (50, 16736), (55, 16796), (56, 16799), (63, 16838), (94, 16994), (98, 17024), (110, 17081), (113, 17102), (132, 17180), (135, 17207), (141, 17243), (171, 17447), (174, 17462), (195, 17546), (218, 17639), (221, 17660), (235, 17729), (236, 17735),

Gene: Verse_20 Start: 16825, Stop: 18042, Start Num: 9

Candidate Starts for Verse_20:

(Start: 9 @16825 has 133 MA's), (15, 16852), (21, 16903), (43, 17005), (50, 17035), (55, 17095), (63, 17137), (75, 17197), (94, 17293), (98, 17323), (110, 17380), (113, 17401), (132, 17479), (141, 17542), (171, 17746), (174, 17761), (189, 17827), (195, 17845), (218, 17938), (222, 17968), (235, 18028), (236, 18034),

Gene: VieEnRose_20 Start: 16278, Stop: 17498, Start Num: 9

Candidate Starts for VieEnRose_20:

(Start: 9 @16278 has 133 MA's), (17, 16320), (24, 16365), (39, 16434), (48, 16482), (50, 16488), (79, 16674), (80, 16677), (94, 16746), (102, 16800), (119, 16875), (135, 16959), (141, 16995), (146, 17055), (164, 17178), (174, 17214), (179, 17238), (183, 17256), (185, 17262), (195, 17298), (205, 17340), (221, 17412), (235, 17484), (236, 17490),

Gene: Werner_20 Start: 15831, Stop: 17042, Start Num: 9

Candidate Starts for Werner_20:

(Start: 9 @15831 has 133 MA's), (50, 16041), (51, 16053), (52, 16056), (56, 16104), (75, 16203), (80, 16230), (94, 16299), (102, 16353), (114, 16410), (132, 16485), (135, 16512), (139, 16542), (142, 16566), (149, 16620), (158, 16698), (171, 16752), (179, 16791), (183, 16809), (193, 16842), (195, 16851), (202, 16884), (205, 16893), (218, 16944), (235, 17028), (236, 17034),

Gene: Whatever_20 Start: 15831, Stop: 17042, Start Num: 9

Candidate Starts for Whatever_20:

(Start: 9 @15831 has 133 MA's), (50, 16041), (51, 16053), (52, 16056), (56, 16104), (75, 16203), (80, 16230), (94, 16299), (102, 16353), (114, 16410), (132, 16485), (135, 16512), (139, 16542), (142, 16566), (149, 16620), (158, 16698), (171, 16752), (179, 16791), (183, 16809), (193, 16842), (195, 16851), (202, 16884), (205, 16893), (218, 16944), (235, 17028), (236, 17034),

Gene: Wizzo_16 Start: 12265, Stop: 13422, Start Num: 9

Candidate Starts for Wizzo_16:

(Start: 7 @12262 has 9 MA's), (Start: 9 @12265 has 133 MA's), (15, 12292), (18, 12316), (22, 12343), (24, 12349), (26, 12355), (29, 12370), (33, 12385), (34, 12388), (35, 12391), (40, 12421), (51, 12484), (54, 12502), (55, 12526), (58, 12535), (62, 12559), (63, 12568), (64, 12571), (65, 12574), (66, 12583), (69, 12601), (72, 12610), (81, 12664), (84, 12676), (85, 12679), (92, 12712), (94, 12718), (102, 12775), (106, 12790), (107, 12793), (108, 12799), (109, 12802), (111, 12817), (113, 12829), (121, 12868), (124, 12883), (125, 12892), (129, 12907), (130, 12910), (134, 12934), (136, 12949), (139, 12976), (140, 12979), (147, 13036), (152, 13069), (155, 13105), (159, 13132), (169, 13174), (172, 13189), (173, 13192), (177, 13216), (183, 13237), (185, 13243), (195, 13285), (203, 13321), (212, 13363), (218, 13378), (219, 13387), (221, 13399), (222, 13408),

Gene: Yasdni_20 Start: 15823, Stop: 17034, Start Num: 9

Candidate Starts for Yasdni_20:

(Start: 9 @15823 has 133 MA's), (15, 15850), (50, 16033), (51, 16045), (52, 16048), (75, 16195), (80, 16222), (102, 16345), (114, 16402), (132, 16477), (135, 16504), (139, 16534), (143, 16561), (149, 16612), (171, 16744), (179, 16783), (183, 16801), (192, 16831), (193, 16834), (195, 16843), (202, 16876), (205, 16885), (218, 16936), (229, 16996), (235, 17020), (236, 17026),

Gene: Yosif_21 Start: 16799, Stop: 17983, Start Num: 9

Candidate Starts for Yosif_21:

(Start: 9 @16799 has 133 MA's), (21, 16877), (22, 16880), (24, 16886), (48, 17003), (50, 17009), (55, 17069), (71, 17153), (74, 17168), (80, 17198), (102, 17321), (110, 17354), (135, 17480), (141, 17516), (158, 17642), (174, 17711), (179, 17735), (195, 17795), (235, 17969), (236, 17975),

Gene: Zainub_26 Start: 16178, Stop: 17389, Start Num: 9

Candidate Starts for Zainub_26:

(Start: 9 @16178 has 133 MA's), (22, 16259), (50, 16388), (51, 16400), (59, 16463), (80, 16577), (83, 16592), (102, 16700), (110, 16733), (114, 16757), (131, 16829), (141, 16895), (142, 16913), (143, 16916), (144, 16937), (160, 17054), (171, 17099), (174, 17114), (195, 17198), (197, 17204), (214, 17279), (218, 17291), (233, 17366), (235, 17375), (236, 17381),

Gene: Zemlya_21 Start: 15855, Stop: 17066, Start Num: 9

Candidate Starts for Zemlya_21:

(Start: 9 @15855 has 133 MA's), (15, 15882), (38, 16008), (40, 16014), (43, 16035), (50, 16065), (56, 16128), (75, 16227), (80, 16254), (94, 16323), (102, 16377), (105, 16389), (114, 16434), (131, 16506), (132, 16509), (141, 16572), (143, 16593), (152, 16668), (170, 16770), (171, 16776), (178, 16812), (179, 16815), (183, 16833), (195, 16875), (234, 17049), (235, 17052), (236, 17058),

Gene: Zucker_20 Start: 15353, Stop: 16471, Start Num: 11

Candidate Starts for Zucker_20:

(Start: 11 @15353 has 2 MA's), (27, 15440), (44, 15527), (47, 15536), (50, 15560), (51, 15572), (53, 15581), (80, 15743), (81, 15752), (82, 15755), (99, 15839), (101, 15851), (109, 15884), (120, 15935), (126, 15965), (140, 16043), (159, 16193), (167, 16229), (169, 16235), (187, 16307), (191, 16316), (227, 16463),

Gene: phiCAM_21 Start: 18698, Stop: 19705, Start Num: 50

Candidate Starts for phiCAM_21:

(Start: 9 @18488 has 133 MA's), (15, 18515), (21, 18566), (50, 18698), (55, 18758), (63, 18800), (94, 18956), (98, 18986), (110, 19043), (114, 19067), (132, 19142), (135, 19169), (141, 19205), (171, 19409), (174, 19424), (184, 19469), (195, 19508), (218, 19601), (222, 19631), (235, 19691), (236, 19697),

Gene: phiHau3_22 Start: 16517, Stop: 17728, Start Num: 6

Candidate Starts for phiHau3_22:

(5, 16505), (Start: 6 @16517 has 1 MA's), (Start: 9 @16523 has 133 MA's), (24, 16610), (46, 16709), (51, 16745), (59, 16808), (80, 16922), (82, 16934), (93, 16988), (94, 16991), (98, 17021), (102, 17045), (114, 17102), (124, 17141), (131, 17174), (132, 17177), (138, 17225), (171, 17444), (174, 17459), (184, 17504), (193, 17534), (197, 17549), (205, 17585), (233, 17705), (235, 17714), (236, 17720),