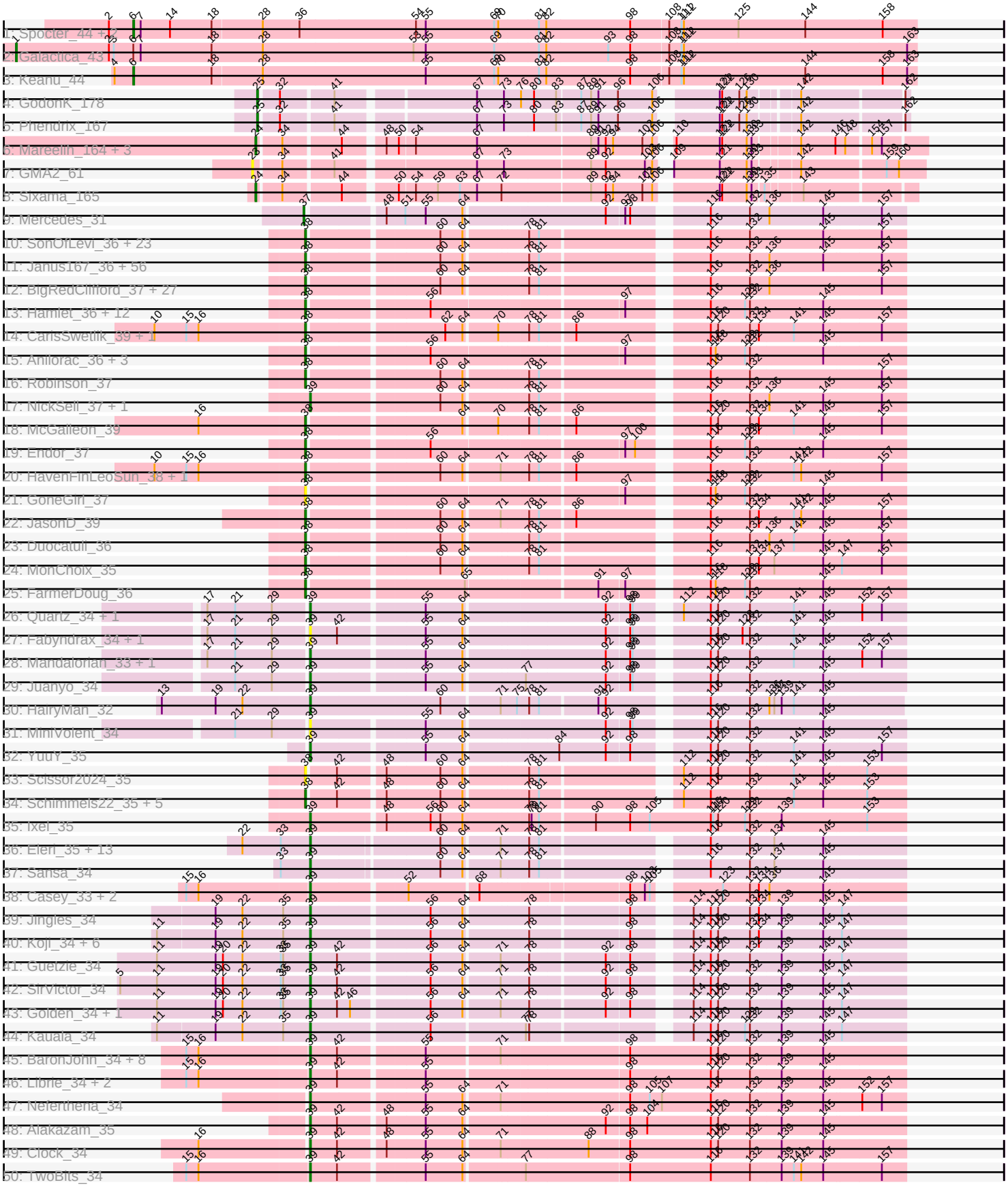
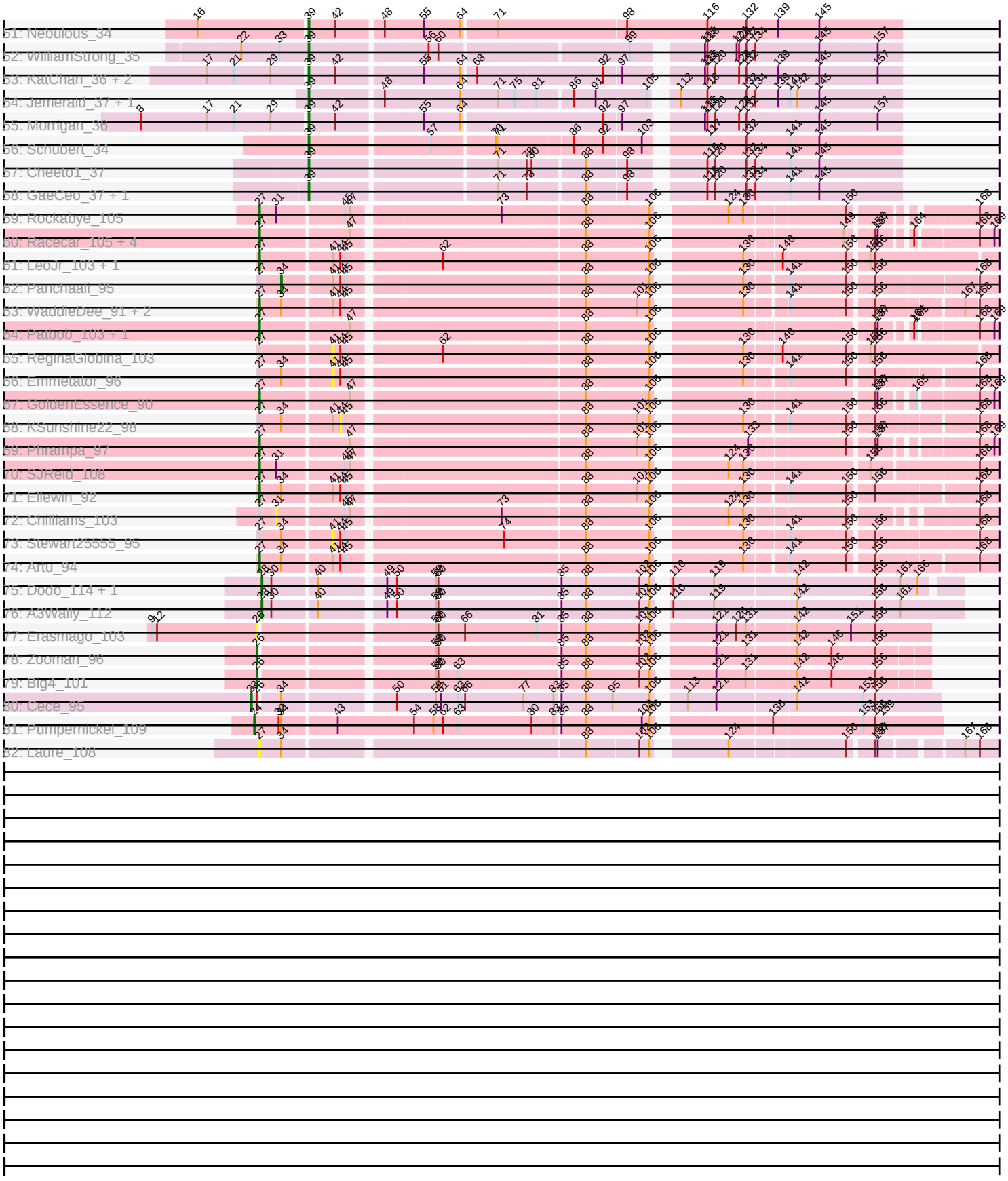
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1: Spocter_44 + 32
2: Galactica_43
3: Keanu_44
4: GodonK_178
5: Phendrix_167
6: Mareelin_164 + 3
7: GMA2_61
8: Sixama_165
9: Mercedes_31
10: SonOfLevi_36 + 23
11: Janus167_36 + 56
12: BigRedClifford_37 + 27
13: Hamlet_36 + 12
14: CarisSwetlik_39 + 1
15: Amilorac_36 + 3
16: Robinson_37
17: NickSell_37 + 1
18: McGalleon_39
19: Endor_37
20: HavenFinLeoSun_38 + 1
21: GoneGirl_37
22: JasonD_39
23: Duocatuil_36
24: MonChoix_35
25: FarmerDoug_36
26: Quartz_34 + 1
27: Fabyndrax_34 + 1
28: Mandalorian_33 + 1
29: Juanyo_34
30: HairyMan_32
31: MiniVolent_34
32: YuuY_35
33: Scissor2024_35
34: Schimmels22_35 + 5
35: Ixel_35
36: Eleri_35 + 13
37: Sansa_34
38: Casey_33 + 2
39: Jingles_34
40: Koji_34 + 6
41: Guetzie_34
42: SirVictor_34
43: Golden_34 + 1
44: Kauala_34
45: BaronJohn_34 + 8
46: Libnie_34 + 2
47: Neferthena_34
48: Alakazam_35
49: Clock_34
50: TwoBits_34

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51: Nebulous_34
52: WilliamStrong_35
53: KatChan_36 + 2
54: Jemerald_37 + 1
55: Morrigan_36
56: Schubert_34
57: Cheeto1_37
58: GaeCeo_37 + 1
59: Rockabye_105
60: Racecar_105 + 4
61: LeoJr_103 + 1
62: Panchaali_95
63: WaddleDee_91 + 2
64: Patbob_103 + 1
65: ReginaGlobina_103
66: Emmetator_96
67: GoldenEssence_90
68: KSunshine22_98
69: Phrampa_97
70: SJReid_108
71: Ellewin_92
72: Chilliams_103
73: Stewart25555_95
74: Artu_94
75: Dodo_114 + 1
76: A3Wally_112
77: Erasmago_103
78: Zooman_96
79: Big4_101
80: Cece_95
81: Pumpernickel_109
82: Laure_108

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 347203 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347203 has 264 members, 26 are drafts.

Phages represented in each track:
• Track 1 : Spocter_44, Kokushibo_45, Hiyaa_45
• Track 2 : Galactica_43
• Track 3 : Keanu_44
• Track 4 : GodonK_178
• Track 5 : Phendrix_167
• Track 6 : Mareelih_164, Forza_167, BlueNGold_163, Boopy_166
• Track 7 : GMA2_61
• Track 8 : Sixama_165
• Track 9 : Mercedes_31
• Track 10 : SonOfLevi_36, Ludgate_37, Asta_36, Nattles_36, TeddyBear_36, Etta_36, Erla_36, Raptor_37, Alyxandracam_37, Chamuel_36, Kouch_36, Kale_36, RosieMae_36, Calix_36, Nagem_37, Gershwin_36, Shee_37, Baines_36, Pocket_36, SJay_37, Gelo_36, Exploradora_36, Bonino_36, Klimt_36
• Track 11 : Janus167_36, ManRay_36, Strathdee_37, Thorongil_37, Phiderman_37, Christoph_36, MrWorldwide_37, Espinosa_36, MillyPhilly_37, HankSprout_37, StirfryIV_36, Kurt1_37, AranulaLuti_36, Jerbirus_37, PhredFlintston_37, KannH_36, TinSulphur_37, Symere_36, AxiPup_37, JeriBeth_36, HungryHenry_36, CoraRita_36, Aubergine_36, Gargoyle_37, Byron23_37, Rog141_36, KellyGreen_37, Garey24_36, Rapheph_37, HanSolo_36, Gubbabump_36, Winzigespinne_36, Stanktossa_37, PuppyEggo_37, Vispistious_37, Ilzat_36, Pherferi_37, Martin_38, Papafritta_36, Bandik_37, Chako_36, Tenda_36, Sedgewig_36, WildNOut_37, Inventa_37, Figueroism_37, Riyhil_37, Ioannes_37, StingRay_36, Benjalauren_37, Oats_36, Dothraki_37, ParleG_37, JasperRussell_36, Clancy_36, Greys_37, Zada_37
• Track 12 : BigRedClifford_37, Oxtober96_37, Phireproof_37, Velene_37, Blage_37, GoingMerry_37, MaeLinda_37, Phriends_37, Teagan_37, Superfresh_37, SolidSnake_38, BeautPeep30_37, ShaiHulud_37, Antoinette_37, Lovelyunicorn_37, BonesMcCoy_37, Convict_37, AlexAdler_37, OldNelly_37, Dave_37, Peep_37, Den3_37, Knox_37, Delphidian_37, Merida02_38, Thompsone_37, Renzie_37, SoilGremlin_37
• Track 13 : Hamlet_36, Peppino_36, Raccoon_36, Redfield_36, Etna_36, KingJulien_36, PhillyPhantom_36, BeeBee8_37, Stormbreaker8_36, Balsa_36, Soror1_36, Leafus_36, Schnapsidee_36
• Track 14 : CarisSwetlik_39, Jenos_40
• Track 15 : Anilorac_36, Aleyra_37, Agente005_37, GardenB_36
• Track 16 : Robinson_37
• Track 17 : NickSell_37, TatarkaPM_37
• Track 18 : McGalleon_39

• Track 19 : Endor_37
• Track 20 : HavenFinLeoSun_38, Acosta_38
• Track 21 : GoneGirl_37
• Track 22 : JasonD_39
• Track 23 : Duocatuli_36
• Track 24 : MonChoix_35
• Track 25 : FarmerDoug_36
• Track 26 : Quartz_34, Carostasia_33
• Track 27 : Fabyndrax_34, Cidela_34
• Track 28 : Mandalorian_33, Nucci_33
• Track 29 : Juanyo_34
• Track 30 : HairyMan_32
• Track 31 : MiniVolent_34
• Track 32 : YuuY_35
• Track 33 : Scissor2024_35
• Track 34 : Schimmels22_35, Tinyman4_35, HerculesXL_35, Kavo_34, Penta_33, WestPM_33
• Track 35 : Ixel_35
• Track 36 : Eleri_35, Shamu_35, ColaCorta_35, ChikPic_35, Andromedas_35, Glamour_34, Finny_35, MCubed_35, Xebius_35, Phanita_35, Orpington_35, Saratos_35, PSirce_35, Zenitsu_35
• Track 37 : Sansa_34
• Track 38 : Casey_33, Pajaza_33, Pikmin_33
• Track 39 : Jingles_34
• Track 40 : Koji_34, Bustleton_34, RenegadeRaider_35, BouleyBill_34, PrincePhergus_34, Sinatra_34, Pherbot_34
• Track 41 : Guetzie_34
• Track 42 : SirVictor_34
• Track 43 : Golden_34, Lucky3_34
• Track 44 : Kauala_34
• Track 45 : BaronJohn_34, Zepp_35, Vafari_35, QuadZero_34, Zayuliv_34, Wardwill_36, LilTerminator_34, GreenIvy_34, Hasitha_34
• Track 46 : Librie_34, Fulton_34, CaptainRex_34
• Track 47 : Neferthena_34
• Track 48 : Alakazam_35
• Track 49 : Clock_34
• Track 50 : TwoBits_34
• Track 51 : Nebulous_34
• Track 52 : WilliamStrong_35
• Track 53 : KatChan_36, Luna18_36, Chepli_36
• Track 54 : Jemerald_37, Juicer_37
• Track 55 : Morrigan_36
• Track 56 : Schubert_34
• Track 57 : Cheeto1_37
• Track 58 : GaeCeo_37, ChickenKing_36
• Track 59 : Rockabye_105
• Track 60 : Racecar_105, Bloom_108, Mimi_104, Talia1610_104, FrostedClock_104
• Track 61 : LeoJr_103, Atuin_98
• Track 62 : Panchaali_95
• Track 63 : WaddleDee_91, BooTeria_94, DunneganBoMo_93
• Track 64 : Patbob_103, FloraSnap32_101
• Track 65 : ReginaGlobina_103
• Track 66 : Emmetator_96

• Track 67 : GoldenEssence_90
• Track 68 : KSunshine22_98
• Track 69 : Phrampa_97
• Track 70 : SJReid_108
• Track 71 : Ellewin_92
• Track 72 : Chilliams_103
• Track 73 : Stewart25555_95
• Track 74 : Artu_94
• Track 75 : Dodo_114, PauloDiaboli_112
• Track 76 : A3Wally_112
• Track 77 : Erasmago_103
• Track 78 : Zooman_96
• Track 79 : Big4_101
• Track 80 : Cece_95
• Track 81 : Pumpernickel_109
• Track 82 : Laure_108

