



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 311325 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311325 has 151 members, 11 are drafts.

Phages represented in each track:

- Track 1 : HedwigODU_87, Adephagia_86, ActinUp_88, Zabiza_83, Veliki_88
- Track 2 : Anma_87
- Track 3 : Ganymede_87, Beezoo_90, QuincyRose_85, YoureAdopted_86, Zavala_89
- Track 4 : Lunahalos_87, ShiaSurprise_88, BEEST_87, Homura_86, Spock_87, Capricorn_87, Tachez_87, Twitch_87, Piatt_86, Durfee_87, Peel_87, Dalmuri_87, Topper_87, Hyperbowlee_86, CaseJules_89, Jarvi_87, Jeckyll_87, Padfoot_87, Llorens_87, CREW_86, BaghaKamala_86, Joy99_88, Boiiii_87, Asayake_87, CallaLilly_87, Belladonna_87, Atiba_88, Blizzard_87, Inky_87
- Track 5 : TingHuaYa_91
- Track 6 : Pokerus_87
- Track 7 : AlishaPH_80
- Track 8 : LindNT_85
- Track 9 : Padpat_90, Emerson_89
- Track 10 : MeaningOfLife_89
- Track 11 : SamuelLPlaqson_87, DrHayes_87, Urkel_87
- Track 12 : Curiosium_95
- Track 13 : Chavito_87
- Track 14 : Shaobing_87
- Track 15 : TreyKay_89, Prithvi_89
- Track 16 : Anaya_90
- Track 17 : Ageofdapage_91
- Track 18 : Clipper_91, MacKat_83
- Track 19 : Niklas_88
- Track 20 : Angelica_84
- Track 21 : CrimD_87
- Track 22 : Stinson_88
- Track 23 : LastHope_93
- Track 24 : TaiwanKao_88
- Track 25 : Yunkel11_92
- Track 26 : Sulley_84
- Track 27 : McMater_87, Richo_87, Dartin_87
- Track 28 : Pisa1_87, Pisa4_81
- Track 29 : JAWS_86
- Track 30 : Murucutumbu_87
- Track 31 : Peanam_88
- Track 32 : Guanica15_93

- Track 33 : Devera_93, Illumine_91, Dole_90
- Track 34 : Deby_87
- Track 35 : Rosmarinus_87
- Track 36 : Ramen_88
- Track 37 : Geraldini_89
- Track 38 : Megsy_91
- Track 39 : Jayhawk_89, Rapunzel97_89, BarrelRoll_87, TruffulaTree_89, Slimphazie_89
- Track 40 : Tiri_87
- Track 41 : Bella96_88
- Track 42 : BGlluviae_86
- Track 43 : LaterM_87
- Track 44 : DartGoblin_87
- Track 45 : Validus_93
- Track 46 : Apocalypse_89
- Track 47 : Mynx_88
- Track 48 : Adonis_87
- Track 49 : TiniBug_86
- Track 50 : Bern_88
- Track 51 : Efra2_94
- Track 52 : CheetoDust_87
- Track 53 : TribbleTrouble_88
- Track 54 : Pharb_86
- Track 55 : MacnCheese_87
- Track 56 : Hurricane_86, Keshu_88
- Track 57 : Pixie_85, TBond007_82, ShedlockHolmes_88, Lea83_86
- Track 58 : Kratio_80
- Track 59 : Paola_81, Guillsminger_82
- Track 60 : InvictusManeo_77, Agent47_79
- Track 61 : Dadosky_80, Psycho_78, Larva_79, Neighly_80
- Track 62 : BananenDer11_79, ViviJ_85, DoubleChamp_76, SoSeph_79, LilDirt_78, Collard_77, Heftyboy_79
- Track 63 : Thyatira_82
- Track 64 : Feyre_82
- Track 65 : AlleyCat_80
- Track 66 : Omnicron_84, Rando14_81
- Track 67 : Edugator_76
- Track 68 : Leston_81
- Track 69 : Miryou_83
- Track 70 : OkiRoe_82
- Track 71 : Gengar_81
- Track 72 : Waterfoul_81
- Track 73 : PhelpsODU_84, Unicorn_94
- Track 74 : Ximenita_93
- Track 75 : TClif_87
- Track 76 : Cain_94, Bryler_86, Phrank_94, Tierra_94
- Track 77 : Shadow1_91
- Track 78 : Tigress9_91, Krueger_91
- Track 79 : Sunflower1121_91
- Track 80 : Syra333_90

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

The start number called the most often in the published annotations is 42, it was called in 89 of the 140 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp_88, Adephagia_86, Adonis_87, Ageofdapage_91, AlishaPH_80, Anaya_90, Angelica_84, Apocalypse_89, Asayake_87, Atiba_88, BEEST_87, BGIlluviae_86, BaghaKamala_86, BarrelRoll_87, Beezoo_90, Bella96_88, Belladonna_87, Bern_88, Blizzard_87, Boiiii_87, CREW_86, CallaLilly_87, Capricorn_87, CaseJules_89, CheetoDust_87, Clipper_91, CrimD_87, Curiosium_95, Dalmuri_87, DartGoblin_87, Deby_87, Devera_93, Dole_90, DrHayes_87, Durfee_87, Efra2_94, Emerson_89, Ganymede_87, Geraldini_89, Guanica15_93, HedwigODU_87, Homura_86, Hyperbowlee_86, Illumine_91, Inky_87, JAWS_86, Jarvi_87, Jayhawk_89, Jeckyll_87, Joy99_88, LastHope_93, LaterM_87, LindNT_85, Llorens_87, Lunahalos_87, MacKat_83, MeaningOfLife_89, Megsy_91, Murucutumbu_87, Mynx_88, Padfoot_87, Padpat_90, Peel_87, Piatt_86, Pisa1_87, Pisa4_81, Pokerus_87, Prithvi_89, QuincyRose_85, Ramen_88, Rapunzel97_89, Rosmarinus_87, SamuelLPlaqson_87, ShiaSurprise_88, Slimphazie_89, Spock_87, Stinson_88, Sulley_84, Tachez_87, TaiwanKao_88, TiniBug_86, Tiri_87, Topper_87, TreyKay_89, TruffulaTree_89, Twitch_87, Urkel_87, Veliki_88, YoureAdopted_86, Yunkel11_92, Zabiza_83, Zavala_89,

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

- Anma_87, TingHuaYa_91,

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

- Agent47_79, AlleyCat_80, BananenDer11_79, Bryler_86, Cain_94, Chavito_87, Collard_77, Dadosky_80, Dartin_87, DoubleChamp_76, Edugator_76, Feyre_82, Gengar_81, Guillsminger_82, Heftyboy_79, Hurricane_86, InvictusManeo_77, Keshu_88, Kratio_80, Krueger_91, Larva_79, Lea83_86, Leston_81, LilDirt_78, MacnCheese_87, McMater_87, Miryou_83, Neighly_80, Niklas_88, OkiRoe_82, Omnicron_84, Paola_81, Peanam_88, Pharb_86, PhelpsODU_84, Phrank_94, Pixie_85, Psycho_78, Rando14_81, Richo_87, Shadow1_91, Shaobing_87, ShedlockHolmes_88, SoSeph_79, Sunflower1121_91, Syra333_90, TBond007_82, TClif_87, Thyatira_82, Tierra_94, Tigress9_91, TribbleTrouble_88, Unicorn_94, Validus_93, ViviJ_85, Waterfoul_81, Ximenita_93,

Summary by start number:

Start 5:

- Found in 4 of 151 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 140
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Shadow1_91 (K6),

Start 6:

- Found in 11 of 151 (7.3%) of genes in pham
- Manual Annotations of this start: 10 of 140
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Bryler_86 (K6), Cain_94 (K6), Krueger_91 (K6), PhelpsODU_84 (K6), Phrank_94 (K6), Sunflower1121_91 (K6),

Tierra_94 (K6), Tigress9_91 (K6), Unicorn_94 (K6), Ximenita_93 (K6),

Start 12:

- Found in 1 of 151 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 140
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Syra333_90 (K6),

Start 20:

- Found in 12 of 151 (7.9%) of genes in pham
- Manual Annotations of this start: 1 of 140
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Validus_93 (K1),

Start 21:

- Found in 8 of 151 (5.3%) of genes in pham
- Manual Annotations of this start: 3 of 140
- Called 87.5% of time when present
- Phage (with cluster) where this start called: Chavito_87 (K1), Dartin_87 (K1), McMater_87 (K1), Niklas_88 (K1), Peanam_88 (K1), Richo_87 (K1), Shaobing_87 (K1),

Start 22:

- Found in 7 of 151 (4.6%) of genes in pham
- Manual Annotations of this start: 1 of 140
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Edugator_76 (K5),

Start 23:

- Found in 18 of 151 (11.9%) of genes in pham
- Manual Annotations of this start: 15 of 140
- Called 94.4% of time when present
- Phage (with cluster) where this start called: Agent47_79 (K5), AlleyCat_80 (K5), BananenDer11_79 (K5), Collard_77 (K5), Dadosky_80 (K5), DoubleChamp_76 (K5), Heftyboy_79 (K5), InvictusManeo_77 (K5), Kratio_80 (K5), Larva_79 (K5), LilDirt_78 (K5), Neighly_80 (K3), Omnicron_84 (K5), Psycho_78 (K5), Rando14_81 (K5), SoSeph_79 (K5), ViviJ_85 (K5),

Start 24:

- Found in 9 of 151 (6.0%) of genes in pham
- Manual Annotations of this start: 9 of 140
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Feyre_82 (K5), Gengar_81 (K5), Guillsminger_82 (K5), Leston_81 (K5), Miryou_83 (K5), OkiRoe_82 (K5), Paola_81 (K5), Thyatira_82 (K5), Waterfoul_81 (K5),

Start 31:

- Found in 1 of 151 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 140
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TClif_87 (K6),

Start 42:

- Found in 94 of 151 (62.3%) of genes in pham
- Manual Annotations of this start: 89 of 140
- Called 97.9% of time when present
- Phage (with cluster) where this start called: ActinUp_88 (K1), Adephagia_86 (K1), Adonis_87 (K1), Ageofdapage_91 (K1), AlishaPH_80 (K1), Anaya_90 (K1), Angelica_84 (K1), Apocalypse_89 (K1), Asayake_87 (K1), Atiba_88 (K1), BEEST_87 (K1), BGIlluviae_86 (K1), BaghaKamala_86 (K1), BarrelRoll_87 (K1), Beezoo_90 (K1), Bella96_88 (K1), Belladonna_87 (K1), Bern_88 (K1), Blizzard_87 (K1), Boiiii_87 (K1), CREW_86 (K1), CallaLilly_87 (K1), Capricorn_87 (K1), CaseJules_89 (K1), CheetoDust_87 (K1), Clipper_91 (K1), CrimD_87 (K1), Curiosium_95 (K1), Dalmuri_87 (K1), DartGoblin_87 (K1), Deby_87 (K1), Devera_93 (K1), Dole_90 (K1), DrHayes_87 (K1), Durfee_87 (K1), Efra2_94 (K1), Emerson_89 (K1), Ganymede_87 (K1), Geraldini_89 (K1), Guanica15_93 (K1), HedwigODU_87 (K1), Homura_86 (K1), Hyperbowlee_86 (K1), Illumine_91 (K1), Inky_87 (K1), JAWS_86 (K1), Jarvi_87 (K1), Jayhawk_89 (K1), Jeckyll_87 (K1), Joy99_88 (K1), LastHope_93 (K1), LaterM_87 (K1), LindNT_85 (K1), Llorens_87 (K1), Lunahalos_87 (K1), MacKat_83 (K1), MeaningOfLife_89 (K1), Megsy_91 (K1), Murucutumbu_87 (K1), Mynx_88 (K1), Padfoot_87 (K1), Padpat_90 (K1), Peel_87 (K1), Piatt_86 (K1), Pisa1_87 (K1), Pisa4_81 (K1), Pokerus_87 (K1), Prithvi_89 (K1), QuincyRose_85 (K1), Ramen_88 (K1), Rapunzel97_89 (K1), Rosmarinus_87 (K1), SamuelLPlaqson_87 (K1), ShiaSurprise_88 (K1), Slimphazie_89 (K1), Spock_87 (K1), Stinson_88 (K1), Sulley_84 (K1), Tachez_87 (K1), TaiwanKao_88 (K1), TiniBug_86 (K1), Tiri_87 (K1), Topper_87 (K1), TreyKay_89 (K1), TruffulaTree_89 (K1), Twitch_87 (K1), Urkel_87 (K1), Veliki_88 (K1), YoureAdopted_86 (K1), Yunkel11_92 (K1), Zabiza_83 (K1), Zavala_89 (K1),

