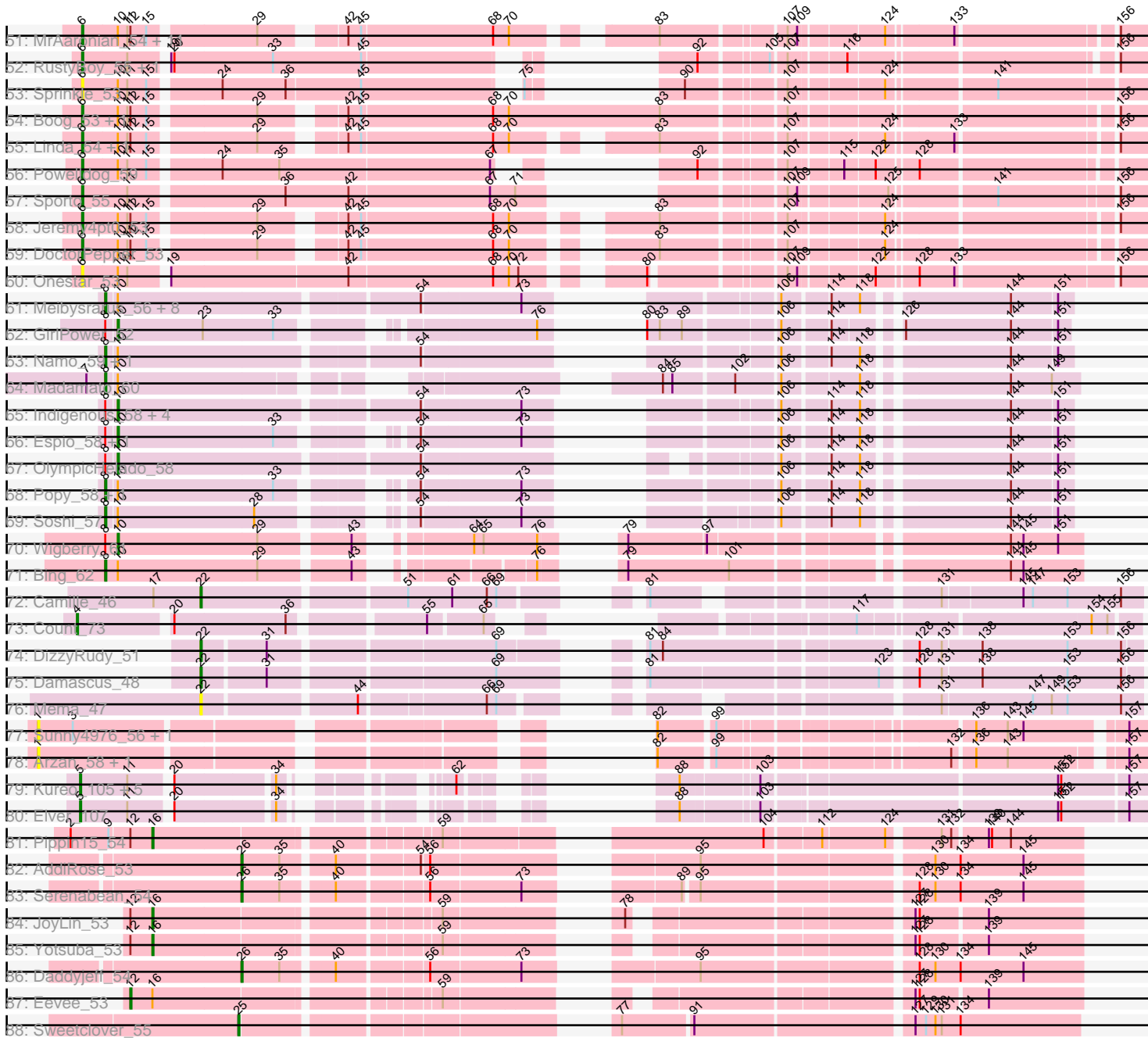


Pham 303146



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 303146 Report

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

Pham number 303146 has 161 members, 30 are drafts.

Phages represented in each track:

- Track 1 : JEGGS_58, BenitoAntonio_59, Heisenberger_58, Mudcat_56
- Track 2 : KeaneyLin_58, Benllo_58, NapoleonB_59, GoCrazy_58, Hankly_58, Circum_61, Dynamite_59
- Track 3 : Tribby_61, Elsa_59, Correa_56, Xenomorph_56, Nason_59, Arcadia_59
- Track 4 : YoshiYama_59, Kardesai_60, Mooshroom_61
- Track 5 : Stardom_56
- Track 6 : Cheesy_59
- Track 7 : Bowling_59
- Track 8 : LucySwiss_54
- Track 9 : MiniBagel_54
- Track 10 : DevitoJr_54, Trustiboi_54, Westerlin_53, Gordon_52, Nightmare_56, ScienceWizSam_55
- Track 11 : CapnMurica_52, Tenno_55
- Track 12 : Teacup_55
- Track 13 : Issa_53
- Track 14 : Nivinsha_56, AreFloNak_57
- Track 15 : Dinallo_53
- Track 16 : Niktson_54, ElephantMan_54, Brunswick_55
- Track 17 : Acai_54
- Track 18 : Hemma_51
- Track 19 : Synopsis_53, Darby_53
- Track 20 : Tatanka_51
- Track 21 : Breylor17_54
- Track 22 : CastorTray_57
- Track 23 : Chlochlo_55
- Track 24 : LilHuddy_56, Shepard_57
- Track 25 : Tipton_57
- Track 26 : Bouchard_54
- Track 27 : Tokki_60, Phaby_57
- Track 28 : Giantsbane_57
- Track 29 : Loretta_55, Ingrid_58
- Track 30 : MediumFry_53, Caterpillar_52
- Track 31 : Anandi_60
- Track 32 : Truckee_53, Makai_55
- Track 33 : Kinny_61, Renaldo_64
- Track 34 : PoeMe_58, Stardrop_58
- Track 35 : BarbieDoll_62, Muglass_60, Biscute_58

- Track 36 : Leathea_58
- Track 37 : Phaila_59
- Track 38 : Uzumaki_55, Argan_56
- Track 39 : Navi1117_59
- Track 40 : Zeina_59
- Track 41 : Lewando_61
- Track 42 : GantcherGoblin_56, Tenney120_59
- Track 43 : KevinMinion_57
- Track 44 : TrixiePhattel_59
- Track 45 : Altjira_60
- Track 46 : Barbonzobean_64
- Track 47 : BlackHoleSun_60
- Track 48 : Mardi_58
- Track 49 : Inked_59
- Track 50 : Zippen_58
- Track 51 : MrAaronian_54, Djungelskog_53, Stayer_54, Sloopyjoe_54, BronxBay_54, Raunak_57, StarLord_54, Spain_56, Shiba_53, Egad_54, ProfFrink_54, Michelle_54
- Track 52 : RustyBoy_55, Natasha_55
- Track 53 : Sprinkle_53
- Track 54 : Boog_53, HerbBucket_54
- Track 55 : Linda_54, Salk_54
- Track 56 : Powelldog_59
- Track 57 : Sporto_55
- Track 58 : Jeremy4pt0_53
- Track 59 : DoctorPepper_53
- Track 60 : Onestar_53
- Track 61 : Meibysrarus_56, TieDye_57, Esketit_58, TaidaOne_58, HazuAndZazu_57, TonyStarch_57, Maya_58, Hoshi_57, IceWarrior_57
- Track 62 : GirlPower_52
- Track 63 : Namu_59, Rima_59
- Track 64 : Madamato_60
- Track 65 : Indigenous_58, CherryBlossom_58, FidgetOrca_58, Spectropatronm_58, Jaylociraptor_58
- Track 66 : Espio_58, DrGrey_57
- Track 67 : OlympicHelado_58
- Track 68 : Popy_58, FrodoSwaggins_58
- Track 69 : Soshi_57
- Track 70 : Wigberry_61
- Track 71 : Bing_62
- Track 72 : Camille_46
- Track 73 : Count_73
- Track 74 : DizzyRudy_51
- Track 75 : Damascus_48
- Track 76 : Mema_47
- Track 77 : Sunny4976_56, Jazzy4900_57
- Track 78 : Arzan_58, GernyBearimy_65
- Track 79 : Kureo_105, Paella_107, Qui_107, Gandionco_104, JeNeSaisPas_102, Marianna39_105
- Track 80 : Elver_107
- Track 81 : Pippin15_54
- Track 82 : AddiRose_53
- Track 83 : Serenabean_54

- Track 84 : JoyLin_53
- Track 85 : Yotsuba_53
- Track 86 : Daddyjeff_54
- Track 87 : Eevee_53
- Track 88 : Sweetclover_55

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

The start number called the most often in the published annotations is 7, it was called in 36 of the 131 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acai_54, Anandi_60, AreFloNak_57, Bouchard_54, Breylor17_54, Brunswick_55, CapnMurica_52, CastorTray_57, Caterpillar_52, Chlochlo_55, Darby_53, DevitoJr_54, Dinallo_53, ElephantMan_54, Giantsbane_57, Gordon_52, Hemma_51, Ingrid_58, Inked_59, Issa_53, LilHuddy_56, Loretta_55, LucySwiss_54, Makai_55, MediumFry_53, MiniBagel_54, Nightmare_56, Niktson_54, Nivinsha_56, Phaby_57, ScienceWizSam_55, Shepard_57, Synopsis_53, Tatanka_51, Teacup_55, Tenno_55, Tipton_57, Tokki_60, Truckee_53, Trustiboi_54, Westerlin_53, Zippen_58,