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

The start number called the most often in the published annotations is 38, it was called in 135 of the 238 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Acosta_38, Agente005_37, AlexAdler_37, Aleyra_37, Alyxandracam_37, Anilorac_36, Antoinette_37, AranulaLuti_36, Asta_36, Aubergine_36, AxiPup_37, Baines_36, Balsa_36, Bandik_37, BeautPeep30_37, BeeBee8_37, Benjalauren_37, BigRedClifford_37, Blage_37, BonesMcCoy_37, Bonino_36, Byron23_37, Calix_36, CarisSwetlik_39, Chako_36, Chamuel_36, Christoph_36, Clancy_36, Convict_37, CoraRita_36, Dave_37, Delphidian_37, Den3_37, Dothraki_37, Duocatuli_36, Endor_37, Erla_36, Espinosa_36, Etna_36, Etta_36, Exploradora_36, FarmerDoug_36, Figueroism_37, GardenB_36, Garey24_36, Gargoyle_37, Gelo_36, Gershwin_36, GoingMerry_37, GoneGirl_37, Greys_37, Gubbabump_36, Hamlet_36, HanSolo_36, HankSprout_37, HavenFinLeoSun_38, HerculesXL_35, HungryHenry_36, Ilzat_36, Inventa_37, Ioannes_37, Janus167_36, JasonD_39, JasperRussell_36, Jenos_40, Jerbirus_37, JeriBeth_36, Kale_36, KannH_36, Kavo_34, KellyGreen_37, KingJulien_36, Klimt_36, Knox_37, Kouch_36, Kurt1_37, Leafus_36, Lovelyunicorn_37, Ludgate_37, MaeLinda_37, ManRay_36, Martin_38, McGalleon_39, Merida02_38, MillyPhilly_37, MonChoix_35, MrWorldwide_37, Nagem_37, Nattles_36, Oats_36, OldNelly_37, Oxtober96_37, Papafritta_36, ParleG_37, Peep_37, Penta_33, Peppino_36, Pherferi_37, Phiderman_37, PhillyPhantom_36, Phireproof_37, PhredFlintston_37, Phriends_37, Pocket_36, PuppyEggo_37, Raccoon_36, Rapheph_37, Raptor_37, Redfield_36, Renzie_37, Riyhil_37, Robinson_37, Rog141_36, RosieMae_36, SJay_37, Schimmels22_35, Schnapsidee_36, Scissor2024_35, Sedgewig_36, ShaiHulud_37, Shee_37, SoilGremlin_37, SolidSnake_38, SonOfLevi_36, Soror1_36, Stanktossa_37, StingRay_36, StirfryIV_36, Stormbreaker8_36, Strathdee_37, Superfresh_37, Symere_36, Teagan_37, TeddyBear_36, Tenda_36, Thompsone_37, Thorongil_37, TinSulphur_37, Tinyman4_35, Velene_37, Vispistious_37, WestPM_33, WildNOut_37, Winzigespinne_36, Zada_37,

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

Genes that do not have the "Most Annotated" start:
• A3Wally_112, Alakazam_35, Andromedas_35, Artu_94, Atuin_98, BaronJohn_34, Big4_101, Bloom_108, BlueNGold_163, BooTeria_94, Boopy_166, BouleyBill_34, Bustleton_34, CaptainRex_34, Carostasia_33, Casey_33, Cece_95, Cheeto1_37, Chepli_36, ChickenKing_36, ChikPic_35, Chilliams_103, Cidela_34, Clock_34, ColaCorta_35, Dodo_114, DunneganBoMo_93, Eleri_35, Ellewin_92, Emmetator_96, Erasmago_103, Fabyndrax_34, Finny_35, FloraSnap32_101, Forza_167, FrostedClock_104, Fulton_34, GMA2_61, GaeCeo_37, Galactica_43, Glamour_34, GodonK_178, GoldenEssence_90, Golden_34, GreenIvy_34, Guetzie_34, HairyMan_32, Hasitha_34, Hiyaa_45, Ixel_35, Jemerald_37, Jingles_34, Juanyo_34, Juicer_37, KSunshine22_98, KatChan_36, Kauala_34, Keanu_44, Koji_34, Kokushibo_45, Laure_108, LeoJr_103, Librie_34, LilTerminator_34, Lucky3_34, Luna18_36, MCubed_35, Mandalorian_33, Mareelih_164, Mercedes_31, Mimi_104, MiniVolent_34, Morrigan_36, Nebulous_34, Neferthena_34, NickSell_37, Nucci_33, Orpington_35, PSirce_35, Pajaza_33, Panchaali_95, Patbob_103, PauloDiaboli_112, Phanita_35, Phendrix_167, Pherbot_34, Phrampa_97, Pikmin_33, PrincePhergus_34, Pumpernickel_109, QuadZero_34, Quartz_34, Racecar_105, ReginaGlobina_103, RenegadeRaider_35, Rockabye_105, SJReid_108, Sansa_34, Saratos_35, Schubert_34, Shamu_35, Sinatra_34, SirVictor_34, Sixama_165, Spocter_44, Stewart25555_95, Talia1610_104, TatarkaPM_37, TwoBits_34, Vafari_35, WaddleDee_91, Wardwill_36, WilliamStrong_35, Xebius_35, YuuY_35, Zayuliv_34, Zenitsu_35, Zepp_35, Zooman_96,

Summary by start number:

Start 1:
• Found in 1 of 264 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 238
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Galactica_43 (BQ),

Start 6:
• Found in 5 of 264 (1.9%) of genes in pham
• Manual Annotations of this start: 4 of 238
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Hiyaa_45 (BQ), Keanu_44 (BQ), Kokushibo_45 (BQ), Spocter_44 (BQ),

Start 23:
• Found in 2 of 264 (0.8%) of genes in pham
• Manual Annotations of this start: 1 of 238
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Cece_95 (GD3), GMA2_61 (DS),

Start 24:
• Found in 6 of 264 (2.3%) of genes in pham
• Manual Annotations of this start: 6 of 238
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BlueNGold_163 (DS), Boopy_166 (DS), Forza_167 (DS), Mareelih_164 (DS), Pumpernickel_109 (GD4), Sixama_165 (DS),

Start 25:
• Found in 2 of 264 (0.8%) of genes in pham
• Manual Annotations of this start: 2 of 238
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GodonK_178 (DK), Phendrix_167 (DK),

Start 26:
• Found in 4 of 264 (1.5%) of genes in pham
• Manual Annotations of this start: 2 of 238
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Big4_101 (GD2), Erasmago_103 (GD2), Zooman_96 (GD2),

Start 27:
• Found in 25 of 264 (9.5%) of genes in pham
• Manual Annotations of this start: 16 of 238
• Called 76.0% of time when present
• Phage (with cluster) where this start called: Artu_94 (FC), Atuin_98 (FC), Bloom_108 (FC), BooTeria_94 (FC), DunneganBoMo_93 (FC), Ellewin_92 (FC), FloraSnap32_101 (FC), FrostedClock_104 (FC), GoldenEssence_90 (FC), Laure_108 (UNK), LeoJr_103 (FC), Mimi_104 (FC), Patbob_103 (FC), Phrampa_97 (FC), Racecar_105 (FC), Rockabye_105 (FC), SJReid_108 (FC), Talia1610_104 (FC), WaddleDee_91 (FC),

Start 28:
• Found in 8 of 264 (3.0%) of genes in pham
• Manual Annotations of this start: 3 of 238
• Called 37.5% of time when present
• Phage (with cluster) where this start called: A3Wally_112 (GD1), Dodo_114 (GD1), PauloDiaboli_112 (GD1),

Start 31:
• Found in 3 of 264 (1.1%) of genes in pham
• No Manual Annotations of this start.
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Chilliams_103 (FC),

Start 34:
• Found in 18 of 264 (6.8%) of genes in pham
• Manual Annotations of this start: 1 of 238
• Called 5.6% of time when present
• Phage (with cluster) where this start called: Panchaali_95 (FC),

Start 37:
• Found in 1 of 264 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 238
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Mercedes_31 (EA),

Start 38:
• Found in 145 of 264 (54.9%) of genes in pham
• Manual Annotations of this start: 135 of 238

• Called 100.0% of time when present
• Phage (with cluster) where this start called: Acosta_38 (EA1), Agente005_37 (EA1), AlexAdler_37 (EA1), Aleyra_37 (EA1), Alyxandracam_37 (EA1), Anilorac_36 (EA1), Antoinette_37 (EA1), AranulaLuti_36 (EA1), Asta_36 (EA1), Aubergine_36 (EA1), AxiPup_37 (EA1), Baines_36 (EA1), Balsa_36 (EA1), Bandik_37 (EA1), BeautPeep30_37 (EA1), BeeBee8_37 (EA1), Benjalauren_37 (EA1), BigRedClifford_37 (EA1), Blage_37 (EA1), BonesMcCoy_37 (EA1), Bonino_36 (EA1), Byron23_37 (EA1), Calix_36 (EA1), CarisSwetlik_39 (EA1), Chako_36 (EA1), Chamuel_36 (EA1), Christoph_36 (EA1), Clancy_36 (EA1), Convict_37 (EA1), CoraRita_36 (EA1), Dave_37 (EA1), Delphidian_37 (EA1), Den3_37 (EA1), Dothraki_37 (EA1), Duocatuli_36 (EA1), Endor_37 (EA1), Erla_36 (EA1), Espinosa_36 (EA1), Etna_36 (EA1), Etta_36 (EA1), Exploradora_36 (EA1), FarmerDoug_36 (EA1), Figueroism_37 (EA1), GardenB_36 (EA1), Garey24_36 (EA1), Gargoyle_37 (EA1), Gelo_36 (EA1), Gershwin_36 (EA1), GoingMerry_37 (EA1), GoneGirl_37 (EA1), Greys_37 (EA1), Gubbabump_36 (EA1), Hamlet_36 (EA1), HanSolo_36 (EA1), HankSprout_37 (EA1), HavenFinLeoSun_38 (EA1), HerculesXL_35 (EA11), HungryHenry_36 (EA1), Ilzat_36 (EA1), Inventa_37 (EA1), Ioannes_37 (EA1), Janus167_36 (EA1), JasonD_39 (EA1), JasperRussell_36 (EA1), Jenos_40 (EA1), Jerbirus_37 (EA1), JeriBeth_36 (EA1), Kale_36 (EA1), KannH_36 (EA1), Kavo_34 (EA11), KellyGreen_37 (EA1), KingJulien_36 (EA1), Klimt_36 (EA1), Knox_37 (EA1), Kouch_36 (EA1), Kurt1_37 (EA1), Leafus_36 (EA1), Lovelyunicorn_37 (EA1), Ludgate_37 (EA1), MaeLinda_37 (EA1), ManRay_36 (EA1), Martin_38 (EA1), McGalleon_39 (EA1), Merida02_38 (EA1), MillyPhilly_37 (EA1), MonChoix_35 (EA1), MrWorldwide_37 (EA1), Nagem_37 (EA1), Nattles_36 (EA1), Oats_36 (EA1), OldNelly_37 (EA1), Oxtober96_37 (EA1), Papafritta_36 (EA1), ParleG_37 (EA1), Peep_37 (EA1), Penta_33 (EA11), Peppino_36 (EA1), Pherferi_37 (EA1), Phiderman_37 (EA1), PhillyPhantom_36 (EA1), Phireproof_37 (EA1), PhredFlintston_37 (EA1), Phriends_37 (EA1), Pocket_36 (EA1), PuppyEggo_37 (EA1), Raccoon_36 (EA1), Rapheph_37 (EA1), Raptor_37 (EA1), Redfield_36 (EA1), Renzie_37 (EA1), Riyhil_37 (EA1), Robinson_37 (EA1), Rog141_36 (EA1), RosieMae_36 (EA1), SJay_37 (EA1), Schimmels22_35 (EA11), Schnapsidee_36 (EA1), Scissor2024_35 (EA11), Sedgewig_36 (EA1), ShaiHulud_37 (EA1), Shee_37 (EA1), SoilGremlin_37 (EA1), SolidSnake_38 (EA1), SonOfLevi_36 (EA1), Soror1_36 (EA1), Stanktossa_37 (EA1), StingRay_36 (EA1), StirfryIV_36 (EA1), Stormbreaker8_36 (EA1), Strathdee_37 (EA1), Superfresh_37 (EA1), Symere_36 (EA1), Teagan_37 (EA1), TeddyBear_36 (EA1), Tenda_36 (EA1), Thompsone_37 (EA1), Thorongil_37 (EA1), TinSulphur_37 (EA1), Tinyman4_35 (EA11), Velene_37 (EA1), Vispistious_37 (EA1), WestPM_33 (EA11), WildNOut_37 (EA1), Winzigespinne_36 (EA1), Zada_37 (EA1),

Start 39:
• Found in 72 of 264 (27.3%) of genes in pham
• Manual Annotations of this start: 66 of 238
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alakazam_35 (EA5), Andromedas_35 (EA2), BaronJohn_34 (EA5), BouleyBill_34 (EA4), Bustleton_34 (EA4), CaptainRex_34 (EA5), Carostasia_33 (EA10), Casey_33 (EA3), Cheeto1_37 (EA9), Chepli_36 (EA6), ChickenKing_36 (EA9), ChikPic_35 (EA2), Cidela_34 (EA10), Clock_34 (EA5), ColaCorta_35 (EA2), Eleri_35 (EA2), Fabyndrax_34 (EA10), Finny_35 (EA2), Fulton_34 (EA5), GaeCeo_37 (EA9), Glamour_34 (EA2), Golden_34 (EA4), GreenIvy_34 (EA5), Guetzie_34 (EA4), HairyMan_32 (EA10), Hasitha_34 (EA5), Ixel_35 (EA11), Jemerald_37 (EA6), Jingles_34 (EA4), Juanyo_34 (EA10), Juicer_37 (EA6), KatChan_36 (EA6), Kauala_34 (EA4), Koji_34 (EA4), Librie_34

(EA5), LilTerminator_34 (EA5), Lucky3_34 (EA4), Luna18_36 (EA6), MCubed_35 (EA2), Mandalorian_33 (EA10), MiniVolent_34 (EA10), Morrigan_36 (EA6), Nebulous_34 (EA5), Neferthena_34 (EA5), NickSell_37 (EA1), Nucci_33 (EA10), Orpington_35 (EA2), PSirce_35 (EA2), Pajaza_33 (EA3), Phanita_35 (EA2), Pherbot_34 (EA4), Pikmin_33 (EA3), PrincePhergus_34 (EA4), QuadZero_34 (EA5), Quartz_34 (EA10), RenegadeRaider_35 (EA4), Sansa_34 (EA2), Saratos_35 (EA2), Schubert_34 (EA8), Shamu_35 (EA2), Sinatra_34 (EA4), SirVictor_34 (EA4), TatarkaPM_37 (EA1), TwoBits_34 (EA5), Vafari_35 (EA5), Wardwill_36 (EA5), WilliamStrong_35 (EA6), Xebius_35 (EA2), YuuY_35 (EA10), Zayuliv_34 (EA5), Zenitsu_35 (EA2), Zepp_35 (EA5),

Start 41:
• Found in 15 of 264 (5.7%) of genes in pham
• No Manual Annotations of this start.
• Called 20.0% of time when present
• Phage (with cluster) where this start called: Emmetator_96 (FC), ReginaGlobina_103 (FC), Stewart25555_95 (FC),

Start 44:
• Found in 17 of 264 (6.4%) of genes in pham
• No Manual Annotations of this start.
• Called 5.9% of time when present
• Phage (with cluster) where this start called: KSunshine22_98 (FC),

Summary by clusters:

There are 20 clusters represented in this pham: GD1, GD2, GD3, EA11, EA10, UNK, DK, EA, DS, EA9, EA8, FC, BQ, EA1, GD4, EA3, EA2, EA5, EA4, EA6,

Info for manual annotations of cluster BQ:
•Start number 1 was manually annotated 1 time for cluster BQ.
•Start number 6 was manually annotated 4 times for cluster BQ.

Info for manual annotations of cluster DK:
•Start number 25 was manually annotated 2 times for cluster DK.