Start 54:

- Found in 16 of 151 (10.6%) of genes in pham
- No Manual Annotations of this start.
- Called 6.2% of time when present
- Phage (with cluster) where this start called: TingHuaYa_91 (K1),

Start 60:

- Found in 5 of 151 (3.3%) of genes in pham
- No Manual Annotations of this start.
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Anma_87 (K1),

Start 65:

- Found in 8 of 151 (5.3%) of genes in pham
- Manual Annotations of this start: 7 of 140
- Called 87.5% of time when present
- Phage (with cluster) where this start called: Hurricane_86 (K3), Keshu_88 (K3), Lea83_86 (K3), MacnCheese_87 (K3), Pixie_85 (K3), ShedlockHolmes_88 (K3), TBond007_82 (K3),

Start 66:

- Found in 2 of 151 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 140
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pharb_86 (K3), TripleTrouble_88 (K3),

Summary by clusters:

There are 4 clusters represented in this pham: K3, K1, K6, K5,

Info for manual annotations of cluster K1:

- Start number 20 was manually annotated 1 time for cluster K1.
- Start number 21 was manually annotated 3 times for cluster K1.
- Start number 42 was manually annotated 89 times for cluster K1.

Info for manual annotations of cluster K3:

- Start number 65 was manually annotated 7 times for cluster K3.
- Start number 66 was manually annotated 2 times for cluster K3.

Info for manual annotations of cluster K5:

- Start number 22 was manually annotated 1 time for cluster K5.
- Start number 23 was manually annotated 15 times for cluster K5.
- Start number 24 was manually annotated 9 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 5 was manually annotated 1 time for cluster K6.
- Start number 6 was manually annotated 10 times for cluster K6.
- Start number 12 was manually annotated 1 time for cluster K6.
- Start number 31 was manually annotated 1 time for cluster K6.

Gene Information:

Gene: ActinUp_88 Start: 55559, Stop: 56098, Start Num: 42

Candidate Starts for ActinUp_88:

(11, 55403), (Start: 42 @55559 has 89 MA's), (83, 55688), (89, 55730), (91, 55736), (96, 55751), (98, 55760), (100, 55766), (102, 55787), (106, 55826), (109, 55841), (111, 55847), (113, 55853), (115, 55865), (118, 55886), (128, 55937), (135, 55982), (143, 56021), (150, 56078), (152, 56084),

Gene: Adephagia_86 Start: 55402, Stop: 55941, Start Num: 42

Candidate Starts for Adephagia_86:

(11, 55246), (Start: 42 @55402 has 89 MA's), (83, 55531), (89, 55573), (91, 55579), (96, 55594), (98, 55603), (100, 55609), (102, 55630), (106, 55669), (109, 55684), (111, 55690), (113, 55696), (115, 55708), (118, 55729), (128, 55780), (135, 55825), (143, 55864), (150, 55921), (152, 55927),

Gene: Adonis_87 Start: 55591, Stop: 56139, Start Num: 42

Candidate Starts for Adonis_87:

(11, 55435), (Start: 42 @55591 has 89 MA's), (55, 55624), (75, 55699), (80, 55711), (83, 55729), (91, 55777), (96, 55792), (98, 55801), (100, 55807), (102, 55828), (104, 55849), (106, 55867), (109, 55882), (111, 55888), (113, 55894), (118, 55927), (122, 55948), (123, 55951), (128, 55978), (135, 56023), (143, 56062), (150, 56119), (152, 56125),

Gene: Agent47_79 Start: 51751, Stop: 52398, Start Num: 23

Candidate Starts for Agent47_79:

(Start: 23 @51751 has 15 MA's), (27, 51769), (34, 51805), (52, 51865), (59, 51880), (63, 51898), (97, 52045), (101, 52066), (109, 52138), (113, 52150), (115, 52162), (117, 52171), (120, 52198), (135, 52279), (141, 52309), (146, 52351), (151, 52381),

Gene: Ageofdapage_91 Start: 56356, Stop: 56949, Start Num: 42

Candidate Starts for Ageofdapage_91:

(15, 56203), (18, 56230), (Start: 42 @56356 has 89 MA's), (62, 56434), (64, 56461), (83, 56539), (86, 56566), (91, 56587), (96, 56602), (100, 56617), (102, 56638), (103, 56650), (104, 56659), (109, 56692), (111, 56698), (113, 56704), (118, 56737), (128, 56788), (135, 56833), (143, 56872), (150, 56929), (152, 56935),

Gene: AlishaPH_80 Start: 52788, Stop: 53327, Start Num: 42

Candidate Starts for AlishaPH_80:

(Start: 42 @52788 has 89 MA's), (83, 52917), (89, 52959), (91, 52965), (96, 52980), (100, 52995), (102, 53016), (104, 53037), (106, 53055), (109, 53070), (111, 53076), (113, 53082), (115, 53094), (118, 53115), (128, 53166), (135, 53211), (143, 53250), (150, 53307), (152, 53313),

Gene: AlleyCat_80 Start: 52608, Stop: 53252, Start Num: 23

Candidate Starts for AlleyCat_80:

(Start: 22 @52605 has 1 MA's), (Start: 23 @52608 has 15 MA's), (27, 52626), (52, 52722), (59, 52737), (63, 52755), (83, 52851), (99, 52914), (113, 53004), (120, 53052), (126, 53076), (127, 53079), (135, 53133), (137, 53154), (141, 53163), (151, 53235),

Gene: Anaya_90 Start: 56620, Stop: 57162, Start Num: 42

Candidate Starts for Anaya_90:

(15, 56467), (18, 56494), (Start: 42 @56620 has 89 MA's), (53, 56680), (83, 56752), (91, 56800), (96, 56815), (98, 56824), (100, 56830), (102, 56851), (104, 56872), (106, 56890), (109, 56905), (111, 56911), (113, 56917), (118, 56950), (123, 56974), (128, 57001), (135, 57046), (143, 57085), (150, 57142), (152, 57148),

Gene: Angelica_84 Start: 54828, Stop: 55379, Start Num: 42

Candidate Starts for Angelica_84:

(11, 54672), (Start: 42 @54828 has 89 MA's), (55, 54861), (74, 54930), (83, 54969), (89, 55011), (91, 55017), (96, 55032), (98, 55041), (102, 55068), (104, 55089), (106, 55107), (109, 55122), (113, 55134), (115, 55146), (118, 55167), (123, 55191), (128, 55218), (135, 55263), (138, 55287), (143, 55302), (150, 55359), (152, 55365),

Gene: Anma_87 Start: 55830, Stop: 56321, Start Num: 60

Candidate Starts for Anma_87:

(Start: 42 @55782 has 89 MA's), (60, 55830), (83, 55911), (91, 55959), (96, 55974), (98, 55983), (100, 55989), (102, 56010), (103, 56022), (104, 56031), (106, 56049), (109, 56064), (113, 56076), (115, 56088), (118, 56109), (124, 56142), (128, 56160), (129, 56163), (135, 56205), (138, 56229), (143, 56244), (150, 56301), (152, 56307),

Gene: Apocalypse_89 Start: 55750, Stop: 56301, Start Num: 42

Candidate Starts for Apocalypse_89:

(Start: 42 @55750 has 89 MA's), (54, 55783), (83, 55891), (89, 55933), (91, 55939), (96, 55954), (100, 55969), (104, 56011), (106, 56029), (109, 56044), (113, 56056), (115, 56068), (118, 56089), (128, 56140), (135, 56185), (138, 56209), (143, 56224), (150, 56281), (152, 56287),

Gene: Asayake_87 Start: 55717, Stop: 56256, Start Num: 42

Candidate Starts for Asayake_87:

(11, 55561), (Start: 42 @55717 has 89 MA's), (83, 55846), (89, 55888), (91, 55894), (96, 55909), (98, 55918), (100, 55924), (102, 55945), (106, 55984), (109, 55999), (111, 56005), (113, 56011), (118, 56044), (123, 56068), (128, 56095), (135, 56140), (143, 56179), (150, 56236), (152, 56242),

Gene: Atiba_88 Start: 55365, Stop: 55904, Start Num: 42

Candidate Starts for Atiba_88:

(11, 55209), (Start: 42 @55365 has 89 MA's), (83, 55494), (89, 55536), (91, 55542), (96, 55557), (98, 55566), (100, 55572), (102, 55593), (106, 55632), (109, 55647), (111, 55653), (113, 55659), (118, 55692), (123, 55716), (128, 55743), (135, 55788), (143, 55827), (150, 55884), (152, 55890),

Gene: BEEST_87 Start: 55717, Stop: 56256, Start Num: 42

Candidate Starts for BEEST_87:

(11, 55561), (Start: 42 @55717 has 89 MA's), (83, 55846), (89, 55888), (91, 55894), (96, 55909), (98, 55918), (100, 55924), (102, 55945), (106, 55984), (109, 55999), (111, 56005), (113, 56011), (118, 56044), (123, 56068), (128, 56095), (135, 56140), (143, 56179), (150, 56236), (152, 56242),

Gene: BGlluviae_86 Start: 55097, Stop: 55636, Start Num: 42

Candidate Starts for BGlluviae_86:

(Start: 42 @55097 has 89 MA's), (83, 55226), (89, 55268), (91, 55274), (96, 55289), (100, 55304), (102, 55325), (104, 55346), (106, 55364), (109, 55379), (111, 55385), (113, 55391), (118, 55424), (123, 55448), (128, 55475), (135, 55520), (143, 55559), (150, 55616), (152, 55622),

Gene: BaghaKamala_86 Start: 54945, Stop: 55484, Start Num: 42

Candidate Starts for BaghaKamala_86:

(11, 54789), (Start: 42 @54945 has 89 MA's), (83, 55074), (89, 55116), (91, 55122), (96, 55137), (98, 55146), (100, 55152), (102, 55173), (106, 55212), (109, 55227), (111, 55233), (113, 55239), (118, 55272), (123, 55296), (128, 55323), (135, 55368), (143, 55407), (150, 55464), (152, 55470),

