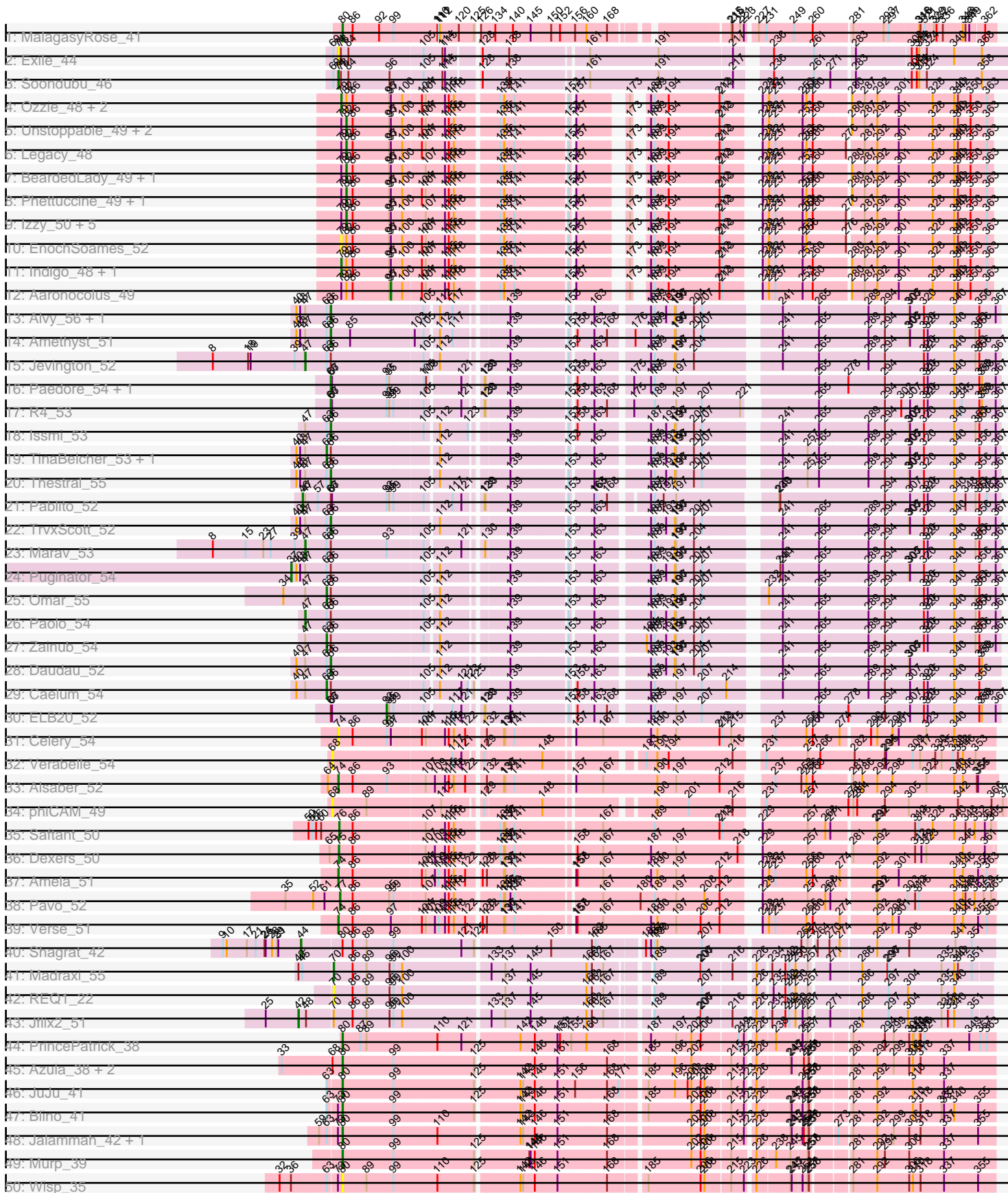