Info for manual annotations of cluster DS:
•Start number 24 was manually annotated 5 times for cluster DS.

Info for manual annotations of cluster EA:
•Start number 37 was manually annotated 1 time for cluster EA.

Info for manual annotations of cluster EA1:
•Start number 38 was manually annotated 130 times for cluster EA1.
•Start number 39 was manually annotated 2 times for cluster EA1.

Info for manual annotations of cluster EA10:
•Start number 39 was manually annotated 7 times for cluster EA10.

Info for manual annotations of cluster EA11:
•Start number 38 was manually annotated 5 times for cluster EA11.
•Start number 39 was manually annotated 1 time for cluster EA11.

Info for manual annotations of cluster EA2:
•Start number 39 was manually annotated 14 times for cluster EA2.

Info for manual annotations of cluster EA3:
•Start number 39 was manually annotated 3 times for cluster EA3.

Info for manual annotations of cluster EA4:
•Start number 39 was manually annotated 12 times for cluster EA4.

Info for manual annotations of cluster EA5:
•Start number 39 was manually annotated 16 times for cluster EA5.

Info for manual annotations of cluster EA6:
•Start number 39 was manually annotated 7 times for cluster EA6.

Info for manual annotations of cluster EA8:
•Start number 39 was manually annotated 1 time for cluster EA8.

Info for manual annotations of cluster EA9:
•Start number 39 was manually annotated 3 times for cluster EA9.

Info for manual annotations of cluster FC:
•Start number 27 was manually annotated 16 times for cluster FC.
•Start number 34 was manually annotated 1 time for cluster FC.

Info for manual annotations of cluster GD1:
•Start number 28 was manually annotated 3 times for cluster GD1.

Info for manual annotations of cluster GD2:
•Start number 26 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:
•Start number 23 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:
•Start number 24 was manually annotated 1 time for cluster GD4.

Gene Information:

Gene: A3Wally_112 Start: 76409, Stop: 75603, Start Num: 28
Candidate Starts for A3Wally_112:
(Start: 28 @76409 has 3 MA's), (30, 76397), (40, 76346), (49, 76274), (50, 76262), (59, 76217), (60, 76214), (85, 76067), (88, 76037), (102, 75971), (106, 75959), (110, 75950), (119, 75902), (142, 75806), (156, 75710), (161, 75680),

Gene: Acosta_38 Start: 26305, Stop: 25637, Start Num: 38
Candidate Starts for Acosta_38:
(10, 26488), (15, 26449), (16, 26434), (Start: 38 @26305 has 135 MA's), (60, 26158), (64, 26131), (71, 26092), (78, 26062), (81, 26050), (86, 26011), (116, 25870), (132, 25822), (141, 25771), (142, 25762), (157, 25666),

Gene: Agente005_37 Start: 26137, Stop: 25469, Start Num: 38
Candidate Starts for Agente005_37:
(Start: 38 @26137 has 135 MA's), (56, 26002), (97, 25783), (116, 25702), (118, 25696), (129, 25660), (132, 25654), (145, 25567),

Gene: Alakazam_35 Start: 25472, Stop: 24777, Start Num: 39
Candidate Starts for Alakazam_35:
(Start: 39 @25472 has 66 MA's), (42, 25439), (48, 25388), (55, 25343), (64, 25298), (92, 25136), (98, 25109), (104, 25088), (116, 25010), (120, 25001), (132, 24962), (139, 24926), (145, 24875),

Gene: AlexAdler_37 Start: 25901, Stop: 25233, Start Num: 38
Candidate Starts for AlexAdler_37:
(Start: 38 @25901 has 135 MA's), (60, 25754), (64, 25727), (78, 25658), (81, 25646), (116, 25466), (132, 25418), (136, 25397), (157, 25262),

Gene: Aleyra_37 Start: 26142, Stop: 25474, Start Num: 38
Candidate Starts for Aleyra_37:
(Start: 38 @26142 has 135 MA's), (56, 26007), (97, 25788), (116, 25707), (118, 25701), (129, 25665), (132, 25659), (145, 25572),

Gene: Alyxandracam_37 Start: 25911, Stop: 25243, Start Num: 38
Candidate Starts for Alyxandracam_37:
(Start: 38 @25911 has 135 MA's), (60, 25764), (64, 25737), (78, 25668), (81, 25656), (116, 25476), (132, 25428), (145, 25341), (157, 25272),

Gene: Andromedas_35 Start: 25511, Stop: 24843, Start Num: 39
Candidate Starts for Andromedas_35:
(22, 25589), (33, 25544), (Start: 39 @25511 has 66 MA's), (60, 25364), (64, 25337), (71, 25298), (78, 25268), (81, 25256), (116, 25076), (132, 25028), (137, 25001), (145, 24941),

Gene: Anilorac_36 Start: 25981, Stop: 25313, Start Num: 38
Candidate Starts for Anilorac_36:
(Start: 38 @25981 has 135 MA's), (56, 25846), (97, 25627), (116, 25546), (118, 25540), (129, 25504), (132, 25498), (145, 25411),

Gene: Antoinette_37 Start: 25898, Stop: 25230, Start Num: 38
Candidate Starts for Antoinette_37:
(Start: 38 @25898 has 135 MA's), (60, 25751), (64, 25724), (78, 25655), (81, 25643), (116, 25463), (132, 25415), (136, 25394), (157, 25259),

Gene: AranulaLuti_36 Start: 25595, Stop: 24927, Start Num: 38
Candidate Starts for AranulaLuti_36:
(Start: 38 @25595 has 135 MA's), (60, 25448), (64, 25421), (78, 25352), (81, 25340), (116, 25160), (132, 25112), (136, 25091), (145, 25025), (157, 24956),

Gene: Artu_94 Start: 80843, Stop: 81661, Start Num: 27
Candidate Starts for Artu_94:
(Start: 27 @80843 has 16 MA's), (Start: 34 @80870 has 1 MA's), (41, 80927), (44, 80936), (45, 80942), (88, 81218), (106, 81296), (130, 81386), (141, 81431), (150, 81500), (156, 81527), (168, 81638),

Gene: Asta_36 Start: 25608, Stop: 24940, Start Num: 38
Candidate Starts for Asta_36:

(Start: 38 @25608 has 135 MA's), (60, 25461), (64, 25434), (78, 25365), (81, 25353), (116, 25173), (132, 25125), (145, 25038), (157, 24969),

Gene: Atuin_98 Start: 84308, Stop: 85141, Start Num: 27
Candidate Starts for Atuin_98:
(Start: 27 @84308 has 16 MA's), (41, 84392), (44, 84401), (45, 84407), (62, 84512), (88, 84683), (106, 84761), (130, 84851), (140, 84893), (150, 84968), (155, 84989), (156, 84995),

Gene: Aubergine_36 Start: 25608, Stop: 24940, Start Num: 38
Candidate Starts for Aubergine_36:
(Start: 38 @25608 has 135 MA's), (60, 25461), (64, 25434), (78, 25365), (81, 25353), (116, 25173), (132, 25125), (136, 25104), (145, 25038), (157, 24969),

Gene: AxiPup_37 Start: 25880, Stop: 25212, Start Num: 38
Candidate Starts for AxiPup_37:
(Start: 38 @25880 has 135 MA's), (60, 25733), (64, 25706), (78, 25637), (81, 25625), (116, 25445), (132, 25397), (136, 25376), (145, 25310), (157, 25241),

Gene: Baines_36 Start: 25598, Stop: 24930, Start Num: 38
Candidate Starts for Baines_36:
(Start: 38 @25598 has 135 MA's), (60, 25451), (64, 25424), (78, 25355), (81, 25343), (116, 25163), (132, 25115), (145, 25028), (157, 24959),

Gene: Balsa_36 Start: 26028, Stop: 25360, Start Num: 38
Candidate Starts for Balsa_36:
(Start: 38 @26028 has 135 MA's), (56, 25893), (97, 25674), (116, 25593), (129, 25551), (132, 25545), (145, 25458),

Gene: Bandik_37 Start: 25906, Stop: 25238, Start Num: 38
Candidate Starts for Bandik_37:
(Start: 38 @25906 has 135 MA's), (60, 25759), (64, 25732), (78, 25663), (81, 25651), (116, 25471), (132, 25423), (136, 25402), (145, 25336), (157, 25267),

Gene: BaronJohn_34 Start: 24387, Stop: 23692, Start Num: 39
Candidate Starts for BaronJohn_34:
(15, 24534), (16, 24519), (Start: 39 @24387 has 66 MA's), (42, 24354), (55, 24258), (71, 24174), (98, 24024), (116, 23925), (120, 23916), (132, 23877), (139, 23841), (145, 23790),

Gene: BeautPeep30_37 Start: 25912, Stop: 25244, Start Num: 38
Candidate Starts for BeautPeep30_37:
(Start: 38 @25912 has 135 MA's), (60, 25765), (64, 25738), (78, 25669), (81, 25657), (116, 25477), (132, 25429), (136, 25408), (157, 25273),

Gene: BeeBee8_37 Start: 26198, Stop: 25530, Start Num: 38
Candidate Starts for BeeBee8_37:
(Start: 38 @26198 has 135 MA's), (56, 26063), (97, 25844), (116, 25763), (129, 25721), (132, 25715), (145, 25628),

Gene: Benjalauren_37 Start: 25611, Stop: 24943, Start Num: 38
Candidate Starts for Benjalauren_37:
(Start: 38 @25611 has 135 MA's), (60, 25464), (64, 25437), (78, 25368), (81, 25356), (116, 25176), (132, 25128), (136, 25107), (145, 25041), (157, 24972),

Gene: Big4_101 Start: 75498, Stop: 74737, Start Num: 26
Candidate Starts for Big4_101:
(Start: 26 @75498 has 2 MA's), (59, 75306), (60, 75303), (63, 75279), (85, 75156), (88, 75126), (102, 75060), (106, 75048), (121, 74988), (131, 74952), (142, 74895), (146, 74853), (156, 74799),

Gene: BigRedClifford_37 Start: 25910, Stop: 25242, Start Num: 38
Candidate Starts for BigRedClifford_37:
(Start: 38 @25910 has 135 MA's), (60, 25763), (64, 25736), (78, 25667), (81, 25655), (116, 25475), (132, 25427), (136, 25406), (157, 25271),

Gene: Blage_37 Start: 25910, Stop: 25242, Start Num: 38
Candidate Starts for Blage_37:
(Start: 38 @25910 has 135 MA's), (60, 25763), (64, 25736), (78, 25667), (81, 25655), (116, 25475), (132, 25427), (136, 25406), (157, 25271),

Gene: Bloom_108 Start: 84483, Stop: 85292, Start Num: 27
Candidate Starts for Bloom_108:
(Start: 27 @84483 has 16 MA's), (47, 84588), (88, 84858), (106, 84936), (149, 85137), (156, 85167), (157, 85170), (164, 85200), (168, 85269), (169, 85287),

Gene: BlueNGold_163 Start: 93500, Stop: 92757, Start Num: 24
Candidate Starts for BlueNGold_163:
(Start: 24 @93500 has 6 MA's), (Start: 34 @93473 has 1 MA's), (44, 93407), (48, 93365), (50, 93350), (54, 93332), (67, 93257), (89, 93122), (91, 93113), (92, 93104), (94, 93095), (102, 93059), (106, 93047), (110, 93038), (121, 92987), (122, 92984), (130, 92954), (133, 92948), (142, 92900), (146, 92858), (148, 92846), (154, 92819), (157, 92807),

Gene: BonesMcCoy_37 Start: 25910, Stop: 25242, Start Num: 38
Candidate Starts for BonesMcCoy_37:
(Start: 38 @25910 has 135 MA's), (60, 25763), (64, 25736), (78, 25667), (81, 25655), (116, 25475), (132, 25427), (136, 25406), (157, 25271),

Gene: Bonino_36 Start: 25584, Stop: 24916, Start Num: 38
Candidate Starts for Bonino_36:
(Start: 38 @25584 has 135 MA's), (60, 25437), (64, 25410), (78, 25341), (81, 25329), (116, 25149), (132, 25101), (145, 25014), (157, 24945),

Gene: BooTeria_94 Start: 80956, Stop: 81774, Start Num: 27
Candidate Starts for BooTeria_94:
(Start: 27 @80956 has 16 MA's), (Start: 34 @80983 has 1 MA's), (41, 81040), (44, 81049), (45, 81055), (88, 81331), (101, 81394), (106, 81409), (130, 81499), (141, 81544), (150, 81613), (156, 81640), (167, 81736), (168, 81751),

Gene: Boopy_166 Start: 93511, Stop: 92768, Start Num: 24
Candidate Starts for Boopy_166:
(Start: 24 @93511 has 6 MA's), (Start: 34 @93484 has 1 MA's), (44, 93418), (48, 93376), (50, 93361), (54, 93343), (67, 93268), (89, 93133), (91, 93124), (92, 93115), (94, 93106), (102, 93070), (106, 93058), (110, 93049), (121, 92998), (122, 92995), (130, 92965), (133, 92959), (142, 92911), (146, 92869), (148, 92857), (154, 92830), (157, 92818),

Gene: BouleyBill_34 Start: 25365, Stop: 24700, Start Num: 39
Candidate Starts for BouleyBill_34:

(11, 25548), (19, 25479), (22, 25446), (35, 25398), (Start: 39 @25365 has 66 MA's), (56, 25230), (64, 25191), (78, 25122), (98, 25008), (114, 24954), (116, 24933), (120, 24924), (132, 24885), (134, 24876), (139, 24849), (145, 24798), (147, 24777),

Gene: Bustleton_34 Start: 25368, Stop: 24703, Start Num: 39
Candidate Starts for Bustleton_34:
(11, 25551), (19, 25482), (22, 25449), (35, 25401), (Start: 39 @25368 has 66 MA's), (56, 25233), (64, 25194), (78, 25125), (98, 25011), (114, 24957), (116, 24936), (120, 24927), (132, 24888), (134, 24879), (139, 24852), (145, 24801), (147, 24780),

Gene: Byron23_37 Start: 25909, Stop: 25241, Start Num: 38
Candidate Starts for Byron23_37:
(Start: 38 @25909 has 135 MA's), (60, 25762), (64, 25735), (78, 25666), (81, 25654), (116, 25474), (132, 25426), (136, 25405), (145, 25339), (157, 25270),

Gene: Calix_36 Start: 25591, Stop: 24923, Start Num: 38
Candidate Starts for Calix_36:
(Start: 38 @25591 has 135 MA's), (60, 25444), (64, 25417), (78, 25348), (81, 25336), (116, 25156), (132, 25108), (145, 25021), (157, 24952),

Gene: CaptainRex_34 Start: 23799, Stop: 23104, Start Num: 39
Candidate Starts for CaptainRex_34:
(15, 23946), (16, 23931), (Start: 39 @23799 has 66 MA's), (42, 23766), (55, 23670), (98, 23436), (116, 23337), (120, 23328), (132, 23289), (139, 23253), (145, 23202),

Gene: CarisSwetlik_39 Start: 26807, Stop: 26139, Start Num: 38
Candidate Starts for CarisSwetlik_39:
(10, 26990), (15, 26951), (16, 26936), (Start: 38 @26807 has 135 MA's), (62, 26654), (64, 26633), (70, 26597), (78, 26564), (81, 26552), (86, 26513), (116, 26372), (120, 26363), (132, 26324), (134, 26315), (141, 26273), (145, 26237), (157, 26168),

Gene: Carostasia_33 Start: 25201, Stop: 24530, Start Num: 39
Candidate Starts for Carostasia_33:
(17, 25318), (21, 25285), (29, 25240), (Start: 39 @25201 has 66 MA's), (55, 25072), (64, 25027), (92, 24865), (98, 24838), (99, 24835), (112, 24796), (116, 24763), (120, 24754), (132, 24715), (141, 24664), (145, 24628), (152, 24583), (157, 24559),

Gene: Casey_33 Start: 24761, Stop: 24096, Start Num: 39
Candidate Starts for Casey_33:
(15, 24908), (16, 24893), (Start: 39 @24761 has 66 MA's), (52, 24653), (68, 24572), (98, 24404), (103, 24386), (105, 24380), (123, 24314), (132, 24281), (134, 24272), (136, 24260), (145, 24194),

