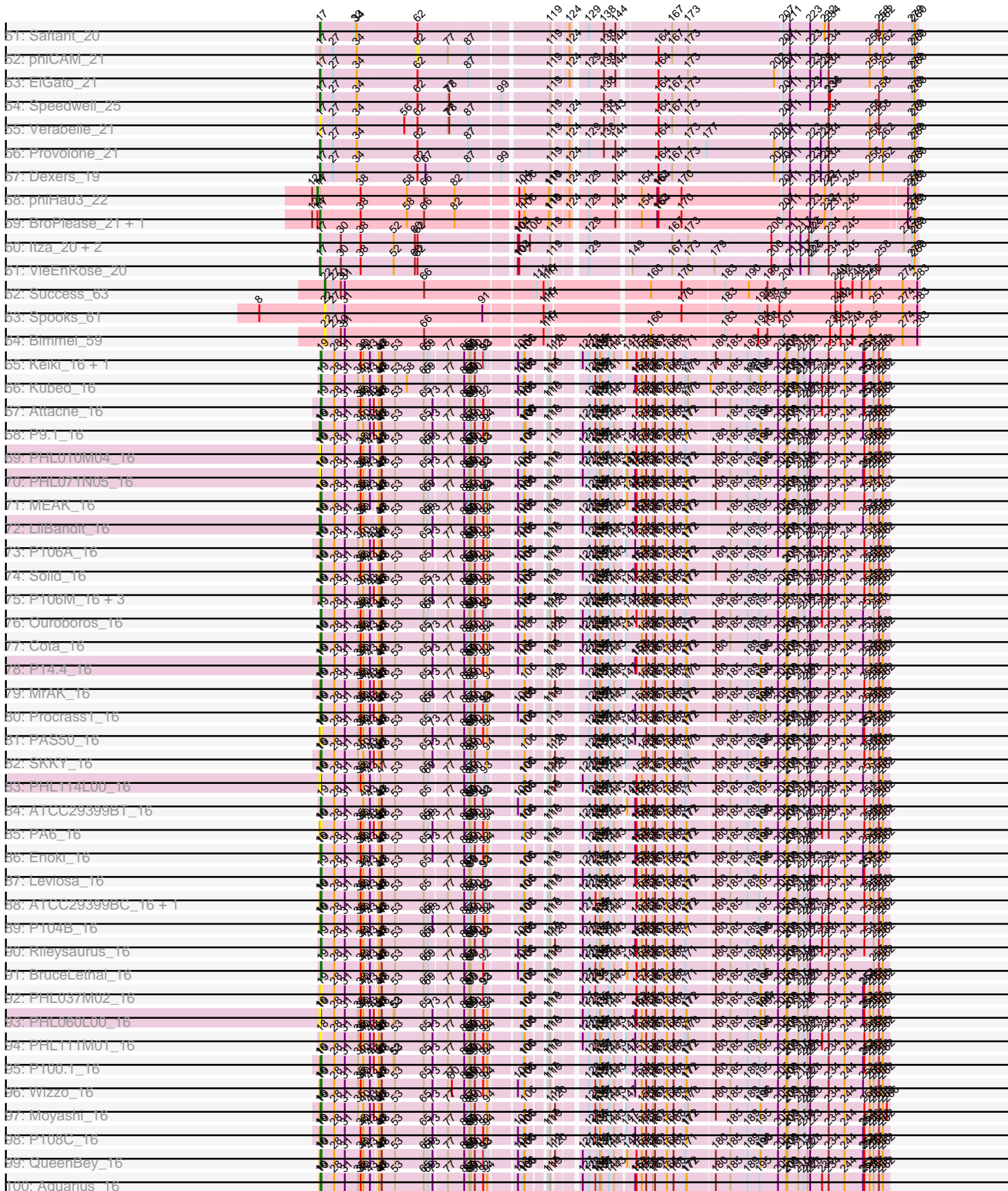
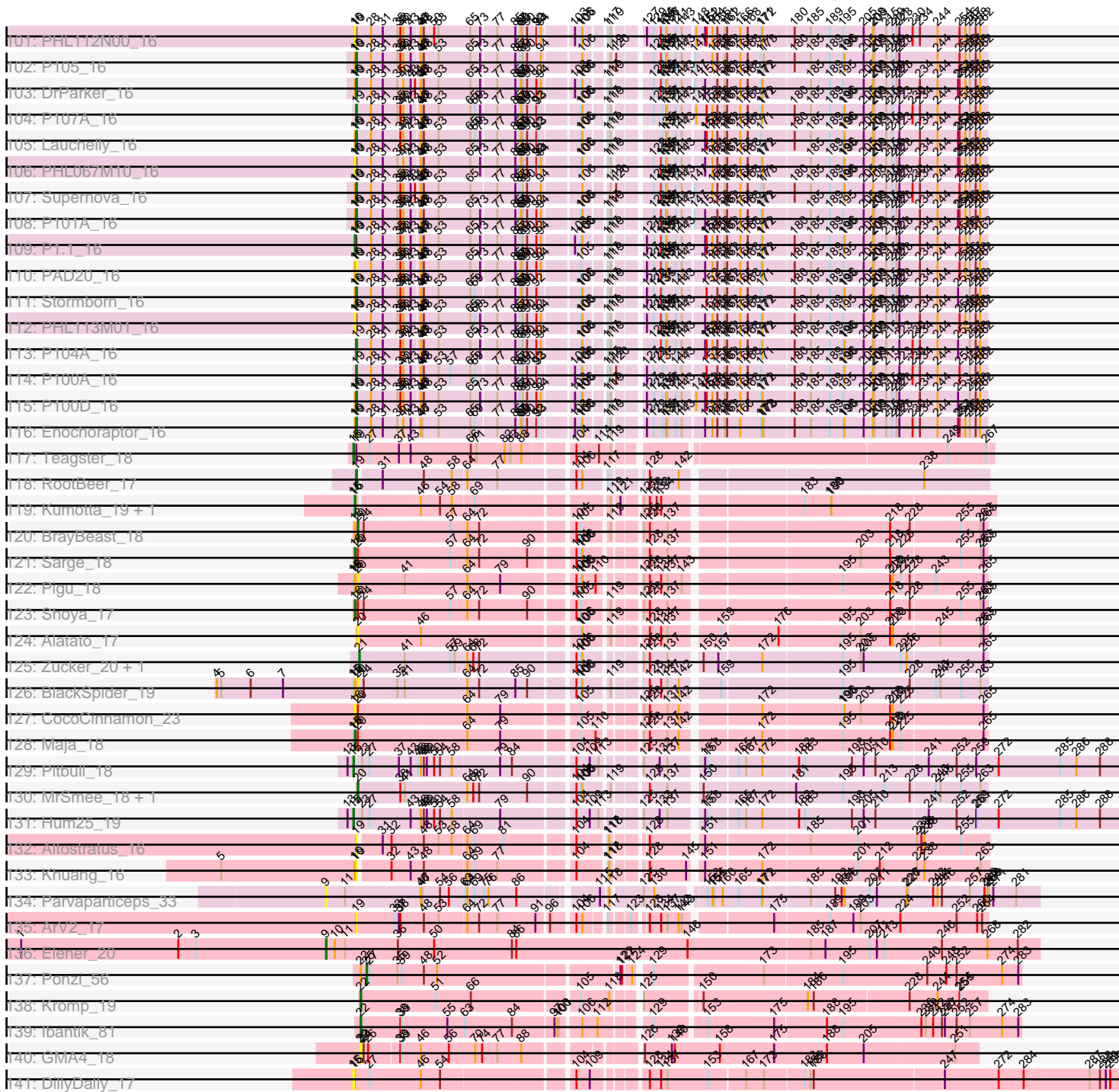


Pham 215853



Pham 215853



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 215853 Report

This analysis was run 02/22/25 on database version 588.

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 215853 has 203 members, 33 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, Leviticus_20, Unstoppable_20, Aaronocolus_20, Phettuccine_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, Emaanora_22, TagePhighter_21, Whatever_20, BarryBee_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 : Paolo_22, Zainub_22, Jevington_22
- Track 24 : Thestral_21
- Track 25 : Bowden_21, TinaBelcher_20
- Track 26 : Diane_20
- Track 27 : Superstar_23
- Track 28 : Haizum_20, Tefunt_20
- Track 29 : Animus_21, SqueakyClean_21

- Track 30 : Hank144_21
- Track 31 : ELB20_19, R4_20
- Track 32 : Marav_23
- Track 33 : Puginator_22
- Track 34 : Omar_21
- Track 35 : Daudau_20
- Track 36 : Axiom_22
- Track 37 : BartholomewSD_22, Alvy_22
- Track 38 : Triumph_22
- Track 39 : GirlDinner_20
- Track 40 : Andris_20
- Track 41 : Caelum_21
- Track 42 : Pablito_20
- Track 43 : Janus_21
- Track 44 : Nishikigoi_20
- Track 45 : Vanseggelen_25
- Track 46 : Yosif_21
- Track 47 : Verse_20, Amela_20
- Track 48 : Alsaber_21, Kaine_20
- Track 49 : Celery_23
- Track 50 : Pavo_21, Conan_21
- Track 51 : Saftant_20
- Track 52 : phiCAM_21
- Track 53 : ElGato_21
- Track 54 : Speedwell_25
- Track 55 : Verabelle_21
- Track 56 : Provolone_21
- Track 57 : Dexters_19
- Track 58 : phiHau3_22
- Track 59 : BroPlease_21, GreenWeasel_22
- Track 60 : Itza_20, Celia_20, Urza_20
- Track 61 : VieEnRose_20
- Track 62 : Success_63
- Track 63 : Spooks_61
- Track 64 : Bimmel_59
- Track 65 : Keiki_16, Pirate_16
- Track 66 : Kubed_16
- Track 67 : Attacne_16
- Track 68 : P9.1_16
- Track 69 : PHL010M04_16
- Track 70 : PHL071N05_16
- Track 71 : MEAK_16
- Track 72 : LilBandit_16
- Track 73 : P106A_16
- Track 74 : Solid_16
- Track 75 : P106M_16, P106C_16, P106I_16, P106L_16
- Track 76 : Ouroboros_16
- Track 77 : Cota_16
- Track 78 : P14.4_16
- Track 79 : MrAK_16
- Track 80 : Procrass1_16
- Track 81 : PAS50_16
- Track 82 : SKKY_16

- Track 83 : PHL114L00_16
- Track 84 : ATCC29399BT_16
- Track 85 : PA6_16
- Track 86 : Enoki_16
- Track 87 : Leviosa_16
- Track 88 : ATCC29399BC_16, P107C_16
- Track 89 : P104B_16
- Track 90 : Rileysaurus_16
- Track 91 : BruceLethal_16
- Track 92 : PHL037M02_16
- Track 93 : PHL060L00_16
- Track 94 : PHL111M01_16
- Track 95 : P100.1_16
- Track 96 : Wizzo_16
- Track 97 : Moyashi_16
- Track 98 : P108C_16
- Track 99 : QueenBey_16
- Track 100 : Aquarius_16
- Track 101 : PHL112N00_16
- Track 102 : P105_16
- Track 103 : DrParker_16
- Track 104 : P107A_16
- Track 105 : Lauchelly_16
- Track 106 : PHL067M10_16
- Track 107 : Supernova_16
- Track 108 : P101A_16
- Track 109 : P1.1_16
- Track 110 : PAD20_16
- Track 111 : Stormborn_16
- Track 112 : PHL113M01_16
- Track 113 : P104A_16
- Track 114 : P100A_16
- Track 115 : P100D_16
- Track 116 : Enochoraptor_16
- Track 117 : Teagster_18
- Track 118 : RootBeer_17
- Track 119 : Kumotta_19, MargaretKali_19
- Track 120 : BrayBeast_18
- Track 121 : Sarge_18
- Track 122 : Pigu_18
- Track 123 : Shoya_17
- Track 124 : Alatato_17
- Track 125 : Zucker_20, Bauer_21
- Track 126 : BlackSpider_19
- Track 127 : CocoCinnamon_23
- Track 128 : Maja_18
- Track 129 : Pitbull_18
- Track 130 : MrSmee_18, Skitty_22
- Track 131 : Hum25_19
- Track 132 : Altostratus_16
- Track 133 : Khuang_16
- Track 134 : Parvapaticeps_33
- Track 135 : ArV2_17

- Track 136 : Elener_20
- Track 137 : Ponzi_56
- Track 138 : Kromp_19
- Track 139 : Ibantik_81
- Track 140 : GMA4_18
- Track 141 : DillyDally_17

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

The start number called the most often in the published annotations is 17, it was called in 105 of the 170 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aaronocolus_20, Alsaber_21, Alvy_22, Amela_20, Amethyst_20, Andris_20, Animus_21, Asten_20, Axiom_22, BarryBee_22, BartholomewSD_22, BeardedLady_21, Bovely_20, Bowden_21, Brataylor_21, BroPlease_21, BryanRecycles_21, Caelum_21, Caliburn_20, Celery_23, Celeste_20, Celia_20, Chucky_20, Conan_21, Danzina_21, Dattran_21, Daudau_20, Dexers_19, Diane_20, Dwayne_20, ELB20_19, Eddasa_21, Ejemplo_20, ElGato_21, Emaanora_22, EnochSoames_22, Esperer_20, GirlDinner_20, 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_22, Kaine_20, Katalie_21, Lannister_21, Legacy_20, Leviticus_20, Lika_20, Loofah_21, Lorelei_20, Maneekul_20, Marav_23, Nabi_20, Nanodon_22, Nerdos_20, Nishikigoi_20, Oliynyk_21, Omar_21, Ozzie_20, OzzyJ_21, Pablito_20, Paedore_20, Paolo_22, Pavo_21, Phettuccine_20, Provolone_21, Puginator_22, R4_20, Rana_20, RedBear_22, Rusticus_21, Saftant_20, SarahRose_20, Snorlax_20, South40_21, Speedwell_25, SqueakyClean_21, Sujidade_21, SunsetPointe_20, 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, Yasdnil_20, Yosif_21, Zainub_22, Zemlya_21,

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

- phiCAM_21, phiHau3_22,

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

- ATCC29399BC_16, ATCC29399BT_16, AbbyDaisy_19, Alatato_17, Altostratus_16, Aquarius_16, ArV2_17, Attacne_16, Bauer_21, Bimmel_59, BlackSpider_19, BrayBeast_18, BruceLethal_16, CocoCinnamon_23, Cota_16, DillyDally_17, DrParker_16, Elener_20, Enochoraptor_16, Enoki_16, GMA4_18, Hum25_19, Ibantik_81, Keiki_16, Khuang_16, Kromp_19, Kubed_16, Kumotta_19, Lauchelly_16, Leviosa_16, LiBandit_16, MEAK_16, Maja_18, MargaretKali_19, Moyashi_16, MrAK_16, MrSmee_18, Ouroboros_16, P1.1_16, P100.1_16, P100A_16, P100D_16, P101A_16, P104A_16, P104B_16, P105_16, P106A_16, P106C_16, P106L_16, P106M_16, P107A_16, P107C_16, P108C_16, P14.4_16, P9.1_16, PA6_16, PAD20_16, PAS50_16, PHL010M04_16, PHL037M02_16, PHL060L00_16, PHL067M10_16, PHL071N05_16, PHL111M01_16, PHL112N00_16, PHL113M01_16, PHL114L00_16, Parvaparticeps_33, Pigu_18, Pirate_16, Pitbull_18, Ponzi_56, Procrass1_16, QueenBey_16, Raqqa_19, Rileysaurus_16, RootBeer_17,

SKKY_16, Sarge_18, Shoya_17, Skitty_22, Solid_16, Spooks_61, Stormborn_16, Success_63, Supernova_16, Teagster_18, Wizzo_16, Zucker_20,

Summary by start number:

Start 9:

- Found in 2 of 203 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 170
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elener_20 (singleton), Parvapaticeps_33 (UNK),

Start 14:

- Found in 3 of 203 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 170
- Called 33.3% of time when present
- Phage (with cluster) where this start called: phiHau3_22 (BD4),

Start 15:

- Found in 11 of 203 (5.4%) of genes in pham
- Manual Annotations of this start: 3 of 170
- Called 36.4% of time when present
- Phage (with cluster) where this start called: DillyDally_17 (singleton), Hum25_19 (FQ), Pitbull_18 (FQ), Teagster_18 (EB),

Start 16:

- Found in 54 of 203 (26.6%) of genes in pham
- Manual Annotations of this start: 9 of 170
- Called 31.5% of time when present
- Phage (with cluster) where this start called: CocoCinnamon_23 (FO), 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 17:

- Found in 113 of 203 (55.7%) of genes in pham
- Manual Annotations of this start: 105 of 170
- Called 98.2% of time when present
- Phage (with cluster) where this start called: Aaronocolus_20 (BD1), Alsaber_21 (BD3), Alvy_22 (BD2), Amela_20 (BD3), Amethyst_20 (BD2), Andris_20 (BD2), Animus_21 (BD2), Asten_20 (BD1), Axiom_22 (BD2), BarryBee_22 (BD1), BartholomewSD_22 (BD2), BeardedLady_21 (BD1), Bovely_20 (BD1), Bowden_21 (BD2), Brataylor_21 (BD1), BroPlease_21 (BD4), BryanRecycles_21 (BD1), Caelum_21 (BD2), Caliburn_20 (BD1), Celery_23 (BD3), Celeste_20 (BD1), Celia_20 (BD6), Chucky_20 (BD1), Conan_21 (BD3), Danzina_21 (BD1), Dattran_21 (BD1), Daudau_20 (BD2), Dexers_19 (BD3), Diane_20 (BD2), Dwayne_20 (BD1), ELB20_19 (BD2), Eddasa_21 (BD1), Ejemplo_20 (BD1), ElGato_21 (BD3), Emaanora_22 (BD1), EnochSoames_22 (BD1), Esperer_20 (BD1), GirlDinner_20 (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_22 (BD2), Kaine_20 (BD3), Katalie_21 (BD1), Lannister_21 (BD1), Legacy_20 (BD1),

Leviticus_20 (BD1), Lika_20 (BD1), Loofah_21 (BD2), Lorelei_20 (BD1),
Maneekul_20 (BD1), Marav_23 (BD2), Nabi_20 (BD1), Nanodon_22 (BD1),
Nerdos_20 (BD1), Nishikigoi_20 (BD2), Oliynyk_21 (BD1), Omar_21 (BD2), Ozzie_20
(BD1), OzzyJ_21 (BD1), Pablito_20 (BD2), Paedore_20 (BD2), Paolo_22 (BD2),
Pavo_21 (BD3), Phettuccine_20 (BD1), Provolone_21 (BD3), Puginator_22 (BD2),
R4_20 (BD2), Rana_20 (BD1), RedBear_22 (BD1), Rusticus_21 (BD1), Saftant_20
(BD3), SarahRose_20 (BD1), Snorlax_20 (BD1), South40_21 (BD1), Speedwell_25
(BD3), SqueakyClean_21 (BD2), Sujidade_21 (BD1), SunsetPointe_20 (BD1),
Superstar_23 (BD2), TägePhighter_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), Yasdnil_20 (BD1), Yosif_21 (BD3),
Zainub_22 (BD2), Zemlya_21 (BD1),

Start 18:

- Found in 1 of 203 (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 19:

- Found in 63 of 203 (31.0%) of genes in pham
- Manual Annotations of this start: 43 of 170
- Called 81.0% of time when present
- Phage (with cluster) where this start called: ATCC29399BC_16 (BU),
ATCC29399BT_16 (BU), AbbyDaisy_19 (AY), Altostratus_16 (FS), Aquarius_16 (BU),
ArV2_17 (singleton), Attacne_16 (BU), BruceLethal_16 (BU), Cota_16 (BU),
DrParker_16 (BU), Enochoraptor_16 (BU), Enoki_16 (BU), Keiki_16 (BU), Khuang_16
(FS), Kubed_16 (BU), Lauchelly_16 (BU), Leviosa_16 (BU), MEAK_16 (BU),
Moyashi_16 (BU), MrAK_16 (BU), Ouroboros_16 (BU), 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), Pirate_16 (BU), Procrass1_16 (BU),
QueenBey_16 (BU), Raqqa_19 (AY), Rileysaurus_16 (BU), RootBeer_17 (FA),
SKKY_16 (BU), Solid_16 (BU), Stormborn_16 (BU), Supernova_16 (BU), Wizzo_16
(BU),

Start 20:

- Found in 10 of 203 (4.9%) of genes in pham
- Manual Annotations of this start: 2 of 170
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Alatato_17 (FB), BlackSpider_19 (FN),
BrayBeast_18 (FB), MrSmee_18 (FQ), Pigu_18 (FB), Skitty_22 (FQ),

Start 21:

- Found in 2 of 203 (1.0%) of genes in pham
- Manual Annotations of this start: 2 of 170
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bauer_21 (FN), Zucker_20 (FN),

Start 22:

- Found in 7 of 203 (3.4%) of genes in pham
- Manual Annotations of this start: 3 of 170
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Bimmel_59 (BT), GMA4_18 (singleton), Ibantik_81 (singleton), Kromp_19 (singleton), Spooks_61 (BT), Success_63 (BT),

Start 25:

- Found in 1 of 203 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 170
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ponzi_56 (singleton),

Start 62:

- Found in 103 of 203 (50.7%) of genes in pham
- No Manual Annotations of this start.
- Called 1.0% of time when present
- Phage (with cluster) where this start called: phiCAM_21 (BD3),

Summary by clusters:

There are 17 clusters represented in this pham: FQ, singleton, FS, FA, EB, BT, BU, FB, BD6, BD1, BD3, BD2, AY, BD4, UNK, FN, FO,

Info for manual annotations of cluster AY:

- Start number 19 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster BD1:

- Start number 17 was manually annotated 55 times for cluster BD1.