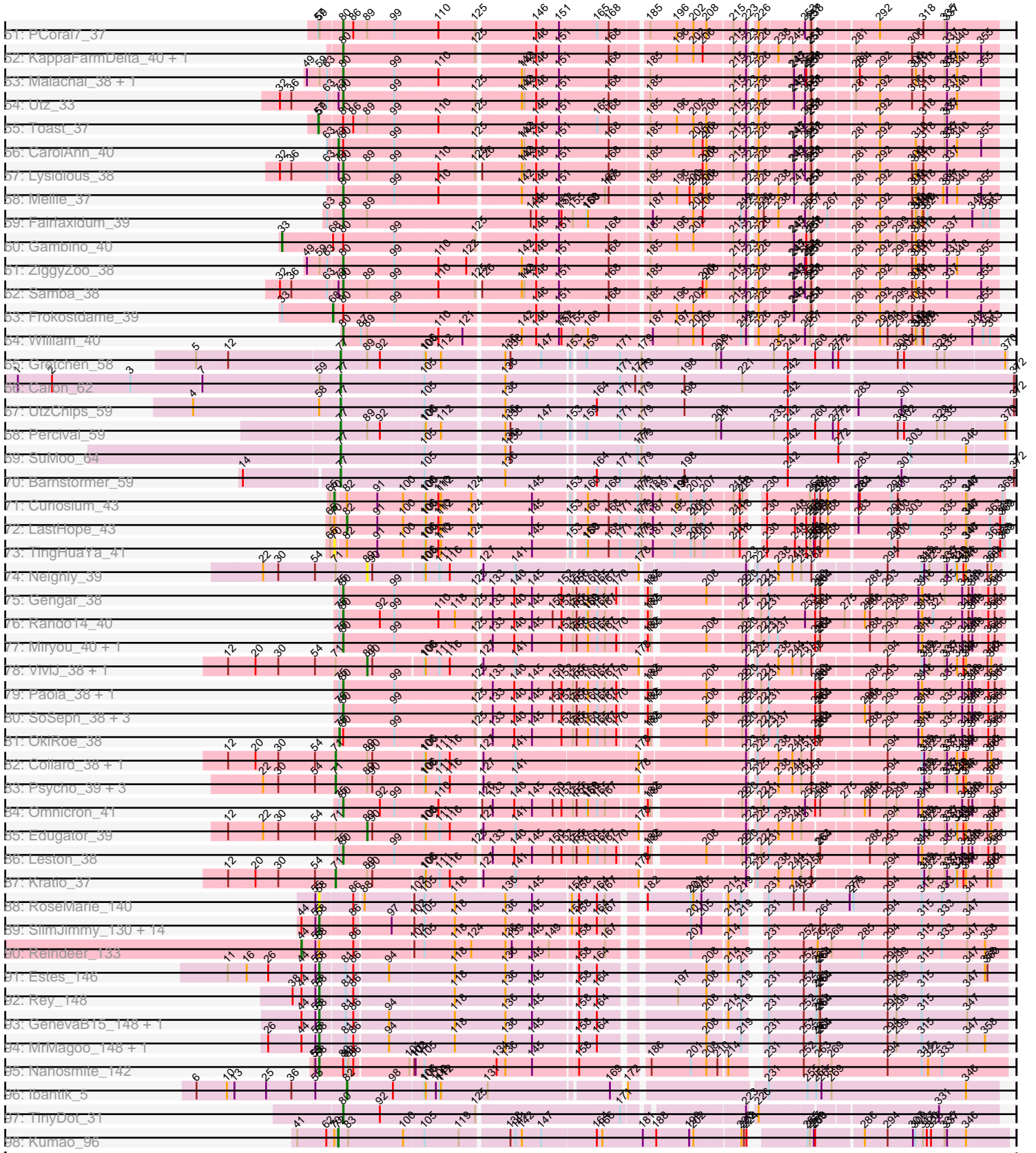