Gene: Cece_95 Start: 78538, Stop: 77750, Start Num: 23
Candidate Starts for Cece_95:
(Start: 23 @78538 has 1 MA's), (Start: 26 @78532 has 2 MA's), (Start: 34 @78508 has 1 MA's), (50, 78385), (59, 78337), (61, 78331), (63, 78310), (66, 78301), (77, 78229), (83, 78193), (85, 78187), (88, 78157), (95, 78124), (106, 78079), (113, 78052), (121, 78019), (142, 77926), (153, 77845), (156, 77830),

Gene: Chako_36 Start: 25595, Stop: 24927, Start Num: 38
Candidate Starts for Chako_36:
(Start: 38 @25595 has 135 MA's), (60, 25448), (64, 25421), (78, 25352), (81, 25340), (116, 25160), (132, 25112), (136, 25091), (145, 25025), (157, 24956),

Gene: Chamuel_36 Start: 25584, Stop: 24916, Start Num: 38
Candidate Starts for Chamuel_36:
(Start: 38 @25584 has 135 MA's), (60, 25437), (64, 25410), (78, 25341), (81, 25329), (116, 25149), (132, 25101), (145, 25014), (157, 24945),

Gene: Cheeto1_37 Start: 26043, Stop: 25378, Start Num: 39
Candidate Starts for Cheeto1_37:
(Start: 39 @26043 has 66 MA's), (71, 25830), (78, 25800), (80, 25794), (88, 25734), (98, 25686), (116, 25611), (120, 25602), (132, 25563), (134, 25554), (141, 25512), (145, 25476),

Gene: Chepli_36 Start: 25000, Stop: 24329, Start Num: 39
Candidate Starts for Chepli_36:
(17, 25114), (21, 25081), (29, 25036), (Start: 39 @25000 has 66 MA's), (42, 24967), (55, 24871), (64, 24826), (68, 24811), (92, 24664), (97, 24643), (115, 24565), (116, 24562), (120, 24553), (128, 24523), (132, 24514), (139, 24478), (145, 24427), (157, 24358),

Gene: ChickenKing_36 Start: 25959, Stop: 25294, Start Num: 39
Candidate Starts for ChickenKing_36:
(Start: 39 @25959 has 66 MA's), (71, 25746), (78, 25716), (88, 25650), (98, 25602), (116, 25527), (120, 25518), (132, 25479), (134, 25470), (141, 25428), (145, 25392),

Gene: ChikPic_35 Start: 25521, Stop: 24853, Start Num: 39
Candidate Starts for ChikPic_35:
(22, 25599), (33, 25554), (Start: 39 @25521 has 66 MA's), (60, 25374), (64, 25347), (71, 25308), (78, 25278), (81, 25266), (116, 25086), (132, 25038), (137, 25011), (145, 24951),

Gene: Chilliams_103 Start: 77303, Stop: 78091, Start Num: 31
Candidate Starts for Chilliams_103:
(Start: 27 @77282 has 16 MA's), (31, 77303), (45, 77381), (47, 77387), (73, 77558), (88, 77657), (106, 77735), (124, 77807), (130, 77825), (150, 77942), (168, 78068),

Gene: Christoph_36 Start: 25606, Stop: 24938, Start Num: 38
Candidate Starts for Christoph_36:
(Start: 38 @25606 has 135 MA's), (60, 25459), (64, 25432), (78, 25363), (81, 25351), (116, 25171), (132, 25123), (136, 25102), (145, 25036), (157, 24967),

Gene: Cidela_34 Start: 26306, Stop: 25635, Start Num: 39
Candidate Starts for Cidela_34:
(17, 26423), (21, 26390), (29, 26345), (Start: 39 @26306 has 66 MA's), (42, 26273), (55, 26177), (64, 26132), (92, 25970), (98, 25943), (99, 25940), (116, 25868), (120, 25859), (128, 25829), (132, 25820), (141, 25769), (145, 25733),

Gene: Clancy_36 Start: 25640, Stop: 24972, Start Num: 38
Candidate Starts for Clancy_36:
(Start: 38 @25640 has 135 MA's), (60, 25493), (64, 25466), (78, 25397), (81, 25385), (116, 25205), (132, 25157), (136, 25136), (145, 25070), (157, 25001),

Gene: Clock_34 Start: 26629, Stop: 25934, Start Num: 39
Candidate Starts for Clock_34:
(16, 26758), (Start: 39 @26629 has 66 MA's), (42, 26596), (48, 26545), (55, 26500), (64, 26455), (71, 26416), (88, 26314), (98, 26266), (116, 26167), (120, 26158), (132, 26119), (139, 26083), (145, 26032),

Gene: ColaCorta_35 Start: 25511, Stop: 24843, Start Num: 39
Candidate Starts for ColaCorta_35:
(22, 25589), (33, 25544), (Start: 39 @25511 has 66 MA's), (60, 25364), (64, 25337), (71, 25298), (78, 25268), (81, 25256), (116, 25076), (132, 25028), (137, 25001), (145, 24941),

Gene: Convict_37 Start: 25910, Stop: 25242, Start Num: 38
Candidate Starts for Convict_37:
(Start: 38 @25910 has 135 MA's), (60, 25763), (64, 25736), (78, 25667), (81, 25655), (116, 25475), (132, 25427), (136, 25406), (157, 25271),

Gene: CoraRita_36 Start: 25610, Stop: 24942, Start Num: 38
Candidate Starts for CoraRita_36:
(Start: 38 @25610 has 135 MA's), (60, 25463), (64, 25436), (78, 25367), (81, 25355), (116, 25175), (132, 25127), (136, 25106), (145, 25040), (157, 24971),

Gene: Dave_37 Start: 25898, Stop: 25230, Start Num: 38
Candidate Starts for Dave_37:
(Start: 38 @25898 has 135 MA's), (60, 25751), (64, 25724), (78, 25655), (81, 25643), (116, 25463), (132, 25415), (136, 25394), (157, 25259),

Gene: Delphidian_37 Start: 25909, Stop: 25241, Start Num: 38
Candidate Starts for Delphidian_37:
(Start: 38 @25909 has 135 MA's), (60, 25762), (64, 25735), (78, 25666), (81, 25654), (116, 25474), (132, 25426), (136, 25405), (157, 25270),

Gene: Den3_37 Start: 25915, Stop: 25247, Start Num: 38
Candidate Starts for Den3_37:
(Start: 38 @25915 has 135 MA's), (60, 25768), (64, 25741), (78, 25672), (81, 25660), (116, 25480), (132, 25432), (136, 25411), (157, 25276),

Gene: Dodo_114 Start: 76719, Stop: 75925, Start Num: 28
Candidate Starts for Dodo_114:
(Start: 28 @76719 has 3 MA's), (30, 76707), (40, 76656), (49, 76584), (50, 76572), (59, 76527), (60, 76524), (85, 76377), (88, 76347), (102, 76281), (106, 76269), (110, 76260), (119, 76212), (142, 76116), (156, 76020), (161, 75990), (166, 75969),

Gene: Dothraki_37 Start: 25906, Stop: 25238, Start Num: 38
Candidate Starts for Dothraki_37:
(Start: 38 @25906 has 135 MA's), (60, 25759), (64, 25732), (78, 25663), (81, 25651), (116, 25471), (132, 25423), (136, 25402), (145, 25336), (157, 25267),

Gene: DunneganBoMo_93 Start: 80225, Stop: 81043, Start Num: 27
Candidate Starts for DunneganBoMo_93:
(Start: 27 @80225 has 16 MA's), (Start: 34 @80252 has 1 MA's), (41, 80309), (44, 80318), (45, 80324), (88, 80600), (101, 80663), (106, 80678), (130, 80768), (141, 80813), (150, 80882), (156, 80909), (167, 81005), (168, 81020),

Gene: Duocatuli_36 Start: 25595, Stop: 24927, Start Num: 38
Candidate Starts for Duocatuli_36:
(Start: 38 @25595 has 135 MA's), (60, 25448), (64, 25421), (78, 25352), (81, 25340), (116, 25160), (132, 25112), (136, 25091), (141, 25061), (145, 25025), (157, 24956),

Gene: Eleri_35 Start: 25512, Stop: 24844, Start Num: 39
Candidate Starts for Eleri_35:
(22, 25590), (33, 25545), (Start: 39 @25512 has 66 MA's), (60, 25365), (64, 25338), (71, 25299), (78, 25269), (81, 25257), (116, 25077), (132, 25029), (137, 25002), (145, 24942),

Gene: Ellewin_92 Start: 79636, Stop: 80454, Start Num: 27
Candidate Starts for Ellewin_92:
(Start: 27 @79636 has 16 MA's), (Start: 34 @79663 has 1 MA's), (41, 79720), (44, 79729), (45, 79735), (88, 80011), (101, 80074), (106, 80089), (130, 80179), (141, 80224), (150, 80293), (156, 80320), (168, 80431),

Gene: Emmetator_96 Start: 80264, Stop: 80998, Start Num: 41
Candidate Starts for Emmetator_96:
(Start: 27 @80180 has 16 MA's), (Start: 34 @80207 has 1 MA's), (41, 80264), (44, 80273), (45, 80279), (88, 80555), (106, 80633), (130, 80723), (141, 80768), (150, 80837), (156, 80864), (168, 80975),

Gene: Endor_37 Start: 26257, Stop: 25589, Start Num: 38
Candidate Starts for Endor_37:
(Start: 38 @26257 has 135 MA's), (56, 26122), (97, 25903), (100, 25891), (116, 25822), (129, 25780), (132, 25774), (145, 25687),

Gene: Erasmago_103 Start: 73184, Stop: 72417, Start Num: 26
Candidate Starts for Erasmago_103:
(9, 73313), (12, 73307), (Start: 26 @73184 has 2 MA's), (59, 72992), (60, 72989), (66, 72956), (81, 72869), (85, 72842), (88, 72812), (102, 72746), (106, 72734), (121, 72674), (126, 72650), (131, 72638), (142, 72581), (151, 72515), (156, 72485),

Gene: Erla_36 Start: 25588, Stop: 24920, Start Num: 38
Candidate Starts for Erla_36:
(Start: 38 @25588 has 135 MA's), (60, 25441), (64, 25414), (78, 25345), (81, 25333), (116, 25153), (132, 25105), (145, 25018), (157, 24949),

Gene: Espinosa_36 Start: 25606, Stop: 24938, Start Num: 38
Candidate Starts for Espinosa_36:
(Start: 38 @25606 has 135 MA's), (60, 25459), (64, 25432), (78, 25363), (81, 25351), (116, 25171), (132, 25123), (136, 25102), (145, 25036), (157, 24967),

Gene: Etna_36 Start: 26039, Stop: 25371, Start Num: 38
Candidate Starts for Etna_36:
(Start: 38 @26039 has 135 MA's), (56, 25904), (97, 25685), (116, 25604), (129, 25562), (132, 25556), (145, 25469),

Gene: Etta_36 Start: 25592, Stop: 24924, Start Num: 38
Candidate Starts for Etta_36:
(Start: 38 @25592 has 135 MA's), (60, 25445), (64, 25418), (78, 25349), (81, 25337), (116, 25157), (132, 25109), (145, 25022), (157, 24953),

Gene: Exploradora_36 Start: 25595, Stop: 24927, Start Num: 38
Candidate Starts for Exploradora_36:
(Start: 38 @25595 has 135 MA's), (60, 25448), (64, 25421), (78, 25352), (81, 25340), (116, 25160), (132, 25112), (145, 25025), (157, 24956),

Gene: Fabyndrax_34 Start: 26306, Stop: 25635, Start Num: 39

Candidate Starts for Fabyndrax_34:
(17, 26423), (21, 26390), (29, 26345), (Start: 39 @26306 has 66 MA's), (42, 26273), (55, 26177), (64, 26132), (92, 25970), (98, 25943), (99, 25940), (116, 25868), (120, 25859), (128, 25829), (132, 25820), (141, 25769), (145, 25733),

Gene: FarmerDoug_36 Start: 25888, Stop: 25220, Start Num: 38
Candidate Starts for FarmerDoug_36:
(Start: 38 @25888 has 135 MA's), (65, 25711), (91, 25564), (97, 25534), (116, 25453), (118, 25447), (129, 25411), (132, 25405), (145, 25318),

Gene: Figueroism_37 Start: 25900, Stop: 25232, Start Num: 38
Candidate Starts for Figueroism_37:
(Start: 38 @25900 has 135 MA's), (60, 25753), (64, 25726), (78, 25657), (81, 25645), (116, 25465), (132, 25417), (136, 25396), (145, 25330), (157, 25261),

Gene: Finny_35 Start: 25552, Stop: 24884, Start Num: 39
Candidate Starts for Finny_35:
(22, 25630), (33, 25585), (Start: 39 @25552 has 66 MA's), (60, 25405), (64, 25378), (71, 25339), (78, 25309), (81, 25297), (116, 25117), (132, 25069), (137, 25042), (145, 24982),

Gene: FloraSnap32_101 Start: 83380, Stop: 84189, Start Num: 27
Candidate Starts for FloraSnap32_101:
(Start: 27 @83380 has 16 MA's), (47, 83485), (88, 83755), (106, 83833), (156, 84064), (157, 84067), (164, 84097), (165, 84100), (168, 84166), (169, 84184),

Gene: Forza_167 Start: 93428, Stop: 92685, Start Num: 24
Candidate Starts for Forza_167:
(Start: 24 @93428 has 6 MA's), (Start: 34 @93401 has 1 MA's), (44, 93335), (48, 93293), (50, 93278), (54, 93260), (67, 93185), (89, 93050), (91, 93041), (92, 93032), (94, 93023), (102, 92987), (106, 92975), (110, 92966), (121, 92915), (122, 92912), (130, 92882), (133, 92876), (142, 92828), (146, 92786), (148, 92774), (154, 92747), (157, 92735),

Gene: FrostedClock_104 Start: 84680, Stop: 85489, Start Num: 27
Candidate Starts for FrostedClock_104:
(Start: 27 @84680 has 16 MA's), (47, 84785), (88, 85055), (106, 85133), (149, 85334), (156, 85364), (157, 85367), (164, 85397), (168, 85466), (169, 85484),

Gene: Fulton_34 Start: 23800, Stop: 23105, Start Num: 39
Candidate Starts for Fulton_34:
(15, 23947), (16, 23932), (Start: 39 @23800 has 66 MA's), (42, 23767), (55, 23671), (98, 23437), (116, 23338), (120, 23329), (132, 23290), (139, 23254), (145, 23203),

Gene: GMA2_61 Start: 64314, Stop: 63565, Start Num: 23
Candidate Starts for GMA2_61:
(Start: 23 @64314 has 1 MA's), (Start: 34 @64284 has 1 MA's), (41, 64227), (67, 64068), (73, 64035), (89, 63933), (92, 63915), (103, 63867), (106, 63858), (109, 63852), (121, 63798), (130, 63765), (133, 63759), (142, 63711), (159, 63612), (160, 63597),

Gene: GaeCeo_37 Start: 26192, Stop: 25527, Start Num: 39
Candidate Starts for GaeCeo_37:
(Start: 39 @26192 has 66 MA's), (71, 25979), (78, 25949), (88, 25883), (98, 25835), (116, 25760), (120, 25751), (132, 25712), (134, 25703), (141, 25661), (145, 25625),

Gene: Galactica_43 Start: 30869, Stop: 31960, Start Num: 1
Candidate Starts for Galactica_43:
(Start: 1 @30869 has 1 MA's), (2, 30983), (3, 30989), (Start: 6 @31013 has 4 MA's), (7, 31022), (18, 31109), (Start: 28 @31172 has 3 MA's), (53, 31355), (55, 31370), (69, 31454), (81, 31505), (82, 31514), (93, 31589), (98, 31616), (108, 31661), (111, 31676), (112, 31679), (163, 31949),

Gene: GardenB_36 Start: 26006, Stop: 25338, Start Num: 38
Candidate Starts for GardenB_36:
(Start: 38 @26006 has 135 MA's), (56, 25871), (97, 25652), (116, 25571), (118, 25565), (129, 25529), (132, 25523), (145, 25436),

Gene: Garey24_36 Start: 25574, Stop: 24906, Start Num: 38
Candidate Starts for Garey24_36:
(Start: 38 @25574 has 135 MA's), (60, 25427), (64, 25400), (78, 25331), (81, 25319), (116, 25139), (132, 25091), (136, 25070), (145, 25004), (157, 24935),