Info for manual annotations of cluster BD2:

- Start number 17 was manually annotated 32 times for cluster BD2.

Info for manual annotations of cluster BD3:

- Start number 17 was manually annotated 12 times for cluster BD3.

Info for manual annotations of cluster BD4:

- Start number 14 was manually annotated 1 time for cluster BD4.
- Start number 17 was manually annotated 2 times for cluster BD4.

Info for manual annotations of cluster BD6:

- Start number 17 was manually annotated 4 times for cluster BD6.

Info for manual annotations of cluster BT:

- Start number 22 was manually annotated 1 time for cluster BT.

Info for manual annotations of cluster BU:

- Start number 16 was manually annotated 4 times for cluster BU.
- Start number 19 was manually annotated 41 times for cluster BU.

Info for manual annotations of cluster EB:

- Start number 15 was manually annotated 1 time for cluster EB.

Info for manual annotations of cluster FA:

- Start number 19 was manually annotated 1 time for cluster FA.

Info for manual annotations of cluster FB:

- Start number 16 was manually annotated 4 times for cluster FB.
- Start number 20 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster FN:

- Start number 21 was manually annotated 2 times for cluster FN.

Info for manual annotations of cluster FO:

- Start number 16 was manually annotated 1 time for cluster FO.

Info for manual annotations of cluster FQ:

- Start number 15 was manually annotated 2 times for cluster FQ.
- Start number 20 was manually annotated 1 time for cluster FQ.

Gene Information:

Gene: ATCC29399BC_16 Start: 12232, Stop: 13389, Start Num: 19

Candidate Starts for ATCC29399BC_16:

(Start: 16 @12229 has 9 MA's), (Start: 19 @12232 has 43 MA's), (28, 12259), (31, 12283), (35, 12310), (38, 12316), (40, 12322), (43, 12337), (46, 12352), (47, 12355), (48, 12358), (53, 12388), (65, 12451), (77, 12493), (85, 12526), (87, 12535), (89, 12541), (90, 12550), (92, 12568), (93, 12571), (105, 12643), (106, 12646), (117, 12679), (119, 12685), (127, 12730), (129, 12742), (134, 12757), (136, 12766), (137, 12769), (141, 12784), (143, 12796), (152, 12838), (154, 12850), (156, 12859), (161, 12874), (162, 12877), (166, 12901), (168, 12916), (171, 12943), (172, 12946), (180, 13003), (185, 13036), (189, 13072), (195, 13099), (205, 13141), (208, 13156), (209, 13159), (215, 13183), (219, 13195), (221, 13204), (223, 13210), (234, 13252), (244, 13288), (254, 13333), (256, 13345), (257, 13354), (258, 13366), (262, 13375),

Gene: ATCC29399BT_16 Start: 12235, Stop: 13392, Start Num: 19

Candidate Starts for ATCC29399BT_16:

(Start: 19 @12235 has 43 MA's), (28, 12262), (31, 12286), (40, 12325), (43, 12340), (46, 12355), (47, 12358), (48, 12361), (53, 12391), (65, 12454), (77, 12496), (85, 12529), (87, 12538), (88, 12541), (89, 12544), (90, 12553), (92, 12571), (93, 12574), (103, 12634), (105, 12646), (106, 12649), (117, 12682), (119, 12688), (129, 12745), (134, 12760), (135, 12763), (136, 12769), (137, 12772), (141, 12787), (143, 12799), (148, 12820), (151, 12838), (152, 12841), (154, 12853), (156, 12862), (162, 12880), (166, 12904), (168, 12919), (171, 12946), (180, 13006), (185, 13039), (189, 13075), (195, 13102), (205, 13144), (208, 13159), (209, 13162), (215, 13186), (219, 13198), (223, 13213), (230, 13240), (234, 13255), (244, 13291), (254, 13336), (257, 13357), (258, 13369), (262, 13378),

Gene: Aaronocolus_20 Start: 15854, Stop: 17068, Start Num: 17

Candidate Starts for Aaronocolus_20:

(Start: 17 @15854 has 105 MA's), (27, 15881), (62, 16064), (78, 16127), (99, 16226), (104, 16253), (119, 16322), (124, 16352), (154, 16472), (173, 16571), (205, 16769), (207, 16775), (217, 16814), (225, 16838), (232, 16865), (234, 16874), (243, 16907), (256, 16967), (262, 16997), (277, 17045), (279, 17054), (280, 17060),

Gene: AbbyDaisy_19 Start: 15422, Stop: 16528, Start Num: 19

Candidate Starts for AbbyDaisy_19:

(Start: 15 @15416 has 3 MA's), (Start: 19 @15422 has 43 MA's), (29, 15452), (35, 15500), (40, 15512), (42, 15524), (64, 15629), (77, 15680), (104, 15806), (106, 15818), (124, 15887), (142, 15959), (216, 16334), (235, 16394), (257, 16493),

Gene: Alatato_17 Start: 13394, Stop: 14512, Start Num: 20

Candidate Starts for Alatato_17:

(Start: 20 @13394 has 2 MA's), (46, 13508), (105, 13793), (106, 13796), (119, 13838), (128, 13892), (134, 13913), (137, 13925), (159, 14012), (176, 14117), (195, 14234), (203, 14270), (218, 14327), (220, 14333), (245, 14420), (263, 14498), (265, 14504),

Gene: Alsaber_21 Start: 16538, Stop: 17755, Start Num: 17

Candidate Starts for Alsaber_21:

(Start: 17 @16538 has 105 MA's), (27, 16565), (34, 16616), (62, 16748), (67, 16763), (87, 16850), (99, 16910), (119, 17006), (124, 17036), (138, 17093), (144, 17117), (164, 17192), (167, 17219), (173, 17255), (202, 17444), (207, 17459), (211, 17474), (223, 17519), (229, 17540), (234, 17558), (256, 17651), (262, 17681), (279, 17741), (280, 17747),

Gene: Altostratus_16 Start: 13849, Stop: 14961, Start Num: 19

Candidate Starts for Altostratus_16:

(Start: 19 @13849 has 43 MA's), (31, 13888), (32, 13903), (48, 13963), (53, 13993), (58, 14020), (64, 14044), (69, 14059), (81, 14110), (104, 14227), (117, 14275), (118, 14278), (128, 14329), (151, 14416), (185, 14611), (201, 14701), (233, 14815), (236, 14824), (238, 14830), (255, 14905),

Gene: Alvy_22 Start: 15862, Stop: 17073, Start Num: 17

Candidate Starts for Alvy_22:

(Start: 17 @15862 has 105 MA's), (62, 16072), (66, 16084), (67, 16087), (82, 16147), (104, 16261), (107, 16276), (129, 16384), (144, 16441), (148, 16453), (163, 16513), (175, 16600), (177, 16621), (196, 16738), (207, 16783), (211, 16798), (229, 16864), (234, 16882), (245, 16924), (250, 16951), (256, 16975), (279, 17059), (280, 17065),

Gene: Amela_20 Start: 16831, Stop: 18048, Start Num: 17

Candidate Starts for Amela_20:

(Start: 17 @16831 has 105 MA's), (27, 16858), (34, 16909), (56, 17011), (62, 17041), (77, 17101), (87, 17143), (99, 17203), (119, 17299), (124, 17329), (138, 17386), (143, 17407), (164, 17485), (173, 17548), (207, 17752), (211, 17767), (229, 17833), (234, 17851), (256, 17944), (262, 17974), (279, 18034), (280, 18040),

Gene: Amethyst_20 Start: 16313, Stop: 17527, Start Num: 17

Candidate Starts for Amethyst_20:

(Start: 17 @16313 has 105 MA's), (27, 16340), (60, 16517), (66, 16535), (67, 16538), (82, 16598), (104, 16712), (129, 16835), (144, 16892), (196, 17189), (207, 17234), (225, 17297), (256, 17426), (277, 17504), (279, 17513), (280, 17519),

Gene: Andris_20 Start: 15567, Stop: 16778, Start Num: 17

Candidate Starts for Andris_20:

(Start: 17 @15567 has 105 MA's), (52, 15723), (62, 15777), (66, 15789), (67, 15792), (82, 15852), (104, 15966), (107, 15981), (129, 16089), (144, 16146), (154, 16185), (163, 16218), (167, 16248), (173, 16284), (175, 16305), (196, 16443), (207, 16488), (211, 16503), (223, 16548), (225, 16551), (232, 16578), (234, 16587), (256, 16680), (279, 16764), (280, 16770),

Gene: Animus_21 Start: 15903, Stop: 17114, Start Num: 17

Candidate Starts for Animus_21:

(Start: 17 @15903 has 105 MA's), (62, 16113), (66, 16125), (67, 16128), (82, 16188), (83, 16200), (104, 16302), (107, 16317), (118, 16368), (163, 16554), (173, 16620), (175, 16641), (196, 16779), (207, 16824), (211, 16839), (223, 16884), (225, 16887), (232, 16914), (234, 16923), (256, 17016), (279, 17100), (280, 17106),

Gene: Aquarius_16 Start: 12255, Stop: 13412, Start Num: 19

Candidate Starts for Aquarius_16:

(Start: 16 @12252 has 9 MA's), (Start: 19 @12255 has 43 MA's), (28, 12282), (31, 12306), (35, 12333), (38, 12339), (40, 12345), (43, 12360), (46, 12375), (47, 12378), (48, 12381), (53, 12411), (65, 12474), (69, 12483), (73, 12492), (77, 12516), (85, 12549), (87, 12558), (88, 12561), (89, 12564), (90, 12573), (92, 12591), (94, 12600), (103, 12654), (105, 12666), (106, 12669), (117, 12702), (119, 12708), (127, 12753), (129, 12765), (134, 12780), (135, 12783), (136, 12789), (137, 12792), (141, 12807), (143, 12819), (151, 12858), (152, 12861), (154, 12873), (156, 12882), (161, 12897), (162, 12900), (166, 12924), (168, 12939), (171, 12966), (172, 12969), (180, 13026), (185, 13059), (189, 13095), (195, 13122), (205, 13164), (208, 13179), (209, 13182), (215, 13206), (219, 13218), (221, 13227), (223, 13233), (230, 13260), (234, 13275), (244, 13311), (253, 13353), (254, 13356), (256, 13368), (257, 13377), (258, 13389), (262, 13398),

Gene: ArV2_17 Start: 13763, Stop: 14869, Start Num: 19

Candidate Starts for ArV2_17:

(Start: 19 @13763 has 43 MA's), (33, 13835), (37, 13844), (38, 13847), (48, 13889), (53, 13919), (64, 13970), (72, 13991), (77, 14021), (91, 14093), (96, 14108), (104, 14147), (106, 14159), (117, 14192), (123, 14225), (128, 14246), (134, 14267), (137, 14279), (142, 14300), (143, 14306), (175, 14462), (189, 14564), (199, 14609), (203, 14624), (224, 14699), (252, 14807), (260, 14849), (264, 14858),

Gene: Asten_20 Start: 15820, Stop: 17031, Start Num: 17

Candidate Starts for Asten_20:

(Start: 17 @15820 has 105 MA's), (62, 16030), (66, 16042), (67, 16045), (78, 16093), (99, 16192), (104, 16219), (119, 16288), (129, 16342), (144, 16399), (164, 16474), (167, 16501), (171, 16531), (174, 16555), (182, 16609), (193, 16687), (207, 16741), (217, 16780), (222, 16798), (232, 16831), (234, 16840), (243, 16873), (245, 16882), (256, 16933), (279, 17017), (280, 17023),

Gene: Attacne_16 Start: 12235, Stop: 13392, Start Num: 19

Candidate Starts for Attacne_16:

(Start: 19 @12235 has 43 MA's), (28, 12262), (31, 12286), (35, 12313), (38, 12319), (40, 12325), (43, 12340), (44, 12349), (46, 12355), (47, 12358), (48, 12361), (53, 12391), (65, 12454), (73, 12472), (77, 12496), (85, 12529), (87, 12538), (88, 12541), (89, 12544), (90, 12553), (92, 12571), (103, 12634), (105, 12646), (106, 12649), (117, 12682), (119, 12688), (129, 12745), (134, 12760), (135, 12763), (136, 12769), (137, 12772), (141, 12787), (143, 12799), (152, 12841), (154, 12853), (156, 12862), (161, 12877), (162, 12880), (166, 12904), (168, 12919), (171, 12946), (173, 12952), (180, 13006), (185, 13039), (189, 13075), (195, 13102), (205, 13144), (208, 13159), (209, 13162), (215, 13186), (219, 13198), (221, 13207), (223, 13213), (230, 13240), (234, 13255), (244, 13291), (253, 13333), (254, 13336), (257, 13357), (258, 13369), (262, 13378),

Gene: Axiom_22 Start: 15716, Stop: 16927, Start Num: 17

Candidate Starts for Axiom_22:

(Start: 17 @15716 has 105 MA's), (52, 15872), (62, 15926), (66, 15938), (67, 15941), (82, 16001), (104, 16115), (107, 16130), (118, 16181), (144, 16295), (163, 16367), (167, 16397), (173, 16433), (175, 16454), (196, 16592), (204, 16628), (207, 16637), (211, 16652), (223, 16697), (225, 16700), (232, 16727), (234, 16736), (256, 16829), (270, 16877), (277, 16904), (279, 16913), (280, 16919),

Gene: BarryBee_22 Start: 15830, Stop: 17041, Start Num: 17

Candidate Starts for BarryBee_22:

(Start: 17 @15830 has 105 MA's), (62, 16040), (66, 16052), (67, 16055), (78, 16103), (99, 16202), (104, 16229), (119, 16298), (129, 16352), (144, 16409), (164, 16484), (167, 16511), (171, 16541), (174, 16565), (182, 16619), (193, 16697), (207, 16751), (217, 16790), (222, 16808), (232, 16841), (234, 16850), (243, 16883), (245, 16892), (256, 16943), (279, 17027), (280, 17033),

Gene: BartholomewSD_22 Start: 15862, Stop: 17073, Start Num: 17

Candidate Starts for BartholomewSD_22:

(Start: 17 @15862 has 105 MA's), (62, 16072), (66, 16084), (67, 16087), (82, 16147), (104, 16261), (107, 16276), (129, 16384), (144, 16441), (148, 16453), (163, 16513), (175, 16600), (177, 16621), (196, 16738), (207, 16783), (211, 16798), (229, 16864), (234, 16882), (245, 16924), (250, 16951), (256, 16975), (279, 17059), (280, 17065),

Gene: Bauer_21 Start: 16040, Stop: 17158, Start Num: 21

Candidate Starts for Bauer_21:

(Start: 21 @16040 has 2 MA's), (41, 16127), (57, 16214), (59, 16223), (64, 16247), (68, 16259), (72, 16268), (104, 16430), (105, 16439), (106, 16442), (125, 16526), (128, 16538), (137, 16571), (150, 16622), (157, 16652), (172, 16730), (195, 16880), (203, 16916), (205, 16922), (225, 16994), (226, 17003), (265, 17150),

Gene: BeardedLady_21 Start: 16101, Stop: 17315, Start Num: 17

Candidate Starts for BeardedLady_21:

(Start: 17 @16101 has 105 MA's), (27, 16128), (62, 16311), (78, 16374), (99, 16473), (104, 16500), (119, 16569), (124, 16599), (154, 16719), (173, 16818), (205, 17016), (207, 17022), (217, 17061), (225, 17085), (232, 17112), (234, 17121), (243, 17154), (256, 17214), (262, 17244), (277, 17292), (279, 17301), (280, 17307),

Gene: Bimmel_59 Start: 38728, Stop: 39987, Start Num: 22

Candidate Starts for Bimmel_59:

(Start: 22 @38728 has 3 MA's), (27, 38746), (30, 38761), (31, 38770), (66, 38941), (116, 39187), (117, 39196), (160, 39403), (183, 39556), (194, 39622), (198, 39643), (207, 39679), (236, 39784), (242, 39808), (248, 39835), (256, 39874), (274, 39949), (283, 39982),

Gene: BlackSpider_19 Start: 15684, Stop: 16802, Start Num: 20

Candidate Starts for BlackSpider_19:

(4, 15396), (5, 15405), (6, 15465), (7, 15531), (Start: 15 @15675 has 3 MA's), (Start: 16 @15678 has 9 MA's), (Start: 20 @15684 has 2 MA's), (24, 15693), (35, 15756), (41, 15771), (64, 15891), (72, 15912), (85, 15978), (90, 16002), (104, 16074), (105, 16083), (106, 16086), (119, 16128), (128, 16182), (134, 16203), (137, 16215), (142, 16236), (159, 16302), (195, 16524), (228, 16653), (243, 16701), (245, 16710), (255, 16749), (263, 16788),

Gene: Bovely_20 Start: 15860, Stop: 17074, Start Num: 17

Candidate Starts for Bovely_20:

(Start: 17 @15860 has 105 MA's), (27, 15887), (62, 16070), (78, 16133), (99, 16232), (104, 16259), (119, 16328), (124, 16358), (154, 16478), (173, 16577), (205, 16775), (207, 16781), (217, 16820), (225, 16844), (232, 16871), (234, 16880), (243, 16913), (256, 16973), (262, 17003), (277, 17051), (279, 17060), (280, 17066),

Gene: Bowden_21 Start: 15794, Stop: 17005, Start Num: 17

Candidate Starts for Bowden_21:

(Start: 17 @15794 has 105 MA's), (62, 16004), (66, 16016), (67, 16019), (82, 16079), (104, 16193), (107, 16208), (118, 16259), (129, 16316), (144, 16373), (163, 16445), (173, 16511), (175, 16532), (177, 16553), (196, 16670), (207, 16715), (211, 16730), (229, 16796), (234, 16814), (245, 16856), (250, 16883), (256, 16907), (279, 16991), (280, 16997),

Gene: Brataylor_21 Start: 15847, Stop: 17058, Start Num: 17

Candidate Starts for Brataylor_21:

(Start: 17 @15847 has 105 MA's), (27, 15874), (56, 16027), (62, 16057), (78, 16120), (99, 16219), (104, 16246), (119, 16315), (129, 16369), (133, 16381), (144, 16426), (163, 16498), (164, 16501), (173, 16564), (175, 16585), (185, 16660), (205, 16762), (207, 16768), (216, 16804), (217, 16807), (222, 16825), (234, 16867), (278, 17041), (279, 17044), (280, 17050),

Gene: BrayBeast_18 Start: 14080, Stop: 15198, Start Num: 20

Candidate Starts for BrayBeast_18:

(Start: 16 @14074 has 9 MA's), (Start: 20 @14080 has 2 MA's), (24, 14089), (57, 14254), (64, 14287), (72, 14308), (104, 14470), (105, 14479), (119, 14524), (125, 14566), (128, 14578), (137, 14611), (218, 15013), (228, 15049), (255, 15145), (263, 15184), (265, 15190),

Gene: BroPlease_21 Start: 16546, Stop: 17751, Start Num: 17

Candidate Starts for BroPlease_21:

(12, 16528), (Start: 14 @16540 has 1 MA's), (Start: 17 @16546 has 105 MA's), (38, 16633), (58, 16732), (66, 16768), (82, 16831), (104, 16945), (106, 16957), (118, 17011), (119, 17014), (124, 17044), (129, 17068), (144, 17125), (154, 17164), (163, 17197), (164, 17200), (170, 17248), (207, 17467), (211, 17482), (223, 17527), (232, 17557), (237, 17572), (245, 17608), (277, 17728), (279, 17737), (280, 17743),

Gene: BruceLethal_16 Start: 12244, Stop: 13401, Start Num: 19

Candidate Starts for BruceLethal_16:

(Start: 19 @12244 has 43 MA's), (28, 12271), (31, 12295), (38, 12328), (40, 12334), (43, 12349), (46, 12364), (47, 12367), (48, 12370), (53, 12400), (65, 12463), (69, 12472), (77, 12505), (85, 12538), (87, 12547), (88, 12550), (89, 12553), (92, 12580), (103, 12643), (105, 12655), (106, 12658), (117, 12691), (119, 12697), (127, 12742), (129, 12754), (134, 12769), (135, 12772), (136, 12778), (137, 12781), (141, 12796), (143, 12808), (148, 12829), (152, 12850), (154, 12862), (156, 12871), (161, 12886), (162, 12889), (166, 12913), (168, 12928), (171, 12955), (180, 13015), (185, 13048), (189, 13084), (195, 13111), (197, 13123), (205, 13153), (208, 13168), (209, 13171), (215, 13195), (219, 13207), (221, 13216), (223, 13222), (234, 13264), (244, 13300), (257, 13366), (258, 13378), (262, 13387),

Gene: BryanRecycles_21 Start: 16017, Stop: 17219, Start Num: 17

Candidate Starts for BryanRecycles_21:

(Start: 17 @16017 has 105 MA's), (27, 16044), (62, 16227), (78, 16290), (99, 16389), (104, 16416), (119, 16485), (124, 16515), (205, 16932), (207, 16938), (217, 16977), (223, 16998), (232, 17028), (234, 17037), (243, 17070), (258, 17151), (276, 17193), (277, 17196), (279, 17205), (280, 17211),

Gene: Caelum_21 Start: 16340, Stop: 17551, Start Num: 17

Candidate Starts for Caelum_21:

(Start: 17 @16340 has 105 MA's), (27, 16367), (61, 16547), (66, 16562), (67, 16565), (82, 16625), (99, 16712), (104, 16739), (119, 16808), (129, 16862), (144, 16919), (173, 17057), (207, 17261), (221, 17315), (256, 17453), (277, 17528), (279, 17537), (280, 17543),

Gene: Caliburn_20 Start: 15834, Stop: 17048, Start Num: 17

Candidate Starts for Caliburn_20:

(Start: 17 @15834 has 105 MA's), (27, 15861), (62, 16044), (78, 16107), (99, 16206), (104, 16233), (119, 16302), (124, 16332), (154, 16452), (173, 16551), (205, 16749), (207, 16755), (217, 16794), (225, 16818), (232, 16845), (234, 16854), (243, 16887), (256, 16947), (262, 16977), (277, 17025), (279, 17034), (280, 17040),

Gene: Celery_23 Start: 16489, Stop: 17706, Start Num: 17

Candidate Starts for Celery_23:

(Start: 17 @16489 has 105 MA's), (27, 16516), (34, 16567), (62, 16699), (77, 16759), (87, 16801), (119, 16957), (124, 16987), (138, 17044), (143, 17065), (144, 17068), (164, 17143), (167, 17170), (173, 17206), (207, 17410), (211, 17425), (220, 17458), (223, 17470), (234, 17509), (256, 17602), (262, 17632), (279, 17692), (280, 17698),

Gene: Celeste_20 Start: 15839, Stop: 17050, Start Num: 17

Candidate Starts for Celeste_20:

(Start: 17 @15839 has 105 MA's), (27, 15866), (51, 15992), (56, 16019), (62, 16049), (78, 16112), (99, 16211), (104, 16238), (119, 16307), (129, 16361), (133, 16373), (144, 16418), (163, 16490), (164, 16493), (173, 16556), (175, 16577), (185, 16652), (205, 16754), (207, 16760), (216, 16796), (217, 16799), (222, 16817), (234, 16859), (278, 17033), (279, 17036), (280, 17042),

Gene: Celia_20 Start: 16277, Stop: 17497, Start Num: 17

Candidate Starts for Celia_20:

(Start: 17 @16277 has 105 MA's), (30, 16319), (38, 16364), (52, 16433), (60, 16481), (62, 16487), (103, 16673), (104, 16676), (108, 16700), (119, 16745), (129, 16799), (167, 16958), (173, 16994), (200, 17177), (211, 17213), (217, 17237), (222, 17255), (225, 17261), (234, 17297), (245, 17339), (275, 17465), (279, 17483), (280, 17489),

Gene: Chucky_20 Start: 15831, Stop: 17042, Start Num: 17

Candidate Starts for Chucky_20:

(Start: 17 @15831 has 105 MA's), (62, 16041), (66, 16053), (67, 16056), (78, 16104), (99, 16203), (104, 16230), (119, 16299), (129, 16353), (144, 16410), (164, 16485), (167, 16512), (171, 16542), (174, 16566), (182, 16620), (193, 16698), (207, 16752), (217, 16791), (222, 16809), (232, 16842), (234, 16851), (243, 16884), (245, 16893), (256, 16944), (279, 17028), (280, 17034),

Gene: CocoCinnamon_23 Start: 15713, Stop: 16837, Start Num: 16

Candidate Starts for CocoCinnamon_23:

(Start: 16 @15713 has 9 MA's), (Start: 20 @15719 has 2 MA's), (64, 15926), (79, 15986), (105, 16118), (125, 16205), (128, 16217), (137, 16250), (142, 16271), (172, 16409), (195, 16559), (196, 16562), (203, 16595), (218, 16652), (220, 16658), (225, 16673), (265, 16829),

Gene: Conan_21 Start: 16260, Stop: 17477, Start Num: 17

Candidate Starts for Conan_21:

(Start: 17 @16260 has 105 MA's), (27, 16287), (34, 16338), (62, 16470), (87, 16572), (119, 16728), (124, 16758), (129, 16782), (138, 16815), (144, 16839), (164, 16914), (173, 16977), (207, 17181), (211, 17196), (223, 17241), (229, 17262), (234, 17280), (256, 17373), (262, 17403), (279, 17463), (280, 17469),

Gene: Cota_16 Start: 12250, Stop: 13407, Start Num: 19

Candidate Starts for Cota_16:

(Start: 16 @12247 has 9 MA's), (Start: 19 @12250 has 43 MA's), (28, 12277), (31, 12301), (35, 12328), (38, 12334), (40, 12340), (43, 12355), (46, 12370), (47, 12373), (48, 12376), (53, 12406), (65, 12469), (73, 12487), (77, 12511), (85, 12544), (87, 12553), (89, 12559), (90, 12568), (92, 12586), (94, 12595), (103, 12649), (106, 12664), (119, 12703), (120, 12706), (127, 12748), (129, 12760), (134, 12775), (135, 12778), (136, 12784), (137, 12787), (141, 12802), (143, 12814), (147, 12832), (154, 12868), (156, 12877), (161, 12892), (162, 12895), (166, 12919), (168, 12934), (171, 12961), (172, 12964), (180, 13021), (185, 13054), (189, 13090), (195, 13117), (205, 13159), (208, 13174), (209, 13177), (215, 13201), (221, 13222), (223, 13228), (234, 13270), (244, 13306), (253, 13348), (257, 13372), (258, 13384), (262, 13393),

Gene: Danzina_21 Start: 16049, Stop: 17260, Start Num: 17

Candidate Starts for Danzina_21:

(Start: 17 @16049 has 105 MA's), (27, 16076), (51, 16202), (53, 16208), (56, 16229), (62, 16259), (78, 16322), (99, 16421), (104, 16448), (119, 16517), (129, 16571), (131, 16574), (133, 16583), (144, 16628), (163, 16700), (164, 16703), (173, 16766), (175, 16787), (185, 16862), (205, 16964), (207, 16970), (216, 17006), (217, 17009), (222, 17027), (234, 17069), (278, 17243), (279, 17246), (280, 17252),

Gene: Dattran_21 Start: 15838, Stop: 17049, Start Num: 17

Candidate Starts for Dattran_21:

(Start: 17 @15838 has 105 MA's), (27, 15865), (51, 15991), (56, 16018), (62, 16048), (78, 16111), (99, 16210), (104, 16237), (119, 16306), (129, 16360), (133, 16372), (144, 16417), (163, 16489), (164, 16492), (173, 16555), (175, 16576), (185, 16651), (205, 16753), (207, 16759), (216, 16795), (217, 16798), (222, 16816), (234, 16858), (278, 17032), (279, 17035), (280, 17041),

Gene: Daudau_20 Start: 15774, Stop: 16985, Start Num: 17

Candidate Starts for Daudau_20:

(Start: 17 @15774 has 105 MA's), (35, 15855), (43, 15882), (58, 15960), (62, 15984), (66, 15996), (82, 16059), (102, 16158), (104, 16173), (107, 16188), (129, 16296), (144, 16353), (163, 16425), (173, 16491), (196, 16650), (207, 16695), (211, 16710), (234, 16794), (237, 16800), (245, 16836), (250, 16863), (256, 16887), (279, 16971), (280, 16977),

Gene: Dexers_19 Start: 16241, Stop: 17458, Start Num: 17

Candidate Starts for Dexers_19:

(Start: 17 @16241 has 105 MA's), (27, 16268), (34, 16319), (62, 16451), (67, 16466), (87, 16553), (99, 16613), (119, 16709), (124, 16739), (144, 16820), (164, 16895), (167, 16922), (173, 16958), (202, 17147), (207, 17162), (211, 17177), (223, 17222), (229, 17243), (234, 17261), (256, 17354), (262, 17384), (279, 17444), (280, 17450),

Gene: Diane_20 Start: 16306, Stop: 17520, Start Num: 17

Candidate Starts for Diane_20:

(Start: 17 @16306 has 105 MA's), (27, 16333), (43, 16414), (47, 16432), (58, 16492), (60, 16510), (66, 16528), (67, 16531), (82, 16591), (104, 16705), (129, 16828), (144, 16885), (196, 17182), (205, 17221), (207, 17227), (225, 17290), (256, 17419), (277, 17497), (279, 17506), (280, 17512),

Gene: DillyDally_17 Start: 14366, Stop: 15832, Start Num: 15

Candidate Starts for DillyDally_17:

(Start: 15 @14366 has 3 MA's), (Start: 16 @14369 has 9 MA's), (27, 14396), (46, 14489), (54, 14528), (104, 14759), (109, 14786), (128, 14870), (134, 14891), (137, 14903), (153, 14981), (167, 15047), (173, 15083), (183, 15158), (185, 15170), (186, 15176), (247, 15419), (272, 15524), (284, 15575), (287, 15710), (288, 15731), (289, 15743), (290, 15752),

Gene: DrParker_16 Start: 12276, Stop: 13433, Start Num: 19

Candidate Starts for DrParker_16:

(Start: 16 @12273 has 9 MA's), (Start: 19 @12276 has 43 MA's), (28, 12303), (31, 12327), (35, 12354), (40, 12366), (43, 12381), (44, 12390), (46, 12396), (47, 12399), (48, 12402), (53, 12432), (65, 12495), (73, 12513), (77, 12537), (85, 12570), (87, 12579), (88, 12582), (89, 12585), (90, 12594), (92, 12612), (94, 12621), (103, 12675), (105, 12687), (106, 12690), (117, 12723), (119, 12729), (129, 12786), (134, 12801), (135, 12804), (136, 12810), (137, 12813), (141, 12828), (143, 12840), (147, 12858), (151, 12879), (156, 12903), (161, 12918), (162, 12921), (166, 12945), (168, 12960), (171, 12987), (172, 12990), (185, 13080), (189, 13116), (195, 13143), (205, 13185), (208, 13200), (209, 13203), (215, 13227), (219, 13239), (221, 13248), (223, 13254), (234, 13296), (244, 13332), (253, 13374), (254, 13377), (256, 13389), (257, 13398), (258, 13410), (262, 13419),

Gene: Dwayne_20 Start: 15827, Stop: 17038, Start Num: 17

Candidate Starts for Dwayne_20:

(Start: 17 @15827 has 105 MA's), (62, 16037), (66, 16049), (67, 16052), (78, 16100), (99, 16199), (104, 16226), (119, 16295), (129, 16349), (144, 16406), (164, 16481), (167, 16508), (171, 16538), (174, 16562), (182, 16616), (193, 16694), (207, 16748), (217, 16787), (222, 16805), (232, 16838), (234, 16847), (243, 16880), (245, 16889), (256, 16940), (279, 17024), (280, 17030),

Gene: ELB20_19 Start: 15893, Stop: 17104, Start Num: 17

Candidate Starts for ELB20_19:

(Start: 17 @15893 has 105 MA's), (43, 16001), (62, 16103), (66, 16115), (67, 16118), (82, 16178), (104, 16292), (107, 16307), (129, 16415), (138, 16448), (144, 16472), (163, 16544), (167, 16574), (174, 16628), (175, 16631), (177, 16652), (196, 16769), (207, 16814), (211, 16829), (234, 16913), (236, 16916), (237, 16919), (245, 16955), (254, 16994), (256, 17006), (266, 17045), (277, 17081), (279, 17090), (280, 17096),

Gene: Eddasa_21 Start: 16017, Stop: 17219, Start Num: 17

Candidate Starts for Eddasa_21:

(Start: 17 @16017 has 105 MA's), (27, 16044), (62, 16227), (78, 16290), (99, 16389), (104, 16416), (119, 16485), (124, 16515), (205, 16932), (207, 16938), (217, 16977), (223, 16998), (232, 17028), (234, 17037), (243, 17070), (258, 17151), (276, 17193), (277, 17196), (279, 17205), (280, 17211),

Gene: Ejemplo_20 Start: 15827, Stop: 17038, Start Num: 17

Candidate Starts for Ejemplo_20:

(Start: 17 @15827 has 105 MA's), (27, 15854), (62, 16037), (66, 16049), (67, 16052), (99, 16199), (104, 16226), (129, 16349), (144, 16406), (164, 16481), (167, 16508), (171, 16538), (175, 16565), (182, 16616), (207, 16748), (217, 16787), (222, 16805), (231, 16835), (232, 16838), (234, 16847), (243, 16880), (245, 16889), (256, 16940), (273, 17000), (279, 17024), (280, 17030),

Gene: ElGato_21 Start: 16263, Stop: 17480, Start Num: 17

Candidate Starts for ElGato_21:

(Start: 17 @16263 has 105 MA's), (27, 16290), (34, 16341), (62, 16473), (87, 16575), (119, 16731), (124, 16761), (129, 16785), (138, 16818), (144, 16842), (164, 16917), (173, 16980), (202, 17169), (207, 17184), (211, 17199), (223, 17244), (229, 17265), (234, 17283), (256, 17376), (262, 17406), (279, 17466), (280, 17472),

Gene: Elener_20 Start: 16464, Stop: 17870, Start Num: 9

Candidate Starts for Elener_20:

(1, 15846), (2, 16167), (3, 16203), (Start: 9 @16464 has 1 MA's), (10, 16482), (11, 16503), (36, 16602), (50, 16668), (84, 16821), (86, 16830), (146, 17175), (185, 17415), (187, 17442), (207, 17529), (211, 17544), (213, 17559), (246, 17673), (268, 17766), (282, 17826),

Gene: Emaanora_22 Start: 15830, Stop: 17041, Start Num: 17

Candidate Starts for Emaanora_22:

(Start: 17 @15830 has 105 MA's), (62, 16040), (66, 16052), (67, 16055), (78, 16103), (99, 16202), (104, 16229), (119, 16298), (129, 16352), (144, 16409), (164, 16484), (167, 16511), (171, 16541), (174, 16565), (182, 16619), (193, 16697), (207, 16751), (217, 16790), (222, 16808), (232, 16841), (234, 16850), (243, 16883), (245, 16892), (256, 16943), (279, 17027), (280, 17033),

Gene: EnochSoames_22 Start: 16013, Stop: 17215, Start Num: 17

Candidate Starts for EnochSoames_22:

(Start: 17 @16013 has 105 MA's), (27, 16040), (62, 16223), (78, 16286), (99, 16385), (104, 16412), (119, 16481), (124, 16511), (154, 16631), (205, 16928), (207, 16934), (217, 16973), (223, 16994), (232, 17024), (234, 17033), (243, 17066), (258, 17147), (276, 17189), (277, 17192), (279, 17201),

(280, 17207),

Gene: Enochoraptor_16 Start: 12247, Stop: 13404, Start Num: 19

Candidate Starts for Enochoraptor_16:

(Start: 16 @12244 has 9 MA's), (Start: 19 @12247 has 43 MA's), (28, 12274), (31, 12298), (35, 12325), (40, 12337), (43, 12352), (46, 12367), (47, 12370), (53, 12403), (65, 12466), (69, 12475), (77, 12508), (85, 12541), (87, 12550), (88, 12553), (89, 12556), (90, 12565), (92, 12583), (93, 12586), (103, 12646), (105, 12658), (106, 12661), (117, 12694), (119, 12700), (127, 12745), (129, 12757), (135, 12775), (136, 12781), (137, 12784), (141, 12799), (143, 12811), (151, 12850), (154, 12865), (156, 12874), (161, 12889), (162, 12892), (166, 12916), (171, 12958), (172, 12961), (173, 12964), (180, 13018), (185, 13051), (189, 13087), (195, 13114), (196, 13117), (205, 13156), (208, 13171), (209, 13174), (215, 13198), (219, 13210), (221, 13219), (223, 13225), (230, 13252), (234, 13267), (244, 13303), (253, 13345), (254, 13348), (256, 13360), (257, 13369), (258, 13381), (262, 13390),

Gene: Enoki_16 Start: 12229, Stop: 13386, Start Num: 19

Candidate Starts for Enoki_16:

(Start: 16 @12226 has 9 MA's), (Start: 19 @12229 has 43 MA's), (28, 12256), (31, 12280), (35, 12307), (38, 12313), (40, 12319), (43, 12334), (46, 12349), (47, 12352), (48, 12355), (53, 12385), (65, 12448), (73, 12466), (77, 12490), (85, 12523), (87, 12532), (89, 12538), (90, 12547), (92, 12565), (94, 12574), (106, 12643), (117, 12676), (119, 12682), (129, 12739), (134, 12754), (135, 12757), (136, 12763), (137, 12766), (141, 12781), (143, 12793), (151, 12832), (152, 12835), (154, 12847), (156, 12856), (161, 12871), (162, 12874), (166, 12898), (168, 12913), (171, 12940), (172, 12943), (180, 13000), (185, 13033), (189, 13069), (195, 13096), (196, 13099), (205, 13138), (208, 13153), (209, 13156), (215, 13180), (219, 13192), (221, 13201), (223, 13207), (244, 13285), (253, 13327), (256, 13342), (257, 13351), (258, 13363), (262, 13372),

Gene: Esperer_20 Start: 15854, Stop: 17068, Start Num: 17

Candidate Starts for Esperer_20:

(Start: 17 @15854 has 105 MA's), (27, 15881), (62, 16064), (78, 16127), (99, 16226), (104, 16253), (119, 16322), (124, 16352), (154, 16472), (173, 16571), (205, 16769), (207, 16775), (217, 16814), (225, 16838), (232, 16865), (234, 16874), (243, 16907), (256, 16967), (262, 16997), (277, 17045), (279, 17054), (280, 17060),

Gene: GMA4_18 Start: 16957, Stop: 18117, Start Num: 22

Candidate Starts for GMA4_18:

(Start: 22 @16957 has 3 MA's), (23, 16960), (24, 16963), (26, 16972), (38, 17032), (39, 17035), (46, 17068), (56, 17125), (70, 17179), (74, 17191), (77, 17218), (88, 17263), (126, 17452), (139, 17506), (140, 17512), (158, 17602), (175, 17713), (188, 17815), (205, 17887), (251, 18070),

Gene: GirlDinner_20 Start: 15565, Stop: 16776, Start Num: 17

Candidate Starts for GirlDinner_20:

(Start: 17 @15565 has 105 MA's), (62, 15775), (66, 15787), (67, 15790), (82, 15850), (104, 15964), (107, 15979), (118, 16030), (163, 16216), (173, 16282), (174, 16300), (175, 16303), (196, 16441), (207, 16486), (211, 16501), (223, 16546), (225, 16549), (228, 16564), (232, 16576), (234, 16585), (256, 16678), (279, 16762), (280, 16768),

Gene: Goby_20 Start: 15844, Stop: 17055, Start Num: 17

Candidate Starts for Goby_20:

(Start: 17 @15844 has 105 MA's), (27, 15871), (51, 15997), (56, 16024), (62, 16054), (78, 16117), (99, 16216), (104, 16243), (119, 16312), (129, 16366), (133, 16378), (144, 16423), (163, 16495), (164, 16498), (173, 16561), (175, 16582), (185, 16657), (205, 16759), (207, 16765), (216, 16801), (217, 16804), (222, 16822), (234, 16864), (278, 17038), (279, 17041), (280, 17047),

Gene: Godpower_21 Start: 15855, Stop: 17066, Start Num: 17

Candidate Starts for Godpower_21:

(Start: 17 @15855 has 105 MA's), (27, 15882), (62, 16065), (66, 16077), (67, 16080), (78, 16128), (99, 16227), (104, 16254), (119, 16323), (129, 16377), (144, 16434), (164, 16509), (171, 16566), (175, 16593), (207, 16776), (217, 16815), (231, 16863), (232, 16866), (234, 16875), (243, 16908), (279, 17052), (280, 17058),

Gene: GreenWeasel_22 Start: 16555, Stop: 17760, Start Num: 17

Candidate Starts for GreenWeasel_22:

(12, 16537), (Start: 14 @16549 has 1 MA's), (Start: 17 @16555 has 105 MA's), (38, 16642), (58, 16741), (66, 16777), (82, 16840), (104, 16954), (106, 16966), (118, 17020), (119, 17023), (124, 17053), (129, 17077), (144, 17134), (154, 17173), (163, 17206), (164, 17209), (170, 17257), (207, 17476), (211, 17491), (223, 17536), (232, 17566), (237, 17581), (245, 17617), (277, 17737), (279, 17746), (280, 17752),

Gene: Haizum_20 Start: 16338, Stop: 17552, Start Num: 17

Candidate Starts for Haizum_20:

(Start: 17 @16338 has 105 MA's), (27, 16365), (43, 16446), (58, 16524), (60, 16542), (66, 16560), (67, 16563), (82, 16623), (104, 16737), (129, 16860), (144, 16917), (196, 17214), (207, 17259), (225, 17322), (256, 17451), (277, 17529), (279, 17538), (280, 17544),

Gene: Hank144_21 Start: 15960, Stop: 17171, Start Num: 17

Candidate Starts for Hank144_21:

(Start: 17 @15960 has 105 MA's), (43, 16068), (46, 16083), (62, 16170), (66, 16182), (67, 16185), (82, 16245), (104, 16359), (107, 16374), (129, 16482), (163, 16611), (173, 16677), (175, 16698), (177, 16719), (196, 16836), (205, 16875), (207, 16881), (211, 16896), (232, 16971), (234, 16980), (256, 17073), (279, 17157), (280, 17163),

Gene: Hippo_20 Start: 15830, Stop: 17041, Start Num: 17

Candidate Starts for Hippo_20:

(Start: 17 @15830 has 105 MA's), (62, 16040), (66, 16052), (67, 16055), (78, 16103), (99, 16202), (104, 16229), (119, 16298), (129, 16352), (144, 16409), (164, 16484), (167, 16511), (171, 16541), (174, 16565), (182, 16619), (193, 16697), (207, 16751), (217, 16790), (222, 16808), (232, 16841), (234, 16850), (243, 16883), (245, 16892), (256, 16943), (262, 16973), (279, 17027), (280, 17033),

Gene: Hum25_19 Start: 13554, Stop: 15002, Start Num: 15

Candidate Starts for Hum25_19:

(13, 13542), (Start: 15 @13554 has 3 MA's), (23, 13569), (27, 13584), (43, 13662), (46, 13677), (48, 13683), (49, 13689), (50, 13704), (54, 13716), (58, 13740), (79, 13824), (104, 13947), (109, 13974), (113, 13989), (125, 14046), (133, 14076), (137, 14091), (151, 14145), (153, 14151), (165, 14202), (167, 14217), (172, 14250), (182, 14316), (183, 14328), (198, 14415), (205, 14436), (210, 14457), (241, 14556), (252, 14610), (259, 14649), (261, 14652), (272, 14694), (285, 14820), (286, 14853), (288, 14901),

Gene: Hydra_22 Start: 16382, Stop: 17596, Start Num: 17

Candidate Starts for Hydra_22:

(Start: 17 @16382 has 105 MA's), (27, 16409), (62, 16592), (78, 16655), (99, 16754), (104, 16781), (119, 16850), (124, 16880), (154, 17000), (173, 17099), (205, 17297), (207, 17303), (217, 17342), (225, 17366), (232, 17393), (234, 17402), (243, 17435), (256, 17495), (262, 17525), (277, 17573), (279, 17582), (280, 17588),

Gene: Ibantik_81 Start: 42960, Stop: 44192, Start Num: 22

Candidate Starts for Ibantik_81:

(Start: 22 @42960 has 3 MA's), (38, 43035), (39, 43038), (55, 43125), (63, 43161), (84, 43257), (97, 43329), (100, 43335), (101, 43338), (106, 43374), (112, 43404), (129, 43485), (153, 43578), (175, 43707), (188, 43803), (195, 43830), (236, 43989), (239, 43998), (242, 44013), (246, 44031), (247, 44037), (252, 44061), (257, 44088), (274, 44154), (283, 44187),

Gene: Indigo_20 Start: 15854, Stop: 17068, Start Num: 17

Candidate Starts for Indigo_20:

(Start: 17 @15854 has 105 MA's), (27, 15881), (62, 16064), (78, 16127), (99, 16226), (104, 16253), (119, 16322), (124, 16352), (154, 16472), (173, 16571), (205, 16769), (207, 16775), (217, 16814), (225, 16838), (232, 16865), (234, 16874), (243, 16907), (256, 16967), (262, 16997), (277, 17045), (279, 17054), (280, 17060),

Gene: Issmi_21 Start: 16769, Stop: 17983, Start Num: 17

Candidate Starts for Issmi_21:

(Start: 17 @16769 has 105 MA's), (27, 16796), (46, 16892), (60, 16973), (62, 16979), (66, 16991), (67, 16994), (82, 17054), (83, 17066), (104, 17168), (106, 17180), (119, 17237), (129, 17291), (144, 17348), (173, 17486), (207, 17690), (225, 17753), (232, 17780), (236, 17792), (256, 17882), (277, 17960), (279, 17969), (280, 17975),

Gene: Itza_20 Start: 16200, Stop: 17420, Start Num: 17

Candidate Starts for Itza_20:

(Start: 17 @16200 has 105 MA's), (30, 16242), (38, 16287), (52, 16356), (60, 16404), (62, 16410), (103, 16596), (104, 16599), (108, 16623), (119, 16668), (129, 16722), (167, 16881), (173, 16917), (200, 17100), (211, 17136), (217, 17160), (222, 17178), (225, 17184), (234, 17220), (245, 17262), (275, 17388), (279, 17406), (280, 17412),

Gene: Izzy_21 Start: 16064, Stop: 17266, Start Num: 17

Candidate Starts for Izzy_21:

(Start: 17 @16064 has 105 MA's), (27, 16091), (62, 16274), (78, 16337), (99, 16436), (104, 16463), (119, 16532), (124, 16562), (205, 16979), (207, 16985), (217, 17024), (223, 17045), (232, 17075), (234, 17084), (243, 17117), (258, 17198), (276, 17240), (277, 17243), (279, 17252), (280, 17258),

Gene: Janus_21 Start: 15903, Stop: 17114, Start Num: 17

Candidate Starts for Janus_21:

(Start: 17 @15903 has 105 MA's), (62, 16113), (66, 16125), (67, 16128), (82, 16188), (83, 16200), (104, 16302), (107, 16317), (118, 16368), (160, 16542), (163, 16554), (173, 16620), (174, 16638), (175, 16641), (196, 16779), (207, 16824), (211, 16839), (223, 16884), (225, 16887), (232, 16914), (234, 16923), (256, 17016), (279, 17100), (280, 17106),

Gene: Jash_21 Start: 16017, Stop: 17219, Start Num: 17

Candidate Starts for Jash_21:

(Start: 17 @16017 has 105 MA's), (27, 16044), (62, 16227), (78, 16290), (99, 16389), (104, 16416), (119, 16485), (124, 16515), (205, 16932), (207, 16938), (217, 16977), (223, 16998), (232, 17028), (234, 17037), (243, 17070), (258, 17151), (276, 17193), (277, 17196), (279, 17205), (280, 17211),

Gene: Jevington_22 Start: 16207, Stop: 17418, Start Num: 17

Candidate Starts for Jevington_22:

(Start: 17 @16207 has 105 MA's), (35, 16288), (62, 16417), (66, 16429), (82, 16492), (104, 16606), (107, 16621), (129, 16729), (138, 16762), (144, 16786), (163, 16858), (173, 16924), (174, 16942), (175, 16945), (177, 16966), (196, 17083), (207, 17128), (211, 17143), (234, 17227), (237, 17233), (254, 17308), (256, 17320), (277, 17395), (279, 17404), (280, 17410),

Gene: Kaine_20 Start: 16241, Stop: 17458, Start Num: 17

Candidate Starts for Kaine_20:

(Start: 17 @16241 has 105 MA's), (27, 16268), (34, 16319), (62, 16451), (67, 16466), (87, 16553), (99, 16613), (119, 16709), (124, 16739), (138, 16796), (144, 16820), (164, 16895), (167, 16922), (173, 16958), (202, 17147), (207, 17162), (211, 17177), (223, 17222), (229, 17243), (234, 17261), (256, 17354), (262, 17384), (279, 17444), (280, 17450),

Gene: Katalie_21 Start: 16096, Stop: 17307, Start Num: 17

Candidate Starts for Katalie_21:

(Start: 17 @16096 has 105 MA's), (27, 16123), (56, 16276), (62, 16306), (78, 16369), (99, 16468), (104, 16495), (119, 16564), (144, 16675), (163, 16747), (164, 16750), (167, 16777), (173, 16813), (175, 16834), (207, 17017), (216, 17053), (217, 17056), (222, 17074), (234, 17116), (256, 17209), (279, 17293), (280, 17299),

Gene: Keiki_16 Start: 12250, Stop: 13407, Start Num: 19

Candidate Starts for Keiki_16:

(Start: 19 @12250 has 43 MA's), (28, 12277), (31, 12301), (38, 12334), (40, 12340), (43, 12355), (46, 12370), (47, 12373), (48, 12376), (53, 12406), (65, 12469), (69, 12478), (77, 12511), (85, 12544), (87, 12553), (88, 12556), (89, 12559), (90, 12568), (92, 12586), (93, 12589), (103, 12649), (105, 12661), (106, 12664), (119, 12703), (120, 12706), (127, 12748), (129, 12760), (134, 12775), (135, 12778), (136, 12784), (137, 12787), (141, 12802), (143, 12814), (148, 12835), (152, 12856), (154, 12868), (156, 12877), (161, 12892), (162, 12895), (166, 12919), (168, 12934), (171, 12961), (180, 13021), (185, 13054), (189, 13090), (195, 13117), (205, 13159), (208, 13174), (209, 13177), (215, 13201), (219, 13213), (223, 13228), (234, 13270), (244, 13306), (253, 13348), (254, 13351), (257, 13372), (258, 13384), (262, 13393),

Gene: Khuang_16 Start: 13963, Stop: 15075, Start Num: 19

Candidate Starts for Khuang_16:

(5, 13687), (Start: 16 @13960 has 9 MA's), (Start: 19 @13963 has 43 MA's), (32, 14017), (43, 14056), (48, 14077), (64, 14158), (69, 14173), (77, 14212), (104, 14341), (117, 14389), (118, 14392), (128, 14443), (145, 14512), (151, 14530), (172, 14635), (201, 14815), (212, 14857), (233, 14929), (238, 14944), (263, 15058),

Gene: Kromp_19 Start: 17084, Stop: 18241, Start Num: 22

Candidate Starts for Kromp_19:

(Start: 22 @17084 has 3 MA's), (51, 17225), (66, 17294), (105, 17492), (118, 17549), (125, 17588), (150, 17687), (184, 17888), (186, 17900), (228, 18083), (244, 18140), (254, 18185), (255, 18188),

Gene: Kubed_16 Start: 12239, Stop: 13396, Start Num: 19

Candidate Starts for Kubed_16:

(Start: 19 @12239 has 43 MA's), (28, 12266), (31, 12290), (35, 12317), (40, 12329), (43, 12344), (46, 12359), (47, 12362), (48, 12365), (53, 12395), (58, 12422), (65, 12458), (69, 12467), (77, 12500), (85, 12533), (87, 12542), (88, 12545), (89, 12548), (90, 12557), (103, 12638), (105, 12650), (106, 12653), (117, 12686), (119, 12692), (129, 12749), (134, 12764), (135, 12767), (136, 12773), (137, 12776), (141, 12791), (151, 12842), (152, 12845), (154, 12857), (156, 12866), (161, 12881), (162, 12884), (166, 12908), (168, 12923), (171, 12950), (173, 12956), (178, 13001), (185, 13043), (189, 13079), (191, 13085), (195, 13106), (196, 13109), (205, 13148), (208, 13163), (209, 13166), (214, 13187), (215, 13190), (219, 13202), (223, 13217), (230, 13244), (234, 13259), (244, 13295), (253, 13337), (254, 13340), (257, 13361), (258, 13373), (262, 13382),

Gene: Kumotta_19 Start: 15048, Stop: 16172, Start Num: 16

Candidate Starts for Kumotta_19:

(Start: 15 @15045 has 3 MA's), (Start: 16 @15048 has 9 MA's), (46, 15162), (54, 15201), (58, 15225), (69, 15264), (119, 15489), (121, 15501), (125, 15531), (128, 15543), (132, 15555), (134, 15564), (183,

15813), (189, 15861), (190, 15864),

Gene: Lannister_21 Start: 15861, Stop: 17075, Start Num: 17

Candidate Starts for Lannister_21:

(Start: 17 @15861 has 105 MA's), (27, 15888), (62, 16071), (66, 16083), (78, 16134), (99, 16233), (104, 16260), (119, 16329), (129, 16383), (144, 16440), (164, 16515), (167, 16542), (171, 16572), (174, 16596), (207, 16782), (217, 16821), (222, 16839), (231, 16869), (232, 16872), (234, 16881), (243, 16914), (245, 16923), (278, 17058), (279, 17061), (280, 17067),

Gene: Lauchelly_16 Start: 12253, Stop: 13410, Start Num: 19

Candidate Starts for Lauchelly_16:

(Start: 16 @12250 has 9 MA's), (Start: 19 @12253 has 43 MA's), (28, 12280), (31, 12304), (38, 12337), (40, 12343), (43, 12358), (46, 12373), (47, 12376), (48, 12379), (53, 12409), (65, 12472), (69, 12481), (73, 12490), (77, 12514), (85, 12547), (87, 12556), (88, 12559), (89, 12562), (90, 12571), (92, 12589), (93, 12592), (105, 12664), (106, 12667), (117, 12700), (119, 12706), (135, 12781), (136, 12787), (137, 12790), (141, 12805), (143, 12817), (151, 12856), (152, 12859), (154, 12871), (156, 12880), (161, 12895), (162, 12898), (166, 12922), (168, 12937), (171, 12964), (180, 13024), (185, 13057), (189, 13093), (195, 13120), (196, 13123), (205, 13162), (208, 13177), (209, 13180), (215, 13204), (219, 13216), (223, 13231), (234, 13273), (244, 13309), (253, 13351), (254, 13354), (256, 13366), (257, 13375), (258, 13387), (262, 13396),

Gene: Legacy_20 Start: 15825, Stop: 17039, Start Num: 17

Candidate Starts for Legacy_20:

(Start: 17 @15825 has 105 MA's), (27, 15852), (62, 16035), (78, 16098), (99, 16197), (104, 16224), (119, 16293), (124, 16323), (154, 16443), (173, 16542), (205, 16740), (207, 16746), (217, 16785), (225, 16809), (232, 16836), (234, 16845), (243, 16878), (256, 16938), (262, 16968), (277, 17016), (279, 17025), (280, 17031),

Gene: Leviosa_16 Start: 12267, Stop: 13424, Start Num: 19

Candidate Starts for Leviosa_16:

(Start: 19 @12267 has 43 MA's), (28, 12294), (31, 12318), (38, 12351), (40, 12357), (43, 12372), (46, 12387), (47, 12390), (48, 12393), (53, 12423), (65, 12486), (77, 12528), (85, 12561), (87, 12570), (88, 12573), (89, 12576), (92, 12603), (93, 12606), (105, 12678), (106, 12681), (117, 12714), (119, 12720), (127, 12765), (129, 12777), (135, 12795), (136, 12801), (137, 12804), (141, 12819), (143, 12831), (151, 12870), (152, 12873), (154, 12885), (156, 12894), (161, 12909), (162, 12912), (166, 12936), (168, 12951), (171, 12978), (172, 12981), (180, 13038), (185, 13071), (189, 13107), (195, 13134), (196, 13137), (205, 13176), (208, 13191), (209, 13194), (215, 13218), (219, 13230), (223, 13245), (230, 13272), (234, 13287), (244, 13323), (253, 13365), (254, 13368), (257, 13389), (258, 13401),

Gene: Leviticus_20 Start: 15854, Stop: 17068, Start Num: 17

Candidate Starts for Leviticus_20:

(Start: 17 @15854 has 105 MA's), (27, 15881), (62, 16064), (78, 16127), (99, 16226), (104, 16253), (119, 16322), (124, 16352), (154, 16472), (173, 16571), (205, 16769), (207, 16775), (217, 16814), (225, 16838), (232, 16865), (234, 16874), (243, 16907), (256, 16967), (262, 16997), (277, 17045), (279, 17054), (280, 17060),

Gene: Lika_20 Start: 15859, Stop: 17070, Start Num: 17

Candidate Starts for Lika_20:

(Start: 17 @15859 has 105 MA's), (27, 15886), (62, 16069), (66, 16081), (67, 16084), (78, 16132), (99, 16231), (104, 16258), (119, 16327), (129, 16381), (144, 16438), (164, 16513), (171, 16570), (175, 16597), (207, 16780), (217, 16819), (231, 16867), (232, 16870), (234, 16879), (243, 16912), (279, 17056), (280, 17062),

Gene: LilBandit_16 Start: 12248, Stop: 13408, Start Num: 16

Candidate Starts for LilBandit_16:

(Start: 16 @12248 has 9 MA's), (Start: 19 @12251 has 43 MA's), (28, 12278), (31, 12302), (35, 12329), (38, 12335), (40, 12341), (46, 12371), (47, 12374), (48, 12377), (53, 12407), (65, 12470), (69, 12479), (73, 12488), (77, 12512), (85, 12545), (87, 12554), (88, 12557), (89, 12560), (90, 12569), (92, 12587), (94, 12596), (103, 12650), (105, 12662), (106, 12665), (117, 12698), (119, 12704), (127, 12749), (129, 12761), (134, 12776), (135, 12779), (136, 12785), (137, 12788), (141, 12803), (143, 12815), (151, 12854), (152, 12857), (154, 12869), (156, 12878), (161, 12893), (162, 12896), (166, 12920), (168, 12935), (171, 12962), (172, 12965), (185, 13055), (189, 13091), (195, 13118), (205, 13160), (208, 13175), (209, 13178), (215, 13202), (219, 13214), (221, 13223), (223, 13229), (234, 13271), (253, 13349), (256, 13364), (257, 13373), (258, 13385), (262, 13394),

Gene: Loofah_21 Start: 15822, Stop: 17033, Start Num: 17

Candidate Starts for Loofah_21:

(Start: 17 @15822 has 105 MA's), (43, 15930), (62, 16032), (66, 16044), (67, 16047), (82, 16107), (104, 16221), (107, 16236), (129, 16344), (138, 16377), (144, 16401), (163, 16473), (167, 16503), (174, 16557), (175, 16560), (177, 16581), (196, 16698), (207, 16743), (211, 16758), (234, 16842), (236, 16845), (237, 16848), (245, 16884), (254, 16923), (256, 16935), (266, 16974), (276, 17007), (277, 17010), (279, 17019), (280, 17025),

Gene: Lorelei_20 Start: 15829, Stop: 17040, Start Num: 17

Candidate Starts for Lorelei_20:

(Start: 17 @15829 has 105 MA's), (27, 15856), (56, 16009), (62, 16039), (78, 16102), (99, 16201), (104, 16228), (119, 16297), (129, 16351), (131, 16354), (133, 16363), (144, 16408), (163, 16480), (164, 16483), (173, 16546), (175, 16567), (185, 16642), (193, 16696), (205, 16744), (207, 16750), (216, 16786), (217, 16789), (222, 16807), (234, 16849), (278, 17023), (279, 17026), (280, 17032),

Gene: MEAK_16 Start: 12237, Stop: 13394, Start Num: 19

Candidate Starts for MEAK_16:

(Start: 16 @12234 has 9 MA's), (Start: 19 @12237 has 43 MA's), (28, 12264), (31, 12288), (35, 12315), (38, 12321), (40, 12327), (43, 12342), (46, 12357), (47, 12360), (48, 12363), (53, 12393), (65, 12456), (69, 12465), (77, 12498), (85, 12531), (87, 12540), (89, 12546), (90, 12555), (92, 12573), (93, 12576), (94, 12582), (103, 12636), (105, 12648), (106, 12651), (117, 12684), (119, 12690), (129, 12747), (134, 12762), (135, 12765), (136, 12771), (137, 12774), (141, 12789), (143, 12801), (148, 12822), (151, 12840), (152, 12843), (154, 12855), (156, 12864), (161, 12879), (162, 12882), (166, 12906), (168, 12921), (171, 12948), (172, 12951), (180, 13008), (185, 13041), (189, 13077), (195, 13104), (205, 13146), (208, 13161), (209, 13164), (215, 13188), (219, 13200), (221, 13209), (223, 13215), (234, 13257), (244, 13293), (254, 13338), (257, 13359), (262, 13380),

Gene: Maja_18 Start: 14689, Stop: 15813, Start Num: 16

Candidate Starts for Maja_18:

(Start: 15 @14686 has 3 MA's), (Start: 16 @14689 has 9 MA's), (Start: 20 @14695 has 2 MA's), (64, 14902), (79, 14962), (105, 15094), (110, 15121), (125, 15181), (128, 15193), (137, 15226), (142, 15247), (172, 15385), (195, 15535), (218, 15628), (220, 15634), (225, 15649), (265, 15805),

Gene: Maneekul_20 Start: 15826, Stop: 17037, Start Num: 17

Candidate Starts for Maneekul_20:

(Start: 17 @15826 has 105 MA's), (27, 15853), (62, 16036), (66, 16048), (67, 16051), (99, 16198), (104, 16225), (129, 16348), (144, 16405), (164, 16480), (167, 16507), (171, 16537), (175, 16564), (182, 16615), (207, 16747), (217, 16786), (222, 16804), (231, 16834), (232, 16837), (234, 16846), (243, 16879), (245, 16888), (256, 16939), (273, 16999), (279, 17023), (280, 17029),

Gene: Marav_23 Start: 16557, Stop: 17768, Start Num: 17

Candidate Starts for Marav_23:

(Start: 17 @16557 has 105 MA's), (35, 16638), (62, 16767), (66, 16779), (82, 16842), (104, 16956), (107, 16971), (129, 17079), (138, 17112), (163, 17208), (167, 17238), (173, 17274), (174, 17292), (175, 17295), (177, 17316), (196, 17433), (207, 17478), (211, 17493), (234, 17577), (237, 17583), (254, 17658), (256, 17670), (277, 17745), (279, 17754), (280, 17760),

Gene: MargaretKali_19 Start: 14683, Stop: 15807, Start Num: 16

Candidate Starts for MargaretKali_19:

(Start: 15 @14680 has 3 MA's), (Start: 16 @14683 has 9 MA's), (46, 14797), (54, 14836), (58, 14860), (69, 14899), (119, 15124), (121, 15136), (125, 15166), (128, 15178), (132, 15190), (134, 15199), (183, 15448), (189, 15496), (190, 15499),

Gene: Moyashi_16 Start: 12273, Stop: 13430, Start Num: 19

Candidate Starts for Moyashi_16:

(Start: 16 @12270 has 9 MA's), (Start: 19 @12273 has 43 MA's), (28, 12300), (31, 12324), (35, 12351), (40, 12363), (43, 12378), (44, 12387), (46, 12393), (47, 12396), (48, 12399), (53, 12429), (65, 12492), (73, 12510), (77, 12534), (85, 12567), (87, 12576), (89, 12582), (90, 12591), (94, 12618), (106, 12687), (119, 12726), (120, 12729), (129, 12783), (134, 12798), (135, 12801), (136, 12807), (137, 12810), (141, 12825), (143, 12837), (147, 12855), (154, 12891), (156, 12900), (161, 12915), (162, 12918), (166, 12942), (168, 12957), (171, 12984), (173, 12990), (180, 13044), (185, 13077), (189, 13113), (195, 13140), (196, 13143), (205, 13182), (208, 13197), (209, 13200), (215, 13224), (219, 13236), (221, 13245), (223, 13251), (234, 13293), (244, 13329), (254, 13374), (256, 13386), (257, 13395), (258, 13407), (262, 13416), (266, 13425),

Gene: MrAK_16 Start: 12284, Stop: 13441, Start Num: 19

Candidate Starts for MrAK_16:

(Start: 16 @12281 has 9 MA's), (Start: 19 @12284 has 43 MA's), (28, 12311), (31, 12335), (35, 12362), (38, 12368), (40, 12374), (43, 12389), (44, 12398), (46, 12404), (47, 12407), (48, 12410), (53, 12440), (65, 12503), (73, 12521), (77, 12545), (85, 12578), (87, 12587), (89, 12593), (90, 12602), (94, 12629), (106, 12698), (119, 12737), (120, 12740), (129, 12794), (134, 12809), (135, 12812), (136, 12818), (137, 12821), (141, 12836), (143, 12848), (147, 12866), (154, 12902), (156, 12911), (161, 12926), (162, 12929), (166, 12953), (168, 12968), (171, 12995), (173, 13001), (180, 13055), (185, 13088), (189, 13124), (195, 13151), (196, 13154), (205, 13193), (208, 13208), (209, 13211), (215, 13235), (219, 13247), (221, 13256), (223, 13262), (234, 13304), (244, 13340), (254, 13385), (256, 13397), (257, 13406), (258, 13418), (262, 13427),

Gene: MrSmee_18 Start: 13774, Stop: 14892, Start Num: 20

Candidate Starts for MrSmee_18:

(Start: 20 @13774 has 2 MA's), (38, 13852), (41, 13861), (64, 13981), (68, 13993), (72, 14002), (90, 14092), (104, 14164), (105, 14173), (106, 14176), (119, 14218), (128, 14272), (137, 14305), (150, 14356), (181, 14524), (195, 14614), (213, 14695), (228, 14743), (243, 14791), (245, 14800), (255, 14839), (263, 14878),

Gene: Nabi_20 Start: 15829, Stop: 17040, Start Num: 17

Candidate Starts for Nabi_20:

(Start: 17 @15829 has 105 MA's), (27, 15856), (56, 16009), (62, 16039), (78, 16102), (99, 16201), (104, 16228), (119, 16297), (129, 16351), (131, 16354), (133, 16363), (144, 16408), (163, 16480), (164, 16483), (173, 16546), (175, 16567), (185, 16642), (193, 16696), (205, 16744), (207, 16750), (216, 16786), (217, 16789), (222, 16807), (234, 16849), (278, 17023), (279, 17026), (280, 17032),

Gene: Nanodon_22 Start: 16037, Stop: 17248, Start Num: 17

Candidate Starts for Nanodon_22:

(Start: 17 @16037 has 105 MA's), (27, 16064), (56, 16217), (62, 16247), (78, 16310), (99, 16409), (102, 16421), (104, 16436), (119, 16505), (129, 16559), (163, 16688), (164, 16691), (173, 16754), (174, 16772), (207, 16958), (216, 16994), (217, 16997), (222, 17015), (234, 17057), (256, 17150), (279, 17234), (280, 17240),

Gene: Nerdos_20 Start: 15854, Stop: 17068, Start Num: 17

Candidate Starts for Nerdos_20:

(Start: 17 @15854 has 105 MA's), (27, 15881), (62, 16064), (78, 16127), (99, 16226), (104, 16253), (119, 16322), (124, 16352), (154, 16472), (173, 16571), (205, 16769), (207, 16775), (217, 16814), (225, 16838), (232, 16865), (234, 16874), (243, 16907), (256, 16967), (262, 16997), (277, 17045), (279, 17054), (280, 17060),

Gene: Nishikigoi_20 Start: 16338, Stop: 17552, Start Num: 17

Candidate Starts for Nishikigoi_20:

(Start: 17 @16338 has 105 MA's), (27, 16365), (43, 16446), (58, 16524), (60, 16542), (66, 16560), (67, 16563), (82, 16623), (104, 16737), (119, 16806), (129, 16860), (144, 16917), (196, 17214), (207, 17259), (225, 17322), (256, 17451), (277, 17529), (279, 17538), (280, 17544),

Gene: Oliynyk_21 Start: 16017, Stop: 17219, Start Num: 17

Candidate Starts for Oliynyk_21:

(Start: 17 @16017 has 105 MA's), (27, 16044), (62, 16227), (78, 16290), (99, 16389), (104, 16416), (119, 16485), (124, 16515), (205, 16932), (207, 16938), (217, 16977), (223, 16998), (232, 17028), (234, 17037), (243, 17070), (258, 17151), (276, 17193), (277, 17196), (279, 17205), (280, 17211),

Gene: Omar_21 Start: 16673, Stop: 17887, Start Num: 17

Candidate Starts for Omar_21:

(Start: 17 @16673 has 105 MA's), (27, 16700), (58, 16859), (60, 16877), (62, 16883), (66, 16895), (67, 16898), (82, 16958), (104, 17072), (119, 17141), (129, 17195), (138, 17228), (144, 17252), (167, 17354), (169, 17360), (202, 17579), (204, 17585), (207, 17594), (236, 17696), (256, 17786), (277, 17864), (279, 17873), (280, 17879),

Gene: Ouroboros_16 Start: 12239, Stop: 13396, Start Num: 19

Candidate Starts for Ouroboros_16:

(Start: 19 @12239 has 43 MA's), (28, 12266), (31, 12290), (35, 12317), (38, 12323), (40, 12329), (43, 12344), (46, 12359), (47, 12362), (48, 12365), (53, 12395), (65, 12458), (69, 12467), (77, 12500), (85, 12533), (87, 12542), (88, 12545), (89, 12548), (90, 12557), (92, 12575), (93, 12578), (103, 12638), (105, 12650), (106, 12653), (117, 12686), (119, 12692), (120, 12695), (127, 12737), (129, 12749), (134, 12764), (135, 12767), (136, 12773), (137, 12776), (141, 12791), (143, 12803), (148, 12824), (152, 12845), (154, 12857), (156, 12866), (161, 12881), (162, 12884), (166, 12908), (168, 12923), (171, 12950), (180, 13010), (185, 13043), (189, 13079), (195, 13106), (205, 13148), (208, 13163), (215, 13190), (219, 13202), (223, 13217), (230, 13244), (234, 13259), (244, 13295), (253, 13337), (257, 13361), (258, 13373),

Gene: Ozzie_20 Start: 15834, Stop: 17048, Start Num: 17

Candidate Starts for Ozzie_20:

(Start: 17 @15834 has 105 MA's), (27, 15861), (62, 16044), (78, 16107), (99, 16206), (104, 16233), (119, 16302), (124, 16332), (154, 16452), (173, 16551), (205, 16749), (207, 16755), (217, 16794), (225, 16818), (232, 16845), (234, 16854), (243, 16887), (256, 16947), (262, 16977), (277, 17025), (279, 17034), (280, 17040),

Gene: OzzyJ_21 Start: 15821, Stop: 17032, Start Num: 17

Candidate Starts for OzzyJ_21:

(Start: 17 @15821 has 105 MA's), (62, 16031), (66, 16043), (67, 16046), (78, 16094), (99, 16193), (104, 16220), (119, 16289), (129, 16343), (144, 16400), (164, 16475), (167, 16502), (171, 16532), (174, 16556), (182, 16610), (193, 16688), (207, 16742), (217, 16781), (222, 16799), (232, 16832), (234, 16841), (243, 16874), (245, 16883), (256, 16934), (279, 17018), (280, 17024),

Gene: P1.1_16 Start: 12239, Stop: 13399, Start Num: 16

Candidate Starts for P1.1_16:

(Start: 16 @12239 has 9 MA's), (Start: 19 @12242 has 43 MA's), (28, 12269), (31, 12293), (35, 12320), (38, 12326), (40, 12332), (43, 12347), (46, 12362), (47, 12365), (48, 12368), (53, 12398), (65, 12461), (73, 12479), (77, 12503), (85, 12536), (87, 12545), (89, 12551), (90, 12560), (92, 12578), (94, 12587), (103, 12641), (105, 12653), (106, 12656), (117, 12689), (119, 12695), (127, 12740), (129, 12752), (134, 12767), (135, 12770), (136, 12776), (137, 12779), (141, 12794), (143, 12806), (151, 12845), (152, 12848), (154, 12860), (156, 12869), (161, 12884), (162, 12887), (166, 12911), (168, 12926), (171, 12953), (172, 12956), (180, 13013), (185, 13046), (189, 13082), (195, 13109), (196, 13112), (205, 13151), (208, 13166), (209, 13169), (215, 13193), (221, 13214), (223, 13220), (234, 13262), (244, 13298), (254, 13343), (256, 13355), (257, 13364), (262, 13385),

Gene: P100.1_16 Start: 12249, Stop: 13406, Start Num: 19

Candidate Starts for P100.1_16:

(Start: 16 @12246 has 9 MA's), (Start: 19 @12249 has 43 MA's), (28, 12276), (31, 12300), (35, 12327), (40, 12339), (43, 12354), (44, 12363), (46, 12369), (47, 12372), (48, 12375), (52, 12402), (53, 12405), (65, 12468), (73, 12486), (77, 12510), (85, 12543), (87, 12552), (88, 12555), (89, 12558), (90, 12567), (92, 12585), (94, 12594), (105, 12660), (106, 12663), (117, 12696), (119, 12702), (129, 12759), (135, 12777), (136, 12783), (137, 12786), (141, 12801), (143, 12813), (147, 12831), (151, 12852), (156, 12876), (161, 12891), (162, 12894), (166, 12918), (168, 12933), (171, 12960), (172, 12963), (180, 13020), (185, 13053), (189, 13089), (195, 13116), (205, 13158), (208, 13173), (209, 13176), (215, 13200), (219, 13212), (221, 13221), (223, 13227), (234, 13269), (244, 13305), (253, 13347), (254, 13350), (256, 13362), (257, 13371), (258, 13383), (262, 13392),

Gene: P100A_16 Start: 12249, Stop: 13406, Start Num: 19

Candidate Starts for P100A_16:

(Start: 19 @12249 has 43 MA's), (28, 12276), (31, 12300), (38, 12333), (40, 12339), (43, 12354), (46, 12369), (47, 12372), (48, 12375), (53, 12405), (57, 12429), (65, 12468), (69, 12477), (77, 12510), (85, 12543), (87, 12552), (89, 12558), (90, 12567), (92, 12585), (93, 12588), (103, 12648), (105, 12660), (106, 12663), (117, 12696), (119, 12702), (120, 12705), (127, 12747), (129, 12759), (135, 12777), (141, 12801), (143, 12813), (152, 12855), (156, 12876), (161, 12891), (162, 12894), (166, 12918), (168, 12933), (171, 12960), (180, 13020), (185, 13053), (189, 13089), (195, 13116), (196, 13119), (205, 13158), (208, 13173), (209, 13176), (215, 13200), (223, 13227), (230, 13254), (234, 13269), (244, 13305), (254, 13350), (257, 13371), (258, 13383), (262, 13392),

Gene: P100D_16 Start: 12245, Stop: 13402, Start Num: 19

Candidate Starts for P100D_16:

(Start: 16 @12242 has 9 MA's), (Start: 19 @12245 has 43 MA's), (28, 12272), (31, 12296), (35, 12323), (38, 12329), (40, 12335), (43, 12350), (46, 12365), (47, 12368), (48, 12371), (53, 12401), (65, 12464), (73, 12482), (77, 12506), (85, 12539), (87, 12548), (89, 12554), (90, 12563), (92, 12581), (94, 12590), (103, 12644), (105, 12656), (106, 12659), (117, 12692), (119, 12698), (127, 12743), (129, 12755), (135, 12773), (136, 12779), (137, 12782), (141, 12797), (143, 12809), (148, 12830), (151, 12848), (152, 12851), (154, 12863), (156, 12872), (161, 12887), (162, 12890), (166, 12914), (168, 12929), (171, 12956), (172, 12959), (180, 13016), (185, 13049), (189, 13085), (195, 13112), (205, 13154), (208, 13169), (209, 13172), (215, 13196), (219, 13208), (221, 13217), (223, 13223), (234, 13265), (244, 13301), (253, 13343), (257, 13367), (258, 13379), (262, 13388),

Gene: P101A_16 Start: 12257, Stop: 13414, Start Num: 19

Candidate Starts for P101A_16:

(Start: 16 @12254 has 9 MA's), (Start: 19 @12257 has 43 MA's), (28, 12284), (31, 12308), (35, 12335), (38, 12341), (40, 12347), (43, 12362), (46, 12377), (47, 12380), (48, 12383), (53, 12413), (65, 12476), (73, 12494), (77, 12518), (85, 12551), (87, 12560), (88, 12563), (89, 12566), (90, 12575), (92, 12593), (94, 12602), (105, 12668), (106, 12671), (117, 12704), (119, 12710), (129, 12767), (134, 12782), (135, 12785), (136, 12791), (137, 12794), (141, 12809), (143, 12821), (147, 12839), (151, 12860), (156, 12884), (161, 12899), (162, 12902), (166, 12926), (168, 12941), (171, 12968), (172, 12971), (185, 13061), (189, 13097), (195, 13124), (205, 13166), (208, 13181), (209, 13184), (215, 13208), (219, 13220), (221, 13229), (223, 13235), (234, 13277), (244, 13313), (253, 13355), (254, 13358), (256, 13370), (257, 13379), (258, 13391), (262, 13400),

Gene: P104A_16 Start: 12234, Stop: 13391, Start Num: 19

Candidate Starts for P104A_16:

(Start: 19 @12234 has 43 MA's), (28, 12261), (31, 12285), (38, 12318), (40, 12324), (43, 12339), (46, 12354), (47, 12357), (48, 12360), (53, 12390), (65, 12453), (73, 12471), (77, 12495), (85, 12528), (87, 12537), (89, 12543), (90, 12552), (92, 12570), (94, 12579), (105, 12645), (106, 12648), (117, 12681), (119, 12687), (129, 12744), (134, 12759), (135, 12762), (136, 12768), (137, 12771), (141, 12786), (143, 12798), (151, 12837), (152, 12840), (154, 12852), (156, 12861), (161, 12876), (162, 12879), (166, 12903), (168, 12918), (171, 12945), (172, 12948), (180, 13005), (185, 13038), (189, 13074), (195, 13101), (196, 13104), (205, 13143), (208, 13158), (209, 13161), (215, 13185), (223, 13212), (230, 13239), (234, 13254), (244, 13290), (253, 13332), (257, 13356), (258, 13368), (262, 13377),

Gene: P104B_16 Start: 12251, Stop: 13408, Start Num: 19

Candidate Starts for P104B_16:

(Start: 16 @12248 has 9 MA's), (Start: 19 @12251 has 43 MA's), (28, 12278), (31, 12302), (35, 12329), (38, 12335), (40, 12341), (43, 12356), (46, 12371), (47, 12374), (48, 12377), (53, 12407), (65, 12470), (69, 12479), (73, 12488), (77, 12512), (85, 12545), (87, 12554), (89, 12560), (90, 12569), (92, 12587), (94, 12596), (105, 12662), (106, 12665), (117, 12698), (119, 12704), (127, 12749), (134, 12776), (135, 12779), (136, 12785), (137, 12788), (141, 12803), (143, 12815), (151, 12854), (154, 12869), (156, 12878), (161, 12893), (162, 12896), (166, 12920), (168, 12935), (171, 12962), (172, 12965), (180, 13022), (185, 13055), (195, 13118), (205, 13160), (208, 13175), (209, 13178), (215, 13202), (219, 13214), (221, 13223), (223, 13229), (230, 13256), (234, 13271), (244, 13307), (254, 13352), (257, 13373), (258, 13385), (262, 13394),

Gene: P105_16 Start: 12154, Stop: 13311, Start Num: 19

Candidate Starts for P105_16:

(Start: 16 @12151 has 9 MA's), (Start: 19 @12154 has 43 MA's), (28, 12181), (31, 12205), (35, 12232), (38, 12238), (40, 12244), (43, 12259), (46, 12274), (47, 12277), (48, 12280), (53, 12310), (65, 12373), (73, 12391), (77, 12415), (85, 12448), (87, 12457), (89, 12463), (90, 12472), (94, 12499), (106, 12568), (119, 12607), (120, 12610), (129, 12664), (134, 12679), (135, 12682), (136, 12688), (137, 12691), (141, 12706), (143, 12718), (147, 12736), (154, 12772), (156, 12781), (161, 12796), (162, 12799), (166, 12823), (168, 12838), (171, 12865), (173, 12871), (180, 12925), (185, 12958), (189, 12994), (195, 13021), (196, 13024), (205, 13063), (208, 13078), (209, 13081), (215, 13105), (219, 13117), (221, 13126), (223, 13132), (244, 13210), (254, 13255), (256, 13267), (257, 13276), (258, 13288), (262, 13297),

Gene: P106A_16 Start: 12279, Stop: 13436, Start Num: 19

Candidate Starts for P106A_16:

(Start: 16 @12276 has 9 MA's), (Start: 19 @12279 has 43 MA's), (28, 12306), (31, 12330), (35, 12357), (40, 12369), (43, 12384), (44, 12393), (46, 12399), (47, 12402), (48, 12405), (53, 12435), (65, 12498), (73, 12516), (77, 12540), (85, 12573), (87, 12582), (88, 12585), (89, 12588), (90, 12597), (92, 12615), (94, 12624), (103, 12678), (105, 12690), (106, 12693), (117, 12726), (119, 12732), (129, 12789), (134, 12804), (135, 12807), (136, 12813), (137, 12816), (141, 12831), (143, 12843), (147, 12861), (151,

12882), (154, 12897), (156, 12906), (161, 12921), (162, 12924), (166, 12948), (168, 12963), (171, 12990), (172, 12993), (185, 13083), (189, 13119), (195, 13146), (205, 13188), (208, 13203), (209, 13206), (215, 13230), (221, 13251), (223, 13257), (230, 13284), (234, 13299), (244, 13335), (254, 13380), (257, 13401), (258, 13413), (262, 13422),

Gene: P106C_16 Start: 12279, Stop: 13436, Start Num: 19

Candidate Starts for P106C_16:

(Start: 16 @12276 has 9 MA's), (Start: 19 @12279 has 43 MA's), (28, 12306), (31, 12330), (35, 12357), (40, 12369), (43, 12384), (44, 12393), (46, 12399), (47, 12402), (48, 12405), (53, 12435), (65, 12498), (73, 12516), (77, 12540), (85, 12573), (87, 12582), (88, 12585), (89, 12588), (90, 12597), (92, 12615), (94, 12624), (103, 12678), (105, 12690), (106, 12693), (117, 12726), (119, 12732), (129, 12789), (134, 12804), (135, 12807), (136, 12813), (137, 12816), (141, 12831), (143, 12843), (147, 12861), (151, 12882), (154, 12897), (156, 12906), (161, 12921), (162, 12924), (166, 12948), (168, 12963), (171, 12990), (172, 12993), (185, 13083), (189, 13119), (195, 13146), (205, 13188), (208, 13203), (209, 13206), (215, 13230), (221, 13251), (223, 13257), (230, 13284), (234, 13299), (244, 13335), (254, 13380), (256, 13392), (257, 13401), (258, 13413), (262, 13422),

Gene: P106I_16 Start: 12279, Stop: 13436, Start Num: 19

Candidate Starts for P106I_16:

(Start: 16 @12276 has 9 MA's), (Start: 19 @12279 has 43 MA's), (28, 12306), (31, 12330), (35, 12357), (40, 12369), (43, 12384), (44, 12393), (46, 12399), (47, 12402), (48, 12405), (53, 12435), (65, 12498), (73, 12516), (77, 12540), (85, 12573), (87, 12582), (88, 12585), (89, 12588), (90, 12597), (92, 12615), (94, 12624), (103, 12678), (105, 12690), (106, 12693), (117, 12726), (119, 12732), (129, 12789), (134, 12804), (135, 12807), (136, 12813), (137, 12816), (141, 12831), (143, 12843), (147, 12861), (151, 12882), (154, 12897), (156, 12906), (161, 12921), (162, 12924), (166, 12948), (168, 12963), (171, 12990), (172, 12993), (185, 13083), (189, 13119), (195, 13146), (205, 13188), (208, 13203), (209, 13206), (215, 13230), (221, 13251), (223, 13257), (230, 13284), (234, 13299), (244, 13335), (254, 13380), (256, 13392), (257, 13401), (258, 13413), (262, 13422),

Gene: P106L_16 Start: 12279, Stop: 13436, Start Num: 19

Candidate Starts for P106L_16:

(Start: 16 @12276 has 9 MA's), (Start: 19 @12279 has 43 MA's), (28, 12306), (31, 12330), (35, 12357), (40, 12369), (43, 12384), (44, 12393), (46, 12399), (47, 12402), (48, 12405), (53, 12435), (65, 12498), (73, 12516), (77, 12540), (85, 12573), (87, 12582), (88, 12585), (89, 12588), (90, 12597), (92, 12615), (94, 12624), (103, 12678), (105, 12690), (106, 12693), (117, 12726), (119, 12732), (129, 12789), (134, 12804), (135, 12807), (136, 12813), (137, 12816), (141, 12831), (143, 12843), (147, 12861), (151, 12882), (154, 12897), (156, 12906), (161, 12921), (162, 12924), (166, 12948), (168, 12963), (171, 12990), (172, 12993), (185, 13083), (189, 13119), (195, 13146), (205, 13188), (208, 13203), (209, 13206), (215, 13230), (221, 13251), (223, 13257), (230, 13284), (234, 13299), (244, 13335), (254, 13380), (256, 13392), (257, 13401), (258, 13413), (262, 13422),

Gene: P106M_16 Start: 12279, Stop: 13436, Start Num: 19

Candidate Starts for P106M_16:

(Start: 16 @12276 has 9 MA's), (Start: 19 @12279 has 43 MA's), (28, 12306), (31, 12330), (35, 12357), (40, 12369), (43, 12384), (44, 12393), (46, 12399), (47, 12402), (48, 12405), (53, 12435), (65, 12498), (73, 12516), (77, 12540), (85, 12573), (87, 12582), (88, 12585), (89, 12588), (90, 12597), (92, 12615), (94, 12624), (103, 12678), (105, 12690), (106, 12693), (117, 12726), (119, 12732), (129, 12789), (134, 12804), (135, 12807), (136, 12813), (137, 12816), (141, 12831), (143, 12843), (147, 12861), (151, 12882), (154, 12897), (156, 12906), (161, 12921), (162, 12924), (166, 12948), (168, 12963), (171, 12990), (172, 12993), (185, 13083), (189, 13119), (195, 13146), (205, 13188), (208, 13203), (209, 13206), (215, 13230), (221, 13251), (223, 13257), (230, 13284), (234, 13299), (244, 13335), (254, 13380), (256, 13392), (257, 13401), (258, 13413), (262, 13422),

Gene: P107A_16 Start: 12255, Stop: 13412, Start Num: 19

Candidate Starts for P107A_16:

(Start: 19 @12255 has 43 MA's), (28, 12282), (31, 12306), (35, 12333), (38, 12339), (40, 12345), (43, 12360), (46, 12375), (47, 12378), (48, 12381), (53, 12411), (65, 12474), (69, 12483), (73, 12492), (77, 12516), (85, 12549), (87, 12558), (88, 12561), (89, 12564), (90, 12573), (92, 12591), (93, 12594), (105, 12666), (106, 12669), (117, 12702), (119, 12708), (129, 12765), (135, 12783), (136, 12789), (137, 12792), (141, 12807), (143, 12819), (148, 12840), (152, 12861), (154, 12873), (156, 12882), (161, 12897), (162, 12900), (166, 12924), (168, 12939), (171, 12966), (172, 12969), (180, 13026), (185, 13059), (189, 13095), (195, 13122), (196, 13125), (205, 13164), (208, 13179), (209, 13182), (215, 13206), (219, 13218), (223, 13233), (230, 13260), (234, 13275), (244, 13311), (254, 13356), (257, 13377), (258, 13389), (262, 13398),

Gene: P107C_16 Start: 12232, Stop: 13389, Start Num: 19

Candidate Starts for P107C_16:

(Start: 16 @12229 has 9 MA's), (Start: 19 @12232 has 43 MA's), (28, 12259), (31, 12283), (35, 12310), (38, 12316), (40, 12322), (43, 12337), (46, 12352), (47, 12355), (48, 12358), (53, 12388), (65, 12451), (77, 12493), (85, 12526), (87, 12535), (89, 12541), (90, 12550), (92, 12568), (93, 12571), (105, 12643), (106, 12646), (117, 12679), (119, 12685), (127, 12730), (129, 12742), (134, 12757), (136, 12766), (137, 12769), (141, 12784), (143, 12796), (152, 12838), (154, 12850), (156, 12859), (161, 12874), (162, 12877), (166, 12901), (168, 12916), (171, 12943), (172, 12946), (180, 13003), (185, 13036), (189, 13072), (195, 13099), (205, 13141), (208, 13156), (209, 13159), (215, 13183), (219, 13195), (221, 13204), (223, 13210), (234, 13252), (244, 13288), (254, 13333), (256, 13345), (257, 13354), (258, 13366), (262, 13375),

Gene: P108C_16 Start: 12240, Stop: 13397, Start Num: 19

Candidate Starts for P108C_16:

(Start: 16 @12237 has 9 MA's), (Start: 19 @12240 has 43 MA's), (28, 12267), (31, 12291), (38, 12324), (40, 12330), (43, 12345), (46, 12360), (47, 12363), (48, 12366), (53, 12396), (65, 12459), (73, 12477), (77, 12501), (85, 12534), (87, 12543), (88, 12546), (89, 12549), (90, 12558), (92, 12576), (94, 12585), (103, 12639), (105, 12651), (106, 12654), (117, 12687), (119, 12693), (129, 12750), (134, 12765), (135, 12768), (136, 12774), (141, 12792), (143, 12804), (147, 12822), (151, 12843), (154, 12858), (156, 12867), (161, 12882), (162, 12885), (166, 12909), (168, 12924), (171, 12951), (172, 12954), (185, 13044), (189, 13080), (195, 13107), (205, 13149), (208, 13164), (209, 13167), (215, 13191), (219, 13203), (223, 13218), (234, 13260), (244, 13296), (253, 13338), (254, 13341), (256, 13353), (257, 13362), (258, 13374), (262, 13383),

Gene: P14.4_16 Start: 12243, Stop: 13403, Start Num: 16

Candidate Starts for P14.4_16:

(Start: 16 @12243 has 9 MA's), (Start: 19 @12246 has 43 MA's), (28, 12273), (31, 12297), (35, 12324), (38, 12330), (40, 12336), (43, 12351), (46, 12366), (47, 12369), (48, 12372), (53, 12402), (65, 12465), (73, 12483), (77, 12507), (85, 12540), (87, 12549), (88, 12552), (89, 12555), (90, 12564), (92, 12582), (94, 12591), (103, 12645), (105, 12657), (106, 12660), (117, 12693), (119, 12699), (127, 12744), (129, 12756), (134, 12771), (135, 12774), (136, 12780), (137, 12783), (141, 12798), (143, 12810), (151, 12849), (152, 12852), (154, 12864), (156, 12873), (161, 12888), (162, 12891), (166, 12915), (168, 12930), (171, 12957), (172, 12960), (180, 13017), (189, 13086), (195, 13113), (196, 13116), (205, 13155), (208, 13170), (209, 13173), (215, 13197), (221, 13218), (223, 13224), (234, 13266), (244, 13302), (253, 13344), (256, 13359), (257, 13368), (258, 13380), (262, 13389),

Gene: P9.1_16 Start: 12238, Stop: 13398, Start Num: 16

Candidate Starts for P9.1_16:

(Start: 16 @12238 has 9 MA's), (Start: 19 @12241 has 43 MA's), (28, 12268), (31, 12292), (35, 12319), (40, 12331), (43, 12346), (44, 12355), (46, 12361), (47, 12364), (48, 12367), (53, 12397), (65, 12460), (73, 12478), (77, 12502), (85, 12535), (87, 12544), (89, 12550), (90, 12559), (92, 12577), (94, 12586),

(105, 12652), (106, 12655), (107, 12658), (117, 12688), (119, 12694), (127, 12739), (129, 12751), (134, 12766), (135, 12769), (136, 12775), (137, 12778), (141, 12793), (143, 12805), (151, 12844), (154, 12859), (156, 12868), (161, 12883), (162, 12886), (166, 12910), (168, 12925), (171, 12952), (172, 12955), (185, 13045), (189, 13081), (195, 13108), (196, 13111), (205, 13150), (208, 13165), (209, 13168), (215, 13192), (223, 13219), (234, 13261), (244, 13297), (253, 13339), (256, 13354), (257, 13363), (258, 13375), (262, 13384),

Gene: PA6_16 Start: 12270, Stop: 13427, Start Num: 19

Candidate Starts for PA6_16:

(Start: 16 @12267 has 9 MA's), (Start: 19 @12270 has 43 MA's), (28, 12297), (31, 12321), (35, 12348), (38, 12354), (40, 12360), (43, 12375), (44, 12384), (46, 12390), (47, 12393), (48, 12396), (53, 12426), (65, 12489), (69, 12498), (73, 12507), (77, 12531), (85, 12564), (87, 12573), (88, 12576), (89, 12579), (90, 12588), (92, 12606), (94, 12615), (105, 12681), (106, 12684), (117, 12717), (119, 12723), (127, 12768), (129, 12780), (134, 12795), (135, 12798), (136, 12804), (137, 12807), (141, 12822), (143, 12834), (151, 12873), (152, 12876), (154, 12888), (156, 12897), (161, 12912), (162, 12915), (166, 12939), (168, 12954), (171, 12981), (172, 12984), (180, 13041), (185, 13074), (189, 13110), (195, 13137), (196, 13140), (205, 13179), (208, 13194), (209, 13197), (215, 13221), (221, 13242), (223, 13248), (230, 13275), (234, 13290), (244, 13326), (254, 13371), (256, 13383), (257, 13392), (258, 13404), (262, 13413),

Gene: PAD20_16 Start: 12238, Stop: 13395, Start Num: 19

Candidate Starts for PAD20_16:

(Start: 16 @12235 has 9 MA's), (Start: 19 @12238 has 43 MA's), (28, 12265), (31, 12289), (35, 12316), (38, 12322), (40, 12328), (43, 12343), (46, 12358), (47, 12361), (48, 12364), (53, 12394), (65, 12457), (73, 12475), (77, 12499), (85, 12532), (87, 12541), (88, 12544), (89, 12547), (90, 12556), (92, 12574), (94, 12583), (105, 12649), (117, 12685), (119, 12691), (127, 12736), (129, 12748), (134, 12763), (135, 12766), (136, 12772), (137, 12775), (141, 12790), (143, 12802), (151, 12841), (154, 12856), (156, 12865), (161, 12880), (162, 12883), (166, 12907), (168, 12922), (171, 12949), (172, 12952), (180, 13009), (185, 13042), (189, 13078), (195, 13105), (205, 13147), (208, 13162), (209, 13165), (215, 13189), (219, 13201), (221, 13210), (223, 13216), (234, 13258), (244, 13294), (254, 13339), (256, 13351), (257, 13360), (258, 13372), (262, 13381),

Gene: PAS50_16 Start: 12247, Stop: 13404, Start Num: 19

Candidate Starts for PAS50_16:

(Start: 16 @12244 has 9 MA's), (Start: 19 @12247 has 43 MA's), (28, 12274), (31, 12298), (35, 12325), (38, 12331), (40, 12337), (43, 12352), (46, 12367), (47, 12370), (48, 12373), (53, 12403), (65, 12466), (73, 12484), (77, 12508), (85, 12541), (87, 12550), (88, 12553), (89, 12556), (90, 12565), (92, 12583), (94, 12592), (105, 12658), (106, 12661), (119, 12700), (129, 12757), (134, 12772), (135, 12775), (136, 12781), (137, 12784), (141, 12799), (143, 12811), (147, 12829), (151, 12850), (156, 12874), (161, 12889), (162, 12892), (166, 12916), (168, 12931), (171, 12958), (172, 12961), (185, 13051), (189, 13087), (195, 13114), (205, 13156), (208, 13171), (209, 13174), (215, 13198), (219, 13210), (221, 13219), (223, 13225), (234, 13267), (244, 13303), (253, 13345), (254, 13348), (257, 13369), (258, 13381), (262, 13390),

Gene: PHL010M04_16 Start: 12238, Stop: 13398, Start Num: 16

Candidate Starts for PHL010M04_16:

(Start: 16 @12238 has 9 MA's), (Start: 19 @12241 has 43 MA's), (28, 12268), (31, 12292), (38, 12325), (40, 12331), (43, 12346), (46, 12361), (47, 12364), (48, 12367), (53, 12397), (65, 12460), (69, 12469), (73, 12478), (77, 12502), (85, 12535), (87, 12544), (88, 12547), (89, 12550), (90, 12559), (92, 12577), (93, 12580), (105, 12652), (106, 12655), (119, 12694), (127, 12739), (129, 12751), (134, 12766), (135, 12769), (136, 12775), (137, 12778), (141, 12793), (143, 12805), (148, 12826), (152, 12847), (154, 12859), (156, 12868), (161, 12883), (162, 12886), (166, 12910), (168, 12925), (171, 12952), (180, 13012), (185, 13045), (189, 13081), (195, 13108), (196, 13111), (205, 13150), (208, 13165), (209,

13168), (215, 13192), (219, 13204), (221, 13213), (223, 13219), (234, 13261), (244, 13297), (254, 13342), (256, 13354), (257, 13363), (258, 13375), (262, 13384),

Gene: PHL037M02_16 Start: 12249, Stop: 13406, Start Num: 19

Candidate Starts for PHL037M02_16:

(Start: 19 @12249 has 43 MA's), (28, 12276), (31, 12300), (38, 12333), (40, 12339), (43, 12354), (46, 12369), (47, 12372), (48, 12375), (53, 12405), (65, 12468), (69, 12477), (77, 12510), (85, 12543), (87, 12552), (88, 12555), (89, 12558), (92, 12585), (93, 12588), (105, 12660), (106, 12663), (117, 12696), (119, 12702), (127, 12747), (129, 12759), (134, 12774), (135, 12777), (141, 12801), (143, 12813), (152, 12855), (156, 12876), (161, 12891), (162, 12894), (166, 12918), (168, 12933), (171, 12960), (180, 13020), (185, 13053), (189, 13089), (195, 13116), (196, 13119), (205, 13158), (208, 13173), (209, 13176), (215, 13200), (219, 13212), (221, 13221), (223, 13227), (234, 13269), (244, 13305), (253, 13347), (254, 13350), (256, 13362), (257, 13371), (258, 13383), (262, 13392),

Gene: PHL060L00_16 Start: 12254, Stop: 13414, Start Num: 16

Candidate Starts for PHL060L00_16:

(Start: 16 @12254 has 9 MA's), (Start: 19 @12257 has 43 MA's), (28, 12284), (31, 12308), (35, 12335), (38, 12341), (40, 12347), (43, 12362), (44, 12371), (46, 12377), (47, 12380), (48, 12383), (52, 12410), (53, 12413), (65, 12476), (73, 12494), (77, 12518), (85, 12551), (87, 12560), (88, 12563), (89, 12566), (90, 12575), (92, 12593), (94, 12602), (105, 12668), (106, 12671), (117, 12704), (119, 12710), (127, 12755), (129, 12767), (135, 12785), (136, 12791), (137, 12794), (141, 12809), (143, 12821), (151, 12860), (152, 12863), (154, 12875), (156, 12884), (161, 12899), (162, 12902), (166, 12926), (168, 12941), (171, 12968), (172, 12971), (180, 13028), (185, 13061), (189, 13097), (195, 13124), (196, 13127), (197, 13136), (205, 13166), (208, 13181), (209, 13184), (215, 13208), (219, 13220), (221, 13229), (234, 13277), (244, 13313), (253, 13355), (254, 13358), (256, 13370), (257, 13379), (258, 13391), (262, 13400),

Gene: PHL067M10_16 Start: 12215, Stop: 13375, Start Num: 16

Candidate Starts for PHL067M10_16:

(Start: 16 @12215 has 9 MA's), (Start: 19 @12218 has 43 MA's), (28, 12245), (31, 12269), (35, 12296), (40, 12308), (43, 12323), (46, 12338), (47, 12341), (48, 12344), (53, 12374), (65, 12437), (73, 12455), (77, 12479), (85, 12512), (87, 12521), (88, 12524), (89, 12527), (90, 12536), (92, 12554), (93, 12557), (94, 12563), (105, 12629), (106, 12632), (117, 12665), (119, 12671), (129, 12728), (134, 12743), (135, 12746), (136, 12752), (137, 12755), (141, 12770), (143, 12782), (151, 12821), (154, 12836), (156, 12845), (161, 12860), (162, 12863), (166, 12887), (168, 12902), (171, 12929), (172, 12932), (185, 13022), (189, 13058), (195, 13085), (196, 13088), (205, 13127), (208, 13142), (209, 13145), (215, 13169), (219, 13181), (221, 13190), (223, 13196), (234, 13238), (244, 13274), (253, 13316), (254, 13319), (256, 13331), (257, 13340), (258, 13352), (262, 13361),

Gene: PHL071N05_16 Start: 12243, Stop: 13403, Start Num: 16

Candidate Starts for PHL071N05_16:

(Start: 16 @12243 has 9 MA's), (Start: 19 @12246 has 43 MA's), (28, 12273), (31, 12297), (35, 12324), (38, 12330), (40, 12336), (43, 12351), (46, 12366), (47, 12369), (48, 12372), (53, 12402), (65, 12465), (73, 12483), (77, 12507), (85, 12540), (87, 12549), (88, 12552), (89, 12555), (90, 12564), (92, 12582), (93, 12585), (103, 12645), (105, 12657), (106, 12660), (117, 12693), (119, 12699), (127, 12744), (129, 12756), (135, 12774), (136, 12780), (137, 12783), (141, 12798), (143, 12810), (147, 12828), (148, 12831), (151, 12849), (152, 12852), (154, 12864), (156, 12873), (161, 12888), (162, 12891), (166, 12915), (168, 12930), (171, 12957), (172, 12960), (180, 13017), (185, 13050), (189, 13086), (195, 13113), (196, 13116), (205, 13155), (208, 13170), (209, 13173), (215, 13197), (219, 13209), (221, 13218), (223, 13224), (234, 13266), (244, 13302), (253, 13344), (254, 13347), (256, 13359), (257, 13368), (258, 13380), (262, 13389),

Gene: PHL111M01_16 Start: 12241, Stop: 13398, Start Num: 18

Candidate Starts for PHL111M01_16:

(18, 12241), (28, 12268), (31, 12292), (35, 12319), (38, 12325), (40, 12331), (43, 12346), (44, 12355), (46, 12361), (47, 12364), (48, 12367), (53, 12397), (65, 12460), (73, 12478), (77, 12502), (85, 12535), (87, 12544), (88, 12547), (89, 12550), (90, 12559), (92, 12577), (94, 12586), (105, 12652), (106, 12655), (117, 12688), (119, 12694), (127, 12739), (129, 12751), (134, 12766), (135, 12769), (136, 12775), (137, 12778), (141, 12793), (143, 12805), (147, 12823), (151, 12844), (154, 12859), (156, 12868), (161, 12883), (162, 12886), (166, 12910), (168, 12925), (171, 12952), (173, 12958), (180, 13012), (185, 13045), (189, 13081), (195, 13108), (196, 13111), (205, 13150), (208, 13165), (209, 13168), (215, 13192), (219, 13204), (221, 13213), (223, 13219), (230, 13246), (234, 13261), (244, 13297), (254, 13342), (256, 13354), (257, 13363), (258, 13375), (262, 13384),

Gene: PHL112N00_16 Start: 12236, Stop: 13396, Start Num: 16

Candidate Starts for PHL112N00_16:

(Start: 16 @12236 has 9 MA's), (Start: 19 @12239 has 43 MA's), (28, 12266), (31, 12290), (35, 12317), (38, 12323), (40, 12329), (43, 12344), (46, 12359), (47, 12362), (48, 12365), (50, 12386), (53, 12395), (65, 12458), (73, 12476), (77, 12500), (85, 12533), (87, 12542), (88, 12545), (89, 12548), (90, 12557), (92, 12575), (93, 12578), (94, 12584), (103, 12638), (105, 12650), (106, 12653), (117, 12686), (119, 12692), (127, 12737), (129, 12749), (134, 12764), (135, 12767), (136, 12773), (137, 12776), (141, 12791), (143, 12803), (148, 12824), (151, 12842), (152, 12845), (154, 12857), (156, 12866), (161, 12881), (162, 12884), (166, 12908), (168, 12923), (171, 12950), (172, 12953), (180, 13010), (185, 13043), (189, 13079), (195, 13106), (205, 13148), (208, 13163), (209, 13166), (215, 13190), (219, 13202), (221, 13211), (223, 13217), (230, 13244), (234, 13259), (244, 13295), (254, 13340), (256, 13352), (257, 13361), (258, 13373), (262, 13382),

Gene: PHL113M01_16 Start: 12257, Stop: 13417, Start Num: 16

Candidate Starts for PHL113M01_16:

(Start: 16 @12257 has 9 MA's), (Start: 19 @12260 has 43 MA's), (28, 12287), (31, 12311), (35, 12338), (38, 12344), (40, 12350), (43, 12365), (46, 12380), (47, 12383), (48, 12386), (53, 12416), (65, 12479), (69, 12488), (73, 12497), (77, 12521), (85, 12554), (87, 12563), (89, 12569), (90, 12578), (92, 12596), (94, 12605), (105, 12671), (106, 12674), (117, 12707), (119, 12713), (127, 12758), (129, 12770), (134, 12785), (135, 12788), (136, 12794), (137, 12797), (141, 12812), (143, 12824), (151, 12863), (154, 12878), (156, 12887), (161, 12902), (162, 12905), (166, 12929), (168, 12944), (171, 12971), (172, 12974), (180, 13031), (185, 13064), (189, 13100), (195, 13127), (205, 13169), (208, 13184), (209, 13187), (215, 13211), (219, 13223), (221, 13232), (223, 13238), (234, 13280), (244, 13316), (254, 13361), (256, 13373), (257, 13382), (258, 13394), (262, 13403),