Pham 224366



Pham 224366



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 224366 Report

This analysis was run 03/28/25 on database version 593.

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

Pham number 224366 has 144 members, 14 are drafts.

Phages represented in each track:

- Track 1 : MalagasyRose_41
- Track 2 : Exile_44
- Track 3 : Soondubu_46
- Track 4 : Ozzie_48, Hydra_50, Bovely_49
- Track 5 : Unstoppable_49, Esperer_49, Nerdos_48
- Track 6 : Legacy_48
- Track 7 : BeardedLady_49, Caliburn_48
- Track 8 : Phettuccine_49, SunsetPointe_48
- Track 9 : Izzy_50, BryanRecycles_50, Eddasa_50, Oliynyk_50, Rusticus_50, Jash_50
- Track 10 : EnochSoames_52
- Track 11 : Indigo_48, Leviticus_49
- Track 12 : Aaronocolus_49
- Track 13 : Alvy_56, BartholomewSD_56
- Track 14 : Amethyst_51
- Track 15 : Jevington_52
- Track 16 : Paedore_54, Loofah_55
- Track 17 : R4_53
- Track 18 : Issmi_53
- Track 19 : TinaBelcher_53, Bowden_53
- Track 20 : Thestral_55
- Track 21 : Pablito_52
- Track 22 : TrvxScott_52
- Track 23 : Marav_53
- Track 24 : Puginator_54
- Track 25 : Omar_55
- Track 26 : Paolo_54
- Track 27 : Zainub_54
- Track 28 : Daudau_52
- Track 29 : Caelum_54
- Track 30 : ELB20_52
- Track 31 : Celery_54
- Track 32 : Verabelle_54

- Track 33 : Alsaber_52
- Track 34 : phiCAM_49
- Track 35 : Saftant_50
- Track 36 : Dexers_50
- Track 37 : Amela_51
- Track 38 : Pavo_52
- Track 39 : Verse_51
- Track 40 : Shagrat_42
- Track 41 : Madraxi_55
- Track 42 : REQ1_22
- Track 43 : Jflix2_51
- Track 44 : PrincePatrick_38
- Track 45 : Azula_38, MissRona_38, Blueberry_37
- Track 46 : JuJu_41
- Track 47 : Blino_41
- Track 48 : Jalammah_42, Fenry_37
- Track 49 : Murp_39
- Track 50 : Wisp_35
- Track 51 : PCoral7_37
- Track 52 : KappaFarmDelta_40, Wocket_39
- Track 53 : Malachai_38, Begonia_38
- Track 54 : Utz_33
- Track 55 : Toast_37
- Track 56 : CarolAnn_40
- Track 57 : Lysidious_38
- Track 58 : Mellie_37
- Track 59 : Fairfaxidum_39
- Track 60 : Gambino_40
- Track 61 : ZiggyZoo_38
- Track 62 : Samba_38
- Track 63 : Frokostdame_39
- Track 64 : William_40
- Track 65 : Gretchen_58
- Track 66 : Caron_62
- Track 67 : UtzChips_59
- Track 68 : Percival_59
- Track 69 : SuMoo_64
- Track 70 : Barnstormer_59
- Track 71 : Curiosium_43
- Track 72 : LastHope_43
- Track 73 : TingHuaYa_41
- Track 74 : Neighly_39
- Track 75 : Gengar_38
- Track 76 : Rando14_40
- Track 77 : Miryou_40, Feyre_38
- Track 78 : ViviJ_38, InvictusManeo_38
- Track 79 : Paola_38, Guillsminger_39
- Track 80 : SoSeph_38, Waterfoul_39, Heftyboy_38, Thyatira_40
- Track 81 : OkiRoe_38
- Track 82 : Collard_38, Agent47_39
- Track 83 : Psycho_39, Dadosky_39, Larva_39, AlleyCat_39
- Track 84 : Omnicron_41
- Track 85 : Edugator_39

- Track 86 : Leston_38
- Track 87 : Kratio_37
- Track 88 : RoseMarie_140
- Track 89 : SlimJimmy_130, Auspice_131, Bongo_130, Glaske16_133, LilhomieP_131, Bricole_133, PegLeg_134, Diminimus_131, FreakyGoo_129, KleverKiS_134, Izel_129, TyDawg_126, IPhane7_129, Skinny_137, Dulcita_131
- Track 90 : Reindeer_133
- Track 91 : Estes_146
- Track 92 : Rey_148
- Track 93 : GenevaB15_148, Aziz_145
- Track 94 : MrMagoo_148, GardenSalsa_146
- Track 95 : Nanosmite_142
- Track 96 : Ibantik_5
- Track 97 : TinyDot_31
- Track 98 : Kumao_96