Gene: Gargoyle_37 Start: 25915, Stop: 25247, Start Num: 38
Candidate Starts for Gargoyle_37:
(Start: 38 @25915 has 135 MA's), (60, 25768), (64, 25741), (78, 25672), (81, 25660), (116, 25480), (132, 25432), (136, 25411), (145, 25345), (157, 25276),

Gene: Gelo_36 Start: 25598, Stop: 24930, Start Num: 38
Candidate Starts for Gelo_36:
(Start: 38 @25598 has 135 MA's), (60, 25451), (64, 25424), (78, 25355), (81, 25343), (116, 25163), (132, 25115), (145, 25028), (157, 24959),

Gene: Gershwin_36 Start: 25608, Stop: 24940, Start Num: 38
Candidate Starts for Gershwin_36:
(Start: 38 @25608 has 135 MA's), (60, 25461), (64, 25434), (78, 25365), (81, 25353), (116, 25173), (132, 25125), (145, 25038), (157, 24969),

Gene: Glamour_34 Start: 25503, Stop: 24835, Start Num: 39
Candidate Starts for Glamour_34:
(22, 25581), (33, 25536), (Start: 39 @25503 has 66 MA's), (60, 25356), (64, 25329), (71, 25290), (78, 25260), (81, 25248), (116, 25068), (132, 25020), (137, 24993), (145, 24933),

Gene: GodonK_178 Start: 89500, Stop: 88790, Start Num: 25
Candidate Starts for GodonK_178:
(Start: 25 @89500 has 2 MA's), (32, 89479), (41, 89419), (67, 89263), (73, 89230), (76, 89209), (80, 89194), (83, 89167), (87, 89140), (89, 89128), (91, 89119), (96, 89095), (106, 89053), (121, 88996), (122, 88993), (126, 88972), (130, 88963), (142, 88912), (162, 88795),

Gene: GoingMerry_37 Start: 25920, Stop: 25252, Start Num: 38
Candidate Starts for GoingMerry_37:
(Start: 38 @25920 has 135 MA's), (60, 25773), (64, 25746), (78, 25677), (81, 25665), (116, 25485), (132, 25437), (136, 25416), (157, 25281),

Gene: Golden_34 Start: 25460, Stop: 24795, Start Num: 39
Candidate Starts for Golden_34:
(11, 25646), (19, 25574), (20, 25565), (22, 25541), (33, 25496), (35, 25493), (Start: 39 @25460 has 66 MA's), (42, 25427), (46, 25412), (56, 25325), (64, 25286), (71, 25247), (78, 25217), (92, 25130), (98, 25103), (114, 25049), (116, 25028), (120, 25019), (132, 24980), (139, 24944), (145, 24893), (147, 24872),

Gene: GoldenEssence_90 Start: 78275, Stop: 79084, Start Num: 27
Candidate Starts for GoldenEssence_90:
(Start: 27 @78275 has 16 MA's), (47, 78380), (88, 78650), (106, 78728), (156, 78959), (157, 78962), (165, 78995), (168, 79061), (169, 79079),

Gene: GoneGirl_37 Start: 25999, Stop: 25331, Start Num: 38
Candidate Starts for GoneGirl_37:
(Start: 38 @25999 has 135 MA's), (97, 25645), (116, 25564), (118, 25558), (129, 25522), (132, 25516), (145, 25429),

Gene: GreenIvy_34 Start: 24389, Stop: 23694, Start Num: 39
Candidate Starts for GreenIvy_34:
(15, 24536), (16, 24521), (Start: 39 @24389 has 66 MA's), (42, 24356), (55, 24260), (71, 24176), (98, 24026), (116, 23927), (120, 23918), (132, 23879), (139, 23843), (145, 23792),

Gene: Greys_37 Start: 25908, Stop: 25240, Start Num: 38
Candidate Starts for Greys_37:
(Start: 38 @25908 has 135 MA's), (60, 25761), (64, 25734), (78, 25665), (81, 25653), (116, 25473), (132, 25425), (136, 25404), (145, 25338), (157, 25269),

Gene: Gubbabump_36 Start: 25588, Stop: 24920, Start Num: 38
Candidate Starts for Gubbabump_36:
(Start: 38 @25588 has 135 MA's), (60, 25441), (64, 25414), (78, 25345), (81, 25333), (116, 25153), (132, 25105), (136, 25084), (145, 25018), (157, 24949),

Gene: Guetzie_34 Start: 25445, Stop: 24780, Start Num: 39
Candidate Starts for Guetzie_34:
(11, 25631), (19, 25559), (20, 25550), (22, 25526), (33, 25481), (35, 25478), (Start: 39 @25445 has 66 MA's), (42, 25412), (56, 25310), (64, 25271), (71, 25232), (78, 25202), (92, 25115), (98, 25088), (114, 25034), (116, 25013), (120, 25004), (132, 24965), (139, 24929), (145, 24878), (147, 24857),

Gene: HairyMan_32 Start: 24804, Stop: 24130, Start Num: 39
Candidate Starts for HairyMan_32:
(13, 24984), (19, 24918), (22, 24885), (Start: 39 @24804 has 66 MA's), (60, 24648), (71, 24582), (75, 24564), (78, 24552), (81, 24540), (91, 24474), (92, 24465), (116, 24360), (132, 24312), (136, 24291), (137, 24285), (139, 24276), (141, 24261), (145, 24225),

Gene: Hamlet_36 Start: 26037, Stop: 25369, Start Num: 38
Candidate Starts for Hamlet_36:
(Start: 38 @26037 has 135 MA's), (56, 25902), (97, 25683), (116, 25602), (129, 25560), (132, 25554), (145, 25467),

Gene: HanSolo_36 Start: 25595, Stop: 24927, Start Num: 38
Candidate Starts for HanSolo_36:
(Start: 38 @25595 has 135 MA's), (60, 25448), (64, 25421), (78, 25352), (81, 25340), (116, 25160), (132, 25112), (136, 25091), (145, 25025), (157, 24956),

Gene: HankSprout_37 Start: 25475, Stop: 24807, Start Num: 38
Candidate Starts for HankSprout_37:
(Start: 38 @25475 has 135 MA's), (60, 25328), (64, 25301), (78, 25232), (81, 25220), (116, 25040), (132, 24992), (136, 24971), (145, 24905), (157, 24836),

Gene: Hasitha_34 Start: 23812, Stop: 23117, Start Num: 39
Candidate Starts for Hasitha_34:
(15, 23959), (16, 23944), (Start: 39 @23812 has 66 MA's), (42, 23779), (55, 23683), (71, 23599), (98, 23449), (116, 23350), (120, 23341), (132, 23302), (139, 23266), (145, 23215),

Gene: HavenFinLeoSun_38 Start: 26250, Stop: 25582, Start Num: 38
Candidate Starts for HavenFinLeoSun_38:
(10, 26433), (15, 26394), (16, 26379), (Start: 38 @26250 has 135 MA's), (60, 26103), (64, 26076), (71, 26037), (78, 26007), (81, 25995), (86, 25956), (116, 25815), (132, 25767), (141, 25716), (142, 25707), (157, 25611),

Gene: HerculesXL_35 Start: 24250, Stop: 23582, Start Num: 38
Candidate Starts for HerculesXL_35:
(Start: 38 @24250 has 135 MA's), (42, 24217), (48, 24166), (60, 24103), (64, 24076), (78, 24007), (81, 23995), (112, 23848), (116, 23815), (132, 23767), (141, 23716), (145, 23680), (153, 23629),

Gene: Hiyaa_45 Start: 32492, Stop: 33436, Start Num: 6
Candidate Starts for Hiyaa_45:
(2, 32462), (Start: 6 @32492 has 4 MA's), (7, 32501), (14, 32537), (18, 32588), (Start: 28 @32648 has 3 MA's), (36, 32693), (54, 32834), (55, 32846), (69, 32930), (70, 32933), (81, 32981), (82, 32990), (98, 33092), (108, 33137), (111, 33152), (112, 33155), (125, 33221), (144, 33302), (158, 33395),

Gene: HungryHenry_36 Start: 25600, Stop: 24932, Start Num: 38
Candidate Starts for HungryHenry_36:
(Start: 38 @25600 has 135 MA's), (60, 25453), (64, 25426), (78, 25357), (81, 25345), (116, 25165), (132, 25117), (136, 25096), (145, 25030), (157, 24961),

Gene: Ilzat_36 Start: 25611, Stop: 24943, Start Num: 38
Candidate Starts for Ilzat_36:
(Start: 38 @25611 has 135 MA's), (60, 25464), (64, 25437), (78, 25368), (81, 25356), (116, 25176), (132, 25128), (136, 25107), (145, 25041), (157, 24972),

Gene: Inventa_37 Start: 25906, Stop: 25238, Start Num: 38
Candidate Starts for Inventa_37:
(Start: 38 @25906 has 135 MA's), (60, 25759), (64, 25732), (78, 25663), (81, 25651), (116, 25471), (132, 25423), (136, 25402), (145, 25336), (157, 25267),

Gene: Ioannes_37 Start: 25910, Stop: 25242, Start Num: 38
Candidate Starts for Ioannes_37:
(Start: 38 @25910 has 135 MA's), (60, 25763), (64, 25736), (78, 25667), (81, 25655), (116, 25475), (132, 25427), (136, 25406), (145, 25340), (157, 25271),

Gene: Ixel_35 Start: 24233, Stop: 23535, Start Num: 39
Candidate Starts for Ixel_35:
(Start: 39 @24233 has 66 MA's), (48, 24149), (56, 24098), (60, 24086), (64, 24059), (78, 23984), (79, 23981), (81, 23972), (90, 23909), (98, 23867), (105, 23843), (116, 23768), (117, 23765), (120, 23759), (129, 23726), (132, 23720), (139, 23684), (153, 23582),

Gene: Janus167_36 Start: 25595, Stop: 24927, Start Num: 38
Candidate Starts for Janus167_36:
(Start: 38 @25595 has 135 MA's), (60, 25448), (64, 25421), (78, 25352), (81, 25340), (116, 25160), (132, 25112), (136, 25091), (145, 25025), (157, 24956),

Gene: JasonD_39 Start: 26455, Stop: 25787, Start Num: 38
Candidate Starts for JasonD_39:
(Start: 38 @26455 has 135 MA's), (60, 26308), (64, 26281), (71, 26242), (78, 26212), (81, 26200), (86, 26161), (116, 26020), (132, 25972), (134, 25963), (141, 25921), (142, 25912), (145, 25885), (157, 25816),

Gene: JasperRussell_36 Start: 25595, Stop: 24927, Start Num: 38
Candidate Starts for JasperRussell_36:
(Start: 38 @25595 has 135 MA's), (60, 25448), (64, 25421), (78, 25352), (81, 25340), (116, 25160), (132, 25112), (136, 25091), (145, 25025), (157, 24956),

Gene: Jemerald_37 Start: 26163, Stop: 25489, Start Num: 39
Candidate Starts for Jemerald_37:
(Start: 39 @26163 has 66 MA's), (48, 26079), (64, 25989), (71, 25944), (75, 25926), (81, 25902), (86, 25863), (91, 25836), (105, 25773), (112, 25755), (116, 25722), (132, 25674), (134, 25665), (139, 25638), (141, 25623), (142, 25614), (145, 25587),

Gene: Jenos_40 Start: 27104, Stop: 26436, Start Num: 38
Candidate Starts for Jenos_40:
(10, 27287), (15, 27248), (16, 27233), (Start: 38 @27104 has 135 MA's), (62, 26951), (64, 26930), (70, 26894), (78, 26861), (81, 26849), (86, 26810), (116, 26669), (120, 26660), (132, 26621), (134, 26612), (141, 26570), (145, 26534), (157, 26465),

Gene: Jerbirus_37 Start: 25595, Stop: 24927, Start Num: 38
Candidate Starts for Jerbirus_37:
(Start: 38 @25595 has 135 MA's), (60, 25448), (64, 25421), (78, 25352), (81, 25340), (116, 25160), (132, 25112), (136, 25091), (145, 25025), (157, 24956),

Gene: JeriBeth_36 Start: 25458, Stop: 24790, Start Num: 38
Candidate Starts for JeriBeth_36:
(Start: 38 @25458 has 135 MA's), (60, 25311), (64, 25284), (78, 25215), (81, 25203), (116, 25023), (132, 24975), (136, 24954), (145, 24888), (157, 24819),

Gene: Jingles_34 Start: 25362, Stop: 24697, Start Num: 39
Candidate Starts for Jingles_34:
(19, 25476), (22, 25443), (35, 25395), (Start: 39 @25362 has 66 MA's), (56, 25227), (64, 25188), (78, 25119), (98, 25005), (114, 24951), (116, 24930), (120, 24921), (132, 24882), (134, 24873), (139, 24846), (145, 24795), (147, 24774),

Gene: Juanyo_34 Start: 25282, Stop: 24611, Start Num: 39
Candidate Starts for Juanyo_34:
(21, 25366), (29, 25321), (Start: 39 @25282 has 66 MA's), (55, 25153), (64, 25108), (77, 25042), (92, 24946), (98, 24919), (99, 24916), (116, 24844), (120, 24835), (132, 24796), (145, 24709),

Gene: Juicer_37 Start: 26163, Stop: 25489, Start Num: 39
Candidate Starts for Juicer_37:
(Start: 39 @26163 has 66 MA's), (48, 26079), (64, 25989), (71, 25944), (75, 25926), (81, 25902), (86, 25863), (91, 25836), (105, 25773), (112, 25755), (116, 25722), (132, 25674), (134, 25665), (139, 25638), (141, 25623), (142, 25614), (145, 25587),

Gene: KSunshine22_98 Start: 81330, Stop: 82055, Start Num: 44
Candidate Starts for KSunshine22_98:

(Start: 27 @81237 has 16 MA's), (Start: 34 @81264 has 1 MA's), (41, 81321), (44, 81330), (45, 81336), (88, 81612), (101, 81675), (106, 81690), (130, 81780), (141, 81825), (150, 81894), (156, 81921), (168, 82032),

Gene: Kale_36 Start: 25610, Stop: 24942, Start Num: 38
Candidate Starts for Kale_36:
(Start: 38 @25610 has 135 MA's), (60, 25463), (64, 25436), (78, 25367), (81, 25355), (116, 25175), (132, 25127), (145, 25040), (157, 24971),

Gene: KannH_36 Start: 25595, Stop: 24927, Start Num: 38
Candidate Starts for KannH_36:
(Start: 38 @25595 has 135 MA's), (60, 25448), (64, 25421), (78, 25352), (81, 25340), (116, 25160), (132, 25112), (136, 25091), (145, 25025), (157, 24956),

Gene: KatChan_36 Start: 25012, Stop: 24341, Start Num: 39
Candidate Starts for KatChan_36:
(17, 25126), (21, 25093), (29, 25048), (Start: 39 @25012 has 66 MA's), (42, 24979), (55, 24883), (64, 24838), (68, 24823), (92, 24676), (97, 24655), (115, 24577), (116, 24574), (120, 24565), (128, 24535), (132, 24526), (139, 24490), (145, 24439), (157, 24370),

Gene: Kauala_34 Start: 25348, Stop: 24683, Start Num: 39
Candidate Starts for Kauala_34:
(11, 25531), (19, 25462), (22, 25429), (35, 25381), (Start: 39 @25348 has 66 MA's), (56, 25213), (77, 25108), (78, 25105), (114, 24937), (116, 24916), (120, 24907), (129, 24874), (132, 24868), (139, 24832), (145, 24781), (147, 24760),

Gene: Kavo_34 Start: 24088, Stop: 23420, Start Num: 38
Candidate Starts for Kavo_34:
(Start: 38 @24088 has 135 MA's), (42, 24055), (48, 24004), (60, 23941), (64, 23914), (78, 23845), (81, 23833), (112, 23686), (116, 23653), (132, 23605), (141, 23554), (145, 23518), (153, 23467),

Gene: Keanu_44 Start: 32166, Stop: 33110, Start Num: 6
Candidate Starts for Keanu_44:
(4, 32145), (Start: 6 @32166 has 4 MA's), (18, 32262), (Start: 28 @32322 has 3 MA's), (55, 32520), (69, 32604), (70, 32607), (81, 32655), (82, 32664), (98, 32766), (108, 32811), (111, 32826), (112, 32829), (144, 32976), (158, 33069), (163, 33099),