Gene: BananenDer11_79 Start: 51715, Stop: 52362, Start Num: 23

Candidate Starts for BananenDer11_79:

(Start: 23 @51715 has 15 MA's), (27, 51733), (34, 51769), (52, 51829), (59, 51844), (77, 51931), (97, 52009), (112, 52111), (113, 52114), (136, 52249), (141, 52273), (146, 52315), (151, 52345),

Gene: BarrelRoll_87 Start: 55476, Stop: 56015, Start Num: 42

Candidate Starts for BarrelRoll_87:

(Start: 42 @55476 has 89 MA's), (56, 55515), (83, 55605), (89, 55647), (91, 55653), (96, 55668), (98, 55677), (100, 55683), (102, 55704), (104, 55725), (106, 55743), (109, 55758), (111, 55764), (113, 55770), (118, 55803), (123, 55827), (128, 55854), (135, 55899), (143, 55938), (150, 55995), (152, 56001),

Gene: Beezoo_90 Start: 56297, Stop: 56845, Start Num: 42

Candidate Starts for Beezoo_90:

(Start: 42 @56297 has 89 MA's), (55, 56330), (75, 56405), (80, 56417), (83, 56435), (91, 56483), (96, 56498), (98, 56507), (100, 56513), (102, 56534), (104, 56555), (106, 56573), (109, 56588), (111, 56594), (113, 56600), (118, 56633), (123, 56657), (128, 56684), (135, 56729), (143, 56768), (150, 56825), (152, 56831),

Gene: Bella96_88 Start: 55904, Stop: 56509, Start Num: 42

Candidate Starts for Bella96_88:

(15, 55757), (18, 55784), (Start: 42 @55904 has 89 MA's), (58, 55991), (62, 56000), (75, 56069), (83, 56099), (87, 56132), (91, 56147), (96, 56162), (98, 56171), (100, 56177), (102, 56198), (103, 56210), (104, 56219), (106, 56237), (109, 56252), (111, 56258), (113, 56264), (115, 56276), (118, 56297), (123, 56321), (128, 56348), (129, 56351), (135, 56393), (138, 56417), (143, 56432), (150, 56489), (152, 56495),

Gene: Belladonna_87 Start: 55520, Stop: 56059, Start Num: 42

Candidate Starts for Belladonna_87:

(11, 55364), (Start: 42 @55520 has 89 MA's), (83, 55649), (89, 55691), (91, 55697), (96, 55712), (98, 55721), (100, 55727), (102, 55748), (106, 55787), (109, 55802), (111, 55808), (113, 55814), (118,

55847), (123, 55871), (128, 55898), (135, 55943), (143, 55982), (150, 56039), (152, 56045),

Gene: Bern_88 Start: 54011, Stop: 54514, Start Num: 42

Candidate Starts for Bern_88:

(18, 53894), (Start: 42 @54011 has 89 MA's), (83, 54104), (91, 54152), (96, 54167), (98, 54176), (100, 54182), (102, 54203), (103, 54215), (104, 54224), (106, 54242), (109, 54257), (111, 54263), (113, 54269), (115, 54281), (118, 54302), (128, 54353), (135, 54398), (138, 54422), (143, 54437), (150, 54494), (152, 54500),

Gene: Blizzard_87 Start: 55717, Stop: 56256, Start Num: 42

Candidate Starts for Blizzard_87:

(11, 55561), (Start: 42 @55717 has 89 MA's), (83, 55846), (89, 55888), (91, 55894), (96, 55909), (98, 55918), (100, 55924), (102, 55945), (106, 55984), (109, 55999), (111, 56005), (113, 56011), (118, 56044), (123, 56068), (128, 56095), (135, 56140), (143, 56179), (150, 56236), (152, 56242),

Gene: Boiiii_87 Start: 55719, Stop: 56258, Start Num: 42

Candidate Starts for Boiiii_87:

(11, 55563), (Start: 42 @55719 has 89 MA's), (83, 55848), (89, 55890), (91, 55896), (96, 55911), (98, 55920), (100, 55926), (102, 55947), (106, 55986), (109, 56001), (111, 56007), (113, 56013), (118, 56046), (123, 56070), (128, 56097), (135, 56142), (143, 56181), (150, 56238), (152, 56244),

Gene: Bryler_86 Start: 53452, Stop: 54183, Start Num: 6

Candidate Starts for Bryler_86:

(Start: 6 @53452 has 10 MA's), (27, 53560), (44, 53599), (47, 53626), (50, 53635), (68, 53713), (77, 53746), (83, 53773), (92, 53818), (107, 53914), (119, 53977), (123, 53989), (128, 54019), (131, 54034), (135, 54064), (143, 54103), (150, 54160), (152, 54166),

Gene: CREW_86 Start: 55520, Stop: 56059, Start Num: 42

Candidate Starts for CREW_86:

(11, 55364), (Start: 42 @55520 has 89 MA's), (83, 55649), (89, 55691), (91, 55697), (96, 55712), (98, 55721), (100, 55727), (102, 55748), (106, 55787), (109, 55802), (111, 55808), (113, 55814), (118, 55847), (123, 55871), (128, 55898), (135, 55943), (143, 55982), (150, 56039), (152, 56045),

Gene: Cain_94 Start: 56599, Stop: 57330, Start Num: 6

Candidate Starts for Cain_94:

(Start: 6 @56599 has 10 MA's), (27, 56707), (44, 56746), (47, 56773), (50, 56782), (68, 56860), (77, 56893), (83, 56920), (92, 56965), (107, 57061), (119, 57124), (123, 57136), (128, 57166), (131, 57181), (135, 57211), (143, 57250), (150, 57307), (152, 57313),

Gene: CallaLilly_87 Start: 55443, Stop: 55982, Start Num: 42

Candidate Starts for CallaLilly_87:

(11, 55287), (Start: 42 @55443 has 89 MA's), (83, 55572), (89, 55614), (91, 55620), (96, 55635), (98, 55644), (100, 55650), (102, 55671), (106, 55710), (109, 55725), (111, 55731), (113, 55737), (118, 55770), (123, 55794), (128, 55821), (135, 55866), (143, 55905), (150, 55962), (152, 55968),

Gene: Capricorn_87 Start: 55520, Stop: 56059, Start Num: 42

Candidate Starts for Capricorn_87:

(11, 55364), (Start: 42 @55520 has 89 MA's), (83, 55649), (89, 55691), (91, 55697), (96, 55712), (98, 55721), (100, 55727), (102, 55748), (106, 55787), (109, 55802), (111, 55808), (113, 55814), (118, 55847), (123, 55871), (128, 55898), (135, 55943), (143, 55982), (150, 56039), (152, 56045),

Gene: CaseJules_89 Start: 55717, Stop: 56256, Start Num: 42

Candidate Starts for CaseJules_89:

(11, 55561), (Start: 42 @55717 has 89 MA's), (83, 55846), (89, 55888), (91, 55894), (96, 55909), (98, 55918), (100, 55924), (102, 55945), (106, 55984), (109, 55999), (111, 56005), (113, 56011), (118, 56044), (123, 56068), (128, 56095), (135, 56140), (143, 56179), (150, 56236), (152, 56242),

Gene: Chavito_87 Start: 56767, Stop: 57426, Start Num: 21

Candidate Starts for Chavito_87:

(Start: 20 @56764 has 1 MA's), (Start: 21 @56767 has 3 MA's), (27, 56803), (32, 56833), (43, 56866), (51, 56887), (54, 56896), (72, 56953), (83, 57001), (91, 57049), (96, 57064), (98, 57073), (102, 57100), (104, 57121), (108, 57151), (117, 57187), (121, 57223), (125, 57244), (132, 57280), (134, 57304), (149, 57400), (152, 57412),

Gene: CheetoDust_87 Start: 54906, Stop: 55457, Start Num: 42

Candidate Starts for CheetoDust_87:

(11, 54750), (Start: 42 @54906 has 89 MA's), (83, 55047), (89, 55089), (91, 55095), (96, 55110), (98, 55119), (100, 55125), (102, 55146), (104, 55167), (106, 55185), (109, 55200), (113, 55212), (115, 55224), (118, 55245), (123, 55269), (128, 55296), (135, 55341), (138, 55365), (143, 55380), (150, 55437), (152, 55443),

Gene: Clipper_91 Start: 56263, Stop: 56739, Start Num: 42

Candidate Starts for Clipper_91:

(18, 56143), (Start: 42 @56263 has 89 MA's), (54, 56296), (83, 56401), (91, 56449), (96, 56464), (99, 56476), (102, 56497), (104, 56518), (106, 56536), (109, 56551), (128, 56578), (135, 56623), (143, 56662), (150, 56719), (152, 56725),

Gene: Collard_77 Start: 51715, Stop: 52362, Start Num: 23

Candidate Starts for Collard_77:

(Start: 23 @51715 has 15 MA's), (27, 51733), (34, 51769), (52, 51829), (59, 51844), (77, 51931), (97, 52009), (112, 52111), (113, 52114), (136, 52249), (141, 52273), (146, 52315), (151, 52345),

Gene: CrimD_87 Start: 55556, Stop: 56107, Start Num: 42

Candidate Starts for CrimD_87:

(15, 55403), (18, 55430), (Start: 42 @55556 has 89 MA's), (83, 55697), (91, 55745), (96, 55760), (98, 55769), (100, 55775), (102, 55796), (104, 55817), (106, 55835), (109, 55850), (111, 55856), (113, 55862), (118, 55895), (123, 55919), (128, 55946), (135, 55991), (143, 56030), (150, 56087), (152, 56093),

Gene: Curiosium_95 Start: 56915, Stop: 57508, Start Num: 42

Candidate Starts for Curiosium_95:

(15, 56762), (18, 56789), (Start: 42 @56915 has 89 MA's), (62, 56993), (80, 57080), (83, 57098), (91, 57146), (96, 57161), (98, 57170), (102, 57197), (103, 57209), (104, 57218), (106, 57236), (118, 57296), (128, 57347), (129, 57350), (134, 57389), (135, 57392), (142, 57428), (150, 57488), (152, 57494),

Gene: Dadosky_80 Start: 52609, Stop: 53253, Start Num: 23

Candidate Starts for Dadosky_80:

(Start: 22 @52606 has 1 MA's), (Start: 23 @52609 has 15 MA's), (27, 52627), (52, 52723), (59, 52738), (63, 52756), (83, 52852), (99, 52915), (113, 53005), (120, 53053), (126, 53077), (127, 53080), (135, 53134), (137, 53155), (141, 53164), (146, 53206), (151, 53236),

Gene: Dalmuri_87 Start: 55520, Stop: 56059, Start Num: 42

Candidate Starts for Dalmuri_87:

(11, 55364), (Start: 42 @55520 has 89 MA's), (83, 55649), (89, 55691), (91, 55697), (96, 55712), (98, 55721), (100, 55727), (102, 55748), (106, 55787), (109, 55802), (111, 55808), (113, 55814), (118,

55847), (123, 55871), (128, 55898), (135, 55943), (143, 55982), (150, 56039), (152, 56045),

Gene: DartGoblin_87 Start: 55630, Stop: 56169, Start Num: 42

Candidate Starts for DartGoblin_87:

(10, 55477), (41, 55627), (Start: 42 @55630 has 89 MA's), (83, 55759), (91, 55807), (96, 55822), (98, 55831), (100, 55837), (102, 55858), (103, 55870), (104, 55879), (106, 55897), (109, 55912), (111, 55918), (113, 55924), (115, 55936), (118, 55957), (123, 55981), (128, 56008), (135, 56053), (138, 56077), (143, 56092), (150, 56149), (152, 56155),

Gene: Dartin_87 Start: 56409, Stop: 57068, Start Num: 21

Candidate Starts for Dartin_87:

(Start: 20 @56406 has 1 MA's), (Start: 21 @56409 has 3 MA's), (32, 56475), (43, 56508), (51, 56529), (54, 56538), (72, 56595), (83, 56643), (91, 56691), (96, 56706), (98, 56715), (102, 56742), (104, 56763), (108, 56793), (117, 56829), (121, 56865), (125, 56886), (132, 56922), (134, 56946), (135, 56949), (149, 57042), (152, 57054),

Gene: Deby_87 Start: 56043, Stop: 56654, Start Num: 42

Candidate Starts for Deby_87:

(15, 55890), (18, 55917), (Start: 42 @56043 has 89 MA's), (62, 56139), (80, 56226), (83, 56244), (91, 56292), (96, 56307), (102, 56343), (104, 56364), (106, 56382), (109, 56397), (111, 56403), (113, 56409), (118, 56442), (123, 56466), (128, 56493), (135, 56538), (143, 56577), (150, 56634), (152, 56640),

Gene: Devera_93 Start: 56388, Stop: 56936, Start Num: 42

Candidate Starts for Devera_93:

(Start: 42 @56388 has 89 MA's), (55, 56421), (80, 56508), (83, 56526), (91, 56574), (96, 56589), (98, 56598), (100, 56604), (102, 56625), (104, 56646), (106, 56664), (109, 56679), (111, 56685), (113, 56691), (118, 56724), (128, 56775), (130, 56784), (135, 56820), (141, 56850), (150, 56916), (152, 56922),

Gene: Dole_90 Start: 56391, Stop: 56939, Start Num: 42

Candidate Starts for Dole_90:

(Start: 42 @56391 has 89 MA's), (55, 56424), (80, 56511), (83, 56529), (91, 56577), (96, 56592), (98, 56601), (100, 56607), (102, 56628), (104, 56649), (106, 56667), (109, 56682), (111, 56688), (113, 56694), (118, 56727), (128, 56778), (130, 56787), (135, 56823), (141, 56853), (150, 56919), (152, 56925),

Gene: DoubleChamp_76 Start: 51715, Stop: 52362, Start Num: 23

Candidate Starts for DoubleChamp_76:

(Start: 23 @51715 has 15 MA's), (27, 51733), (34, 51769), (52, 51829), (59, 51844), (77, 51931), (97, 52009), (112, 52111), (113, 52114), (136, 52249), (141, 52273), (146, 52315), (151, 52345),

Gene: DrHayes_87 Start: 55782, Stop: 56321, Start Num: 42

Candidate Starts for DrHayes_87:

(Start: 42 @55782 has 89 MA's), (60, 55830), (83, 55911), (91, 55959), (96, 55974), (98, 55983), (100, 55989), (102, 56010), (103, 56022), (104, 56031), (106, 56049), (109, 56064), (113, 56076), (115, 56088), (118, 56109), (124, 56142), (128, 56160), (129, 56163), (135, 56205), (138, 56229), (143, 56244), (150, 56301), (152, 56307),

Gene: Durfee_87 Start: 55717, Stop: 56256, Start Num: 42

Candidate Starts for Durfee_87:

(11, 55561), (Start: 42 @55717 has 89 MA's), (83, 55846), (89, 55888), (91, 55894), (96, 55909), (98, 55918), (100, 55924), (102, 55945), (106, 55984), (109, 55999), (111, 56005), (113, 56011), (118,

56044), (123, 56068), (128, 56095), (135, 56140), (143, 56179), (150, 56236), (152, 56242),

Gene: Edugator_76 Start: 53777, Stop: 54424, Start Num: 22

Candidate Starts for Edugator_76:

(Start: 22 @53777 has 1 MA's), (Start: 23 @53780 has 15 MA's), (27, 53798), (52, 53894), (59, 53909), (63, 53927), (83, 54023), (99, 54086), (113, 54176), (120, 54224), (126, 54248), (127, 54251), (135, 54305), (137, 54326), (141, 54335), (146, 54377), (151, 54407),

Gene: Efra2_94 Start: 56866, Stop: 57423, Start Num: 42

Candidate Starts for Efra2_94:

(Start: 42 @56866 has 89 MA's), (54, 56899), (74, 56971), (83, 57010), (89, 57052), (91, 57058), (96, 57073), (100, 57088), (102, 57109), (104, 57130), (106, 57148), (107, 57154), (108, 57160), (114, 57184), (118, 57208), (123, 57232), (134, 57301), (142, 57340), (145, 57370), (149, 57397), (152, 57409),

Gene: Emerson_89 Start: 55720, Stop: 56331, Start Num: 42

Candidate Starts for Emerson_89:

(15, 55567), (18, 55594), (Start: 42 @55720 has 89 MA's), (58, 55807), (80, 55903), (83, 55921), (91, 55969), (94, 55975), (96, 55984), (102, 56020), (104, 56041), (106, 56059), (109, 56074), (113, 56086), (118, 56119), (123, 56143), (128, 56170), (135, 56215), (143, 56254), (150, 56311), (152, 56317),

Gene: Feyre_82 Start: 55415, Stop: 56056, Start Num: 24

Candidate Starts for Feyre_82:

(8, 55322), (17, 55373), (Start: 24 @55415 has 9 MA's), (26, 55430), (27, 55436), (34, 55472), (39, 55487), (52, 55532), (97, 55709), (120, 55856), (146, 56009), (152, 56042),

Gene: Ganymede_87 Start: 55523, Stop: 56071, Start Num: 42

Candidate Starts for Ganymede_87:

(Start: 42 @55523 has 89 MA's), (55, 55556), (75, 55631), (80, 55643), (83, 55661), (91, 55709), (96, 55724), (98, 55733), (100, 55739), (102, 55760), (104, 55781), (106, 55799), (109, 55814), (111, 55820), (113, 55826), (118, 55859), (123, 55883), (128, 55910), (135, 55955), (143, 55994), (150, 56051), (152, 56057),

Gene: Gengar_81 Start: 54230, Stop: 54871, Start Num: 24

Candidate Starts for Gengar_81:

(1, 53843), (2, 53900), (8, 54137), (17, 54188), (Start: 24 @54230 has 9 MA's), (26, 54245), (34, 54287), (39, 54302), (52, 54347), (98, 54533), (120, 54671), (141, 54782), (146, 54824), (152, 54857),

Gene: Geraldini_89 Start: 55561, Stop: 56172, Start Num: 42

Candidate Starts for Geraldini_89:

(15, 55408), (18, 55435), (Start: 42 @55561 has 89 MA's), (58, 55648), (75, 55732), (80, 55744), (83, 55762), (91, 55810), (96, 55825), (100, 55840), (102, 55861), (104, 55882), (106, 55900), (109, 55915), (111, 55921), (113, 55927), (118, 55960), (123, 55984), (128, 56011), (135, 56056), (138, 56080), (143, 56095), (150, 56152), (152, 56158),

Gene: Guanica15_93 Start: 56558, Stop: 57112, Start Num: 42

Candidate Starts for Guanica15_93:

(Start: 42 @56558 has 89 MA's), (54, 56591), (80, 56681), (89, 56741), (91, 56747), (96, 56762), (100, 56777), (102, 56798), (104, 56819), (106, 56837), (107, 56843), (108, 56849), (114, 56873), (118, 56897), (123, 56921), (134, 56990), (142, 57029), (145, 57059), (149, 57086), (152, 57098),

Gene: Guillsminger_82 Start: 54078, Stop: 54719, Start Num: 24

Candidate Starts for Guillsminger_82:

(Start: 24 @54078 has 9 MA's), (26, 54093), (34, 54135), (39, 54150), (52, 54195), (63, 54225), (77, 54294), (97, 54372), (98, 54381), (113, 54471), (115, 54483), (120, 54519), (146, 54672), (151, 54702), (152, 54705),

Gene: HedwigODU_87 Start: 55559, Stop: 56098, Start Num: 42

Candidate Starts for HedwigODU_87:

(11, 55403), (Start: 42 @55559 has 89 MA's), (83, 55688), (89, 55730), (91, 55736), (96, 55751), (98, 55760), (100, 55766), (102, 55787), (106, 55826), (109, 55841), (111, 55847), (113, 55853), (115, 55865), (118, 55886), (128, 55937), (135, 55982), (143, 56021), (150, 56078), (152, 56084),

Gene: Heftyboy_79 Start: 53442, Stop: 54089, Start Num: 23

Candidate Starts for Heftyboy_79:

(Start: 23 @53442 has 15 MA's), (27, 53460), (34, 53496), (52, 53556), (59, 53571), (77, 53658), (97, 53736), (112, 53838), (113, 53841), (136, 53976), (141, 54000), (146, 54042), (151, 54072),

Gene: Homura_86 Start: 55520, Stop: 56059, Start Num: 42

Candidate Starts for Homura_86:

(11, 55364), (Start: 42 @55520 has 89 MA's), (83, 55649), (89, 55691), (91, 55697), (96, 55712), (98, 55721), (100, 55727), (102, 55748), (106, 55787), (109, 55802), (111, 55808), (113, 55814), (118, 55847), (123, 55871), (128, 55898), (135, 55943), (143, 55982), (150, 56039), (152, 56045),

Gene: Hurricane_86 Start: 54730, Stop: 55197, Start Num: 65

Candidate Starts for Hurricane_86:

(Start: 65 @54730 has 7 MA's), (73, 54763), (76, 54778), (84, 54826), (106, 54952), (108, 54964), (125, 55012), (128, 55030), (149, 55168), (151, 55177), (152, 55180),

Gene: Hyperbowlee_86 Start: 55717, Stop: 56256, Start Num: 42

Candidate Starts for Hyperbowlee_86:

(11, 55561), (Start: 42 @55717 has 89 MA's), (83, 55846), (89, 55888), (91, 55894), (96, 55909), (98, 55918), (100, 55924), (102, 55945), (106, 55984), (109, 55999), (111, 56005), (113, 56011), (118, 56044), (123, 56068), (128, 56095), (135, 56140), (143, 56179), (150, 56236), (152, 56242),

Gene: Illumine_91 Start: 56390, Stop: 56938, Start Num: 42

Candidate Starts for Illumine_91:

(Start: 42 @56390 has 89 MA's), (55, 56423), (80, 56510), (83, 56528), (91, 56576), (96, 56591), (98, 56600), (100, 56606), (102, 56627), (104, 56648), (106, 56666), (109, 56681), (111, 56687), (113, 56693), (118, 56726), (128, 56777), (130, 56786), (135, 56822), (141, 56852), (150, 56918), (152, 56924),

Gene: Inky_87 Start: 55520, Stop: 56059, Start Num: 42

Candidate Starts for Inky_87:

(11, 55364), (Start: 42 @55520 has 89 MA's), (83, 55649), (89, 55691), (91, 55697), (96, 55712), (98, 55721), (100, 55727), (102, 55748), (106, 55787), (109, 55802), (111, 55808), (113, 55814), (118, 55847), (123, 55871), (128, 55898), (135, 55943), (143, 55982), (150, 56039), (152, 56045),

Gene: InvictusManeo_77 Start: 51755, Stop: 52402, Start Num: 23

Candidate Starts for InvictusManeo_77:

(Start: 23 @51755 has 15 MA's), (27, 51773), (34, 51809), (52, 51869), (59, 51884), (63, 51902), (97, 52049), (101, 52070), (109, 52142), (113, 52154), (115, 52166), (117, 52175), (120, 52202), (135, 52283), (141, 52313), (146, 52355), (151, 52385),

Gene: JAWS_86 Start: 55506, Stop: 56045, Start Num: 42

Candidate Starts for JAWS_86:

(11, 55350), (Start: 42 @55506 has 89 MA's), (83, 55635), (89, 55677), (91, 55683), (96, 55698), (100, 55713), (102, 55734), (106, 55773), (109, 55788), (111, 55794), (113, 55800), (115, 55812), (118, 55833), (128, 55884), (135, 55929), (143, 55968), (150, 56025), (152, 56031),

Gene: Jarvi_87 Start: 55520, Stop: 56059, Start Num: 42

Candidate Starts for Jarvi_87:

(11, 55364), (Start: 42 @55520 has 89 MA's), (83, 55649), (89, 55691), (91, 55697), (96, 55712), (98, 55721), (100, 55727), (102, 55748), (106, 55787), (109, 55802), (111, 55808), (113, 55814), (118, 55847), (123, 55871), (128, 55898), (135, 55943), (143, 55982), (150, 56039), (152, 56045),

Gene: Jayhawk_89 Start: 55536, Stop: 56075, Start Num: 42

Candidate Starts for Jayhawk_89:

(Start: 42 @55536 has 89 MA's), (56, 55575), (83, 55665), (89, 55707), (91, 55713), (96, 55728), (98, 55737), (100, 55743), (102, 55764), (104, 55785), (106, 55803), (109, 55818), (111, 55824), (113, 55830), (118, 55863), (123, 55887), (128, 55914), (135, 55959), (143, 55998), (150, 56055), (152, 56061),

Gene: Jeckyll_87 Start: 55520, Stop: 56059, Start Num: 42

Candidate Starts for Jeckyll_87:

(11, 55364), (Start: 42 @55520 has 89 MA's), (83, 55649), (89, 55691), (91, 55697), (96, 55712), (98, 55721), (100, 55727), (102, 55748), (106, 55787), (109, 55802), (111, 55808), (113, 55814), (118, 55847), (123, 55871), (128, 55898), (135, 55943), (143, 55982), (150, 56039), (152, 56045),

Gene: Joy99_88 Start: 55649, Stop: 56188, Start Num: 42

Candidate Starts for Joy99_88:

(11, 55493), (Start: 42 @55649 has 89 MA's), (83, 55778), (89, 55820), (91, 55826), (96, 55841), (98, 55850), (100, 55856), (102, 55877), (106, 55916), (109, 55931), (111, 55937), (113, 55943), (118, 55976), (123, 56000), (128, 56027), (135, 56072), (143, 56111), (150, 56168), (152, 56174),

Gene: Keshu_88 Start: 55022, Stop: 55489, Start Num: 65

Candidate Starts for Keshu_88:

(Start: 65 @55022 has 7 MA's), (73, 55055), (76, 55070), (84, 55118), (106, 55244), (108, 55256), (125, 55304), (128, 55322), (149, 55460), (151, 55469), (152, 55472),

Gene: Kratio_80 Start: 52503, Stop: 53210, Start Num: 23

Candidate Starts for Kratio_80:

(Start: 22 @52500 has 1 MA's), (Start: 23 @52503 has 15 MA's), (27, 52521), (52, 52617), (59, 52632), (63, 52650), (83, 52746), (99, 52809), (113, 52899), (126, 52971), (127, 52974), (135, 53028), (141, 53058), (146, 53100), (151, 53130),

Gene: Krueger_91 Start: 55693, Stop: 56526, Start Num: 6

Candidate Starts for Krueger_91:

(Start: 5 @55687 has 1 MA's), (Start: 6 @55693 has 10 MA's), (9, 55735), (13, 55747), (Start: 20 @55804 has 1 MA's), (27, 55843), (50, 55978), (61, 56020), (77, 56089), (83, 56116), (100, 56188), (107, 56257), (119, 56320), (123, 56332), (128, 56362), (131, 56377), (135, 56407), (137, 56428), (138, 56431), (143, 56446), (148, 56497), (150, 56503), (152, 56509),

Gene: Larva_79 Start: 53481, Stop: 54125, Start Num: 23

Candidate Starts for Larva_79:

(Start: 22 @53478 has 1 MA's), (Start: 23 @53481 has 15 MA's), (27, 53499), (52, 53595), (59, 53610), (63, 53628), (83, 53724), (99, 53787), (113, 53877), (120, 53925), (126, 53949), (127, 53952), (135, 54006), (137, 54027), (141, 54036), (146, 54078), (151, 54108),

Gene: LastHope_93 Start: 56273, Stop: 56836, Start Num: 42

Candidate Starts for LastHope_93:

(Start: 42 @56273 has 89 MA's), (54, 56306), (75, 56381), (87, 56456), (91, 56471), (96, 56486), (98, 56495), (100, 56501), (102, 56522), (104, 56543), (106, 56561), (107, 56567), (108, 56573), (113, 56588), (114, 56597), (118, 56621), (123, 56645), (134, 56714), (135, 56717), (137, 56738), (141, 56747), (143, 56756), (145, 56783), (149, 56810),

Gene: LaterM_87 Start: 55885, Stop: 56478, Start Num: 42

Candidate Starts for LaterM_87:

(Start: 42 @55885 has 89 MA's), (55, 55963), (64, 55990), (83, 56068), (86, 56095), (91, 56116), (96, 56131), (100, 56146), (102, 56167), (103, 56179), (104, 56188), (109, 56221), (111, 56227), (113, 56233), (115, 56245), (124, 56299), (128, 56317), (129, 56320), (135, 56362), (143, 56401), (150, 56458), (152, 56464),

Gene: Lea83_86 Start: 54851, Stop: 55318, Start Num: 65

Candidate Starts for Lea83_86:

(Start: 65 @54851 has 7 MA's), (73, 54884), (76, 54899), (84, 54947), (106, 55073), (108, 55085), (116, 55103), (125, 55133), (128, 55151), (149, 55289), (151, 55298), (152, 55301),

Gene: Leston_81 Start: 54195, Stop: 54836, Start Num: 24

Candidate Starts for Leston_81:

(Start: 24 @54195 has 9 MA's), (26, 54210), (34, 54252), (39, 54267), (52, 54312), (63, 54342), (77, 54411), (97, 54489), (113, 54588), (115, 54600), (120, 54636), (146, 54789), (152, 54822),

Gene: LilDirt_78 Start: 51516, Stop: 52163, Start Num: 23

Candidate Starts for LilDirt_78:

(Start: 23 @51516 has 15 MA's), (27, 51534), (34, 51570), (52, 51630), (59, 51645), (77, 51732), (97, 51810), (112, 51912), (113, 51915), (136, 52050), (141, 52074), (146, 52116), (151, 52146),

Gene: LindNT_85 Start: 55622, Stop: 56173, Start Num: 42

Candidate Starts for LindNT_85:

(3, 55286), (Start: 42 @55622 has 89 MA's), (55, 55655), (75, 55733), (80, 55745), (83, 55763), (91, 55811), (96, 55826), (98, 55835), (100, 55841), (102, 55862), (104, 55883), (106, 55901), (109, 55916), (111, 55922), (113, 55928), (118, 55961), (123, 55985), (128, 56012), (135, 56057), (143, 56096), (150, 56153), (152, 56159),

Gene: Llorens_87 Start: 55520, Stop: 56059, Start Num: 42

Candidate Starts for Llorens_87:

(11, 55364), (Start: 42 @55520 has 89 MA's), (83, 55649), (89, 55691), (91, 55697), (96, 55712), (98, 55721), (100, 55727), (102, 55748), (106, 55787), (109, 55802), (111, 55808), (113, 55814), (118, 55847), (123, 55871), (128, 55898), (135, 55943), (143, 55982), (150, 56039), (152, 56045),

Gene: Lunahalos_87 Start: 55520, Stop: 56059, Start Num: 42

Candidate Starts for Lunahalos_87:

(11, 55364), (Start: 42 @55520 has 89 MA's), (83, 55649), (89, 55691), (91, 55697), (96, 55712), (98, 55721), (100, 55727), (102, 55748), (106, 55787), (109, 55802), (111, 55808), (113, 55814), (118, 55847), (123, 55871), (128, 55898), (135, 55943), (143, 55982), (150, 56039), (152, 56045),

Gene: MacKat_83 Start: 51147, Stop: 51623, Start Num: 42

Candidate Starts for MacKat_83:

(18, 51027), (Start: 42 @51147 has 89 MA's), (54, 51180), (83, 51285), (91, 51333), (96, 51348), (99, 51360), (102, 51381), (104, 51402), (106, 51420), (109, 51435), (128, 51462), (135, 51507), (143,

51546), (150, 51603), (152, 51609),

Gene: MacnCheese_87 Start: 55279, Stop: 55746, Start Num: 65

Candidate Starts for MacnCheese_87:

(Start: 65 @55279 has 7 MA's), (76, 55330), (84, 55378), (89, 55408), (100, 55444), (102, 55465), (106, 55504), (108, 55516), (125, 55564), (136, 55630), (140, 55654), (149, 55720), (151, 55729),

Gene: McMater_87 Start: 56409, Stop: 57068, Start Num: 21

Candidate Starts for McMater_87:

(Start: 20 @56406 has 1 MA's), (Start: 21 @56409 has 3 MA's), (32, 56475), (43, 56508), (51, 56529), (54, 56538), (72, 56595), (83, 56643), (91, 56691), (96, 56706), (98, 56715), (102, 56742), (104, 56763), (108, 56793), (117, 56829), (121, 56865), (125, 56886), (132, 56922), (134, 56946), (135, 56949), (149, 57042), (152, 57054),

Gene: MeaningOfLife_89 Start: 56205, Stop: 56744, Start Num: 42

Candidate Starts for MeaningOfLife_89:

(Start: 42 @56205 has 89 MA's), (83, 56334), (89, 56376), (91, 56382), (96, 56397), (98, 56406), (100, 56412), (102, 56433), (104, 56454), (106, 56472), (109, 56487), (111, 56493), (113, 56499), (118, 56532), (123, 56556), (128, 56583), (135, 56628), (143, 56667), (150, 56724), (152, 56730),

Gene: Megsy_91 Start: 55851, Stop: 56402, Start Num: 42

Candidate Starts for Megsy_91:

(15, 55698), (18, 55725), (Start: 42 @55851 has 89 MA's), (75, 55962), (80, 55974), (83, 55992), (91, 56040), (96, 56055), (98, 56064), (102, 56091), (104, 56112), (106, 56130), (109, 56145), (111, 56151), (113, 56157), (118, 56190), (123, 56214), (128, 56241), (135, 56286), (143, 56325), (150, 56382), (152, 56388),