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

- Madamato_60,

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

- AddiRose_53, Altjira_60, Arcadia_59, Argan_56, Arzan_58, BarbieDoll_62, Barbonzobean_64, BenitoAntonio_59, Benllo_58, Bing_62, Biscute_58, BlackHoleSun_60, Boog_53, Bowling_59, BronxBay_54, Camille_46, Cheesy_59, CherryBlossom_58, Circum_61, Correa_56, Count_73, Daddyjeff_54, Damascus_48, DizzyRudy_51, Djungelskog_53, DoctorPepper_53, DrGrey_57, Dynamite_59, Eevee_53, Egad_54, Elsa_59, Elver_107, Esketit_58, Espio_58, FidgetOrca_58, FrodoSwaggins_58, Gandionco_104, GantcherGoblin_56, GermyBearimy_65, GirlPower_52, GoCrazy_58, Hankly_58, HazuAndZazu_57, Heisenberger_58, HerbBucket_54, Hoshi_57, IceWarrior_57, Indigenous_58, JEGGS_58, Jaylociraptor_58, Jazzy4900_57, JeNeSaisPas_102, Jeremy4pt0_53, JoyLin_53, Kardesai_60, KeaneyLin_58, KevinMinion_57, Kinny_61, Kureo_105, Leatheia_58, Lewando_61, Linda_54, Mardi_58, Marianna39_105, Maya_58, Meibysrarus_56, Mema_47, Michelle_54, Mooshroom_61, MrAaronian_54, Mudcat_56, Muglass_60, Namu_59, NapoleonB_59, Nason_59, Natasha_55, Navi1117_59, OlympicHelado_58, Onestar_53, Paella_107, Phaila_59, Pippin15_54, PoeMe_58, Popy_58, PowellDog_59, ProfFrink_54, Qui_107, Raunak_57, Renaldo_64, Rima_59, RustyBoy_55, Salk_54, Serenabean_54, Shiba_53, Sloopyjoe_54, Soshi_57, Spain_56, Spectropatronm_58, Sporto_55, Sprinkle_53, StarLord_54, Stardom_56, Stardrop_58, Stayer_54, Sunny4976_56, Sweetclover_55, TaidaOne_58, Tenney120_59, TieDye_57, TonyStarch_57, Tribby_61, TrixiePhattel_59, Uzumaki_55, Wigberry_61, Xenomorph_56, YoshiYama_59, Yotsuba_53, Zeina_59,

Summary by start number:

Start 1:

- Found in 4 of 161 (2.5%) of genes in pham

- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arzan_58 (FI), GermyBearimy_65 (FI), Jazzy4900_57 (FI), Sunny4976_56 (FI),

Start 4:

- Found in 1 of 161 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 131
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Count_73 (EL),

Start 5:

- Found in 30 of 161 (18.6%) of genes in pham
- Manual Annotations of this start: 24 of 131
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arcadia_59 (AM), BenitoAntonio_59 (AM), Benllo_58 (AM), Bowling_59 (AM), Cheesy_59 (AM), Circum_61 (AM), Correa_56 (AM), Dynamite_59 (AM), Elsa_59 (AM), Elver_107 (FK), Gandionco_104 (FK), GoCrazy_58 (AM), Hankly_58 (AM), Heisenberger_58 (AM), JEGGS_58 (AM), JeNeSaisPas_102 (FK), Kardesai_60 (AM), KeaneyLin_58 (AM), Kureo_105 (FK), Marianna39_105 (FK), Mooshroom_61 (AM), Mudcat_56 (AM), NapoleonB_59 (AM), Nason_59 (AM), Paella_107 (FK), Qui_107 (FK), Stardom_56 (AM), Tribby_61 (AM), Xenomorph_56 (AM), YoshiYama_59 (AM),

Start 6:

- Found in 24 of 161 (14.9%) of genes in pham
- Manual Annotations of this start: 19 of 131
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Boog_53 (AW), BronxBay_54 (AW), Djungelskog_53 (AW), DoctorPepper_53 (AW), Egad_54 (AW), HerbBucket_54 (AW), Jeremy4pt0_53 (AW), Linda_54 (AW), Michelle_54 (AW), MrAaronian_54 (AW), Natasha_55 (AW), Onestar_53 (AW), Powelldog_59 (AW), ProfFrink_54 (AW), Raunak_57 (AW), RustyBoy_55 (AW), Salk_54 (AW), Shiba_53 (AW), Sloopyjoe_54 (AW), Spain_56 (AW), Sporto_55 (AW), Sprinkle_53 (AW), StarLord_54 (AW), Stayer_54 (AW),

Start 7:

- Found in 43 of 161 (26.7%) of genes in pham
- Manual Annotations of this start: 36 of 131
- Called 97.7% of time when present
- Phage (with cluster) where this start called: Acai_54 (AU1), Anandi_60 (AU4), AreFloNak_57 (AU1), Bouchard_54 (AU2), Breylor17_54 (AU1), Brunswick_55 (AU1), CapnMurica_52 (AU1), CastorTray_57 (AU1), Caterpillar_52 (AU4), Chlochlo_55 (AU2), Darby_53 (AU1), DevitoJr_54 (AU1), Dinallo_53 (AU1), ElephantMan_54 (AU1), Giantsbane_57 (AU2), Gordon_52 (AU1), Hemma_51 (AU1), Ingrid_58 (AU3), Inked_59 (AU7), Issa_53 (AU1), LilHuddy_56 (AU2), Loretta_55 (AU3), LucySwiss_54 (AU1), Makai_55 (AU5), MediumFry_53 (AU4), MiniBagel_54 (AU1), Nightmare_56 (AU1), Niktson_54 (AU1), Nivinsha_56 (AU1), Phaby_57 (AU2), ScienceWizSam_55 (AU1), Shepard_57 (AU2), Synopsis_53 (AU1), Tatanka_51 (AU1), Teacup_55 (AU1), Tenno_55 (AU1), Tipton_57 (AU2), Tokki_60 (AU2), Truckee_53 (AU5), Trustiboi_54 (AU1), Westerlin_53 (AU1), Zippen_58 (AU7),

Start 8:

- Found in 26 of 161 (16.1%) of genes in pham
- Manual Annotations of this start: 16 of 131
- Called 61.5% of time when present
- Phage (with cluster) where this start called: Bing_62 (BI5), Esketit_58 (BI1), FrodoSwaggins_58 (BI1), HazuAndZazu_57 (BI1), Hoshi_57 (BI1), IceWarrior_57 (BI1), Madamoto_60 (BI1), Maya_58 (BI1), Meibysrarus_56 (BI1), Namu_59 (BI1), Popy_58 (BI1), Rima_59 (BI1), Soshi_57 (BI1), TaidaOne_58 (BI1), TieDye_57 (BI1), TonyStarch_57 (BI1),

Start 10:

- Found in 47 of 161 (29.2%) of genes in pham
- Manual Annotations of this start: 10 of 131
- Called 21.3% of time when present
- Phage (with cluster) where this start called: CherryBlossom_58 (BI1), DrGrey_57 (BI1), Espio_58 (BI1), FidgetOrca_58 (BI1), GirlPower_52 (BI1), Indigenous_58 (BI1), Jaylociraptor_58 (BI1), OlympicHelado_58 (BI1), Spectropatronm_58 (BI1), Wigberry_61 (BI5),

Start 12:

- Found in 22 of 161 (13.7%) of genes in pham
- Manual Annotations of this start: 1 of 131
- Called 4.5% of time when present
- Phage (with cluster) where this start called: Eevee_53 (JA),

Start 14:

- Found in 22 of 161 (13.7%) of genes in pham
- Manual Annotations of this start: 14 of 131
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Altjira_60 (AU6), Argan_56 (AU6), BarbieDoll_62 (AU6), Barbonzobean_64 (AU6), Biscute_58 (AU6), BlackHoleSun_60 (AU6), GantcherGoblin_56 (AU6), KevinMinion_57 (AU6), Kinny_61 (AU6), Leathea_58 (AU6), Lewando_61 (AU6), Mardi_58 (AU6), Muglass_60 (AU6), Navi1117_59 (AU6), Phaila_59 (AU6), PoeMe_58 (AU6), Renaldo_64 (AU6), Stardrop_58 (AU6), Tenney120_59 (AU6), TrixiePhattel_59 (AU6), Uzumaki_55 (AU6), Zeina_59 (AU6),

Start 16:

- Found in 4 of 161 (2.5%) of genes in pham
- Manual Annotations of this start: 3 of 131
- Called 75.0% of time when present
- Phage (with cluster) where this start called: JoyLin_53 (JA), Pippin15_54 (JA), Yotsuba_53 (JA),

Start 22:

- Found in 4 of 161 (2.5%) of genes in pham
- Manual Annotations of this start: 3 of 131
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Camille_46 (EL), Damascus_48 (EL), DizzyRudy_51 (EL), Mema_47 (EL),

Start 25:

- Found in 1 of 161 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 131

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sweetclover_55 (JA),

Start 26:

- Found in 3 of 161 (1.9%) of genes in pham
- Manual Annotations of this start: 3 of 131
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AddiRose_53 (JA), Daddyjeff_54 (JA), Serenabean_54 (JA),

Summary by clusters:

There are 15 clusters represented in this pham: EL, BI5, AU7, AM, AU1, AU3, AU2, AU5, AU4, AW, AU6, FI, FK, JA, BI1,

Info for manual annotations of cluster AM:

- Start number 5 was manually annotated 21 times for cluster AM.

Info for manual annotations of cluster AU1:

- Start number 7 was manually annotated 19 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 7 was manually annotated 8 times for cluster AU2.