Gene: KellyGreen_37 Start: 25589, Stop: 24921, Start Num: 38
Candidate Starts for KellyGreen_37:
(Start: 38 @25589 has 135 MA's), (60, 25442), (64, 25415), (78, 25346), (81, 25334), (116, 25154), (132, 25106), (136, 25085), (145, 25019), (157, 24950),

Gene: KingJulien_36 Start: 26027, Stop: 25359, Start Num: 38
Candidate Starts for KingJulien_36:
(Start: 38 @26027 has 135 MA's), (56, 25892), (97, 25673), (116, 25592), (129, 25550), (132, 25544), (145, 25457),

Gene: Klimt_36 Start: 25590, Stop: 24922, Start Num: 38
Candidate Starts for Klimt_36:
(Start: 38 @25590 has 135 MA's), (60, 25443), (64, 25416), (78, 25347), (81, 25335), (116, 25155), (132, 25107), (145, 25020), (157, 24951),

Gene: Knox_37 Start: 25910, Stop: 25242, Start Num: 38

Candidate Starts for Knox_37:
(Start: 38 @25910 has 135 MA's), (60, 25763), (64, 25736), (78, 25667), (81, 25655), (116, 25475), (132, 25427), (136, 25406), (157, 25271),

Gene: Koji_34 Start: 25541, Stop: 24876, Start Num: 39
Candidate Starts for Koji_34:
(11, 25724), (19, 25655), (22, 25622), (35, 25574), (Start: 39 @25541 has 66 MA's), (56, 25406), (64, 25367), (78, 25298), (98, 25184), (114, 25130), (116, 25109), (120, 25100), (132, 25061), (134, 25052), (139, 25025), (145, 24974), (147, 24953),

Gene: Kokushibo_45 Start: 32549, Stop: 33493, Start Num: 6
Candidate Starts for Kokushibo_45:
(2, 32519), (Start: 6 @32549 has 4 MA's), (7, 32558), (14, 32594), (18, 32645), (Start: 28 @32705 has 3 MA's), (36, 32750), (54, 32891), (55, 32903), (69, 32987), (70, 32990), (81, 33038), (82, 33047), (98, 33149), (108, 33194), (111, 33209), (112, 33212), (125, 33278), (144, 33359), (158, 33452),

Gene: Kouch_36 Start: 25595, Stop: 24927, Start Num: 38
Candidate Starts for Kouch_36:
(Start: 38 @25595 has 135 MA's), (60, 25448), (64, 25421), (78, 25352), (81, 25340), (116, 25160), (132, 25112), (145, 25025), (157, 24956),

Gene: Kurt1_37 Start: 25906, Stop: 25238, Start Num: 38
Candidate Starts for Kurt1_37:
(Start: 38 @25906 has 135 MA's), (60, 25759), (64, 25732), (78, 25663), (81, 25651), (116, 25471), (132, 25423), (136, 25402), (145, 25336), (157, 25267),

Gene: Laure_108 Start: 77202, Stop: 78011, Start Num: 27
Candidate Starts for Laure_108:
(Start: 27 @77202 has 16 MA's), (Start: 34 @77229 has 1 MA's), (88, 77577), (102, 77640), (106, 77652), (124, 77724), (150, 77859), (156, 77886), (157, 77889), (167, 77970), (168, 77988),

Gene: Leafus_36 Start: 26172, Stop: 25504, Start Num: 38
Candidate Starts for Leafus_36:
(Start: 38 @26172 has 135 MA's), (56, 26037), (97, 25818), (116, 25737), (129, 25695), (132, 25689), (145, 25602),

Gene: LeoJr_103 Start: 84544, Stop: 85377, Start Num: 27
Candidate Starts for LeoJr_103:
(Start: 27 @84544 has 16 MA's), (41, 84628), (44, 84637), (45, 84643), (62, 84748), (88, 84919), (106, 84997), (130, 85087), (140, 85129), (150, 85204), (155, 85225), (156, 85231),

Gene: Librie_34 Start: 23799, Stop: 23104, Start Num: 39
Candidate Starts for Librie_34:
(15, 23946), (16, 23931), (Start: 39 @23799 has 66 MA's), (42, 23766), (55, 23670), (98, 23436), (116, 23337), (120, 23328), (132, 23289), (139, 23253), (145, 23202),

Gene: LilTerminator_34 Start: 23821, Stop: 23126, Start Num: 39
Candidate Starts for LilTerminator_34:
(15, 23968), (16, 23953), (Start: 39 @23821 has 66 MA's), (42, 23788), (55, 23692), (71, 23608), (98, 23458), (116, 23359), (120, 23350), (132, 23311), (139, 23275), (145, 23224),

Gene: Lovelyunicorn_37 Start: 25911, Stop: 25243, Start Num: 38
Candidate Starts for Lovelyunicorn_37:

(Start: 38 @25911 has 135 MA's), (60, 25764), (64, 25737), (78, 25668), (81, 25656), (116, 25476), (132, 25428), (136, 25407), (157, 25272),

Gene: Lucky3_34 Start: 25460, Stop: 24795, Start Num: 39
Candidate Starts for Lucky3_34:
(11, 25646), (19, 25574), (20, 25565), (22, 25541), (33, 25496), (35, 25493), (Start: 39 @25460 has 66 MA's), (42, 25427), (46, 25412), (56, 25325), (64, 25286), (71, 25247), (78, 25217), (92, 25130), (98, 25103), (114, 25049), (116, 25028), (120, 25019), (132, 24980), (139, 24944), (145, 24893), (147, 24872),

Gene: Ludgate_37 Start: 25906, Stop: 25238, Start Num: 38
Candidate Starts for Ludgate_37:
(Start: 38 @25906 has 135 MA's), (60, 25759), (64, 25732), (78, 25663), (81, 25651), (116, 25471), (132, 25423), (145, 25336), (157, 25267),

Gene: Luna18_36 Start: 25012, Stop: 24341, Start Num: 39
Candidate Starts for Luna18_36:
(17, 25126), (21, 25093), (29, 25048), (Start: 39 @25012 has 66 MA's), (42, 24979), (55, 24883), (64, 24838), (68, 24823), (92, 24676), (97, 24655), (115, 24577), (116, 24574), (120, 24565), (128, 24535), (132, 24526), (139, 24490), (145, 24439), (157, 24370),

Gene: MCubed_35 Start: 25528, Stop: 24860, Start Num: 39
Candidate Starts for MCubed_35:
(22, 25606), (33, 25561), (Start: 39 @25528 has 66 MA's), (60, 25381), (64, 25354), (71, 25315), (78, 25285), (81, 25273), (116, 25093), (132, 25045), (137, 25018), (145, 24958),

Gene: MaeLinda_37 Start: 25910, Stop: 25242, Start Num: 38
Candidate Starts for MaeLinda_37:
(Start: 38 @25910 has 135 MA's), (60, 25763), (64, 25736), (78, 25667), (81, 25655), (116, 25475), (132, 25427), (136, 25406), (157, 25271),

Gene: ManRay_36 Start: 25608, Stop: 24940, Start Num: 38
Candidate Starts for ManRay_36:
(Start: 38 @25608 has 135 MA's), (60, 25461), (64, 25434), (78, 25365), (81, 25353), (116, 25173), (132, 25125), (136, 25104), (145, 25038), (157, 24969),

Gene: Mandalorian_33 Start: 25211, Stop: 24540, Start Num: 39
Candidate Starts for Mandalorian_33:
(17, 25328), (21, 25295), (29, 25250), (Start: 39 @25211 has 66 MA's), (55, 25082), (64, 25037), (92, 24875), (98, 24848), (99, 24845), (116, 24773), (120, 24764), (132, 24725), (141, 24674), (145, 24638), (152, 24593), (157, 24569),

Gene: Mareelih_164 Start: 92946, Stop: 92203, Start Num: 24
Candidate Starts for Mareelih_164:
(Start: 24 @92946 has 6 MA's), (Start: 34 @92919 has 1 MA's), (44, 92853), (48, 92811), (50, 92796), (54, 92778), (67, 92703), (89, 92568), (91, 92559), (92, 92550), (94, 92541), (102, 92505), (106, 92493), (110, 92484), (121, 92433), (122, 92430), (130, 92400), (133, 92394), (142, 92346), (146, 92304), (148, 92292), (154, 92265), (157, 92253),

Gene: Martin_38 Start: 25915, Stop: 25247, Start Num: 38
Candidate Starts for Martin_38:
(Start: 38 @25915 has 135 MA's), (60, 25768), (64, 25741), (78, 25672), (81, 25660), (116, 25480), (132, 25432), (136, 25411), (145, 25345), (157, 25276),

Gene: McGalleon_39 Start: 27315, Stop: 26647, Start Num: 38
Candidate Starts for McGalleon_39:
(16, 27444), (Start: 38 @27315 has 135 MA's), (64, 27141), (70, 27105), (78, 27072), (81, 27060), (86, 27021), (116, 26880), (120, 26871), (132, 26832), (134, 26823), (141, 26781), (145, 26745), (157, 26676),

Gene: Mercedes_31 Start: 22779, Stop: 22108, Start Num: 37
Candidate Starts for Mercedes_31:
(Start: 37 @22779 has 1 MA's), (48, 22695), (51, 22674), (55, 22650), (64, 22605), (92, 22443), (97, 22422), (98, 22416), (116, 22341), (132, 22293), (136, 22272), (145, 22206), (157, 22137),

Gene: Merida02_38 Start: 25909, Stop: 25241, Start Num: 38
Candidate Starts for Merida02_38:
(Start: 38 @25909 has 135 MA's), (60, 25762), (64, 25735), (78, 25666), (81, 25654), (116, 25474), (132, 25426), (136, 25405), (157, 25270),

Gene: MillyPhilly_37 Start: 25903, Stop: 25235, Start Num: 38
Candidate Starts for MillyPhilly_37:
(Start: 38 @25903 has 135 MA's), (60, 25756), (64, 25729), (78, 25660), (81, 25648), (116, 25468), (132, 25420), (136, 25399), (145, 25333), (157, 25264),

Gene: Mimi_104 Start: 83830, Stop: 84639, Start Num: 27
Candidate Starts for Mimi_104:
(Start: 27 @83830 has 16 MA's), (47, 83935), (88, 84205), (106, 84283), (149, 84484), (156, 84514), (157, 84517), (164, 84547), (168, 84616), (169, 84634),

Gene: MiniVolent_34 Start: 25237, Stop: 24566, Start Num: 39
Candidate Starts for MiniVolent_34:
(21, 25321), (29, 25276), (Start: 39 @25237 has 66 MA's), (55, 25108), (64, 25063), (92, 24901), (98, 24874), (99, 24871), (116, 24799), (120, 24790), (132, 24751), (145, 24664),

Gene: MonChoix_35 Start: 25920, Stop: 25252, Start Num: 38
Candidate Starts for MonChoix_35:
(Start: 38 @25920 has 135 MA's), (60, 25773), (64, 25746), (78, 25677), (81, 25665), (116, 25485), (132, 25437), (134, 25428), (137, 25410), (145, 25350), (147, 25329), (157, 25281),

Gene: Morrigan_36 Start: 25033, Stop: 24362, Start Num: 39
Candidate Starts for Morrigan_36:
(8, 25228), (17, 25147), (21, 25114), (29, 25069), (Start: 39 @25033 has 66 MA's), (42, 25000), (55, 24904), (64, 24859), (92, 24697), (97, 24676), (115, 24598), (116, 24595), (120, 24586), (128, 24556), (132, 24547), (145, 24460), (157, 24391),

Gene: MrWorldwide_37 Start: 25913, Stop: 25245, Start Num: 38
Candidate Starts for MrWorldwide_37:
(Start: 38 @25913 has 135 MA's), (60, 25766), (64, 25739), (78, 25670), (81, 25658), (116, 25478), (132, 25430), (136, 25409), (145, 25343), (157, 25274),

Gene: Nagem_37 Start: 25906, Stop: 25238, Start Num: 38
Candidate Starts for Nagem_37:
(Start: 38 @25906 has 135 MA's), (60, 25759), (64, 25732), (78, 25663), (81, 25651), (116, 25471), (132, 25423), (145, 25336), (157, 25267),

Gene: Nattles_36 Start: 25595, Stop: 24927, Start Num: 38
Candidate Starts for Nattles_36:
(Start: 38 @25595 has 135 MA's), (60, 25448), (64, 25421), (78, 25352), (81, 25340), (116, 25160), (132, 25112), (145, 25025), (157, 24956),

Gene: Nebulous_34 Start: 26810, Stop: 26115, Start Num: 39
Candidate Starts for Nebulous_34:
(16, 26939), (Start: 39 @26810 has 66 MA's), (42, 26777), (48, 26726), (55, 26681), (64, 26636), (71, 26597), (98, 26447), (116, 26348), (132, 26300), (139, 26264), (145, 26213),

Gene: Neferthena_34 Start: 25896, Stop: 25201, Start Num: 39
Candidate Starts for Neferthena_34:
(Start: 39 @25896 has 66 MA's), (55, 25767), (64, 25722), (71, 25683), (98, 25533), (105, 25509), (107, 25494), (116, 25434), (132, 25386), (139, 25350), (145, 25299), (152, 25254), (157, 25230),

Gene: NickSell_37 Start: 25912, Stop: 25244, Start Num: 39
Candidate Starts for NickSell_37:
(Start: 39 @25912 has 66 MA's), (60, 25765), (64, 25738), (78, 25669), (81, 25657), (116, 25477), (132, 25429), (136, 25408), (145, 25342), (157, 25273),

Gene: Nucci_33 Start: 25206, Stop: 24535, Start Num: 39
Candidate Starts for Nucci_33:
(17, 25323), (21, 25290), (29, 25245), (Start: 39 @25206 has 66 MA's), (55, 25077), (64, 25032), (92, 24870), (98, 24843), (99, 24840), (116, 24768), (120, 24759), (132, 24720), (141, 24669), (145, 24633), (152, 24588), (157, 24564),

Gene: Oats_36 Start: 25608, Stop: 24940, Start Num: 38
Candidate Starts for Oats_36:
(Start: 38 @25608 has 135 MA's), (60, 25461), (64, 25434), (78, 25365), (81, 25353), (116, 25173), (132, 25125), (136, 25104), (145, 25038), (157, 24969),

Gene: OldNelly_37 Start: 25912, Stop: 25244, Start Num: 38
Candidate Starts for OldNelly_37:
(Start: 38 @25912 has 135 MA's), (60, 25765), (64, 25738), (78, 25669), (81, 25657), (116, 25477), (132, 25429), (136, 25408), (157, 25273),

Gene: Orpington_35 Start: 25518, Stop: 24850, Start Num: 39
Candidate Starts for Orpington_35:
(22, 25596), (33, 25551), (Start: 39 @25518 has 66 MA's), (60, 25371), (64, 25344), (71, 25305), (78, 25275), (81, 25263), (116, 25083), (132, 25035), (137, 25008), (145, 24948),

Gene: Oxtober96_37 Start: 25911, Stop: 25243, Start Num: 38
Candidate Starts for Oxtober96_37:
(Start: 38 @25911 has 135 MA's), (60, 25764), (64, 25737), (78, 25668), (81, 25656), (116, 25476), (132, 25428), (136, 25407), (157, 25272),

Gene: PSirce_35 Start: 25515, Stop: 24847, Start Num: 39
Candidate Starts for PSirce_35:
(22, 25593), (33, 25548), (Start: 39 @25515 has 66 MA's), (60, 25368), (64, 25341), (71, 25302), (78, 25272), (81, 25260), (116, 25080), (132, 25032), (137, 25005), (145, 24945),

Gene: Pajaza_33 Start: 24761, Stop: 24096, Start Num: 39
Candidate Starts for Pajaza_33:

(15, 24908), (16, 24893), (Start: 39 @24761 has 66 MA's), (52, 24653), (68, 24572), (98, 24404), (103, 24386), (105, 24380), (123, 24314), (132, 24281), (134, 24272), (136, 24260), (145, 24194),