Gene: Miryou_83 Start: 56053, Stop: 56694, Start Num: 24

Candidate Starts for Miryou_83:

(Start: 24 @56053 has 9 MA's), (26, 56068), (27, 56074), (34, 56110), (39, 56125), (52, 56170), (63, 56200), (75, 56266), (77, 56269), (98, 56356), (120, 56494), (141, 56605), (146, 56647), (152, 56680),

Gene: Murucutumbu_87 Start: 56412, Stop: 56960, Start Num: 42

Candidate Starts for Murucutumbu_87:

(11, 56256), (Start: 42 @56412 has 89 MA's), (55, 56445), (77, 56523), (83, 56550), (91, 56598), (96, 56613), (98, 56622), (100, 56628), (102, 56649), (104, 56670), (106, 56688), (109, 56703), (111, 56709), (113, 56715), (115, 56727), (124, 56781), (128, 56799), (129, 56802), (135, 56844), (143, 56883), (150, 56940), (152, 56946),

Gene: Mynx_88 Start: 55828, Stop: 56367, Start Num: 42

Candidate Starts for Mynx_88:

(11, 55672), (Start: 42 @55828 has 89 MA's), (83, 55957), (89, 55999), (91, 56005), (96, 56020), (98, 56029), (100, 56035), (102, 56056), (104, 56077), (106, 56095), (109, 56110), (113, 56122), (115, 56134), (118, 56155), (123, 56179), (128, 56206), (135, 56251), (143, 56290), (150, 56347), (152, 56353),

Gene: Neighly_80 Start: 53480, Stop: 54124, Start Num: 23

Candidate Starts for Neighly_80:

(Start: 22 @53477 has 1 MA's), (Start: 23 @53480 has 15 MA's), (27, 53498), (52, 53594), (59, 53609), (63, 53627), (83, 53723), (99, 53786), (113, 53876), (120, 53924), (126, 53948), (127, 53951), (135, 54005), (137, 54026), (141, 54035), (146, 54077), (151, 54107),

Gene: Niklas_88 Start: 56449, Stop: 57108, Start Num: 21

Candidate Starts for Niklas_88:

(Start: 20 @56446 has 1 MA's), (Start: 21 @56449 has 3 MA's), (32, 56515), (43, 56548), (51, 56569), (54, 56578), (72, 56635), (83, 56683), (91, 56731), (96, 56746), (98, 56755), (102, 56782), (104, 56803), (108, 56833), (117, 56869), (121, 56905), (125, 56926), (132, 56962), (134, 56986), (135, 56989), (144, 57049), (149, 57082), (152, 57094),

Gene: OkiRoe_82 Start: 55193, Stop: 55834, Start Num: 24

Candidate Starts for OkiRoe_82:

(1, 54806), (2, 54863), (8, 55100), (17, 55151), (Start: 24 @55193 has 9 MA's), (26, 55208), (34, 55250), (39, 55265), (52, 55310), (98, 55496), (105, 55553), (120, 55634), (134, 55712), (146, 55787), (151, 55817), (152, 55820),

Gene: Omnicron_84 Start: 56077, Stop: 56712, Start Num: 23

Candidate Starts for Omnicron_84:

(Start: 23 @56077 has 15 MA's), (27, 56098), (52, 56185), (59, 56200), (63, 56218), (105, 56431), (113, 56464), (151, 56695),

Gene: Padfoot_87 Start: 55717, Stop: 56256, Start Num: 42

Candidate Starts for Padfoot_87:

(11, 55561), (Start: 42 @55717 has 89 MA's), (83, 55846), (89, 55888), (91, 55894), (96, 55909), (98, 55918), (100, 55924), (102, 55945), (106, 55984), (109, 55999), (111, 56005), (113, 56011), (118, 56044), (123, 56068), (128, 56095), (135, 56140), (143, 56179), (150, 56236), (152, 56242),

Gene: Padpat_90 Start: 55720, Stop: 56331, Start Num: 42

Candidate Starts for Padpat_90:

(15, 55567), (18, 55594), (Start: 42 @55720 has 89 MA's), (58, 55807), (80, 55903), (83, 55921), (91, 55969), (94, 55975), (96, 55984), (102, 56020), (104, 56041), (106, 56059), (109, 56074), (113, 56086), (118, 56119), (123, 56143), (128, 56170), (135, 56215), (143, 56254), (150, 56311), (152, 56317),

Gene: Paola_81 Start: 54078, Stop: 54719, Start Num: 24

Candidate Starts for Paola_81:

(Start: 24 @54078 has 9 MA's), (26, 54093), (34, 54135), (39, 54150), (52, 54195), (63, 54225), (77, 54294), (97, 54372), (98, 54381), (113, 54471), (115, 54483), (120, 54519), (146, 54672), (151, 54702), (152, 54705),

Gene: Peanam_88 Start: 56428, Stop: 57087, Start Num: 21

Candidate Starts for Peanam_88:

(Start: 20 @56425 has 1 MA's), (Start: 21 @56428 has 3 MA's), (27, 56464), (29, 56479), (32, 56494), (43, 56527), (51, 56548), (54, 56557), (72, 56614), (83, 56662), (91, 56710), (96, 56725), (98, 56734), (102, 56761), (104, 56782), (108, 56812), (117, 56848), (121, 56884), (125, 56905), (132, 56941), (134, 56965), (149, 57061), (152, 57073),

Gene: Peel_87 Start: 55522, Stop: 56061, Start Num: 42

Candidate Starts for Peel_87:

(11, 55366), (Start: 42 @55522 has 89 MA's), (83, 55651), (89, 55693), (91, 55699), (96, 55714), (98, 55723), (100, 55729), (102, 55750), (106, 55789), (109, 55804), (111, 55810), (113, 55816), (118, 55849), (123, 55873), (128, 55900), (135, 55945), (143, 55984), (150, 56041), (152, 56047),

Gene: Pharb_86 Start: 54652, Stop: 55125, Start Num: 66

Candidate Starts for Pharb_86:

(Start: 66 @54652 has 2 MA's), (71, 54682), (76, 54703), (87, 54775), (89, 54784), (93, 54793), (96, 54805), (98, 54814), (100, 54820), (102, 54841), (106, 54880), (108, 54892), (113, 54907), (117,

54916), (118, 54928), (125, 54940), (128, 54958), (134, 54997), (142, 55039), (149, 55096), (151, 55105), (152, 55108),

Gene: PhelpsODU_84 Start: 52304, Stop: 53098, Start Num: 6

Candidate Starts for PhelpsODU_84:

(Start: 6 @52304 has 10 MA's), (9, 52346), (27, 52454), (28, 52457), (35, 52484), (46, 52526), (49, 52547), (57, 52583), (61, 52592), (67, 52625), (77, 52664), (98, 52757), (100, 52763), (102, 52784), (107, 52829), (110, 52841), (119, 52892), (128, 52934), (131, 52949), (135, 52979), (143, 53018), (150, 53075), (152, 53081),

Gene: Phrank_94 Start: 56586, Stop: 57317, Start Num: 6

Candidate Starts for Phrank_94:

(Start: 6 @56586 has 10 MA's), (27, 56694), (44, 56733), (47, 56760), (50, 56769), (68, 56847), (77, 56880), (83, 56907), (92, 56952), (107, 57048), (119, 57111), (123, 57123), (128, 57153), (131, 57168), (135, 57198), (143, 57237), (150, 57294), (152, 57300),

Gene: Piatt_86 Start: 55717, Stop: 56256, Start Num: 42

Candidate Starts for Piatt_86:

(11, 55561), (Start: 42 @55717 has 89 MA's), (83, 55846), (89, 55888), (91, 55894), (96, 55909), (98, 55918), (100, 55924), (102, 55945), (106, 55984), (109, 55999), (111, 56005), (113, 56011), (118, 56044), (123, 56068), (128, 56095), (135, 56140), (143, 56179), (150, 56236), (152, 56242),

Gene: Pisa1_87 Start: 55884, Stop: 56387, Start Num: 42

Candidate Starts for Pisa1_87:

(18, 55767), (Start: 42 @55884 has 89 MA's), (83, 55977), (91, 56025), (96, 56040), (98, 56049), (100, 56055), (102, 56076), (103, 56088), (104, 56097), (106, 56115), (109, 56130), (111, 56136), (113, 56142), (115, 56154), (118, 56175), (124, 56208), (128, 56226), (135, 56271), (143, 56310), (150, 56367), (152, 56373),

Gene: Pisa4_81 Start: 51253, Stop: 51756, Start Num: 42

Candidate Starts for Pisa4_81:

(18, 51136), (Start: 42 @51253 has 89 MA's), (83, 51346), (91, 51394), (96, 51409), (98, 51418), (100, 51424), (102, 51445), (103, 51457), (104, 51466), (106, 51484), (109, 51499), (111, 51505), (113, 51511), (115, 51523), (118, 51544), (124, 51577), (128, 51595), (135, 51640), (143, 51679), (150, 51736), (152, 51742),

Gene: Pixie_85 Start: 54434, Stop: 54901, Start Num: 65

Candidate Starts for Pixie_85:

(Start: 65 @54434 has 7 MA's), (73, 54467), (76, 54482), (84, 54530), (106, 54656), (108, 54668), (116, 54686), (125, 54716), (128, 54734), (149, 54872), (151, 54881), (152, 54884),

Gene: Pokerus_87 Start: 55526, Stop: 56065, Start Num: 42

Candidate Starts for Pokerus_87:

(Start: 42 @55526 has 89 MA's), (83, 55655), (89, 55697), (91, 55703), (96, 55718), (98, 55727), (100, 55733), (102, 55754), (106, 55793), (109, 55808), (113, 55820), (118, 55853), (123, 55877), (128, 55904), (135, 55949), (143, 55988), (150, 56045), (152, 56051),

Gene: Prithvi_89 Start: 55920, Stop: 56471, Start Num: 42

Candidate Starts for Prithvi_89:

(7, 55740), (11, 55764), (Start: 42 @55920 has 89 MA's), (55, 55953), (75, 56031), (80, 56043), (83, 56061), (91, 56109), (96, 56124), (98, 56133), (100, 56139), (102, 56160), (104, 56181), (106, 56199), (109, 56214), (111, 56220), (113, 56226), (118, 56259), (123, 56283), (128, 56310), (134, 56352), (135, 56355), (138, 56379), (143, 56394), (150, 56451), (152, 56457),

Gene: Psycho_78 Start: 52606, Stop: 53250, Start Num: 23

Candidate Starts for Psycho_78:

(Start: 22 @52603 has 1 MA's), (Start: 23 @52606 has 15 MA's), (27, 52624), (52, 52720), (59, 52735), (63, 52753), (83, 52849), (99, 52912), (113, 53002), (120, 53050), (126, 53074), (127, 53077), (135, 53131), (137, 53152), (141, 53161), (146, 53203), (151, 53233),

Gene: QuincyRose_85 Start: 55523, Stop: 56071, Start Num: 42

Candidate Starts for QuincyRose_85:

(Start: 42 @55523 has 89 MA's), (55, 55556), (75, 55631), (80, 55643), (83, 55661), (91, 55709), (96, 55724), (98, 55733), (100, 55739), (102, 55760), (104, 55781), (106, 55799), (109, 55814), (111, 55820), (113, 55826), (118, 55859), (123, 55883), (128, 55910), (135, 55955), (143, 55994), (150, 56051), (152, 56057),