Info for manual annotations of cluster AU3:

- Start number 7 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:

- Start number 7 was manually annotated 3 times for cluster AU4.

Info for manual annotations of cluster AU5:

- Start number 7 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AU6:

- Start number 14 was manually annotated 14 times for cluster AU6.

Info for manual annotations of cluster AU7:

- Start number 7 was manually annotated 2 times for cluster AU7.

Info for manual annotations of cluster AW:

- Start number 6 was manually annotated 19 times for cluster AW.

Info for manual annotations of cluster BI1:

- Start number 8 was manually annotated 15 times for cluster BI1.
- Start number 10 was manually annotated 9 times for cluster BI1.

Info for manual annotations of cluster BI5:

- Start number 8 was manually annotated 1 time for cluster BI5.
- Start number 10 was manually annotated 1 time for cluster BI5.

Info for manual annotations of cluster EL:

- Start number 4 was manually annotated 1 time for cluster EL.
- Start number 22 was manually annotated 3 times for cluster EL.

Info for manual annotations of cluster FK:

- Start number 5 was manually annotated 3 times for cluster FK.

Info for manual annotations of cluster JA:

- Start number 12 was manually annotated 1 time for cluster JA.
- Start number 16 was manually annotated 3 times for cluster JA.
- Start number 25 was manually annotated 1 time for cluster JA.
- Start number 26 was manually annotated 3 times for cluster JA.

Gene Information:

Gene: Acai_54 Start: 37297, Stop: 38052, Start Num: 7

Candidate Starts for Acai_54:

(Start: 7 @37297 has 36 MA's), (29, 37447), (47, 37537), (50, 37549), (58, 37588), (87, 37669), (107, 37750), (110, 37765), (120, 37816), (159, 38044),

Gene: AddiRose_53 Start: 34578, Stop: 35276, Start Num: 26

Candidate Starts for AddiRose_53:

(Start: 26 @34578 has 3 MA's), (35, 34614), (40, 34656), (54, 34728), (56, 34734), (95, 34932), (130, 35136), (134, 35160), (145, 35220),

Gene: Altjira_60 Start: 37225, Stop: 37941, Start Num: 14

Candidate Starts for Altjira_60:

(Start: 14 @37225 has 14 MA's), (53, 37444), (100, 37564), (103, 37597), (107, 37618), (125, 37705), (158, 37924),

Gene: Anandi_60 Start: 37643, Stop: 38389, Start Num: 7

Candidate Starts for Anandi_60:

(Start: 7 @37643 has 36 MA's), (19, 37724), (27, 37796), (39, 37850), (64, 37958), (87, 38015), (93, 38033), (96, 38039), (107, 38096), (110, 38111), (114, 38129), (118, 38156),

Gene: Arcadia_59 Start: 35986, Stop: 36783, Start Num: 5

Candidate Starts for Arcadia_59:

(Start: 5 @35986 has 24 MA's), (30, 36148), (103, 36439), (108, 36472), (121, 36538), (129, 36586), (142, 36655), (151, 36706), (157, 36763),

Gene: AreFloNak_57 Start: 37264, Stop: 38031, Start Num: 7

Candidate Starts for AreFloNak_57:

(Start: 7 @37264 has 36 MA's), (29, 37414), (47, 37504), (50, 37516), (87, 37645), (107, 37729), (110, 37744), (159, 38023),

Gene: Argan_56 Start: 35931, Stop: 36647, Start Num: 14

Candidate Starts for Argan_56:

(Start: 14 @35931 has 14 MA's), (50, 36135), (53, 36150), (103, 36303), (107, 36324), (125, 36411), (135, 36483), (153, 36573), (158, 36630),

Gene: Arzan_58 Start: 36809, Stop: 37624, Start Num: 1

Candidate Starts for Arzan_58:

(1, 36809), (82, 37223), (99, 37271), (132, 37463), (136, 37481), (143, 37511), (157, 37607),

Gene: BarbieDoll_62 Start: 37638, Stop: 38342, Start Num: 14

Candidate Starts for BarbieDoll_62:

(Start: 14 @37638 has 14 MA's), (38, 37782), (103, 37998), (107, 38019), (113, 38052), (125, 38106), (126, 38121), (158, 38325),

Gene: Barbonzobean_64 Start: 37901, Stop: 38590, Start Num: 14

Candidate Starts for Barbonzobean_64:

(Start: 14 @37901 has 14 MA's), (38, 38045), (52, 38096), (60, 38114), (103, 38246), (107, 38267), (113, 38300), (125, 38354), (126, 38369), (158, 38573),

Gene: BenitoAntonio_59 Start: 35510, Stop: 36310, Start Num: 5

Candidate Starts for BenitoAntonio_59:

(Start: 5 @35510 has 24 MA's), (30, 35672), (36, 35693), (47, 35753), (74, 35852), (103, 35966), (108, 35999), (121, 36065), (127, 36104), (129, 36113), (142, 36182), (151, 36233), (157, 36290),

Gene: Benllo_58 Start: 36188, Stop: 36988, Start Num: 5

Candidate Starts for Benllo_58:

(Start: 5 @36188 has 24 MA's), (30, 36350), (36, 36371), (47, 36431), (74, 36530), (108, 36677), (121, 36743), (129, 36791), (142, 36860), (151, 36911), (157, 36968),

Gene: Bing_62 Start: 37589, Stop: 38362, Start Num: 8

Candidate Starts for Bing_62:

(Start: 8 @37589 has 16 MA's), (Start: 10 @37601 has 10 MA's), (29, 37733), (43, 37811), (76, 37937), (79, 37964), (101, 38060), (144, 38294), (145, 38306),

Gene: Biscute_58 Start: 37290, Stop: 37994, Start Num: 14

Candidate Starts for Biscute_58:

(Start: 14 @37290 has 14 MA's), (38, 37434), (103, 37650), (107, 37671), (113, 37704), (125, 37758), (126, 37773), (158, 37977),

Gene: BlackHoleSun_60 Start: 36056, Stop: 36772, Start Num: 14

Candidate Starts for BlackHoleSun_60:

(Start: 14 @36056 has 14 MA's), (53, 36275), (100, 36395), (103, 36428), (107, 36449), (125, 36536), (130, 36578), (135, 36608), (158, 36755),

Gene: Boog_53 Start: 34696, Stop: 35613, Start Num: 6

Candidate Starts for Boog_53:

(Start: 6 @34696 has 19 MA's), (Start: 10 @34729 has 10 MA's), (11, 34738), (Start: 12 @34741 has 1 MA's), (15, 34756), (29, 34849), (42, 34912), (45, 34924), (68, 35047), (70, 35062), (83, 35206), (107, 35311), (156, 35587),

Gene: Bouchard_54 Start: 37255, Stop: 38007, Start Num: 7

Candidate Starts for Bouchard_54:

(Start: 7 @37255 has 36 MA's), (18, 37321), (29, 37405), (58, 37546), (89, 37633), (94, 37648), (107, 37705),

Gene: Bowling_59 Start: 35826, Stop: 36626, Start Num: 5

Candidate Starts for Bowling_59:

(Start: 5 @35826 has 24 MA's), (30, 35988), (36, 36009), (47, 36069), (74, 36168), (103, 36282), (108, 36315), (121, 36381), (129, 36429), (142, 36498), (151, 36549), (157, 36606),

Gene: Breylor17_54 Start: 37846, Stop: 38604, Start Num: 7

Candidate Starts for Breylor17_54:

(Start: 7 @37846 has 36 MA's), (18, 37912), (29, 37996), (42, 38059), (47, 38086), (50, 38098), (58, 38137), (87, 38218), (107, 38302), (110, 38317), (159, 38596),

Gene: BronxBay_54 Start: 34994, Stop: 35869, Start Num: 6

Candidate Starts for BronxBay_54:

(Start: 6 @34994 has 19 MA's), (Start: 10 @35027 has 10 MA's), (11, 35036), (Start: 12 @35039 has 1 MA's), (15, 35054), (29, 35147), (42, 35210), (45, 35222), (68, 35345), (70, 35360), (83, 35462), (107, 35567), (109, 35576), (124, 35648), (133, 35705), (156, 35843),

Gene: Brunswick_55 Start: 37137, Stop: 37901, Start Num: 7

Candidate Starts for Brunswick_55:

(Start: 7 @37137 has 36 MA's), (29, 37287), (47, 37377), (49, 37386), (87, 37518), (107, 37599), (110, 37614), (159, 37893),

Gene: Camille_46 Start: 32245, Stop: 32997, Start Num: 22

Candidate Starts for Camille_46:

(17, 32200), (Start: 22 @32245 has 3 MA's), (51, 32425), (61, 32467), (66, 32500), (69, 32509), (81, 32584), (131, 32812), (145, 32884), (147, 32893), (153, 32926), (156, 32977),

Gene: CapnMurica_52 Start: 38039, Stop: 38800, Start Num: 7

Candidate Starts for CapnMurica_52:

(Start: 7 @38039 has 36 MA's), (29, 38189), (37, 38228), (47, 38279), (50, 38291), (87, 38417), (98, 38444), (107, 38498), (110, 38513), (120, 38564), (125, 38585), (159, 38792),

Gene: CastorTray_57 Start: 37910, Stop: 38665, Start Num: 7

Candidate Starts for CastorTray_57:

(Start: 7 @37910 has 36 MA's), (29, 38060), (47, 38150), (58, 38201), (87, 38282), (107, 38363), (110, 38378), (159, 38657),

Gene: Caterpillar_52 Start: 36399, Stop: 37157, Start Num: 7

Candidate Starts for Caterpillar_52:

(Start: 7 @36399 has 36 MA's), (29, 36549), (47, 36639), (58, 36690), (64, 36714), (87, 36771), (111, 36873), (159, 37152),

Gene: Cheesy_59 Start: 35695, Stop: 36489, Start Num: 5

Candidate Starts for Cheesy_59:

(Start: 5 @35695 has 24 MA's), (30, 35857), (47, 35938), (103, 36145), (108, 36178), (121, 36244), (127, 36283), (129, 36292), (142, 36361), (151, 36412), (157, 36469),

Gene: CherryBlossom_58 Start: 36769, Stop: 37482, Start Num: 10

Candidate Starts for CherryBlossom_58:

(Start: 8 @36760 has 16 MA's), (Start: 10 @36769 has 10 MA's), (54, 37006), (73, 37096), (106, 37237), (114, 37276), (118, 37303), (144, 37426), (151, 37468),

Gene: Chlochlo_55 Start: 36999, Stop: 37757, Start Num: 7

Candidate Starts for Chlochlo_55:

(Start: 7 @36999 has 36 MA's), (29, 37149), (58, 37290), (87, 37371), (107, 37455), (124, 37539),

Gene: Circum_61 Start: 36379, Stop: 37179, Start Num: 5

Candidate Starts for Circum_61:

(Start: 5 @36379 has 24 MA's), (30, 36541), (36, 36562), (47, 36622), (74, 36721), (108, 36868), (121, 36934), (129, 36982), (142, 37051), (151, 37102), (157, 37159),

Gene: Correa_56 Start: 34853, Stop: 35650, Start Num: 5

Candidate Starts for Correa_56:

(Start: 5 @34853 has 24 MA's), (30, 35015), (103, 35306), (108, 35339), (121, 35405), (129, 35453), (142, 35522), (151, 35573), (157, 35630),

Gene: Count_73 Start: 48676, Stop: 49458, Start Num: 4

Candidate Starts for Count_73:

(Start: 4 @48676 has 1 MA's), (20, 48757), (36, 48862), (55, 48973), (65, 49021), (117, 49213), (154, 49417), (155, 49432),

Gene: Daddyjeff_54 Start: 34798, Stop: 35496, Start Num: 26

Candidate Starts for Daddyjeff_54:

(Start: 26 @34798 has 3 MA's), (35, 34834), (40, 34876), (56, 34954), (73, 35038), (95, 35152), (128, 35341), (130, 35356), (134, 35380), (145, 35440),

Gene: Damascus_48 Start: 33623, Stop: 34393, Start Num: 22

Candidate Starts for Damascus_48:

(Start: 22 @33623 has 3 MA's), (31, 33680), (69, 33878), (81, 33959), (123, 34160), (128, 34187), (131, 34208), (138, 34244), (153, 34325), (156, 34376),

Gene: Darby_53 Start: 37084, Stop: 37848, Start Num: 7

Candidate Starts for Darby_53:

(Start: 7 @37084 has 36 MA's), (29, 37234), (42, 37297), (47, 37324), (50, 37336), (87, 37462), (107, 37546), (110, 37561), (159, 37840),

Gene: DevitoJr_54 Start: 37476, Stop: 38234, Start Num: 7

Candidate Starts for DevitoJr_54:

(Start: 7 @37476 has 36 MA's), (29, 37626), (42, 37689), (47, 37716), (50, 37728), (58, 37767), (87, 37848), (107, 37932), (110, 37947), (159, 38226),

Gene: Dinallo_53 Start: 38348, Stop: 39109, Start Num: 7

Candidate Starts for Dinallo_53:

(Start: 7 @38348 has 36 MA's), (29, 38498), (37, 38537), (47, 38588), (50, 38600), (87, 38726), (98, 38753), (107, 38807), (110, 38822), (120, 38873), (125, 38894), (139, 38975), (159, 39101),

Gene: DizzyRudy_51 Start: 33510, Stop: 34280, Start Num: 22

Candidate Starts for DizzyRudy_51:

(Start: 22 @33510 has 3 MA's), (31, 33567), (69, 33765), (81, 33843), (84, 33855), (128, 34074), (131, 34095), (138, 34131), (153, 34212), (156, 34263),

Gene: Djungelskog_53 Start: 34993, Stop: 35868, Start Num: 6

Candidate Starts for Djungelskog_53:

(Start: 6 @34993 has 19 MA's), (Start: 10 @35026 has 10 MA's), (11, 35035), (Start: 12 @35038 has 1 MA's), (15, 35053), (29, 35146), (42, 35209), (45, 35221), (68, 35344), (70, 35359), (83, 35461), (107, 35566), (109, 35575), (124, 35647), (133, 35704), (156, 35842),

Gene: DoctorPepper_53 Start: 34698, Stop: 35573, Start Num: 6

Candidate Starts for DoctorPepper_53:

(Start: 6 @34698 has 19 MA's), (Start: 10 @34731 has 10 MA's), (11, 34740), (Start: 12 @34743 has 1 MA's), (15, 34758), (29, 34851), (42, 34914), (45, 34926), (68, 35049), (70, 35064), (83, 35166), (107, 35271), (124, 35352),

Gene: DrGrey_57 Start: 37134, Stop: 37850, Start Num: 10

Candidate Starts for DrGrey_57:

(Start: 8 @37125 has 16 MA's), (Start: 10 @37134 has 10 MA's), (33, 37281), (54, 37371), (73, 37461), (106, 37605), (114, 37644), (118, 37671), (144, 37794), (151, 37836),

Gene: Dynamite_59 Start: 35903, Stop: 36703, Start Num: 5

Candidate Starts for Dynamite_59:

(Start: 5 @35903 has 24 MA's), (30, 36065), (36, 36086), (47, 36146), (74, 36245), (108, 36392), (121, 36458), (129, 36506), (142, 36575), (151, 36626), (157, 36683),

Gene: Eevee_53 Start: 37769, Stop: 38530, Start Num: 12

Candidate Starts for Eevee_53:

(Start: 12 @37769 has 1 MA's), (Start: 16 @37790 has 3 MA's), (59, 38033), (127, 38378), (128, 38381), (139, 38441),

Gene: Egad_54 Start: 34995, Stop: 35870, Start Num: 6

Candidate Starts for Egad_54:

(Start: 6 @34995 has 19 MA's), (Start: 10 @35028 has 10 MA's), (11, 35037), (Start: 12 @35040 has 1 MA's), (15, 35055), (29, 35148), (42, 35211), (45, 35223), (68, 35346), (70, 35361), (83, 35463), (107, 35568), (109, 35577), (124, 35649), (133, 35706), (156, 35844),

Gene: ElephantMan_54 Start: 37760, Stop: 38524, Start Num: 7

Candidate Starts for ElephantMan_54:

(Start: 7 @37760 has 36 MA's), (29, 37910), (47, 38000), (49, 38009), (87, 38141), (107, 38222), (110, 38237), (159, 38516),

Gene: Elsa_59 Start: 35986, Stop: 36783, Start Num: 5

Candidate Starts for Elsa_59:

(Start: 5 @35986 has 24 MA's), (30, 36148), (103, 36439), (108, 36472), (121, 36538), (129, 36586), (142, 36655), (151, 36706), (157, 36763),

Gene: Elver_107 Start: 57707, Stop: 58456, Start Num: 5

Candidate Starts for Elver_107:

(Start: 5 @57707 has 24 MA's), (11, 57752), (20, 57785), (34, 57872), (88, 58043), (103, 58109), (151, 58373), (152, 58376), (157, 58436),

Gene: Esketit_58 Start: 36870, Stop: 37625, Start Num: 8

Candidate Starts for Esketit_58:

(Start: 8 @36870 has 16 MA's), (Start: 10 @36879 has 10 MA's), (54, 37149), (73, 37239), (106, 37380), (114, 37419), (118, 37446), (144, 37569), (151, 37611),

Gene: Espio_58 Start: 37529, Stop: 38245, Start Num: 10

Candidate Starts for Espio_58:

(Start: 8 @37520 has 16 MA's), (Start: 10 @37529 has 10 MA's), (33, 37676), (54, 37766), (73, 37856), (106, 38000), (114, 38039), (118, 38066), (144, 38189), (151, 38231),

Gene: FidgetOrca_58 Start: 36869, Stop: 37615, Start Num: 10

Candidate Starts for FidgetOrca_58:

(Start: 8 @36860 has 16 MA's), (Start: 10 @36869 has 10 MA's), (54, 37139), (73, 37229), (106, 37370), (114, 37409), (118, 37436), (144, 37559), (151, 37601),

Gene: FrodoSwaggins_58 Start: 37519, Stop: 38244, Start Num: 8

Candidate Starts for FrodoSwaggins_58:

(Start: 8 @37519 has 16 MA's), (Start: 10 @37528 has 10 MA's), (33, 37675), (54, 37765), (73, 37855), (106, 37999), (114, 38038), (118, 38065), (144, 38188), (151, 38230),

Gene: Gandionco_104 Start: 56521, Stop: 57270, Start Num: 5

Candidate Starts for Gandionco_104:

(Start: 5 @56521 has 24 MA's), (11, 56566), (20, 56599), (34, 56686), (62, 56788), (88, 56857), (103, 56923), (151, 57187), (152, 57190), (157, 57250),

Gene: GantcherGoblin_56 Start: 36006, Stop: 36722, Start Num: 14

Candidate Starts for GantcherGoblin_56:

(Start: 14 @36006 has 14 MA's), (53, 36225), (103, 36378), (107, 36399), (125, 36486), (135, 36558), (153, 36648), (158, 36705),