Gene: Panchaali_95 Start: 81223, Stop: 82020, Start Num: 34
Candidate Starts for Panchaali_95:
(Start: 27 @81196 has 16 MA's), (Start: 34 @81223 has 1 MA's), (41, 81280), (44, 81289), (45, 81295), (88, 81571), (106, 81649), (130, 81739), (141, 81784), (150, 81853), (156, 81880), (168, 81997),

Gene: Papafritta_36 Start: 25616, Stop: 24948, Start Num: 38
Candidate Starts for Papafritta_36:
(Start: 38 @25616 has 135 MA's), (60, 25469), (64, 25442), (78, 25373), (81, 25361), (116, 25181), (132, 25133), (136, 25112), (145, 25046), (157, 24977),

Gene: ParleG_37 Start: 25913, Stop: 25245, Start Num: 38
Candidate Starts for ParleG_37:
(Start: 38 @25913 has 135 MA's), (60, 25766), (64, 25739), (78, 25670), (81, 25658), (116, 25478), (132, 25430), (136, 25409), (145, 25343), (157, 25274),

Gene: Patbob_103 Start: 84565, Stop: 85374, Start Num: 27
Candidate Starts for Patbob_103:
(Start: 27 @84565 has 16 MA's), (47, 84670), (88, 84940), (106, 85018), (156, 85249), (157, 85252), (164, 85282), (165, 85285), (168, 85351), (169, 85369),

Gene: PauloDiaboli_112 Start: 75754, Stop: 74960, Start Num: 28
Candidate Starts for PauloDiaboli_112:
(Start: 28 @75754 has 3 MA's), (30, 75742), (40, 75691), (49, 75619), (50, 75607), (59, 75562), (60, 75559), (85, 75412), (88, 75382), (102, 75316), (106, 75304), (110, 75295), (119, 75247), (142, 75151), (156, 75055), (161, 75025), (166, 75004),

Gene: Peep_37 Start: 25898, Stop: 25230, Start Num: 38
Candidate Starts for Peep_37:
(Start: 38 @25898 has 135 MA's), (60, 25751), (64, 25724), (78, 25655), (81, 25643), (116, 25463), (132, 25415), (136, 25394), (157, 25259),

Gene: Penta_33 Start: 23944, Stop: 23276, Start Num: 38
Candidate Starts for Penta_33:
(Start: 38 @23944 has 135 MA's), (42, 23911), (48, 23860), (60, 23797), (64, 23770), (78, 23701), (81, 23689), (112, 23542), (116, 23509), (132, 23461), (141, 23410), (145, 23374), (153, 23323),

Gene: Peppino_36 Start: 26020, Stop: 25352, Start Num: 38
Candidate Starts for Peppino_36:
(Start: 38 @26020 has 135 MA's), (56, 25885), (97, 25666), (116, 25585), (129, 25543), (132, 25537), (145, 25450),

Gene: Phanita_35 Start: 25495, Stop: 24827, Start Num: 39
Candidate Starts for Phanita_35:
(22, 25573), (33, 25528), (Start: 39 @25495 has 66 MA's), (60, 25348), (64, 25321), (71, 25282), (78, 25252), (81, 25240), (116, 25060), (132, 25012), (137, 24985), (145, 24925),

Gene: Phendrix_167 Start: 88597, Stop: 87887, Start Num: 25
Candidate Starts for Phendrix_167:
(Start: 25 @88597 has 2 MA's), (32, 88576), (41, 88516), (67, 88360), (73, 88327), (80, 88291), (83, 88264), (87, 88237), (89, 88225), (91, 88216), (96, 88192), (106, 88150), (121, 88093), (122, 88090),

(126, 88069), (130, 88060), (142, 88009), (162, 87892),

Gene: Pherbot_34 Start: 25355, Stop: 24690, Start Num: 39
Candidate Starts for Pherbot_34:
(11, 25538), (19, 25469), (22, 25436), (35, 25388), (Start: 39 @25355 has 66 MA's), (56, 25220), (64, 25181), (78, 25112), (98, 24998), (114, 24944), (116, 24923), (120, 24914), (132, 24875), (134, 24866), (139, 24839), (145, 24788), (147, 24767),

Gene: Pherferi_37 Start: 25906, Stop: 25238, Start Num: 38
Candidate Starts for Pherferi_37:
(Start: 38 @25906 has 135 MA's), (60, 25759), (64, 25732), (78, 25663), (81, 25651), (116, 25471), (132, 25423), (136, 25402), (145, 25336), (157, 25267),

Gene: Phiderman_37 Start: 25903, Stop: 25235, Start Num: 38
Candidate Starts for Phiderman_37:
(Start: 38 @25903 has 135 MA's), (60, 25756), (64, 25729), (78, 25660), (81, 25648), (116, 25468), (132, 25420), (136, 25399), (145, 25333), (157, 25264),

Gene: PhillyPhantom_36 Start: 26010, Stop: 25342, Start Num: 38
Candidate Starts for PhillyPhantom_36:
(Start: 38 @26010 has 135 MA's), (56, 25875), (97, 25656), (116, 25575), (129, 25533), (132, 25527), (145, 25440),

Gene: Phireproof_37 Start: 25912, Stop: 25244, Start Num: 38
Candidate Starts for Phireproof_37:
(Start: 38 @25912 has 135 MA's), (60, 25765), (64, 25738), (78, 25669), (81, 25657), (116, 25477), (132, 25429), (136, 25408), (157, 25273),

Gene: Phrampa_97 Start: 85968, Stop: 86774, Start Num: 27
Candidate Starts for Phrampa_97:
(Start: 27 @85968 has 16 MA's), (47, 86073), (88, 86343), (101, 86406), (106, 86421), (133, 86517), (150, 86625), (156, 86652), (157, 86655), (168, 86751), (169, 86769),

Gene: PhredFlintston_37 Start: 25906, Stop: 25238, Start Num: 38
Candidate Starts for PhredFlintston_37:
(Start: 38 @25906 has 135 MA's), (60, 25759), (64, 25732), (78, 25663), (81, 25651), (116, 25471), (132, 25423), (136, 25402), (145, 25336), (157, 25267),

Gene: Phriends_37 Start: 25912, Stop: 25244, Start Num: 38
Candidate Starts for Phriends_37:
(Start: 38 @25912 has 135 MA's), (60, 25765), (64, 25738), (78, 25669), (81, 25657), (116, 25477), (132, 25429), (136, 25408), (157, 25273),

Gene: Pikmin_33 Start: 24761, Stop: 24096, Start Num: 39
Candidate Starts for Pikmin_33:
(15, 24908), (16, 24893), (Start: 39 @24761 has 66 MA's), (52, 24653), (68, 24572), (98, 24404), (103, 24386), (105, 24380), (123, 24314), (132, 24281), (134, 24272), (136, 24260), (145, 24194),

Gene: Pocket_36 Start: 25599, Stop: 24931, Start Num: 38
Candidate Starts for Pocket_36:
(Start: 38 @25599 has 135 MA's), (60, 25452), (64, 25425), (78, 25356), (81, 25344), (116, 25164), (132, 25116), (145, 25029), (157, 24960),

Gene: PrincePhergus_34 Start: 25370, Stop: 24705, Start Num: 39
Candidate Starts for PrincePhergus_34:
(11, 25553), (19, 25484), (22, 25451), (35, 25403), (Start: 39 @25370 has 66 MA's), (56, 25235), (64, 25196), (78, 25127), (98, 25013), (114, 24959), (116, 24938), (120, 24929), (132, 24890), (134, 24881), (139, 24854), (145, 24803), (147, 24782),

Gene: Pumpernickel_109 Start: 77313, Stop: 76510, Start Num: 24
Candidate Starts for Pumpernickel_109:
(Start: 24 @77313 has 6 MA's), (32, 77283), (Start: 34 @77280 has 1 MA's), (43, 77217), (54, 77127), (58, 77103), (62, 77091), (63, 77073), (80, 76983), (83, 76956), (85, 76950), (88, 76920), (103, 76851), (106, 76842), (138, 76716), (153, 76608), (156, 76593), (159, 76584),

Gene: PuppyEggo_37 Start: 25913, Stop: 25245, Start Num: 38
Candidate Starts for PuppyEggo_37:
(Start: 38 @25913 has 135 MA's), (60, 25766), (64, 25739), (78, 25670), (81, 25658), (116, 25478), (132, 25430), (136, 25409), (145, 25343), (157, 25274),

Gene: QuadZero_34 Start: 23826, Stop: 23131, Start Num: 39
Candidate Starts for QuadZero_34:
(15, 23973), (16, 23958), (Start: 39 @23826 has 66 MA's), (42, 23793), (55, 23697), (71, 23613), (98, 23463), (116, 23364), (120, 23355), (132, 23316), (139, 23280), (145, 23229),

Gene: Quartz_34 Start: 25324, Stop: 24653, Start Num: 39
Candidate Starts for Quartz_34:
(17, 25441), (21, 25408), (29, 25363), (Start: 39 @25324 has 66 MA's), (55, 25195), (64, 25150), (92, 24988), (98, 24961), (99, 24958), (112, 24919), (116, 24886), (120, 24877), (132, 24838), (141, 24787), (145, 24751), (152, 24706), (157, 24682),

Gene: Raccoon_36 Start: 25995, Stop: 25327, Start Num: 38
Candidate Starts for Raccoon_36:
(Start: 38 @25995 has 135 MA's), (56, 25860), (97, 25641), (116, 25560), (129, 25518), (132, 25512), (145, 25425),

Gene: Racecar_105 Start: 84483, Stop: 85292, Start Num: 27
Candidate Starts for Racecar_105:
(Start: 27 @84483 has 16 MA's), (47, 84588), (88, 84858), (106, 84936), (149, 85137), (156, 85167), (157, 85170), (164, 85200), (168, 85269), (169, 85287),

Gene: Rapheph_37 Start: 25906, Stop: 25238, Start Num: 38
Candidate Starts for Rapheph_37:
(Start: 38 @25906 has 135 MA's), (60, 25759), (64, 25732), (78, 25663), (81, 25651), (116, 25471), (132, 25423), (136, 25402), (145, 25336), (157, 25267),

Gene: Raptor_37 Start: 25910, Stop: 25242, Start Num: 38
Candidate Starts for Raptor_37:
(Start: 38 @25910 has 135 MA's), (60, 25763), (64, 25736), (78, 25667), (81, 25655), (116, 25475), (132, 25427), (145, 25340), (157, 25271),

Gene: Redfield_36 Start: 26027, Stop: 25359, Start Num: 38
Candidate Starts for Redfield_36:
(Start: 38 @26027 has 135 MA's), (56, 25892), (97, 25673), (116, 25592), (129, 25550), (132, 25544), (145, 25457),

Gene: ReginaGlobina_103 Start: 84193, Stop: 84942, Start Num: 41
Candidate Starts for ReginaGlobina_103:
(Start: 27 @84109 has 16 MA's), (41, 84193), (44, 84202), (45, 84208), (62, 84313), (88, 84484), (106, 84562), (130, 84652), (140, 84694), (150, 84769), (155, 84790), (156, 84796),

Gene: RenegadeRaider_35 Start: 25237, Stop: 24572, Start Num: 39
Candidate Starts for RenegadeRaider_35:
(11, 25420), (19, 25351), (22, 25318), (35, 25270), (Start: 39 @25237 has 66 MA's), (56, 25102), (64, 25063), (78, 24994), (98, 24880), (114, 24826), (116, 24805), (120, 24796), (132, 24757), (134, 24748), (139, 24721), (145, 24670), (147, 24649),

Gene: Renzie_37 Start: 25898, Stop: 25230, Start Num: 38
Candidate Starts for Renzie_37:
(Start: 38 @25898 has 135 MA's), (60, 25751), (64, 25724), (78, 25655), (81, 25643), (116, 25463), (132, 25415), (136, 25394), (157, 25259),

Gene: Riyhil_37 Start: 25916, Stop: 25248, Start Num: 38
Candidate Starts for Riyhil_37:
(Start: 38 @25916 has 135 MA's), (60, 25769), (64, 25742), (78, 25673), (81, 25661), (116, 25481), (132, 25433), (136, 25412), (145, 25346), (157, 25277),

Gene: Robinson_37 Start: 25904, Stop: 25236, Start Num: 38
Candidate Starts for Robinson_37:
(Start: 38 @25904 has 135 MA's), (60, 25757), (64, 25730), (78, 25661), (81, 25649), (116, 25469), (132, 25421), (157, 25265),

Gene: Rockabye_105 Start: 77720, Stop: 78529, Start Num: 27
Candidate Starts for Rockabye_105:
(Start: 27 @77720 has 16 MA's), (31, 77741), (45, 77819), (47, 77825), (73, 77996), (88, 78095), (106, 78173), (124, 78245), (130, 78263), (150, 78380), (168, 78506),

Gene: Rog141_36 Start: 25595, Stop: 24927, Start Num: 38
Candidate Starts for Rog141_36:
(Start: 38 @25595 has 135 MA's), (60, 25448), (64, 25421), (78, 25352), (81, 25340), (116, 25160), (132, 25112), (136, 25091), (145, 25025), (157, 24956),

Gene: RosieMae_36 Start: 25653, Stop: 24985, Start Num: 38
Candidate Starts for RosieMae_36:
(Start: 38 @25653 has 135 MA's), (60, 25506), (64, 25479), (78, 25410), (81, 25398), (116, 25218), (132, 25170), (145, 25083), (157, 25014),

Gene: SJReid_108 Start: 76738, Stop: 77565, Start Num: 27
Candidate Starts for SJReid_108:
(Start: 27 @76738 has 16 MA's), (31, 76759), (45, 76837), (47, 76843), (88, 77113), (106, 77191), (124, 77263), (130, 77281), (155, 77419), (168, 77542),

Gene: SJay_37 Start: 25907, Stop: 25239, Start Num: 38
Candidate Starts for SJay_37:
(Start: 38 @25907 has 135 MA's), (60, 25760), (64, 25733), (78, 25664), (81, 25652), (116, 25472), (132, 25424), (145, 25337), (157, 25268),

Gene: Sansa_34 Start: 25589, Stop: 24921, Start Num: 39
Candidate Starts for Sansa_34:

(33, 25622), (Start: 39 @25589 has 66 MA's), (60, 25442), (64, 25415), (71, 25376), (78, 25346), (81, 25334), (116, 25154), (132, 25106), (137, 25079), (145, 25019),

Gene: Saratos_35 Start: 25497, Stop: 24829, Start Num: 39
Candidate Starts for Saratos_35:
(22, 25575), (33, 25530), (Start: 39 @25497 has 66 MA's), (60, 25350), (64, 25323), (71, 25284), (78, 25254), (81, 25242), (116, 25062), (132, 25014), (137, 24987), (145, 24927),

Gene: Schimmels22_35 Start: 24624, Stop: 23956, Start Num: 38
Candidate Starts for Schimmels22_35:
(Start: 38 @24624 has 135 MA's), (42, 24591), (48, 24540), (60, 24477), (64, 24450), (78, 24381), (81, 24369), (112, 24222), (116, 24189), (132, 24141), (141, 24090), (145, 24054), (153, 24003),

Gene: Schnapsidee_36 Start: 26033, Stop: 25365, Start Num: 38
Candidate Starts for Schnapsidee_36:
(Start: 38 @26033 has 135 MA's), (56, 25898), (97, 25679), (116, 25598), (129, 25556), (132, 25550), (145, 25463),

Gene: Schubert_34 Start: 25315, Stop: 24650, Start Num: 39
Candidate Starts for Schubert_34:
(Start: 39 @25315 has 66 MA's), (57, 25177), (70, 25105), (71, 25102), (86, 25021), (92, 24985), (103, 24940), (117, 24880), (132, 24835), (141, 24784), (145, 24748),

Gene: Scissor2024_35 Start: 24261, Stop: 23593, Start Num: 38
Candidate Starts for Scissor2024_35:
(Start: 38 @24261 has 135 MA's), (42, 24228), (48, 24177), (60, 24114), (64, 24087), (78, 24018), (81, 24006), (112, 23859), (116, 23826), (120, 23817), (132, 23778), (141, 23727), (145, 23691), (153, 23640),