Gene: Ramen_88 Start: 55275, Stop: 55814, Start Num: 42

Candidate Starts for Ramen_88:

(Start: 42 @55275 has 89 MA's), (56, 55314), (83, 55404), (89, 55446), (91, 55452), (96, 55467), (98, 55476), (100, 55482), (102, 55503), (104, 55524), (106, 55542), (109, 55557), (111, 55563), (118, 55602), (123, 55626), (128, 55653), (135, 55698), (143, 55737), (150, 55794), (152, 55800),

Gene: Rando14_81 Start: 54488, Stop: 55123, Start Num: 23

Candidate Starts for Rando14_81:

(Start: 23 @54488 has 15 MA's), (27, 54509), (52, 54596), (59, 54611), (63, 54629), (105, 54842), (113, 54875), (151, 55106),

Gene: Rapunzel97_89 Start: 55491, Stop: 56030, Start Num: 42

Candidate Starts for Rapunzel97_89:

(Start: 42 @55491 has 89 MA's), (56, 55530), (83, 55620), (89, 55662), (91, 55668), (96, 55683), (98, 55692), (100, 55698), (102, 55719), (104, 55740), (106, 55758), (109, 55773), (111, 55779), (113, 55785), (118, 55818), (123, 55842), (128, 55869), (135, 55914), (143, 55953), (150, 56010), (152, 56016),

Gene: Richo_87 Start: 56409, Stop: 57068, Start Num: 21

Candidate Starts for Richo_87:

(Start: 20 @56406 has 1 MA's), (Start: 21 @56409 has 3 MA's), (32, 56475), (43, 56508), (51, 56529), (54, 56538), (72, 56595), (83, 56643), (91, 56691), (96, 56706), (98, 56715), (102, 56742), (104, 56763), (108, 56793), (117, 56829), (121, 56865), (125, 56886), (132, 56922), (134, 56946), (135, 56949), (149, 57042), (152, 57054),

Gene: Rosmarinus_87 Start: 55508, Stop: 56047, Start Num: 42

Candidate Starts for Rosmarinus_87:

(11, 55352), (Start: 42 @55508 has 89 MA's), (75, 55607), (83, 55637), (89, 55679), (91, 55685), (96, 55700), (98, 55709), (100, 55715), (102, 55736), (106, 55775), (109, 55790), (111, 55796), (113, 55802), (118, 55835), (123, 55859), (128, 55886), (135, 55931), (143, 55970), (150, 56027), (152, 56033),

Gene: SamuelLPlaqson_87 Start: 55782, Stop: 56321, Start Num: 42

Candidate Starts for SamuelLPlaqson_87:

(Start: 42 @55782 has 89 MA's), (60, 55830), (83, 55911), (91, 55959), (96, 55974), (98, 55983), (100, 55989), (102, 56010), (103, 56022), (104, 56031), (106, 56049), (109, 56064), (113, 56076), (115, 56088), (118, 56109), (124, 56142), (128, 56160), (129, 56163), (135, 56205), (138, 56229), (143, 56244), (150, 56301), (152, 56307),

Gene: Shadow1_91 Start: 55827, Stop: 56666, Start Num: 5

Candidate Starts for Shadow1_91:

(Start: 5 @55827 has 1 MA's), (Start: 6 @55833 has 10 MA's), (9, 55875), (27, 55983), (50, 56118), (61, 56160), (77, 56229), (83, 56256), (100, 56328), (107, 56397), (119, 56460), (123, 56472), (128, 56502), (131, 56517), (135, 56547), (137, 56568), (138, 56571), (143, 56586), (148, 56637), (150, 56643), (152, 56649),

Gene: Shaobing_87 Start: 56496, Stop: 57149, Start Num: 21

Candidate Starts for Shaobing_87:

(Start: 20 @56493 has 1 MA's), (Start: 21 @56496 has 3 MA's), (27, 56532), (29, 56547), (32, 56562), (43, 56595), (51, 56616), (54, 56625), (83, 56721), (84, 56733), (95, 56781), (96, 56787), (102, 56823), (104, 56844), (108, 56874), (117, 56910), (121, 56946), (125, 56967), (132, 57003), (134, 57027), (135, 57030), (144, 57090), (149, 57123), (152, 57135),

Gene: ShedlockHolmes_88 Start: 54857, Stop: 55324, Start Num: 65

Candidate Starts for ShedlockHolmes_88:

(Start: 65 @54857 has 7 MA's), (73, 54890), (76, 54905), (84, 54953), (106, 55079), (108, 55091), (116, 55109), (125, 55139), (128, 55157), (149, 55295), (151, 55304), (152, 55307),

Gene: ShiaSurprise_88 Start: 55717, Stop: 56256, Start Num: 42

Candidate Starts for ShiaSurprise_88:

(11, 55561), (Start: 42 @55717 has 89 MA's), (83, 55846), (89, 55888), (91, 55894), (96, 55909), (98, 55918), (100, 55924), (102, 55945), (106, 55984), (109, 55999), (111, 56005), (113, 56011), (118, 56044), (123, 56068), (128, 56095), (135, 56140), (143, 56179), (150, 56236), (152, 56242),

Gene: Slimphazie_89 Start: 55947, Stop: 56486, Start Num: 42

Candidate Starts for Slimphazie_89:

(Start: 42 @55947 has 89 MA's), (56, 55986), (83, 56076), (89, 56118), (91, 56124), (96, 56139), (98, 56148), (100, 56154), (102, 56175), (104, 56196), (106, 56214), (109, 56229), (111, 56235), (113, 56241), (118, 56274), (123, 56298), (128, 56325), (135, 56370), (143, 56409), (150, 56466), (152, 56472),

Gene: SoSeph_79 Start: 53442, Stop: 54089, Start Num: 23

Candidate Starts for SoSeph_79:

(Start: 23 @53442 has 15 MA's), (27, 53460), (34, 53496), (52, 53556), (59, 53571), (77, 53658), (97, 53736), (112, 53838), (113, 53841), (136, 53976), (141, 54000), (146, 54042), (151, 54072),

Gene: Spock_87 Start: 55521, Stop: 56060, Start Num: 42

Candidate Starts for Spock_87:

(11, 55365), (Start: 42 @55521 has 89 MA's), (83, 55650), (89, 55692), (91, 55698), (96, 55713), (98, 55722), (100, 55728), (102, 55749), (106, 55788), (109, 55803), (111, 55809), (113, 55815), (118, 55848), (123, 55872), (128, 55899), (135, 55944), (143, 55983), (150, 56040), (152, 56046),

Gene: Stinson_88 Start: 55691, Stop: 56239, Start Num: 42

Candidate Starts for Stinson_88:

(Start: 42 @55691 has 89 MA's), (55, 55724), (77, 55802), (80, 55811), (83, 55829), (91, 55877), (96, 55892), (98, 55901), (100, 55907), (102, 55928), (104, 55949), (106, 55967), (109, 55982), (111, 55988), (113, 55994), (118, 56027), (123, 56051), (124, 56060), (135, 56123), (138, 56147), (139, 56150), (141, 56153), (150, 56219), (152, 56225),

Gene: Sulley_84 Start: 55116, Stop: 55655, Start Num: 42

Candidate Starts for Sulley_84:

(Start: 42 @55116 has 89 MA's), (75, 55215), (83, 55245), (91, 55293), (96, 55308), (98, 55317), (100, 55323), (102, 55344), (104, 55365), (106, 55383), (109, 55398), (113, 55410), (115, 55422), (118, 55443), (123, 55467), (128, 55494), (135, 55539), (138, 55563), (143, 55578), (150, 55635), (152, 55641),

Gene: Sunflower1121_91 Start: 55592, Stop: 56425, Start Num: 6

Candidate Starts for Sunflower1121_91:

(Start: 5 @55586 has 1 MA's), (Start: 6 @55592 has 10 MA's), (9, 55634), (27, 55742), (50, 55877), (61, 55919), (77, 55988), (83, 56015), (100, 56087), (107, 56156), (119, 56219), (123, 56231), (128, 56261), (131, 56276), (135, 56306), (137, 56327), (138, 56330), (143, 56345), (148, 56396), (150, 56402), (152, 56408),

Gene: Syra333_90 Start: 55739, Stop: 56482, Start Num: 12

Candidate Starts for Syra333_90:

(Start: 12 @55739 has 1 MA's), (14, 55745), (Start: 20 @55787 has 1 MA's), (33, 55856), (36, 55868), (45, 55895), (57, 55961), (61, 55970), (67, 56003), (70, 56018), (77, 56042), (98, 56141), (100, 56147), (102, 56168), (107, 56213), (119, 56276), (123, 56288), (128, 56318), (131, 56333), (135, 56363), (137, 56384), (138, 56387), (143, 56402), (148, 56453), (150, 56459), (152, 56465),

Gene: TBond007_82 Start: 54432, Stop: 54899, Start Num: 65

Candidate Starts for TBond007_82:

(Start: 65 @54432 has 7 MA's), (73, 54465), (76, 54480), (84, 54528), (106, 54654), (108, 54666), (116, 54684), (125, 54714), (128, 54732), (149, 54870), (151, 54879), (152, 54882),

Gene: TClif_87 Start: 55031, Stop: 55636, Start Num: 31

Candidate Starts for TClif_87:

(18, 54941), (Start: 31 @55031 has 1 MA's), (40, 55070), (59, 55124), (Start: 65 @55145 has 7 MA's), (69, 55172), (75, 55193), (85, 55241), (88, 55256), (97, 55274), (98, 55283), (107, 55358), (111, 55373), (113, 55379), (117, 55400), (118, 55412), (128, 55475), (135, 55520), (143, 55559), (148, 55610), (152, 55622),

Gene: Tachez_87 Start: 55365, Stop: 55904, Start Num: 42

Candidate Starts for Tachez_87:

(11, 55209), (Start: 42 @55365 has 89 MA's), (83, 55494), (89, 55536), (91, 55542), (96, 55557), (98, 55566), (100, 55572), (102, 55593), (106, 55632), (109, 55647), (111, 55653), (113, 55659), (118, 55692), (123, 55716), (128, 55743), (135, 55788), (143, 55827), (150, 55884), (152, 55890),

Gene: TaiwanKao_88 Start: 55563, Stop: 56111, Start Num: 42

Candidate Starts for TaiwanKao_88:

(15, 55410), (18, 55437), (Start: 42 @55563 has 89 MA's), (48, 55596), (75, 55671), (80, 55683), (83, 55701), (91, 55749), (96, 55764), (98, 55773), (100, 55779), (102, 55800), (103, 55812), (104, 55821), (106, 55839), (109, 55854), (111, 55860), (113, 55866), (118, 55899), (123, 55923), (128, 55950), (135, 55995), (143, 56034), (150, 56091), (152, 56097),

Gene: Thyatira_82 Start: 55790, Stop: 56431, Start Num: 24

Candidate Starts for Thyatira_82:

(Start: 24 @55790 has 9 MA's), (26, 55805), (27, 55811), (34, 55847), (39, 55862), (52, 55907), (97, 56084), (98, 56093), (105, 56150), (120, 56231), (134, 56309), (146, 56384), (147, 56396), (152, 56417),