Gene: GermyBearimy_65 Start: 38173, Stop: 38988, Start Num: 1

Candidate Starts for GermyBearimy_65:

(1, 38173), (82, 38587), (99, 38635), (132, 38827), (136, 38845), (143, 38875), (157, 38971),

Gene: Giantsbane_57 Start: 36358, Stop: 37107, Start Num: 7

Candidate Starts for Giantsbane_57:

(Start: 7 @36358 has 36 MA's), (29, 36508), (58, 36649), (89, 36733), (94, 36748), (107, 36805), (115, 36850),

Gene: GirlPower_52 Start: 37115, Stop: 37828, Start Num: 10

Candidate Starts for GirlPower_52:

(Start: 8 @37106 has 16 MA's), (Start: 10 @37115 has 10 MA's), (23, 37196), (33, 37262), (76, 37460), (80, 37475), (83, 37487), (89, 37508), (106, 37589), (114, 37628), (126, 37676), (144, 37775), (151, 37817),

Gene: GoCrazy_58 Start: 35844, Stop: 36644, Start Num: 5

Candidate Starts for GoCrazy_58:

(Start: 5 @35844 has 24 MA's), (30, 36006), (36, 36027), (47, 36087), (74, 36186), (108, 36333), (121, 36399), (129, 36447), (142, 36516), (151, 36567), (157, 36624),

Gene: Gordon_52 Start: 37901, Stop: 38656, Start Num: 7

Candidate Starts for Gordon_52:

(Start: 7 @37901 has 36 MA's), (29, 38051), (42, 38114), (47, 38141), (50, 38153), (58, 38192), (87, 38273), (107, 38357), (110, 38372), (159, 38651),

Gene: Hankly_58 Start: 35118, Stop: 35918, Start Num: 5

Candidate Starts for Hankly_58:

(Start: 5 @35118 has 24 MA's), (30, 35280), (36, 35301), (47, 35361), (74, 35460), (108, 35607), (121, 35673), (129, 35721), (142, 35790), (151, 35841), (157, 35898),

Gene: HazuAndZazu_57 Start: 37120, Stop: 37878, Start Num: 8

Candidate Starts for HazuAndZazu_57:

(Start: 8 @37120 has 16 MA's), (Start: 10 @37129 has 10 MA's), (54, 37399), (73, 37489), (106, 37633), (114, 37672), (118, 37699), (144, 37822), (151, 37864),

Gene: Heisenberger_58 Start: 35412, Stop: 36188, Start Num: 5

Candidate Starts for Heisenberger_58:

(Start: 5 @35412 has 24 MA's), (30, 35574), (36, 35595), (47, 35655), (74, 35730), (103, 35844), (108, 35877), (121, 35943), (127, 35982), (129, 35991), (142, 36060), (151, 36111), (157, 36168),

Gene: Hemma_51 Start: 34205, Stop: 34957, Start Num: 7

Candidate Starts for Hemma_51:

(Start: 7 @34205 has 36 MA's), (50, 34448), (87, 34565), (100, 34604), (107, 34661), (112, 34688), (118, 34721), (144, 34847), (151, 34892),

Gene: HerbBucket_54 Start: 34693, Stop: 35610, Start Num: 6

Candidate Starts for HerbBucket_54:

(Start: 6 @34693 has 19 MA's), (Start: 10 @34726 has 10 MA's), (11, 34735), (Start: 12 @34738 has 1 MA's), (15, 34753), (29, 34846), (42, 34909), (45, 34921), (68, 35044), (70, 35059), (83, 35203), (107, 35308), (156, 35584),

Gene: Hoshi_57 Start: 36467, Stop: 37222, Start Num: 8

Candidate Starts for Hoshi_57:

(Start: 8 @36467 has 16 MA's), (Start: 10 @36476 has 10 MA's), (54, 36746), (73, 36836), (106, 36977), (114, 37016), (118, 37043), (144, 37166), (151, 37208),

Gene: IceWarrior_57 Start: 36546, Stop: 37301, Start Num: 8

Candidate Starts for IceWarrior_57:

(Start: 8 @36546 has 16 MA's), (Start: 10 @36555 has 10 MA's), (54, 36825), (73, 36915), (106, 37056), (114, 37095), (118, 37122), (144, 37245), (151, 37287),

Gene: Indigenous_58 Start: 36873, Stop: 37619, Start Num: 10

Candidate Starts for Indigenous_58:

(Start: 8 @36864 has 16 MA's), (Start: 10 @36873 has 10 MA's), (54, 37143), (73, 37233), (106, 37374), (114, 37413), (118, 37440), (144, 37563), (151, 37605),

Gene: Ingrid_58 Start: 37183, Stop: 37938, Start Num: 7

Candidate Starts for Ingrid_58:

(Start: 7 @37183 has 36 MA's), (29, 37333), (41, 37390), (46, 37417), (47, 37423), (58, 37474), (64, 37498), (87, 37555), (107, 37639), (159, 37933),

Gene: Inked_59 Start: 38306, Stop: 39055, Start Num: 7

Candidate Starts for Inked_59:

(Start: 7 @38306 has 36 MA's), (29, 38456), (47, 38546), (49, 38555), (50, 38558), (58, 38597), (64, 38621), (87, 38678), (103, 38735), (107, 38756), (119, 38819), (159, 39050),

Gene: Issa_53 Start: 37136, Stop: 37894, Start Num: 7

Candidate Starts for Issa_53:

(Start: 7 @37136 has 36 MA's), (29, 37286), (42, 37349), (47, 37376), (50, 37388), (58, 37427), (87, 37508), (107, 37592), (110, 37607), (159, 37886),

Gene: JEGGS_58 Start: 35467, Stop: 36267, Start Num: 5

Candidate Starts for JEGGS_58:

(Start: 5 @35467 has 24 MA's), (30, 35629), (36, 35650), (47, 35710), (74, 35809), (103, 35923), (108, 35956), (121, 36022), (127, 36061), (129, 36070), (142, 36139), (151, 36190), (157, 36247),

Gene: Jaylociraptor_58 Start: 36872, Stop: 37618, Start Num: 10

Candidate Starts for Jaylociraptor_58:

(Start: 8 @36863 has 16 MA's), (Start: 10 @36872 has 10 MA's), (54, 37142), (73, 37232), (106, 37373), (114, 37412), (118, 37439), (144, 37562), (151, 37604),

Gene: Jazzy4900_57 Start: 37585, Stop: 38403, Start Num: 1

Candidate Starts for Jazzy4900_57:

(1, 37585), (3, 37618), (82, 37999), (99, 38047), (136, 38257), (143, 38287), (145, 38302), (157, 38386),

Gene: JeNeSaisPas_102 Start: 57125, Stop: 57874, Start Num: 5

Candidate Starts for JeNeSaisPas_102:

(Start: 5 @57125 has 24 MA's), (11, 57170), (20, 57203), (34, 57290), (62, 57392), (88, 57461), (103, 57527), (151, 57791), (152, 57794), (157, 57854),

Gene: Jeremy4pt0_53 Start: 34693, Stop: 35568, Start Num: 6

Candidate Starts for Jeremy4pt0_53:

(Start: 6 @34693 has 19 MA's), (Start: 10 @34726 has 10 MA's), (11, 34735), (Start: 12 @34738 has 1 MA's), (15, 34753), (29, 34846), (42, 34909), (45, 34921), (68, 35044), (70, 35059), (83, 35161), (107, 35266), (124, 35347), (156, 35542),

Gene: JoyLin_53 Start: 37910, Stop: 38650, Start Num: 16

Candidate Starts for JoyLin_53:

(Start: 12 @37889 has 1 MA's), (Start: 16 @37910 has 3 MA's), (59, 38153), (78, 38267), (127, 38498), (128, 38501), (139, 38561),

Gene: Kardesai_60 Start: 36088, Stop: 36885, Start Num: 5

Candidate Starts for Kardesai_60:

(Start: 5 @36088 has 24 MA's), (30, 36250), (103, 36541), (108, 36574), (121, 36640), (127, 36679), (129, 36688), (142, 36757), (151, 36808), (157, 36865),

Gene: KeaneyLin_58 Start: 35844, Stop: 36644, Start Num: 5

Candidate Starts for KeaneyLin_58:

(Start: 5 @35844 has 24 MA's), (30, 36006), (36, 36027), (47, 36087), (74, 36186), (108, 36333), (121, 36399), (129, 36447), (142, 36516), (151, 36567), (157, 36624),

Gene: KevinMinion_57 Start: 36882, Stop: 37598, Start Num: 14

Candidate Starts for KevinMinion_57:

(Start: 14 @36882 has 14 MA's), (53, 37101), (103, 37254), (107, 37275), (125, 37362), (153, 37524), (158, 37581),

Gene: Kinny_61 Start: 38133, Stop: 38822, Start Num: 14

Candidate Starts for Kinny_61:

(Start: 14 @38133 has 14 MA's), (38, 38277), (52, 38328), (60, 38346), (86, 38415), (103, 38478), (107, 38499), (113, 38532), (125, 38586), (126, 38601), (158, 38805),

Gene: Kureo_105 Start: 56717, Stop: 57466, Start Num: 5

Candidate Starts for Kureo_105:

(Start: 5 @56717 has 24 MA's), (11, 56762), (20, 56795), (34, 56882), (62, 56984), (88, 57053), (103, 57119), (151, 57383), (152, 57386), (157, 57446),

Gene: Leathea_58 Start: 35757, Stop: 36464, Start Num: 14

Candidate Starts for Leathea_58:

(Start: 14 @35757 has 14 MA's), (38, 35901), (48, 35943), (53, 35967), (57, 35985), (103, 36120), (107, 36141), (125, 36228), (158, 36447),

Gene: Lewando_61 Start: 37710, Stop: 38414, Start Num: 14

Candidate Starts for Lewando_61:

(Start: 14 @37710 has 14 MA's), (38, 37854), (99, 38034), (107, 38091), (125, 38178), (126, 38193), (158, 38397),

Gene: LilHuddy_56 Start: 37293, Stop: 38045, Start Num: 7

Candidate Starts for LilHuddy_56:

(Start: 7 @37293 has 36 MA's), (29, 37443), (58, 37584), (89, 37671), (94, 37686), (105, 37731), (107, 37743),

Gene: Linda_54 Start: 34991, Stop: 35866, Start Num: 6

Candidate Starts for Linda_54:

(Start: 6 @34991 has 19 MA's), (Start: 10 @35024 has 10 MA's), (11, 35033), (Start: 12 @35036 has 1 MA's), (15, 35051), (29, 35144), (42, 35207), (45, 35219), (68, 35342), (70, 35357), (83, 35459), (107, 35564), (124, 35645), (133, 35702), (156, 35840),

Gene: Loretta_55 Start: 37183, Stop: 37938, Start Num: 7

Candidate Starts for Loretta_55:

(Start: 7 @37183 has 36 MA's), (29, 37333), (41, 37390), (46, 37417), (47, 37423), (58, 37474), (64, 37498), (87, 37555), (107, 37639), (159, 37933),

Gene: LucySwiss_54 Start: 36929, Stop: 37684, Start Num: 7

Candidate Starts for LucySwiss_54:

(Start: 7 @36929 has 36 MA's), (29, 37079), (47, 37169), (58, 37220), (87, 37301), (107, 37382), (110, 37397), (120, 37448), (159, 37676),

Gene: Madamoto_60 Start: 37006, Stop: 37764, Start Num: 8

Candidate Starts for Madamoto_60:

(Start: 7 @36988 has 36 MA's), (Start: 8 @37006 has 16 MA's), (Start: 10 @37015 has 10 MA's), (84, 37408), (85, 37417), (102, 37471), (106, 37510), (118, 37576), (144, 37699), (149, 37738),

Gene: Makai_55 Start: 37391, Stop: 38140, Start Num: 7

Candidate Starts for Makai_55:

(Start: 7 @37391 has 36 MA's), (13, 37436), (29, 37541), (87, 37751), (105, 37826), (107, 37838), (110, 37853), (124, 37922),

Gene: Mardi_58 Start: 36478, Stop: 37194, Start Num: 14

Candidate Starts for Mardi_58:

(Start: 14 @36478 has 14 MA's), (53, 36697), (100, 36817), (103, 36850), (107, 36871), (125, 36958), (135, 37030), (153, 37120), (158, 37177), (160, 37189),

Gene: Marianna39_105 Start: 57132, Stop: 57881, Start Num: 5

Candidate Starts for Marianna39_105:

(Start: 5 @57132 has 24 MA's), (11, 57177), (20, 57210), (34, 57297), (62, 57399), (88, 57468), (103, 57534), (151, 57798), (152, 57801), (157, 57861),

Gene: Maya_58 Start: 36877, Stop: 37632, Start Num: 8

Candidate Starts for Maya_58:

(Start: 8 @36877 has 16 MA's), (Start: 10 @36886 has 10 MA's), (54, 37156), (73, 37246), (106, 37387), (114, 37426), (118, 37453), (144, 37576), (151, 37618),

Gene: MediumFry_53 Start: 36688, Stop: 37446, Start Num: 7

Candidate Starts for MediumFry_53:

(Start: 7 @36688 has 36 MA's), (29, 36838), (47, 36928), (58, 36979), (64, 37003), (87, 37060), (111, 37162), (159, 37441),

Gene: Meibysrarus_56 Start: 36240, Stop: 36995, Start Num: 8

Candidate Starts for Meibysrarus_56:

(Start: 8 @36240 has 16 MA's), (Start: 10 @36249 has 10 MA's), (54, 36519), (73, 36609), (106, 36750), (114, 36789), (118, 36816), (144, 36939), (151, 36981),

Gene: Mema_47 Start: 36166, Stop: 36906, Start Num: 22

Candidate Starts for Mema_47:

(Start: 22 @36166 has 3 MA's), (44, 36298), (66, 36409), (69, 36418), (131, 36718), (147, 36802), (149, 36820), (153, 36835), (156, 36886),

Gene: Michelle_54 Start: 34993, Stop: 35868, Start Num: 6

Candidate Starts for Michelle_54:

(Start: 6 @34993 has 19 MA's), (Start: 10 @35026 has 10 MA's), (11, 35035), (Start: 12 @35038 has 1 MA's), (15, 35053), (29, 35146), (42, 35209), (45, 35221), (68, 35344), (70, 35359), (83, 35461), (107, 35566), (109, 35575), (124, 35647), (133, 35704), (156, 35842),

Gene: MiniBagel_54 Start: 38021, Stop: 38782, Start Num: 7

Candidate Starts for MiniBagel_54:

(Start: 7 @38021 has 36 MA's), (29, 38171), (37, 38210), (47, 38261), (50, 38273), (87, 38399), (98, 38426), (107, 38480), (110, 38495), (120, 38546), (125, 38567), (159, 38774),

Gene: Mooshroom_61 Start: 36088, Stop: 36885, Start Num: 5

Candidate Starts for Mooshroom_61:

(Start: 5 @36088 has 24 MA's), (30, 36250), (103, 36541), (108, 36574), (121, 36640), (127, 36679), (129, 36688), (142, 36757), (151, 36808), (157, 36865),

Gene: MrAaronian_54 Start: 34993, Stop: 35868, Start Num: 6

Candidate Starts for MrAaronian_54:

(Start: 6 @34993 has 19 MA's), (Start: 10 @35026 has 10 MA's), (11, 35035), (Start: 12 @35038 has 1 MA's), (15, 35053), (29, 35146), (42, 35209), (45, 35221), (68, 35344), (70, 35359), (83, 35461), (107, 35566), (109, 35575), (124, 35647), (133, 35704), (156, 35842),

Gene: Mudcat_56 Start: 36825, Stop: 37625, Start Num: 5

Candidate Starts for Mudcat_56:

(Start: 5 @36825 has 24 MA's), (30, 36987), (36, 37008), (47, 37068), (74, 37167), (103, 37281), (108, 37314), (121, 37380), (127, 37419), (129, 37428), (142, 37497), (151, 37548), (157, 37605),

Gene: Muglass_60 Start: 37194, Stop: 37898, Start Num: 14

Candidate Starts for Muglass_60:

(Start: 14 @37194 has 14 MA's), (38, 37338), (103, 37554), (107, 37575), (113, 37608), (125, 37662), (126, 37677), (158, 37881),

Gene: Namo_59 Start: 37214, Stop: 37969, Start Num: 8

Candidate Starts for Namo_59:

(Start: 8 @37214 has 16 MA's), (Start: 10 @37223 has 10 MA's), (54, 37493), (106, 37724), (114, 37763), (118, 37790), (144, 37913), (151, 37955),

Gene: NapoleonB_59 Start: 35903, Stop: 36703, Start Num: 5

Candidate Starts for NapoleonB_59:

(Start: 5 @35903 has 24 MA's), (30, 36065), (36, 36086), (47, 36146), (74, 36245), (108, 36392), (121, 36458), (129, 36506), (142, 36575), (151, 36626), (157, 36683),

Gene: Nason_59 Start: 35986, Stop: 36783, Start Num: 5

Candidate Starts for Nason_59:

(Start: 5 @35986 has 24 MA's), (30, 36148), (103, 36439), (108, 36472), (121, 36538), (129, 36586), (142, 36655), (151, 36706), (157, 36763),

Gene: Natasha_55 Start: 34823, Stop: 35617, Start Num: 6

Candidate Starts for Natasha_55:

(Start: 6 @34823 has 19 MA's), (11, 34865), (19, 34895), (20, 34898), (33, 34991), (45, 35075), (92, 35249), (105, 35306), (107, 35318), (116, 35366), (156, 35591),

Gene: Navi1117_59 Start: 36699, Stop: 37415, Start Num: 14

Candidate Starts for Navi1117_59:

(Start: 14 @36699 has 14 MA's), (53, 36918), (100, 37038), (103, 37071), (107, 37092), (125, 37179), (153, 37341), (158, 37398),

Gene: Nightmare_56 Start: 38318, Stop: 39076, Start Num: 7

Candidate Starts for Nightmare_56:

(Start: 7 @38318 has 36 MA's), (29, 38468), (42, 38531), (47, 38558), (50, 38570), (58, 38609), (87, 38690), (107, 38774), (110, 38789), (159, 39068),

Gene: Niktson_54 Start: 37760, Stop: 38524, Start Num: 7

Candidate Starts for Niktson_54:

(Start: 7 @37760 has 36 MA's), (29, 37910), (47, 38000), (49, 38009), (87, 38141), (107, 38222), (110, 38237), (159, 38516),

Gene: Nivinsha_56 Start: 37264, Stop: 38031, Start Num: 7

Candidate Starts for Nivinsha_56:

(Start: 7 @37264 has 36 MA's), (29, 37414), (47, 37504), (50, 37516), (87, 37645), (107, 37729), (110, 37744), (159, 38023),

Gene: OlympicHelado_58 Start: 36900, Stop: 37625, Start Num: 10

Candidate Starts for OlympicHelado_58:

(Start: 8 @36891 has 16 MA's), (Start: 10 @36900 has 10 MA's), (54, 37170), (106, 37380), (114, 37419), (118, 37446), (144, 37569), (151, 37611),

Gene: Onestar_53 Start: 34760, Stop: 35653, Start Num: 6

Candidate Starts for Onestar_53:

(Start: 6 @34760 has 19 MA's), (Start: 10 @34793 has 10 MA's), (11, 34802), (19, 34832), (42, 34997), (68, 35132), (70, 35147), (72, 35156), (80, 35237), (107, 35345), (109, 35354), (122, 35417), (128, 35450), (133, 35483), (156, 35627),

Gene: Paella_107 Start: 58297, Stop: 59046, Start Num: 5

Candidate Starts for Paella_107:

(Start: 5 @58297 has 24 MA's), (11, 58342), (20, 58375), (34, 58462), (62, 58564), (88, 58633), (103, 58699), (151, 58963), (152, 58966), (157, 59026),

Gene: Phaby_57 Start: 37911, Stop: 38663, Start Num: 7

Candidate Starts for Phaby_57:

(Start: 7 @37911 has 36 MA's), (18, 37977), (29, 38061), (58, 38202), (89, 38289), (94, 38304), (105, 38349), (107, 38361),

Gene: Phaila_59 Start: 36120, Stop: 36854, Start Num: 14

Candidate Starts for Phaila_59:

(Start: 14 @36120 has 14 MA's), (32, 36231), (50, 36327), (53, 36342), (100, 36477), (103, 36510), (107, 36531), (125, 36618), (135, 36690), (153, 36780), (158, 36837),

Gene: Pippin15_54 Start: 34805, Stop: 35566, Start Num: 16

Candidate Starts for Pippin15_54:

(2, 34730), (9, 34766), (Start: 12 @34784 has 1 MA's), (Start: 16 @34805 has 3 MA's), (59, 35048), (104, 35291), (112, 35339), (124, 35396), (131, 35438), (132, 35447), (139, 35477), (140, 35480), (144, 35498),

Gene: PoeMe_58 Start: 36624, Stop: 37340, Start Num: 14

Candidate Starts for PoeMe_58:

(Start: 14 @36624 has 14 MA's), (53, 36843), (100, 36963), (103, 36996), (107, 37017), (125, 37104), (135, 37176), (158, 37323),

Gene: Popy_58 Start: 37519, Stop: 38244, Start Num: 8

Candidate Starts for Popy_58:

(Start: 8 @37519 has 16 MA's), (Start: 10 @37528 has 10 MA's), (33, 37675), (54, 37765), (73, 37855), (106, 37999), (114, 38038), (118, 38065), (144, 38188), (151, 38230),

Gene: Powelldog_59 Start: 36214, Stop: 37014, Start Num: 6

Candidate Starts for Powelldog_59:

(Start: 6 @36214 has 19 MA's), (Start: 10 @36247 has 10 MA's), (11, 36256), (15, 36274), (24, 36334), (35, 36388), (67, 36586), (92, 36643), (107, 36712), (115, 36757), (122, 36784), (128, 36817),

Gene: ProfFrink_54 Start: 34994, Stop: 35869, Start Num: 6

Candidate Starts for ProfFrink_54:

(Start: 6 @34994 has 19 MA's), (Start: 10 @35027 has 10 MA's), (11, 35036), (Start: 12 @35039 has 1 MA's), (15, 35054), (29, 35147), (42, 35210), (45, 35222), (68, 35345), (70, 35360), (83, 35462), (107, 35567), (109, 35576), (124, 35648), (133, 35705), (156, 35843),

Gene: Qui_107 Start: 58297, Stop: 59046, Start Num: 5

Candidate Starts for Qui_107:

(Start: 5 @58297 has 24 MA's), (11, 58342), (20, 58375), (34, 58462), (62, 58564), (88, 58633), (103, 58699), (151, 58963), (152, 58966), (157, 59026),

Gene: Raunak_57 Start: 34691, Stop: 35566, Start Num: 6

Candidate Starts for Raunak_57:

(Start: 6 @34691 has 19 MA's), (Start: 10 @34724 has 10 MA's), (11, 34733), (Start: 12 @34736 has 1 MA's), (15, 34751), (29, 34844), (42, 34907), (45, 34919), (68, 35042), (70, 35057), (83, 35159), (107, 35264), (109, 35273), (124, 35345), (133, 35402), (156, 35540),

Gene: Renaldo_64 Start: 37949, Stop: 38638, Start Num: 14

Candidate Starts for Renaldo_64:

(Start: 14 @37949 has 14 MA's), (38, 38093), (52, 38144), (60, 38162), (86, 38231), (103, 38294), (107, 38315), (113, 38348), (125, 38402), (126, 38417), (158, 38621),

Gene: Rima_59 Start: 37214, Stop: 37969, Start Num: 8

Candidate Starts for Rima_59:

(Start: 8 @37214 has 16 MA's), (Start: 10 @37223 has 10 MA's), (54, 37493), (106, 37724), (114, 37763), (118, 37790), (144, 37913), (151, 37955),

Gene: RustyBoy_55 Start: 34804, Stop: 35598, Start Num: 6

Candidate Starts for RustyBoy_55:

(Start: 6 @34804 has 19 MA's), (11, 34846), (19, 34876), (20, 34879), (33, 34972), (45, 35056), (92, 35230), (105, 35287), (107, 35299), (116, 35347), (156, 35572),

Gene: Salk_54 Start: 34991, Stop: 35866, Start Num: 6

Candidate Starts for Salk_54:

(Start: 6 @34991 has 19 MA's), (Start: 10 @35024 has 10 MA's), (11, 35033), (Start: 12 @35036 has 1 MA's), (15, 35051), (29, 35144), (42, 35207), (45, 35219), (68, 35342), (70, 35357), (83, 35459), (107, 35564), (124, 35645), (133, 35702), (156, 35840),

Gene: ScienceWizSam_55 Start: 37372, Stop: 38130, Start Num: 7

Candidate Starts for ScienceWizSam_55:

(Start: 7 @37372 has 36 MA's), (29, 37522), (42, 37585), (47, 37612), (50, 37624), (58, 37663), (87, 37744), (107, 37828), (110, 37843), (159, 38122),

Gene: Serenabean_54 Start: 34832, Stop: 35524, Start Num: 26

Candidate Starts for Serenabean_54:

(Start: 26 @34832 has 3 MA's), (35, 34868), (40, 34910), (56, 34988), (73, 35072), (89, 35168), (95, 35180), (128, 35369), (130, 35384), (134, 35408), (145, 35468),

Gene: Shepard_57 Start: 37134, Stop: 37886, Start Num: 7

Candidate Starts for Shepard_57:

(Start: 7 @37134 has 36 MA's), (29, 37284), (58, 37425), (89, 37512), (94, 37527), (105, 37572), (107, 37584),

Gene: Shiba_53 Start: 34691, Stop: 35566, Start Num: 6

Candidate Starts for Shiba_53:

(Start: 6 @34691 has 19 MA's), (Start: 10 @34724 has 10 MA's), (11, 34733), (Start: 12 @34736 has 1 MA's), (15, 34751), (29, 34844), (42, 34907), (45, 34919), (68, 35042), (70, 35057), (83, 35159), (107, 35264), (109, 35273), (124, 35345), (133, 35402), (156, 35540),

Gene: Sloopyjoe_54 Start: 34995, Stop: 35870, Start Num: 6

Candidate Starts for Sloopyjoe_54:

(Start: 6 @34995 has 19 MA's), (Start: 10 @35028 has 10 MA's), (11, 35037), (Start: 12 @35040 has 1 MA's), (15, 35055), (29, 35148), (42, 35211), (45, 35223), (68, 35346), (70, 35361), (83, 35463), (107, 35568), (109, 35577), (124, 35649), (133, 35706), (156, 35844),

Gene: Soshi_57 Start: 37138, Stop: 37860, Start Num: 8

Candidate Starts for Soshi_57:

(Start: 8 @37138 has 16 MA's), (Start: 10 @37147 has 10 MA's), (28, 37276), (54, 37384), (73, 37474), (106, 37615), (114, 37654), (118, 37681), (144, 37804), (151, 37846),

Gene: Spain_56 Start: 34993, Stop: 35868, Start Num: 6

Candidate Starts for Spain_56:

(Start: 6 @34993 has 19 MA's), (Start: 10 @35026 has 10 MA's), (11, 35035), (Start: 12 @35038 has 1 MA's), (15, 35053), (29, 35146), (42, 35209), (45, 35221), (68, 35344), (70, 35359), (83, 35461), (107, 35566), (109, 35575), (124, 35647), (133, 35704), (156, 35842),

Gene: Spectropatronm_58 Start: 36879, Stop: 37625, Start Num: 10

Candidate Starts for Spectropatronm_58:

(Start: 8 @36870 has 16 MA's), (Start: 10 @36879 has 10 MA's), (54, 37149), (73, 37239), (106, 37380), (114, 37419), (118, 37446), (144, 37569), (151, 37611),

Gene: Sporto_55 Start: 36496, Stop: 37332, Start Num: 6

Candidate Starts for Sporto_55:

(Start: 6 @36496 has 19 MA's), (11, 36538), (36, 36676), (42, 36736), (67, 36868), (71, 36892), (107, 37027), (109, 37036), (125, 37111), (141, 37201), (156, 37306),

Gene: Sprinkle_53 Start: 35525, Stop: 36328, Start Num: 6

Candidate Starts for Sprinkle_53:

(Start: 6 @35525 has 19 MA's), (Start: 10 @35558 has 10 MA's), (11, 35567), (15, 35585), (24, 35645), (36, 35705), (45, 35774), (75, 35900), (90, 35939), (107, 36020), (124, 36101), (141, 36194),

Gene: StarLord_54 Start: 34994, Stop: 35869, Start Num: 6

Candidate Starts for StarLord_54:

(Start: 6 @34994 has 19 MA's), (Start: 10 @35027 has 10 MA's), (11, 35036), (Start: 12 @35039 has 1 MA's), (15, 35054), (29, 35147), (42, 35210), (45, 35222), (68, 35345), (70, 35360), (83, 35462), (107, 35567), (109, 35576), (124, 35648), (133, 35705), (156, 35843),

Gene: Stardom_56 Start: 34644, Stop: 35447, Start Num: 5

Candidate Starts for Stardom_56:

(Start: 5 @34644 has 24 MA's), (30, 34806), (74, 34989), (108, 35136), (121, 35202), (129, 35250), (142, 35319), (151, 35370), (157, 35427),

Gene: Stardrop_58 Start: 36726, Stop: 37442, Start Num: 14

Candidate Starts for Stardrop_58:

(Start: 14 @36726 has 14 MA's), (53, 36945), (100, 37065), (103, 37098), (107, 37119), (125, 37206), (135, 37278), (158, 37425),

Gene: Stayer_54 Start: 34991, Stop: 35866, Start Num: 6

Candidate Starts for Stayer_54:

(Start: 6 @34991 has 19 MA's), (Start: 10 @35024 has 10 MA's), (11, 35033), (Start: 12 @35036 has 1 MA's), (15, 35051), (29, 35144), (42, 35207), (45, 35219), (68, 35342), (70, 35357), (83, 35459), (107, 35564), (109, 35573), (124, 35645), (133, 35702), (156, 35840),

Gene: Sunny4976_56 Start: 37585, Stop: 38403, Start Num: 1

Candidate Starts for Sunny4976_56:

(1, 37585), (3, 37618), (82, 37999), (99, 38047), (136, 38257), (143, 38287), (145, 38302), (157, 38386),

Gene: Sweetclover_55 Start: 33842, Stop: 34537, Start Num: 25

Candidate Starts for Sweetclover_55:

(Start: 25 @33842 has 1 MA's), (77, 34124), (91, 34187), (127, 34382), (129, 34391), (130, 34400), (131, 34406), (134, 34424),

Gene: Synopsis_53 Start: 37431, Stop: 38198, Start Num: 7

Candidate Starts for Synopsis_53:

(Start: 7 @37431 has 36 MA's), (29, 37581), (42, 37644), (47, 37671), (50, 37683), (87, 37812), (107, 37896), (110, 37911), (159, 38190),

Gene: TaidaOne_58 Start: 37373, Stop: 38128, Start Num: 8

Candidate Starts for TaidaOne_58:

(Start: 8 @37373 has 16 MA's), (Start: 10 @37382 has 10 MA's), (54, 37652), (73, 37742), (106, 37883), (114, 37922), (118, 37949), (144, 38072), (151, 38114),

Gene: Tatanka_51 Start: 37563, Stop: 38327, Start Num: 7

Candidate Starts for Tatanka_51:

(Start: 7 @37563 has 36 MA's), (29, 37713), (47, 37803), (63, 37878), (87, 37944), (107, 38025), (110, 38040), (159, 38319),

Gene: Teacup_55 Start: 37789, Stop: 38553, Start Num: 7

Candidate Starts for Teacup_55:

(Start: 7 @37789 has 36 MA's), (29, 37939), (47, 38029), (49, 38038), (87, 38170), (107, 38251), (110, 38266), (120, 38317), (159, 38545),

Gene: Tenney120_59 Start: 36666, Stop: 37382, Start Num: 14

Candidate Starts for Tenney120_59:

(Start: 14 @36666 has 14 MA's), (53, 36885), (103, 37038), (107, 37059), (125, 37146), (135, 37218), (153, 37308), (158, 37365),

Gene: Tenno_55 Start: 38094, Stop: 38855, Start Num: 7

Candidate Starts for Tenno_55:

(Start: 7 @38094 has 36 MA's), (29, 38244), (37, 38283), (47, 38334), (50, 38346), (87, 38472), (98, 38499), (107, 38553), (110, 38568), (120, 38619), (125, 38640), (159, 38847),

Gene: TieDye_57 Start: 36461, Stop: 37204, Start Num: 8

Candidate Starts for TieDye_57:

(Start: 8 @36461 has 16 MA's), (Start: 10 @36470 has 10 MA's), (54, 36728), (73, 36818), (106, 36959), (114, 36998), (118, 37025), (144, 37148), (151, 37190),

Gene: Tipton_57 Start: 37658, Stop: 38416, Start Num: 7

Candidate Starts for Tipton_57:

(Start: 7 @37658 has 36 MA's), (18, 37724), (29, 37808), (58, 37949), (87, 38030), (107, 38114), (124, 38198),

Gene: Tokki_60 Start: 37524, Stop: 38276, Start Num: 7

Candidate Starts for Tokki_60:

(Start: 7 @37524 has 36 MA's), (18, 37590), (29, 37674), (58, 37815), (89, 37902), (94, 37917), (105, 37962), (107, 37974),

Gene: TonyStarch_57 Start: 36612, Stop: 37367, Start Num: 8

Candidate Starts for TonyStarch_57:

(Start: 8 @36612 has 16 MA's), (Start: 10 @36621 has 10 MA's), (54, 36891), (73, 36981), (106, 37122), (114, 37161), (118, 37188), (144, 37311), (151, 37353),

Gene: Tribby_61 Start: 36239, Stop: 37036, Start Num: 5

Candidate Starts for Tribby_61:

(Start: 5 @36239 has 24 MA's), (30, 36401), (103, 36692), (108, 36725), (121, 36791), (129, 36839), (142, 36908), (151, 36959), (157, 37016),

Gene: TrixiePhattel_59 Start: 36099, Stop: 36839, Start Num: 14

Candidate Starts for TrixiePhattel_59:

(Start: 14 @36099 has 14 MA's), (38, 36243), (100, 36459), (107, 36513), (125, 36600), (137, 36678), (144, 36708), (145, 36720), (146, 36723), (148, 36735), (150, 36750), (158, 36822),

Gene: Truckee_53 Start: 37181, Stop: 37930, Start Num: 7

Candidate Starts for Truckee_53:

(Start: 7 @37181 has 36 MA's), (13, 37226), (29, 37331), (87, 37541), (105, 37616), (107, 37628), (110, 37643), (124, 37712),

Gene: Trustiboi_54 Start: 37632, Stop: 38390, Start Num: 7

Candidate Starts for Trustiboi_54:

(Start: 7 @37632 has 36 MA's), (29, 37782), (42, 37845), (47, 37872), (50, 37884), (58, 37923), (87, 38004), (107, 38088), (110, 38103), (159, 38382),

Gene: Uzumaki_55 Start: 36107, Stop: 36823, Start Num: 14

Candidate Starts for Uzumaki_55:

(Start: 14 @36107 has 14 MA's), (50, 36311), (53, 36326), (103, 36479), (107, 36500), (125, 36587), (135, 36659), (153, 36749), (158, 36806),

Gene: Westerlin_53 Start: 38645, Stop: 39403, Start Num: 7

Candidate Starts for Westerlin_53:

(Start: 7 @38645 has 36 MA's), (29, 38795), (42, 38858), (47, 38885), (50, 38897), (58, 38936), (87, 39017), (107, 39101), (110, 39116), (159, 39395),

Gene: Wigberry_61 Start: 37059, Stop: 37826, Start Num: 10

Candidate Starts for Wigberry_61:

(Start: 8 @37047 has 16 MA's), (Start: 10 @37059 has 10 MA's), (29, 37191), (43, 37269), (64, 37347), (65, 37356), (76, 37407), (79, 37434), (97, 37506), (144, 37758), (145, 37770), (151, 37803),

Gene: Xenomorph_56 Start: 35657, Stop: 36454, Start Num: 5

Candidate Starts for Xenomorph_56:

(Start: 5 @35657 has 24 MA's), (30, 35819), (103, 36110), (108, 36143), (121, 36209), (129, 36257), (142, 36326), (151, 36377), (157, 36434),

Gene: YoshiYama_59 Start: 36296, Stop: 37093, Start Num: 5

Candidate Starts for YoshiYama_59:

(Start: 5 @36296 has 24 MA's), (30, 36458), (103, 36749), (108, 36782), (121, 36848), (127, 36887), (129, 36896), (142, 36965), (151, 37016), (157, 37073),

Gene: Yotsuba_53 Start: 37928, Stop: 38668, Start Num: 16

Candidate Starts for Yotsuba_53:

(Start: 12 @37907 has 1 MA's), (Start: 16 @37928 has 3 MA's), (59, 38171), (127, 38516), (128, 38519), (139, 38579),

Gene: Zeina_59 Start: 36674, Stop: 37390, Start Num: 14

Candidate Starts for Zeina_59:

(Start: 14 @36674 has 14 MA's), (53, 36893), (100, 37013), (103, 37046), (107, 37067), (125, 37154), (153, 37316), (158, 37373),

Gene: Zippen_58 Start: 38006, Stop: 38755, Start Num: 7

Candidate Starts for Zippen_58:

(Start: 7 @38006 has 36 MA's), (21, 38093), (41, 38213), (47, 38246), (49, 38255), (58, 38297), (64, 38321), (87, 38378), (103, 38435), (107, 38456), (119, 38519), (159, 38750),