Gene: Sedgewig_36 Start: 25593, Stop: 24925, Start Num: 38
Candidate Starts for Sedgewig_36:
(Start: 38 @25593 has 135 MA's), (60, 25446), (64, 25419), (78, 25350), (81, 25338), (116, 25158), (132, 25110), (136, 25089), (145, 25023), (157, 24954),

Gene: ShaiHulud_37 Start: 25910, Stop: 25242, Start Num: 38
Candidate Starts for ShaiHulud_37:
(Start: 38 @25910 has 135 MA's), (60, 25763), (64, 25736), (78, 25667), (81, 25655), (116, 25475), (132, 25427), (136, 25406), (157, 25271),

Gene: Shamu_35 Start: 25518, Stop: 24850, Start Num: 39
Candidate Starts for Shamu_35:
(22, 25596), (33, 25551), (Start: 39 @25518 has 66 MA's), (60, 25371), (64, 25344), (71, 25305), (78, 25275), (81, 25263), (116, 25083), (132, 25035), (137, 25008), (145, 24948),

Gene: Shee_37 Start: 25903, Stop: 25235, Start Num: 38
Candidate Starts for Shee_37:
(Start: 38 @25903 has 135 MA's), (60, 25756), (64, 25729), (78, 25660), (81, 25648), (116, 25468), (132, 25420), (145, 25333), (157, 25264),

Gene: Sinatra_34 Start: 25366, Stop: 24701, Start Num: 39
Candidate Starts for Sinatra_34:
(11, 25549), (19, 25480), (22, 25447), (35, 25399), (Start: 39 @25366 has 66 MA's), (56, 25231), (64, 25192), (78, 25123), (98, 25009), (114, 24955), (116, 24934), (120, 24925), (132, 24886), (134,

24877), (139, 24850), (145, 24799), (147, 24778),

Gene: SirVictor_34 Start: 25445, Stop: 24780, Start Num: 39
Candidate Starts for SirVictor_34:
(5, 25676), (11, 25631), (19, 25559), (20, 25550), (22, 25526), (33, 25481), (35, 25478), (Start: 39 @25445 has 66 MA's), (42, 25412), (56, 25310), (64, 25271), (71, 25232), (78, 25202), (92, 25115), (98, 25088), (114, 25034), (116, 25013), (120, 25004), (132, 24965), (139, 24929), (145, 24878), (147, 24857),

Gene: Sixama_165 Start: 92948, Stop: 92217, Start Num: 24
Candidate Starts for Sixama_165:
(Start: 24 @92948 has 6 MA's), (Start: 34 @92921 has 1 MA's), (44, 92855), (50, 92798), (54, 92780), (59, 92753), (63, 92726), (67, 92705), (72, 92675), (89, 92570), (92, 92552), (94, 92543), (102, 92507), (106, 92495), (121, 92435), (122, 92432), (130, 92402), (133, 92396), (135, 92384), (143, 92345),

Gene: SoilGremlin_37 Start: 25909, Stop: 25241, Start Num: 38
Candidate Starts for SoilGremlin_37:
(Start: 38 @25909 has 135 MA's), (60, 25762), (64, 25735), (78, 25666), (81, 25654), (116, 25474), (132, 25426), (136, 25405), (157, 25270),

Gene: SolidSnake_38 Start: 25912, Stop: 25244, Start Num: 38
Candidate Starts for SolidSnake_38:
(Start: 38 @25912 has 135 MA's), (60, 25765), (64, 25738), (78, 25669), (81, 25657), (116, 25477), (132, 25429), (136, 25408), (157, 25273),

Gene: SonOfLevi_36 Start: 25590, Stop: 24922, Start Num: 38
Candidate Starts for SonOfLevi_36:
(Start: 38 @25590 has 135 MA's), (60, 25443), (64, 25416), (78, 25347), (81, 25335), (116, 25155), (132, 25107), (145, 25020), (157, 24951),

Gene: Soror1_36 Start: 26042, Stop: 25374, Start Num: 38
Candidate Starts for Soror1_36:
(Start: 38 @26042 has 135 MA's), (56, 25907), (97, 25688), (116, 25607), (129, 25565), (132, 25559), (145, 25472),

Gene: Spocter_44 Start: 32522, Stop: 33466, Start Num: 6
Candidate Starts for Spocter_44:
(2, 32492), (Start: 6 @32522 has 4 MA's), (7, 32531), (14, 32567), (18, 32618), (Start: 28 @32678 has 3 MA's), (36, 32723), (54, 32864), (55, 32876), (69, 32960), (70, 32963), (81, 33011), (82, 33020), (98, 33122), (108, 33167), (111, 33182), (112, 33185), (125, 33251), (144, 33332), (158, 33425),

Gene: Stanktossa_37 Start: 25906, Stop: 25238, Start Num: 38
Candidate Starts for Stanktossa_37:
(Start: 38 @25906 has 135 MA's), (60, 25759), (64, 25732), (78, 25663), (81, 25651), (116, 25471), (132, 25423), (136, 25402), (145, 25336), (157, 25267),

Gene: Stewart25555_95 Start: 81038, Stop: 81781, Start Num: 41
Candidate Starts for Stewart25555_95:
(Start: 27 @80954 has 16 MA's), (Start: 34 @80981 has 1 MA's), (41, 81038), (44, 81047), (45, 81053), (74, 81233), (88, 81329), (106, 81407), (130, 81497), (141, 81545), (150, 81614), (156, 81641), (168, 81758),

Gene: StingRay_36 Start: 25611, Stop: 24943, Start Num: 38

Candidate Starts for StingRay_36:
(Start: 38 @25611 has 135 MA's), (60, 25464), (64, 25437), (78, 25368), (81, 25356), (116, 25176), (132, 25128), (136, 25107), (145, 25041), (157, 24972),

Gene: StirfryIV_36 Start: 25604, Stop: 24936, Start Num: 38
Candidate Starts for StirfryIV_36:
(Start: 38 @25604 has 135 MA's), (60, 25457), (64, 25430), (78, 25361), (81, 25349), (116, 25169), (132, 25121), (136, 25100), (145, 25034), (157, 24965),

Gene: Stormbreaker8_36 Start: 26027, Stop: 25359, Start Num: 38
Candidate Starts for Stormbreaker8_36:
(Start: 38 @26027 has 135 MA's), (56, 25892), (97, 25673), (116, 25592), (129, 25550), (132, 25544), (145, 25457),

Gene: Strathdee_37 Start: 25911, Stop: 25243, Start Num: 38
Candidate Starts for Strathdee_37:
(Start: 38 @25911 has 135 MA's), (60, 25764), (64, 25737), (78, 25668), (81, 25656), (116, 25476), (132, 25428), (136, 25407), (145, 25341), (157, 25272),

Gene: Superfresh_37 Start: 25898, Stop: 25230, Start Num: 38
Candidate Starts for Superfresh_37:
(Start: 38 @25898 has 135 MA's), (60, 25751), (64, 25724), (78, 25655), (81, 25643), (116, 25463), (132, 25415), (136, 25394), (157, 25259),

Gene: Symere_36 Start: 25591, Stop: 24923, Start Num: 38
Candidate Starts for Symere_36:
(Start: 38 @25591 has 135 MA's), (60, 25444), (64, 25417), (78, 25348), (81, 25336), (116, 25156), (132, 25108), (136, 25087), (145, 25021), (157, 24952),

Gene: Talia1610_104 Start: 83848, Stop: 84657, Start Num: 27
Candidate Starts for Talia1610_104:
(Start: 27 @83848 has 16 MA's), (47, 83953), (88, 84223), (106, 84301), (149, 84502), (156, 84532), (157, 84535), (164, 84565), (168, 84634), (169, 84652),

Gene: TatarkaPM_37 Start: 25912, Stop: 25244, Start Num: 39
Candidate Starts for TatarkaPM_37:
(Start: 39 @25912 has 66 MA's), (60, 25765), (64, 25738), (78, 25669), (81, 25657), (116, 25477), (132, 25429), (136, 25408), (145, 25342), (157, 25273),

Gene: Teagan_37 Start: 25906, Stop: 25238, Start Num: 38
Candidate Starts for Teagan_37:
(Start: 38 @25906 has 135 MA's), (60, 25759), (64, 25732), (78, 25663), (81, 25651), (116, 25471), (132, 25423), (136, 25402), (157, 25267),

Gene: TeddyBear_36 Start: 25608, Stop: 24940, Start Num: 38
Candidate Starts for TeddyBear_36:
(Start: 38 @25608 has 135 MA's), (60, 25461), (64, 25434), (78, 25365), (81, 25353), (116, 25173), (132, 25125), (145, 25038), (157, 24969),

Gene: Tenda_36 Start: 25606, Stop: 24938, Start Num: 38
Candidate Starts for Tenda_36:
(Start: 38 @25606 has 135 MA's), (60, 25459), (64, 25432), (78, 25363), (81, 25351), (116, 25171), (132, 25123), (136, 25102), (145, 25036), (157, 24967),

Gene: Thompsone_37 Start: 25913, Stop: 25245, Start Num: 38
Candidate Starts for Thompsone_37:
(Start: 38 @25913 has 135 MA's), (60, 25766), (64, 25739), (78, 25670), (81, 25658), (116, 25478), (132, 25430), (136, 25409), (157, 25274),

Gene: Thorongil_37 Start: 25913, Stop: 25245, Start Num: 38
Candidate Starts for Thorongil_37:
(Start: 38 @25913 has 135 MA's), (60, 25766), (64, 25739), (78, 25670), (81, 25658), (116, 25478), (132, 25430), (136, 25409), (145, 25343), (157, 25274),

Gene: TinSulphur_37 Start: 25912, Stop: 25244, Start Num: 38
Candidate Starts for TinSulphur_37:
(Start: 38 @25912 has 135 MA's), (60, 25765), (64, 25738), (78, 25669), (81, 25657), (116, 25477), (132, 25429), (136, 25408), (145, 25342), (157, 25273),

Gene: Tinyman4_35 Start: 24250, Stop: 23582, Start Num: 38
Candidate Starts for Tinyman4_35:
(Start: 38 @24250 has 135 MA's), (42, 24217), (48, 24166), (60, 24103), (64, 24076), (78, 24007), (81, 23995), (112, 23848), (116, 23815), (132, 23767), (141, 23716), (145, 23680), (153, 23629),

Gene: TwoBits_34 Start: 24236, Stop: 23541, Start Num: 39
Candidate Starts for TwoBits_34:
(15, 24383), (16, 24368), (Start: 39 @24236 has 66 MA's), (42, 24203), (55, 24107), (64, 24062), (77, 23996), (98, 23873), (116, 23774), (132, 23726), (139, 23690), (141, 23675), (142, 23666), (145, 23639), (157, 23570),

Gene: Vafari_35 Start: 23807, Stop: 23112, Start Num: 39
Candidate Starts for Vafari_35:
(15, 23954), (16, 23939), (Start: 39 @23807 has 66 MA's), (42, 23774), (55, 23678), (71, 23594), (98, 23444), (116, 23345), (120, 23336), (132, 23297), (139, 23261), (145, 23210),

Gene: Velene_37 Start: 25911, Stop: 25243, Start Num: 38
Candidate Starts for Velene_37:
(Start: 38 @25911 has 135 MA's), (60, 25764), (64, 25737), (78, 25668), (81, 25656), (116, 25476), (132, 25428), (136, 25407), (157, 25272),

Gene: Vispistious_37 Start: 25913, Stop: 25245, Start Num: 38
Candidate Starts for Vispistious_37:
(Start: 38 @25913 has 135 MA's), (60, 25766), (64, 25739), (78, 25670), (81, 25658), (116, 25478), (132, 25430), (136, 25409), (145, 25343), (157, 25274),

Gene: WaddleDee_91 Start: 79411, Stop: 80229, Start Num: 27
Candidate Starts for WaddleDee_91:
(Start: 27 @79411 has 16 MA's), (Start: 34 @79438 has 1 MA's), (41, 79495), (44, 79504), (45, 79510), (88, 79786), (101, 79849), (106, 79864), (130, 79954), (141, 79999), (150, 80068), (156, 80095), (167, 80191), (168, 80206),

Gene: Wardwill_36 Start: 23980, Stop: 23285, Start Num: 39
Candidate Starts for Wardwill_36:
(15, 24127), (16, 24112), (Start: 39 @23980 has 66 MA's), (42, 23947), (55, 23851), (71, 23767), (98, 23617), (116, 23518), (120, 23509), (132, 23470), (139, 23434), (145, 23383),

Gene: WestPM_33 Start: 24107, Stop: 23439, Start Num: 38
Candidate Starts for WestPM_33:
(Start: 38 @24107 has 135 MA's), (42, 24074), (48, 24023), (60, 23960), (64, 23933), (78, 23864), (81, 23852), (112, 23705), (116, 23672), (132, 23624), (141, 23573), (145, 23537), (153, 23486),

Gene: WildNOut_37 Start: 25910, Stop: 25242, Start Num: 38
Candidate Starts for WildNOut_37:
(Start: 38 @25910 has 135 MA's), (60, 25763), (64, 25736), (78, 25667), (81, 25655), (116, 25475), (132, 25427), (136, 25406), (145, 25340), (157, 25271),

Gene: WilliamStrong_35 Start: 25330, Stop: 24659, Start Num: 39
Candidate Starts for WilliamStrong_35:
(22, 25411), (33, 25366), (Start: 39 @25330 has 66 MA's), (56, 25195), (60, 25183), (99, 24964), (115, 24895), (116, 24892), (127, 24856), (128, 24853), (132, 24844), (134, 24835), (145, 24757), (157, 24688),

Gene: Winzigespinne_36 Start: 25594, Stop: 24926, Start Num: 38
Candidate Starts for Winzigespinne_36:
(Start: 38 @25594 has 135 MA's), (60, 25447), (64, 25420), (78, 25351), (81, 25339), (116, 25159), (132, 25111), (136, 25090), (145, 25024), (157, 24955),

Gene: Xebius_35 Start: 25500, Stop: 24832, Start Num: 39
Candidate Starts for Xebius_35:
(22, 25578), (33, 25533), (Start: 39 @25500 has 66 MA's), (60, 25353), (64, 25326), (71, 25287), (78, 25257), (81, 25245), (116, 25065), (132, 25017), (137, 24990), (145, 24930),

Gene: YuuY_35 Start: 25953, Stop: 25282, Start Num: 39
Candidate Starts for YuuY_35:
(Start: 39 @25953 has 66 MA's), (55, 25824), (64, 25779), (84, 25674), (92, 25617), (98, 25590), (116, 25515), (120, 25506), (132, 25467), (141, 25416), (145, 25380), (157, 25311),

Gene: Zada_37 Start: 25882, Stop: 25214, Start Num: 38
Candidate Starts for Zada_37:
(Start: 38 @25882 has 135 MA's), (60, 25735), (64, 25708), (78, 25639), (81, 25627), (116, 25447), (132, 25399), (136, 25378), (145, 25312), (157, 25243),

Gene: Zayuliv_34 Start: 24399, Stop: 23704, Start Num: 39
Candidate Starts for Zayuliv_34:
(15, 24546), (16, 24531), (Start: 39 @24399 has 66 MA's), (42, 24366), (55, 24270), (71, 24186), (98, 24036), (116, 23937), (120, 23928), (132, 23889), (139, 23853), (145, 23802),

Gene: Zenitsu_35 Start: 25533, Stop: 24865, Start Num: 39
Candidate Starts for Zenitsu_35:
(22, 25611), (33, 25566), (Start: 39 @25533 has 66 MA's), (60, 25386), (64, 25359), (71, 25320), (78, 25290), (81, 25278), (116, 25098), (132, 25050), (137, 25023), (145, 24963),

Gene: Zepp_35 Start: 23858, Stop: 23163, Start Num: 39
Candidate Starts for Zepp_35:
(15, 24005), (16, 23990), (Start: 39 @23858 has 66 MA's), (42, 23825), (55, 23729), (71, 23645), (98, 23495), (116, 23396), (120, 23387), (132, 23348), (139, 23312), (145, 23261),

Gene: Zooman_96 Start: 73343, Stop: 72582, Start Num: 26
Candidate Starts for Zooman_96:

(Start: 26 @73343 has 2 MA's), (59, 73151), (60, 73148), (85, 73001), (88, 72971), (102, 72905), (106, 72893), (121, 72833), (131, 72797), (142, 72740), (146, 72698), (156, 72644),