Gene: Tierra_94 Start: 57212, Stop: 57943, Start Num: 6

Candidate Starts for Tierra_94:

(Start: 6 @57212 has 10 MA's), (27, 57320), (44, 57359), (47, 57386), (50, 57395), (68, 57473), (77, 57506), (83, 57533), (92, 57578), (107, 57674), (119, 57737), (123, 57749), (128, 57779), (131, 57794), (135, 57824), (143, 57863), (150, 57920), (152, 57926),

Gene: Tigress9_91 Start: 56021, Stop: 56854, Start Num: 6

Candidate Starts for Tigress9_91:

(Start: 5 @56015 has 1 MA's), (Start: 6 @56021 has 10 MA's), (9, 56063), (13, 56075), (Start: 20 @56132 has 1 MA's), (27, 56171), (50, 56306), (61, 56348), (77, 56417), (83, 56444), (100, 56516), (107, 56585), (119, 56648), (123, 56660), (128, 56690), (131, 56705), (135, 56735), (137, 56756), (138, 56759), (143, 56774), (148, 56825), (150, 56831), (152, 56837),

Gene: TingHuaYa_91 Start: 56631, Stop: 57164, Start Num: 54

Candidate Starts for TingHuaYa_91:

(Start: 42 @56598 has 89 MA's), (54, 56631), (75, 56706), (87, 56781), (91, 56796), (96, 56811), (98, 56820), (100, 56826), (102, 56847), (104, 56868), (106, 56886), (107, 56892), (108, 56898), (113, 56913), (117, 56934), (118, 56946), (134, 57042), (141, 57075), (145, 57111), (149, 57138),

Gene: TiniBug_86 Start: 55892, Stop: 56437, Start Num: 42

Candidate Starts for TiniBug_86:

(30, 55856), (Start: 42 @55892 has 89 MA's), (60, 55940), (80, 56006), (83, 56027), (87, 56060), (91, 56075), (96, 56090), (98, 56099), (100, 56105), (102, 56126), (103, 56138), (104, 56147), (106, 56165), (109, 56180), (113, 56192), (115, 56204), (118, 56225), (123, 56249), (128, 56276), (129, 56279), (135, 56321), (138, 56345), (143, 56360), (150, 56417), (152, 56423),

Gene: Tiri_87 Start: 55187, Stop: 55798, Start Num: 42

Candidate Starts for Tiri_87:

(4, 54917), (15, 55034), (18, 55061), (Start: 42 @55187 has 89 MA's), (62, 55283), (75, 55358), (80, 55370), (83, 55388), (91, 55436), (96, 55451), (98, 55460), (100, 55466), (102, 55487), (104, 55508), (106, 55526), (109, 55541), (111, 55547), (113, 55553), (115, 55565), (118, 55586), (123, 55610), (128, 55637), (135, 55682), (143, 55721), (150, 55778), (152, 55784),

Gene: Topper_87 Start: 55520, Stop: 56059, Start Num: 42

Candidate Starts for Topper_87:

(11, 55364), (Start: 42 @55520 has 89 MA's), (83, 55649), (89, 55691), (91, 55697), (96, 55712), (98, 55721), (100, 55727), (102, 55748), (106, 55787), (109, 55802), (111, 55808), (113, 55814), (118, 55847), (123, 55871), (128, 55898), (135, 55943), (143, 55982), (150, 56039), (152, 56045),

Gene: TreyKay_89 Start: 55920, Stop: 56471, Start Num: 42

Candidate Starts for TreyKay_89:

(7, 55740), (11, 55764), (Start: 42 @55920 has 89 MA's), (55, 55953), (75, 56031), (80, 56043), (83, 56061), (91, 56109), (96, 56124), (98, 56133), (100, 56139), (102, 56160), (104, 56181), (106, 56199), (109, 56214), (111, 56220), (113, 56226), (118, 56259), (123, 56283), (128, 56310), (134, 56352), (135, 56355), (138, 56379), (143, 56394), (150, 56451), (152, 56457),

Gene: TribbleTrouble_88 Start: 56688, Stop: 57158, Start Num: 66

Candidate Starts for TribbleTrouble_88:

(Start: 66 @56688 has 2 MA's), (76, 56739), (78, 56742), (81, 56766), (82, 56769), (87, 56811), (89, 56820), (90, 56823), (93, 56829), (100, 56856), (102, 56877), (106, 56916), (108, 56928), (125, 56976), (133, 57021), (136, 57042), (149, 57132), (151, 57141),

Gene: TruffulaTree_89 Start: 55913, Stop: 56452, Start Num: 42

Candidate Starts for TruffulaTree_89:

(Start: 42 @55913 has 89 MA's), (56, 55952), (83, 56042), (89, 56084), (91, 56090), (96, 56105), (98, 56114), (100, 56120), (102, 56141), (104, 56162), (106, 56180), (109, 56195), (111, 56201), (113, 56207), (118, 56240), (123, 56264), (128, 56291), (135, 56336), (143, 56375), (150, 56432), (152, 56438),

Gene: Twitch_87 Start: 55522, Stop: 56061, Start Num: 42

Candidate Starts for Twitch_87:

(11, 55366), (Start: 42 @55522 has 89 MA's), (83, 55651), (89, 55693), (91, 55699), (96, 55714), (98, 55723), (100, 55729), (102, 55750), (106, 55789), (109, 55804), (111, 55810), (113, 55816), (118, 55849), (123, 55873), (128, 55900), (135, 55945), (143, 55984), (150, 56041), (152, 56047),

Gene: Unicorn_94 Start: 56932, Stop: 57726, Start Num: 6

Candidate Starts for Unicorn_94:

(Start: 6 @56932 has 10 MA's), (9, 56974), (27, 57082), (28, 57085), (35, 57112), (46, 57154), (49, 57175), (57, 57211), (61, 57220), (67, 57253), (77, 57292), (98, 57385), (100, 57391), (102, 57412), (107, 57457), (110, 57469), (119, 57520), (128, 57562), (131, 57577), (135, 57607), (143, 57646), (150, 57703), (152, 57709),

Gene: Urkel_87 Start: 55782, Stop: 56321, Start Num: 42

Candidate Starts for Urkel_87:

(Start: 42 @55782 has 89 MA's), (60, 55830), (83, 55911), (91, 55959), (96, 55974), (98, 55983), (100, 55989), (102, 56010), (103, 56022), (104, 56031), (106, 56049), (109, 56064), (113, 56076), (115, 56088), (118, 56109), (124, 56142), (128, 56160), (129, 56163), (135, 56205), (138, 56229), (143, 56244), (150, 56301), (152, 56307),

Gene: Validus_93 Start: 57272, Stop: 57934, Start Num: 20

Candidate Starts for Validus_93:

(Start: 20 @57272 has 1 MA's), (Start: 21 @57275 has 3 MA's), (25, 57302), (37, 57365), (38, 57371), (51, 57410), (54, 57419), (72, 57464), (75, 57482), (77, 57485), (79, 57491), (83, 57512), (91, 57557), (96, 57572), (100, 57587), (102, 57608), (104, 57629), (108, 57659), (114, 57683), (117, 57695), (118, 57707), (121, 57731), (132, 57788), (134, 57812), (141, 57845), (142, 57851), (145, 57881), (149, 57908), (152, 57920),

Gene: Veliki_88 Start: 55491, Stop: 56030, Start Num: 42

Candidate Starts for Veliki_88:

(11, 55335), (Start: 42 @55491 has 89 MA's), (83, 55620), (89, 55662), (91, 55668), (96, 55683), (98, 55692), (100, 55698), (102, 55719), (106, 55758), (109, 55773), (111, 55779), (113, 55785), (115, 55797), (118, 55818), (128, 55869), (135, 55914), (143, 55953), (150, 56010), (152, 56016),

Gene: ViviJ_85 Start: 53804, Stop: 54451, Start Num: 23

Candidate Starts for ViviJ_85:

(Start: 23 @53804 has 15 MA's), (27, 53822), (34, 53858), (52, 53918), (59, 53933), (77, 54020), (97, 54098), (112, 54200), (113, 54203), (136, 54338), (141, 54362), (146, 54404), (151, 54434),

Gene: Waterfoul_81 Start: 53860, Stop: 54501, Start Num: 24

Candidate Starts for Waterfoul_81:

(Start: 24 @53860 has 9 MA's), (26, 53875), (27, 53881), (34, 53917), (39, 53932), (52, 53977), (97, 54154), (120, 54301), (135, 54382), (141, 54412), (146, 54454), (151, 54484), (152, 54487),

Gene: Ximenita_93 Start: 56440, Stop: 57225, Start Num: 6

Candidate Starts for Ximenita_93:

(Start: 6 @56440 has 10 MA's), (16, 56521), (19, 56536), (Start: 20 @56539 has 1 MA's), (45, 56647), (57, 56713), (61, 56722), (67, 56755), (70, 56770), (77, 56794), (85, 56839), (98, 56887), (100, 56893),

(102, 56914), (107, 56959), (119, 57022), (123, 57034), (128, 57064), (131, 57079), (135, 57109), (137, 57130), (138, 57133), (143, 57148), (150, 57205), (152, 57211),

Gene: YoureAdopted_86 Start: 55308, Stop: 55856, Start Num: 42

Candidate Starts for YoureAdopted_86:

(Start: 42 @55308 has 89 MA's), (55, 55341), (75, 55416), (80, 55428), (83, 55446), (91, 55494), (96, 55509), (98, 55518), (100, 55524), (102, 55545), (104, 55566), (106, 55584), (109, 55599), (111, 55605), (113, 55611), (118, 55644), (123, 55668), (128, 55695), (135, 55740), (143, 55779), (150, 55836), (152, 55842),

Gene: Yunkel11_92 Start: 56143, Stop: 56694, Start Num: 42

Candidate Starts for Yunkel11_92:

(Start: 42 @56143 has 89 MA's), (54, 56176), (74, 56245), (80, 56263), (89, 56323), (91, 56329), (96, 56344), (100, 56359), (102, 56380), (104, 56401), (106, 56419), (107, 56425), (108, 56431), (114, 56455), (118, 56479), (123, 56503), (134, 56572), (142, 56611), (145, 56641), (149, 56668), (152, 56680),

Gene: Zabiza_83 Start: 51864, Stop: 52403, Start Num: 42

Candidate Starts for Zabiza_83:

(11, 51708), (Start: 42 @51864 has 89 MA's), (83, 51993), (89, 52035), (91, 52041), (96, 52056), (98, 52065), (100, 52071), (102, 52092), (106, 52131), (109, 52146), (111, 52152), (113, 52158), (115, 52170), (118, 52191), (128, 52242), (135, 52287), (143, 52326), (150, 52383), (152, 52389),

Gene: Zavala_89 Start: 55773, Stop: 56321, Start Num: 42

Candidate Starts for Zavala_89:

(Start: 42 @55773 has 89 MA's), (55, 55806), (75, 55881), (80, 55893), (83, 55911), (91, 55959), (96, 55974), (98, 55983), (100, 55989), (102, 56010), (104, 56031), (106, 56049), (109, 56064), (111, 56070), (113, 56076), (118, 56109), (123, 56133), (128, 56160), (135, 56205), (143, 56244), (150, 56301), (152, 56307),