Gene: PHL114L00_16 Start: 12241, Stop: 13401, Start Num: 16

Candidate Starts for PHL114L00_16:

(Start: 16 @12241 has 9 MA's), (Start: 19 @12244 has 43 MA's), (28, 12271), (31, 12295), (35, 12322), (38, 12328), (40, 12334), (43, 12349), (47, 12367), (53, 12400), (65, 12463), (69, 12472), (77, 12505), (85, 12538), (87, 12547), (89, 12553), (90, 12562), (93, 12583), (105, 12655), (106, 12658), (117, 12691), (119, 12697), (120, 12700), (127, 12742), (129, 12754), (134, 12769), (135, 12772), (136, 12778), (137, 12781), (141, 12796), (143, 12808), (152, 12850), (154, 12862), (161, 12886), (162, 12889), (166, 12913), (168, 12928), (171, 12955), (173, 12961), (180, 13015), (185, 13048), (189, 13084), (195, 13111), (196, 13114), (205, 13153), (208, 13168), (209, 13171), (215, 13195), (221, 13216), (223, 13222), (234, 13264), (244, 13300), (253, 13342), (257, 13366), (258, 13378), (262, 13387),

Gene: Pablito_20 Start: 15663, Stop: 16874, Start Num: 17

Candidate Starts for Pablito_20:

(Start: 17 @15663 has 105 MA's), (43, 15771), (46, 15786), (62, 15873), (66, 15885), (67, 15888), (82, 15948), (104, 16062), (107, 16077), (129, 16185), (138, 16218), (163, 16314), (167, 16344), (173, 16380), (174, 16398), (175, 16401), (177, 16422), (196, 16539), (207, 16584), (211, 16599), (223,

16644), (232, 16674), (254, 16764), (256, 16776), (276, 16848), (277, 16851), (279, 16860), (280, 16866),

Gene: Paedore_20 Start: 15822, Stop: 17033, Start Num: 17

Candidate Starts for Paedore_20:

(Start: 17 @15822 has 105 MA's), (43, 15930), (62, 16032), (66, 16044), (67, 16047), (82, 16107), (104, 16221), (107, 16236), (129, 16344), (138, 16377), (144, 16401), (163, 16473), (167, 16503), (174, 16557), (175, 16560), (177, 16581), (196, 16698), (207, 16743), (211, 16758), (234, 16842), (236, 16845), (237, 16848), (245, 16884), (254, 16923), (256, 16935), (266, 16974), (276, 17007), (277, 17010), (279, 17019), (280, 17025),

Gene: Paolo_22 Start: 16220, Stop: 17431, Start Num: 17

Candidate Starts for Paolo_22:

(Start: 17 @16220 has 105 MA's), (35, 16301), (62, 16430), (66, 16442), (82, 16505), (104, 16619), (107, 16634), (129, 16742), (138, 16775), (144, 16799), (163, 16871), (173, 16937), (174, 16955), (175, 16958), (177, 16979), (196, 17096), (207, 17141), (211, 17156), (234, 17240), (237, 17246), (254, 17321), (256, 17333), (277, 17408), (279, 17417), (280, 17423),

Gene: Parvarticeps_33 Start: 23477, Stop: 22143, Start Num: 9

Candidate Starts for Parvarticeps_33:

(Start: 9 @23477 has 1 MA's), (11, 23438), (46, 23294), (47, 23291), (54, 23255), (56, 23237), (63, 23204), (64, 23201), (69, 23186), (75, 23171), (76, 23162), (86, 23105), (115, 22967), (118, 22955), (125, 22895), (130, 22874), (153, 22793), (154, 22784), (155, 22781), (160, 22763), (165, 22733), (171, 22688), (172, 22685), (185, 22592), (192, 22547), (194, 22535), (196, 22529), (207, 22478), (211, 22463), (226, 22406), (227, 22403), (242, 22352), (244, 22343), (246, 22334), (257, 22280), (266, 22250), (268, 22244), (269, 22241), (271, 22232), (281, 22190),

Gene: Pavo_21 Start: 16533, Stop: 17750, Start Num: 17

Candidate Starts for Pavo_21:

(Start: 17 @16533 has 105 MA's), (27, 16560), (34, 16611), (62, 16743), (87, 16845), (119, 17001), (124, 17031), (129, 17055), (138, 17088), (144, 17112), (164, 17187), (173, 17250), (207, 17454), (211, 17469), (223, 17514), (229, 17535), (234, 17553), (256, 17646), (262, 17676), (279, 17736), (280, 17742),

Gene: Phettuccine_20 Start: 15854, Stop: 17068, Start Num: 17

Candidate Starts for Phettuccine_20:

(Start: 17 @15854 has 105 MA's), (27, 15881), (62, 16064), (78, 16127), (99, 16226), (104, 16253), (119, 16322), (124, 16352), (154, 16472), (173, 16571), (205, 16769), (207, 16775), (217, 16814), (225, 16838), (232, 16865), (234, 16874), (243, 16907), (256, 16967), (262, 16997), (277, 17045), (279, 17054), (280, 17060),

Gene: Pigu_18 Start: 13784, Stop: 14902, Start Num: 20

Candidate Starts for Pigu_18:

(Start: 15 @13775 has 3 MA's), (Start: 16 @13778 has 9 MA's), (Start: 20 @13784 has 2 MA's), (41, 13871), (64, 13991), (79, 14051), (104, 14174), (105, 14183), (106, 14186), (110, 14210), (125, 14270), (128, 14282), (134, 14303), (137, 14315), (143, 14342), (195, 14624), (218, 14717), (220, 14723), (225, 14738), (228, 14753), (243, 14801), (265, 14894),

Gene: Pirate_16 Start: 12235, Stop: 13392, Start Num: 19

Candidate Starts for Pirate_16:

(Start: 19 @12235 has 43 MA's), (28, 12262), (31, 12286), (38, 12319), (40, 12325), (43, 12340), (46, 12355), (47, 12358), (48, 12361), (53, 12391), (65, 12454), (69, 12463), (77, 12496), (85, 12529), (87, 12538), (88, 12541), (89, 12544), (90, 12553), (92, 12571), (93, 12574), (103, 12634), (105, 12646),

(106, 12649), (119, 12688), (120, 12691), (127, 12733), (129, 12745), (134, 12760), (135, 12763), (136, 12769), (137, 12772), (141, 12787), (143, 12799), (148, 12820), (152, 12841), (154, 12853), (156, 12862), (161, 12877), (162, 12880), (166, 12904), (168, 12919), (171, 12946), (180, 13006), (185, 13039), (189, 13075), (195, 13102), (205, 13144), (208, 13159), (209, 13162), (215, 13186), (219, 13198), (223, 13213), (234, 13255), (244, 13291), (253, 13333), (254, 13336), (257, 13357), (258, 13369), (262, 13378),

Gene: Pitbull_18 Start: 13184, Stop: 14632, Start Num: 15

Candidate Starts for Pitbull_18:

(13, 13172), (Start: 15 @13184 has 3 MA's), (23, 13199), (27, 13214), (37, 13268), (43, 13292), (45, 13301), (46, 13307), (48, 13313), (49, 13319), (50, 13334), (54, 13346), (58, 13370), (79, 13454), (84, 13478), (104, 13577), (109, 13604), (113, 13619), (125, 13676), (133, 13706), (137, 13721), (151, 13775), (153, 13781), (165, 13832), (167, 13847), (172, 13880), (182, 13946), (183, 13958), (198, 14045), (205, 14066), (210, 14087), (241, 14186), (252, 14240), (259, 14279), (272, 14324), (285, 14450), (286, 14483), (288, 14531),

Gene: Ponzi_56 Start: 37563, Stop: 38783, Start Num: 25

Candidate Starts for Ponzi_56:

(Start: 22 @37551 has 3 MA's), (Start: 25 @37563 has 1 MA's), (27, 37569), (35, 37620), (39, 37629), (48, 37668), (52, 37695), (121, 38034), (122, 38037), (124, 38052), (129, 38076), (173, 38277), (195, 38421), (240, 38592), (248, 38631), (252, 38652), (274, 38745), (283, 38778),

Gene: Procrass1_16 Start: 12243, Stop: 13400, Start Num: 19

Candidate Starts for Procrass1_16:

(Start: 16 @12240 has 9 MA's), (Start: 19 @12243 has 43 MA's), (28, 12270), (31, 12294), (35, 12321), (38, 12327), (40, 12333), (43, 12348), (44, 12357), (46, 12363), (47, 12366), (48, 12369), (53, 12399), (65, 12462), (69, 12471), (77, 12504), (85, 12537), (87, 12546), (89, 12552), (90, 12561), (92, 12579), (93, 12582), (94, 12588), (103, 12642), (105, 12654), (106, 12657), (117, 12690), (119, 12696), (129, 12753), (134, 12768), (135, 12771), (136, 12777), (137, 12780), (141, 12795), (143, 12807), (151, 12846), (154, 12861), (156, 12870), (161, 12885), (162, 12888), (166, 12912), (168, 12927), (171, 12954), (172, 12957), (180, 13014), (185, 13047), (189, 13083), (195, 13110), (196, 13113), (197, 13122), (205, 13152), (208, 13167), (209, 13170), (215, 13194), (221, 13215), (223, 13221), (234, 13263), (244, 13299), (253, 13341), (256, 13356), (257, 13365), (258, 13377), (262, 13386),

Gene: Provolone_21 Start: 16263, Stop: 17480, Start Num: 17

Candidate Starts for Provolone_21:

(Start: 17 @16263 has 105 MA's), (27, 16290), (34, 16341), (62, 16473), (87, 16575), (119, 16731), (124, 16761), (129, 16785), (138, 16818), (144, 16842), (164, 16917), (173, 16980), (177, 17022), (202, 17169), (207, 17184), (211, 17199), (223, 17244), (229, 17265), (234, 17283), (256, 17376), (262, 17406), (279, 17466), (280, 17472),

Gene: Puginator_22 Start: 16265, Stop: 17476, Start Num: 17

Candidate Starts for Puginator_22:

(Start: 17 @16265 has 105 MA's), (62, 16475), (66, 16487), (82, 16550), (104, 16664), (107, 16679), (129, 16787), (138, 16820), (144, 16844), (163, 16916), (173, 16982), (174, 17000), (175, 17003), (177, 17024), (196, 17141), (207, 17186), (211, 17201), (254, 17366), (256, 17378), (277, 17453), (279, 17462), (280, 17468),

Gene: QueenBey_16 Start: 12243, Stop: 13400, Start Num: 19

Candidate Starts for QueenBey_16:

(Start: 16 @12240 has 9 MA's), (Start: 19 @12243 has 43 MA's), (28, 12270), (31, 12294), (38, 12327), (40, 12333), (43, 12348), (46, 12363), (47, 12366), (48, 12369), (53, 12399), (65, 12462), (69, 12471), (73, 12480), (77, 12504), (85, 12537), (87, 12546), (88, 12549), (89, 12552), (90, 12561), (92, 12579),

(93, 12582), (103, 12642), (105, 12654), (106, 12657), (119, 12696), (120, 12699), (127, 12741), (129, 12753), (135, 12771), (136, 12777), (137, 12780), (141, 12795), (143, 12807), (148, 12828), (152, 12849), (154, 12861), (156, 12870), (161, 12885), (162, 12888), (166, 12912), (168, 12927), (171, 12954), (180, 13014), (185, 13047), (189, 13083), (195, 13110), (196, 13113), (205, 13152), (208, 13167), (209, 13170), (215, 13194), (221, 13215), (223, 13221), (234, 13263), (244, 13299), (253, 13341), (254, 13344), (256, 13356), (257, 13365), (258, 13377), (262, 13386),

Gene: R4_20 Start: 15904, Stop: 17115, Start Num: 17

Candidate Starts for R4_20:

(Start: 17 @15904 has 105 MA's), (43, 16012), (62, 16114), (66, 16126), (67, 16129), (82, 16189), (104, 16303), (107, 16318), (129, 16426), (138, 16459), (144, 16483), (163, 16555), (167, 16585), (174, 16639), (175, 16642), (177, 16663), (196, 16780), (207, 16825), (211, 16840), (234, 16924), (236, 16927), (237, 16930), (245, 16966), (254, 17005), (256, 17017), (266, 17056), (277, 17092), (279, 17101), (280, 17107),

Gene: Rana_20 Start: 15829, Stop: 17040, Start Num: 17

Candidate Starts for Rana_20:

(Start: 17 @15829 has 105 MA's), (27, 15856), (56, 16009), (62, 16039), (78, 16102), (99, 16201), (104, 16228), (119, 16297), (129, 16351), (131, 16354), (133, 16363), (144, 16408), (163, 16480), (164, 16483), (173, 16546), (175, 16567), (185, 16642), (193, 16696), (205, 16744), (207, 16750), (216, 16786), (217, 16789), (222, 16807), (234, 16849), (278, 17023), (279, 17026), (280, 17032),

Gene: Raqqa_19 Start: 15720, Stop: 16826, Start Num: 19

Candidate Starts for Raqqa_19:

(Start: 15 @15714 has 3 MA's), (Start: 19 @15720 has 43 MA's), (29, 15750), (35, 15798), (40, 15810), (42, 15822), (64, 15927), (77, 15978), (85, 16011), (104, 16104), (106, 16116), (124, 16185), (142, 16257), (189, 16521), (216, 16632), (257, 16791),

Gene: RedBear_22 Start: 16096, Stop: 17307, Start Num: 17

Candidate Starts for RedBear_22:

(Start: 17 @16096 has 105 MA's), (27, 16123), (56, 16276), (62, 16306), (78, 16369), (99, 16468), (104, 16495), (119, 16564), (144, 16675), (163, 16747), (164, 16750), (167, 16777), (173, 16813), (175, 16834), (207, 17017), (216, 17053), (217, 17056), (222, 17074), (234, 17116), (256, 17209), (279, 17293), (280, 17299),

Gene: Rileysaurus_16 Start: 12238, Stop: 13395, Start Num: 19

Candidate Starts for Rileysaurus_16:

(Start: 19 @12238 has 43 MA's), (28, 12265), (31, 12289), (38, 12322), (40, 12328), (43, 12343), (46, 12358), (47, 12361), (48, 12364), (53, 12394), (65, 12457), (69, 12466), (77, 12499), (85, 12532), (87, 12541), (88, 12544), (89, 12547), (90, 12556), (92, 12574), (93, 12577), (103, 12637), (105, 12649), (106, 12652), (117, 12685), (119, 12691), (120, 12694), (127, 12736), (129, 12748), (135, 12766), (136, 12772), (137, 12775), (141, 12790), (143, 12802), (151, 12841), (152, 12844), (154, 12856), (156, 12865), (161, 12880), (162, 12883), (166, 12907), (168, 12922), (171, 12949), (180, 13009), (185, 13042), (189, 13078), (195, 13105), (196, 13108), (205, 13147), (208, 13162), (209, 13165), (215, 13189), (219, 13201), (223, 13216), (230, 13243), (234, 13258), (244, 13294), (254, 13339), (257, 13360), (258, 13372), (262, 13381),

Gene: RootBeer_17 Start: 14184, Stop: 15296, Start Num: 19

Candidate Starts for RootBeer_17:

(Start: 19 @14184 has 43 MA's), (31, 14223), (48, 14298), (58, 14355), (64, 14379), (77, 14433), (104, 14562), (106, 14574), (117, 14610), (128, 14664), (142, 14718), (238, 15165),

Gene: Rusticus_21 Start: 16017, Stop: 17219, Start Num: 17

Candidate Starts for Rusticus_21:

(Start: 17 @16017 has 105 MA's), (27, 16044), (62, 16227), (78, 16290), (99, 16389), (104, 16416), (119, 16485), (124, 16515), (205, 16932), (207, 16938), (217, 16977), (223, 16998), (232, 17028), (234, 17037), (243, 17070), (258, 17151), (276, 17193), (277, 17196), (279, 17205), (280, 17211),

Gene: SKKY_16 Start: 12278, Stop: 13435, Start Num: 19

Candidate Starts for SKKY_16:

(Start: 16 @12275 has 9 MA's), (Start: 19 @12278 has 43 MA's), (28, 12305), (31, 12329), (35, 12356), (40, 12368), (43, 12383), (44, 12392), (46, 12398), (47, 12401), (48, 12404), (53, 12434), (65, 12497), (73, 12515), (77, 12539), (85, 12572), (87, 12581), (89, 12587), (90, 12596), (94, 12623), (106, 12692), (119, 12731), (120, 12734), (129, 12788), (134, 12803), (135, 12806), (136, 12812), (137, 12815), (141, 12830), (143, 12842), (147, 12860), (154, 12896), (156, 12905), (161, 12920), (162, 12923), (166, 12947), (168, 12962), (171, 12989), (173, 12995), (180, 13049), (185, 13082), (189, 13118), (195, 13145), (196, 13148), (205, 13187), (208, 13202), (209, 13205), (215, 13229), (221, 13250), (223, 13256), (234, 13298), (244, 13334), (254, 13379), (256, 13391), (257, 13400), (258, 13412), (262, 13421),

Gene: Saftant_20 Start: 16811, Stop: 18028, Start Num: 17

Candidate Starts for Saftant_20:

(Start: 17 @16811 has 105 MA's), (33, 16886), (34, 16889), (62, 17021), (119, 17279), (124, 17309), (129, 17333), (138, 17366), (144, 17390), (167, 17492), (173, 17528), (207, 17732), (211, 17747), (223, 17792), (232, 17822), (234, 17831), (258, 17945), (262, 17954), (279, 18014), (280, 18020),

Gene: SarahRose_20 Start: 15827, Stop: 17038, Start Num: 17

Candidate Starts for SarahRose_20:

(Start: 17 @15827 has 105 MA's), (62, 16037), (66, 16049), (67, 16052), (78, 16100), (99, 16199), (104, 16226), (119, 16295), (129, 16349), (144, 16406), (164, 16481), (167, 16508), (171, 16538), (174, 16562), (182, 16616), (193, 16694), (207, 16748), (222, 16805), (232, 16838), (234, 16847), (243, 16880), (245, 16889), (256, 16940), (279, 17024), (280, 17030),

Gene: Sarge_18 Start: 13985, Stop: 15109, Start Num: 16

Candidate Starts for Sarge_18:

(Start: 16 @13985 has 9 MA's), (Start: 20 @13991 has 2 MA's), (57, 14165), (64, 14198), (72, 14219), (90, 14309), (104, 14381), (105, 14390), (106, 14393), (128, 14489), (137, 14522), (203, 14867), (218, 14924), (225, 14945), (255, 15056), (263, 15095), (265, 15101),

Gene: Shoya_17 Start: 13621, Stop: 14745, Start Num: 16

Candidate Starts for Shoya_17:

(Start: 16 @13621 has 9 MA's), (Start: 20 @13627 has 2 MA's), (24, 13636), (57, 13801), (64, 13834), (72, 13855), (90, 13945), (104, 14017), (105, 14026), (119, 14071), (125, 14113), (128, 14125), (137, 14158), (218, 14560), (228, 14596), (255, 14692), (263, 14731), (265, 14737),

Gene: Skitty_22 Start: 13774, Stop: 14892, Start Num: 20

Candidate Starts for Skitty_22:

(Start: 20 @13774 has 2 MA's), (38, 13852), (41, 13861), (64, 13981), (68, 13993), (72, 14002), (90, 14092), (104, 14164), (105, 14173), (106, 14176), (119, 14218), (128, 14272), (137, 14305), (150, 14356), (181, 14524), (195, 14614), (213, 14695), (228, 14743), (243, 14791), (245, 14800), (255, 14839), (263, 14878),

Gene: Snorlax_20 Start: 15830, Stop: 17041, Start Num: 17

Candidate Starts for Snorlax_20:

(Start: 17 @15830 has 105 MA's), (62, 16040), (66, 16052), (67, 16055), (78, 16103), (99, 16202), (104, 16229), (119, 16298), (129, 16352), (144, 16409), (164, 16484), (167, 16511), (171, 16541),

(174, 16565), (182, 16619), (193, 16697), (207, 16751), (217, 16790), (222, 16808), (232, 16841), (234, 16850), (243, 16883), (245, 16892), (256, 16943), (279, 17027), (280, 17033),

Gene: Solid_16 Start: 12232, Stop: 13389, Start Num: 19

Candidate Starts for Solid_16:

(Start: 16 @12229 has 9 MA's), (Start: 19 @12232 has 43 MA's), (28, 12259), (31, 12283), (35, 12310), (38, 12316), (40, 12322), (43, 12337), (46, 12352), (47, 12355), (48, 12358), (53, 12388), (65, 12451), (77, 12493), (85, 12526), (87, 12535), (88, 12538), (89, 12541), (90, 12550), (92, 12568), (94, 12577), (103, 12631), (105, 12643), (106, 12646), (117, 12679), (119, 12685), (127, 12730), (129, 12742), (134, 12757), (135, 12760), (136, 12766), (137, 12769), (141, 12784), (143, 12796), (151, 12835), (152, 12838), (154, 12850), (156, 12859), (161, 12874), (162, 12877), (166, 12901), (168, 12916), (171, 12943), (172, 12946), (180, 13003), (185, 13036), (189, 13072), (195, 13099), (208, 13156), (209, 13159), (215, 13183), (221, 13204), (223, 13210), (230, 13237), (234, 13252), (244, 13288), (254, 13333), (256, 13345), (257, 13354), (258, 13366), (262, 13375),

Gene: South40_21 Start: 16096, Stop: 17307, Start Num: 17

Candidate Starts for South40_21:

(Start: 17 @16096 has 105 MA's), (27, 16123), (56, 16276), (62, 16306), (78, 16369), (99, 16468), (104, 16495), (119, 16564), (144, 16675), (163, 16747), (164, 16750), (167, 16777), (173, 16813), (175, 16834), (207, 17017), (216, 17053), (217, 17056), (222, 17074), (234, 17116), (256, 17209), (279, 17293), (280, 17299),

Gene: Speedwell_25 Start: 18557, Stop: 19774, Start Num: 17

Candidate Starts for Speedwell_25:

(Start: 17 @18557 has 105 MA's), (27, 18584), (34, 18635), (62, 18767), (77, 18827), (78, 18830), (99, 18929), (119, 19025), (138, 19112), (164, 19211), (167, 19238), (173, 19274), (207, 19478), (211, 19493), (223, 19538), (234, 19577), (236, 19580), (258, 19691), (279, 19760), (280, 19766),

Gene: Spooks_61 Start: 40032, Stop: 41291, Start Num: 22

Candidate Starts for Spooks_61:

(8, 39885), (Start: 22 @40032 has 3 MA's), (27, 40050), (31, 40074), (91, 40371), (116, 40491), (117, 40500), (170, 40770), (183, 40860), (195, 40929), (198, 40947), (206, 40974), (240, 41100), (242, 41112), (257, 41187), (274, 41253), (283, 41286),

Gene: SqueakyClean_21 Start: 15829, Stop: 17040, Start Num: 17

Candidate Starts for SqueakyClean_21:

(Start: 17 @15829 has 105 MA's), (62, 16039), (66, 16051), (67, 16054), (82, 16114), (83, 16126), (104, 16228), (107, 16243), (118, 16294), (163, 16480), (173, 16546), (175, 16567), (196, 16705), (207, 16750), (211, 16765), (223, 16810), (225, 16813), (232, 16840), (234, 16849), (256, 16942), (279, 17026), (280, 17032),

Gene: Stormborn_16 Start: 12254, Stop: 13411, Start Num: 19

Candidate Starts for Stormborn_16:

(Start: 16 @12251 has 9 MA's), (Start: 19 @12254 has 43 MA's), (28, 12281), (31, 12305), (35, 12332), (38, 12338), (40, 12344), (43, 12359), (46, 12374), (47, 12377), (48, 12380), (53, 12410), (65, 12473), (69, 12482), (77, 12515), (85, 12548), (87, 12557), (88, 12560), (89, 12563), (90, 12572), (92, 12590), (105, 12665), (106, 12668), (117, 12701), (119, 12707), (127, 12752), (129, 12764), (134, 12779), (135, 12782), (141, 12806), (143, 12818), (152, 12860), (156, 12881), (161, 12896), (162, 12899), (166, 12923), (168, 12938), (171, 12965), (180, 13025), (185, 13058), (189, 13094), (195, 13121), (196, 13124), (205, 13163), (208, 13178), (209, 13181), (215, 13205), (219, 13217), (221, 13226), (223, 13232), (234, 13274), (244, 13310), (253, 13352), (257, 13376), (258, 13388), (262, 13397),

Gene: Success_63 Start: 39166, Stop: 40425, Start Num: 22

Candidate Starts for Success_63:

(Start: 22 @39166 has 3 MA's), (27, 39184), (30, 39199), (31, 39208), (66, 39379), (111, 39610), (116, 39625), (117, 39634), (160, 39841), (170, 39904), (183, 39994), (190, 40045), (198, 40081), (207, 40117), (240, 40234), (242, 40246), (248, 40273), (252, 40294), (256, 40312), (274, 40387), (283, 40420),

Gene: Sujidade_21 Start: 16135, Stop: 17346, Start Num: 17

Candidate Starts for Sujidade_21:

(Start: 17 @16135 has 105 MA's), (27, 16162), (62, 16345), (66, 16357), (67, 16360), (78, 16408), (99, 16507), (104, 16534), (119, 16603), (129, 16657), (144, 16714), (164, 16789), (171, 16846), (175, 16873), (207, 17056), (217, 17095), (231, 17143), (232, 17146), (234, 17155), (243, 17188), (279, 17332), (280, 17338),

Gene: SunsetPointe_20 Start: 15844, Stop: 17058, Start Num: 17

Candidate Starts for SunsetPointe_20:

(Start: 17 @15844 has 105 MA's), (27, 15871), (62, 16054), (78, 16117), (99, 16216), (104, 16243), (119, 16312), (124, 16342), (154, 16462), (173, 16561), (205, 16759), (207, 16765), (217, 16804), (225, 16828), (232, 16855), (234, 16864), (243, 16897), (256, 16957), (262, 16987), (277, 17035), (279, 17044), (280, 17050),

Gene: Supernova_16 Start: 12250, Stop: 13407, Start Num: 19

Candidate Starts for Supernova_16:

(Start: 16 @12247 has 9 MA's), (Start: 19 @12250 has 43 MA's), (28, 12277), (31, 12301), (35, 12328), (38, 12334), (40, 12340), (43, 12355), (44, 12364), (46, 12370), (47, 12373), (48, 12376), (53, 12406), (65, 12469), (77, 12511), (85, 12544), (87, 12553), (89, 12559), (90, 12568), (94, 12595), (106, 12664), (119, 12703), (120, 12706), (129, 12760), (134, 12775), (135, 12778), (136, 12784), (137, 12787), (141, 12802), (143, 12814), (147, 12832), (154, 12868), (156, 12877), (161, 12892), (162, 12895), (166, 12919), (168, 12934), (171, 12961), (173, 12967), (180, 13021), (185, 13054), (189, 13090), (195, 13117), (196, 13120), (205, 13159), (208, 13174), (215, 13201), (219, 13213), (221, 13222), (223, 13228), (230, 13255), (234, 13270), (244, 13306), (254, 13351), (256, 13363), (257, 13372), (258, 13384), (262, 13393),

Gene: Superstar_23 Start: 17541, Stop: 18755, Start Num: 17

Candidate Starts for Superstar_23:

(Start: 17 @17541 has 105 MA's), (27, 17568), (58, 17727), (66, 17763), (67, 17766), (82, 17826), (104, 17940), (119, 18009), (129, 18063), (144, 18120), (173, 18258), (207, 18462), (245, 18603), (256, 18654), (277, 18732), (279, 18741), (280, 18747),

Gene: TagePighther_21 Start: 15830, Stop: 17041, Start Num: 17

Candidate Starts for TagePighther_21:

(Start: 17 @15830 has 105 MA's), (62, 16040), (66, 16052), (67, 16055), (78, 16103), (99, 16202), (104, 16229), (119, 16298), (129, 16352), (144, 16409), (164, 16484), (167, 16511), (171, 16541), (174, 16565), (182, 16619), (193, 16697), (207, 16751), (217, 16790), (222, 16808), (232, 16841), (234, 16850), (243, 16883), (245, 16892), (256, 16943), (279, 17027), (280, 17033),

Gene: Teagster_18 Start: 15351, Stop: 16520, Start Num: 15

Candidate Starts for Teagster_18:

(Start: 15 @15351 has 3 MA's), (Start: 19 @15357 has 43 MA's), (27, 15381), (37, 15438), (43, 15462), (66, 15579), (71, 15591), (82, 15642), (83, 15654), (88, 15672), (104, 15753), (114, 15798), (119, 15822), (249, 16431), (267, 16509),

Gene: Tefunt_20 Start: 16338, Stop: 17552, Start Num: 17

Candidate Starts for Tefunt_20:

(Start: 17 @16338 has 105 MA's), (27, 16365), (43, 16446), (58, 16524), (60, 16542), (66, 16560), (67, 16563), (82, 16623), (104, 16737), (129, 16860), (144, 16917), (196, 17214), (207, 17259), (225, 17322), (256, 17451), (277, 17529), (279, 17538), (280, 17544),

Gene: Thestral_21 Start: 15797, Stop: 17008, Start Num: 17

Candidate Starts for Thestral_21:

(Start: 17 @15797 has 105 MA's), (62, 16007), (66, 16019), (67, 16022), (82, 16082), (104, 16196), (107, 16211), (118, 16262), (144, 16376), (163, 16448), (173, 16514), (175, 16535), (196, 16673), (207, 16718), (211, 16733), (229, 16799), (234, 16817), (245, 16859), (250, 16886), (256, 16910), (279, 16994), (280, 17000),

Gene: TinaBelcher_20 Start: 15745, Stop: 16956, Start Num: 17

Candidate Starts for TinaBelcher_20:

(Start: 17 @15745 has 105 MA's), (62, 15955), (66, 15967), (67, 15970), (82, 16030), (104, 16144), (107, 16159), (118, 16210), (129, 16267), (144, 16324), (163, 16396), (173, 16462), (175, 16483), (177, 16504), (196, 16621), (207, 16666), (211, 16681), (229, 16747), (234, 16765), (245, 16807), (250, 16834), (256, 16858), (279, 16942), (280, 16948),

Gene: Toma_20 Start: 15844, Stop: 17055, Start Num: 17

Candidate Starts for Toma_20:

(Start: 17 @15844 has 105 MA's), (27, 15871), (51, 15997), (56, 16024), (62, 16054), (78, 16117), (99, 16216), (104, 16243), (119, 16312), (129, 16366), (133, 16378), (144, 16423), (163, 16495), (164, 16498), (173, 16561), (175, 16582), (185, 16657), (205, 16759), (207, 16765), (216, 16801), (217, 16804), (222, 16822), (234, 16864), (278, 17038), (279, 17041), (280, 17047),

Gene: Triste_20 Start: 15821, Stop: 17032, Start Num: 17

Candidate Starts for Triste_20:

(Start: 17 @15821 has 105 MA's), (62, 16031), (66, 16043), (67, 16046), (78, 16094), (99, 16193), (104, 16220), (119, 16289), (129, 16343), (144, 16400), (164, 16475), (167, 16502), (171, 16532), (174, 16556), (182, 16610), (193, 16688), (207, 16742), (217, 16781), (222, 16799), (232, 16832), (234, 16841), (243, 16874), (245, 16883), (256, 16934), (279, 17018), (280, 17024),

Gene: Triumph_22 Start: 15746, Stop: 16957, Start Num: 17

Candidate Starts for Triumph_22:

(Start: 17 @15746 has 105 MA's), (52, 15902), (62, 15956), (66, 15968), (67, 15971), (82, 16031), (104, 16145), (107, 16160), (118, 16211), (144, 16325), (160, 16385), (163, 16397), (173, 16463), (175, 16484), (196, 16622), (204, 16658), (207, 16667), (211, 16682), (223, 16727), (225, 16730), (232, 16757), (234, 16766), (256, 16859), (270, 16907), (277, 16934), (279, 16943), (280, 16949),

Gene: TrvxScott_19 Start: 15747, Stop: 16958, Start Num: 17

Candidate Starts for TrvxScott_19:

(Start: 17 @15747 has 105 MA's), (62, 15957), (66, 15969), (67, 15972), (82, 16032), (104, 16146), (107, 16161), (118, 16212), (129, 16269), (144, 16326), (163, 16398), (173, 16464), (175, 16485), (196, 16623), (207, 16668), (211, 16683), (229, 16749), (234, 16767), (245, 16809), (250, 16836), (256, 16860), (279, 16944), (280, 16950),

Gene: TuanPN_20 Start: 15827, Stop: 17038, Start Num: 17

Candidate Starts for TuanPN_20:

(Start: 17 @15827 has 105 MA's), (27, 15854), (62, 16037), (66, 16049), (67, 16052), (99, 16199), (104, 16226), (129, 16349), (144, 16406), (164, 16481), (167, 16508), (171, 16538), (175, 16565), (182, 16616), (207, 16748), (217, 16787), (222, 16805), (231, 16835), (232, 16838), (234, 16847), (243, 16880), (245, 16889), (256, 16940), (273, 17000), (279, 17024), (280, 17030),

Gene: Unstoppable_20 Start: 15845, Stop: 17059, Start Num: 17

Candidate Starts for Unstoppable_20:

(Start: 17 @15845 has 105 MA's), (27, 15872), (62, 16055), (78, 16118), (99, 16217), (104, 16244), (119, 16313), (124, 16343), (154, 16463), (173, 16562), (205, 16760), (207, 16766), (217, 16805), (225, 16829), (232, 16856), (234, 16865), (243, 16898), (256, 16958), (262, 16988), (277, 17036), (279, 17045), (280, 17051),

Gene: Urza_20 Start: 16212, Stop: 17432, Start Num: 17

Candidate Starts for Urza_20:

(Start: 17 @16212 has 105 MA's), (30, 16254), (38, 16299), (52, 16368), (60, 16416), (62, 16422), (103, 16608), (104, 16611), (108, 16635), (119, 16680), (129, 16734), (167, 16893), (173, 16929), (200, 17112), (211, 17148), (217, 17172), (222, 17190), (225, 17196), (234, 17232), (245, 17274), (275, 17400), (279, 17418), (280, 17424),

Gene: Vanseggelen_25 Start: 16195, Stop: 17409, Start Num: 17

Candidate Starts for Vanseggelen_25:

(Start: 17 @16195 has 105 MA's), (27, 16222), (34, 16273), (62, 16405), (77, 16465), (78, 16468), (99, 16567), (119, 16663), (121, 16675), (138, 16750), (144, 16774), (164, 16849), (167, 16876), (173, 16912), (207, 17116), (211, 17131), (222, 17173), (223, 17176), (234, 17215), (258, 17329), (279, 17395), (280, 17401),

Gene: Verabelle_21 Start: 16526, Stop: 17743, Start Num: 17

Candidate Starts for Verabelle_21:

(Start: 17 @16526 has 105 MA's), (27, 16553), (34, 16604), (56, 16706), (62, 16736), (77, 16796), (78, 16799), (87, 16838), (119, 16994), (124, 17024), (138, 17081), (143, 17102), (164, 17180), (167, 17207), (173, 17243), (207, 17447), (211, 17462), (234, 17546), (256, 17639), (258, 17660), (279, 17729), (280, 17735),

Gene: Verse_20 Start: 16825, Stop: 18042, Start Num: 17

Candidate Starts for Verse_20:

(Start: 17 @16825 has 105 MA's), (27, 16852), (34, 16903), (56, 17005), (62, 17035), (77, 17095), (87, 17137), (99, 17197), (119, 17293), (124, 17323), (138, 17380), (143, 17401), (164, 17479), (173, 17542), (207, 17746), (211, 17761), (229, 17827), (234, 17845), (256, 17938), (262, 17968), (279, 18028), (280, 18034),

Gene: VieEnRose_20 Start: 16278, Stop: 17498, Start Num: 17

Candidate Starts for VieEnRose_20:

(Start: 17 @16278 has 105 MA's), (30, 16320), (38, 16365), (52, 16434), (60, 16482), (62, 16488), (103, 16674), (104, 16677), (119, 16746), (129, 16800), (149, 16875), (167, 16959), (173, 16995), (179, 17055), (200, 17178), (211, 17214), (217, 17238), (222, 17256), (225, 17262), (234, 17298), (245, 17340), (258, 17412), (279, 17484), (280, 17490),

Gene: Werner_20 Start: 15831, Stop: 17042, Start Num: 17

Candidate Starts for Werner_20:

(Start: 17 @15831 has 105 MA's), (62, 16041), (66, 16053), (67, 16056), (78, 16104), (99, 16203), (104, 16230), (119, 16299), (129, 16353), (144, 16410), (164, 16485), (167, 16512), (171, 16542), (174, 16566), (182, 16620), (193, 16698), (207, 16752), (217, 16791), (222, 16809), (232, 16842), (234, 16851), (243, 16884), (245, 16893), (256, 16944), (279, 17028), (280, 17034),

Gene: Whatever_20 Start: 15831, Stop: 17042, Start Num: 17

Candidate Starts for Whatever_20:

(Start: 17 @15831 has 105 MA's), (62, 16041), (66, 16053), (67, 16056), (78, 16104), (99, 16203), (104, 16230), (119, 16299), (129, 16353), (144, 16410), (164, 16485), (167, 16512), (171, 16542),

(174, 16566), (182, 16620), (193, 16698), (207, 16752), (217, 16791), (222, 16809), (232, 16842), (234, 16851), (243, 16884), (245, 16893), (256, 16944), (279, 17028), (280, 17034),

Gene: Wizzo_16 Start: 12265, Stop: 13422, Start Num: 19

Candidate Starts for Wizzo_16:

(Start: 16 @12262 has 9 MA's), (Start: 19 @12265 has 43 MA's), (28, 12292), (31, 12316), (35, 12343), (38, 12349), (40, 12355), (43, 12370), (46, 12385), (47, 12388), (48, 12391), (53, 12421), (65, 12484), (73, 12502), (77, 12526), (80, 12535), (85, 12559), (87, 12568), (88, 12571), (89, 12574), (90, 12583), (92, 12601), (94, 12610), (103, 12664), (105, 12676), (106, 12679), (117, 12712), (119, 12718), (129, 12775), (134, 12790), (135, 12793), (136, 12799), (137, 12802), (141, 12817), (143, 12829), (151, 12868), (154, 12883), (156, 12892), (161, 12907), (162, 12910), (166, 12934), (168, 12949), (171, 12976), (172, 12979), (180, 13036), (185, 13069), (189, 13105), (195, 13132), (205, 13174), (208, 13189), (209, 13192), (215, 13216), (221, 13237), (223, 13243), (234, 13285), (244, 13321), (253, 13363), (256, 13378), (257, 13387), (258, 13399), (262, 13408),

Gene: Yasdnii_20 Start: 15823, Stop: 17034, Start Num: 17

Candidate Starts for Yasdnii_20:

(Start: 17 @15823 has 105 MA's), (27, 15850), (62, 16033), (66, 16045), (67, 16048), (99, 16195), (104, 16222), (129, 16345), (144, 16402), (164, 16477), (167, 16504), (171, 16534), (175, 16561), (182, 16612), (207, 16744), (217, 16783), (222, 16801), (231, 16831), (232, 16834), (234, 16843), (243, 16876), (245, 16885), (256, 16936), (273, 16996), (279, 17020), (280, 17026),

Gene: Yosif_21 Start: 16799, Stop: 17983, Start Num: 17

Candidate Starts for Yosif_21:

(Start: 17 @16799 has 105 MA's), (34, 16877), (35, 16880), (38, 16886), (60, 17003), (62, 17009), (77, 17069), (95, 17153), (98, 17168), (104, 17198), (129, 17321), (138, 17354), (167, 17480), (173, 17516), (193, 17642), (211, 17711), (217, 17735), (234, 17795), (279, 17969), (280, 17975),

Gene: Zainub_22 Start: 16178, Stop: 17389, Start Num: 17

Candidate Starts for Zainub_22:

(Start: 17 @16178 has 105 MA's), (35, 16259), (62, 16388), (66, 16400), (82, 16463), (104, 16577), (107, 16592), (129, 16700), (138, 16733), (144, 16757), (163, 16829), (173, 16895), (174, 16913), (175, 16916), (177, 16937), (196, 17054), (207, 17099), (211, 17114), (234, 17198), (237, 17204), (254, 17279), (256, 17291), (277, 17366), (279, 17375), (280, 17381),

Gene: Zemlya_21 Start: 15855, Stop: 17066, Start Num: 17

Candidate Starts for Zemlya_21:

(Start: 17 @15855 has 105 MA's), (27, 15882), (51, 16008), (53, 16014), (56, 16035), (62, 16065), (78, 16128), (99, 16227), (104, 16254), (119, 16323), (129, 16377), (133, 16389), (144, 16434), (163, 16506), (164, 16509), (173, 16572), (175, 16593), (185, 16668), (205, 16770), (207, 16776), (216, 16812), (217, 16815), (222, 16833), (234, 16875), (278, 17049), (279, 17052), (280, 17058),

Gene: Zucker_20 Start: 15353, Stop: 16471, Start Num: 21

Candidate Starts for Zucker_20:

(Start: 21 @15353 has 2 MA's), (41, 15440), (57, 15527), (59, 15536), (64, 15560), (68, 15572), (72, 15581), (104, 15743), (105, 15752), (106, 15755), (125, 15839), (128, 15851), (137, 15884), (150, 15935), (157, 15965), (172, 16043), (195, 16193), (203, 16229), (205, 16235), (225, 16307), (226, 16316), (265, 16463),

Gene: phiCAM_21 Start: 18698, Stop: 19705, Start Num: 62

Candidate Starts for phiCAM_21:

(Start: 17 @18488 has 105 MA's), (27, 18515), (34, 18566), (62, 18698), (77, 18758), (87, 18800), (119, 18956), (124, 18986), (138, 19043), (144, 19067), (164, 19142), (167, 19169), (173, 19205),

(207, 19409), (211, 19424), (223, 19469), (234, 19508), (256, 19601), (262, 19631), (279, 19691),
(280, 19697),

Gene: phiHau3_22 Start: 16517, Stop: 17728, Start Num: 14

Candidate Starts for phiHau3_22:

(12, 16505), (Start: 14 @16517 has 1 MA's), (Start: 17 @16523 has 105 MA's), (38, 16610), (58,
16709), (66, 16745), (82, 16808), (104, 16922), (106, 16934), (118, 16988), (119, 16991), (124,
17021), (129, 17045), (144, 17102), (154, 17141), (163, 17174), (164, 17177), (170, 17225), (207,
17444), (211, 17459), (223, 17504), (232, 17534), (237, 17549), (245, 17585), (277, 17705), (279,
17714), (280, 17720),