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

The start number called the most often in the published annotations is 80, it was called in 35 of the 130 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Azula_38, Begonia_38, Blino_41, Blueberry_37, Fairfaxidum_39, Fenry_37, Feyre_38, Gengar_38, Guillsminger_39, Heftyboy_38, Jalammah_42, JuJu_41, KappaFarmDelta_40, Leston_38, Lysidious_38, Malachai_38, MalagasyRose_41, Mellie_37, Miryou_40, MissRona_38, Murp_39, Omnicron_41, PCoral7_37, Paola_38, PrincePatrick_38, Rando14_40, Samba_38, SoSeph_38, Thyatira_40, TinyDot_31, Utz_33, Waterfoul_39, William_40, Wisp_35, Wocket_39, ZiggyZoo_38,

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

- CarolAnn_40, Frokostdame_39, Gambino_40, Nanosmite_142, OkiRoe_38, Shagrat_42, Toast_37,

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

- Aaronocolus_49, Agent47_39, AlleyCat_39, Alsaber_52, Alvy_56, Amela_51, Amethyst_51, Auspice_131, Aziz_145, Barnstormer_59, BartholomewSD_56, BeardedLady_49, Bongo_130, Bovely_49, Bowden_53, Bricole_133, BryanRecycles_50, Caelum_54, Caliburn_48, Caron_62, Celery_54, Collard_38, Curiosium_43, Dadosky_39, Daudau_52, Dexers_50, Diminimus_131, Dulcita_131, ELB20_52, Eddasa_50, Edugator_39, EnochSoames_52, Esperer_49, Estes_146, Exile_44, FreakyGoo_129, GardenSalsa_146, GenevaB15_148, Glaske16_133, Gretchen_58, Hydra_50, IPhane7_129, Ibantik_5, Indigo_48, InvictusManeo_38, Issmi_53, Izel_129, Izzy_50, Jash_50, Jevington_52, Jflix2_51, KleverKiS_134, Kratio_37, Kumao_96, Larva_39, LastHope_43, Legacy_48, Leviticus_49, LilhomieP_131, Loofah_55, Madraxi_55, Marav_53, MrMagoo_148, Neighly_39, Nerdos_48, Oliynyk_50, Omar_55, Ozzie_48, Pablito_52, Paedore_54, Paolo_54, Pavo_52, PegLeg_134, Percival_59, Phettuccine_49, Psycho_39, Puginator_54, R4_53, REQ1_22, Reindeer_133, Rey_148, RoseMarie_140, Rusticus_50, Saftant_50, Skinny_137, SlimJimmy_130, Soondubu_46, SuMoo_64, SunsetPointe_48, Thestral_55, TinaBelcher_53, TingHuaYa_41, TrvxScott_52,

TyDawg_126, Unstoppable_49, UtzChips_59, Verabelle_54, Verse_51, ViviJ_38, Zainub_54, phiCAM_49,

Summary by start number:

Start 33:

- Found in 5 of 144 (3.5%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Gambino_40 (CV),

Start 37:

- Found in 1 of 144 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Puginator_54 (BD2),

Start 42:

- Found in 2 of 144 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Jflix2_51 (CF),

Start 44:

- Found in 23 of 144 (16.0%) of genes in pham
- Manual Annotations of this start: 2 of 130
- Called 8.7% of time when present
- Phage (with cluster) where this start called: Reindeer_133 (M1), Shagrat_42 (CF),

Start 46:

- Found in 1 of 144 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pablito_52 (BD2),

Start 47:

- Found in 17 of 144 (11.8%) of genes in pham
- Manual Annotations of this start: 3 of 130
- Called 17.6% of time when present
- Phage (with cluster) where this start called: Jevington_52 (BD2), Marav_53 (BD2), Paolo_54 (BD2),

Start 57:

- Found in 3 of 144 (2.1%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Toast_37 (CV),

Start 58:

- Found in 25 of 144 (17.4%) of genes in pham
- Manual Annotations of this start: 19 of 130
- Called 92.0% of time when present

- Phage (with cluster) where this start called: Auspice_131 (M1), Aziz_145 (M2), Bongo_130 (M1), Bricole_133 (M1), Diminimus_131 (M1), Dulcita_131 (M1), Estes_146 (M2), FreakyGoo_129 (M1), GardenSalsa_146 (M2), GenevaB15_148 (M2), Glaske16_133 (M1), IPHane7_129 (M1), Izel_129 (M1), KleverKiS_134 (M1), LilhomieP_131 (M1), MrMagoo_148 (M2), Nanosmite_142 (M3), PegLeg_134 (M1), Rey_148 (M2), RoseMarie_140 (M), Skinny_137 (M1), SlimJimmy_130 (M1), TyDawg_126 (M1),

Start 63:

- Found in 29 of 144 (20.1%) of genes in pham
- Manual Annotations of this start: 5 of 130
- Called 17.2% of time when present
- Phage (with cluster) where this start called: Bowden_53 (BD2), Caelum_54 (BD2), Omar_55 (BD2), TinaBelcher_53 (BD2), Zainub_54 (BD2),

Start 66:

- Found in 21 of 144 (14.6%) of genes in pham
- Manual Annotations of this start: 10 of 130
- Called 47.6% of time when present
- Phage (with cluster) where this start called: Alvy_56 (BD2), Amethyst_51 (BD2), BartholomewSD_56 (BD2), Daudau_52 (BD2), Issmi_53 (BD2), Loofah_55 (BD2), Paedore_54 (BD2), R4_53 (BD2), Thestral_55 (BD2), TrvxScott_52 (BD2),

Start 68:

- Found in 7 of 144 (4.9%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 42.9% of time when present
- Phage (with cluster) where this start called: Frokostdame_39 (CV), Verabelle_54 (BD3), phiCAM_49 (BD3),

Start 70:

- Found in 7 of 144 (4.9%) of genes in pham
- Manual Annotations of this start: 2 of 130
- Called 57.1% of time when present
- Phage (with cluster) where this start called: Curiosium_43 (K1), Madraxi_55 (CF), REQ1_22 (CF), TingHuaYa_41 (K1),

Start 71:

- Found in 11 of 144 (7.6%) of genes in pham
- Manual Annotations of this start: 7 of 130
- Called 63.6% of time when present
- Phage (with cluster) where this start called: Agent47_39 (K5), AlleyCat_39 (K5), Collard_38 (K5), Dadosky_39 (K5), Kratio_37 (K5), Larva_39 (K5), Psycho_39 (K5),

Start 72:

- Found in 1 of 144 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kumao_96 (singleton),

Start 73:

- Found in 8 of 144 (5.6%) of genes in pham
- Manual Annotations of this start: 1 of 130

- Called 12.5% of time when present
- Phage (with cluster) where this start called: CarolAnn_40 (CV),

Start 74:

- Found in 6 of 144 (4.2%) of genes in pham
- Manual Annotations of this start: 4 of 130
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alsaber_52 (BD3), Amela_51 (BD3), Celery_54 (BD3), Exile_44 (AZ), Soondubu_46 (AZ), Verse_51 (BD3),

Start 75:

- Found in 14 of 144 (9.7%) of genes in pham
- Manual Annotations of this start: 2 of 130
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Dexers_50 (BD3), OkiRoe_38 (K5),

Start 76:

- Found in 1 of 144 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Saftant_50 (BD3),

Start 77:

- Found in 7 of 144 (4.9%) of genes in pham
- Manual Annotations of this start: 7 of 130
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Barnstormer_59 (EH), Caron_62 (EH), Gretchen_58 (EH), Pavo_52 (BD3), Percival_59 (EH), SuMoo_64 (EH), UtzChips_59 (EH),

Start 79:

- Found in 21 of 144 (14.6%) of genes in pham
- Manual Annotations of this start: 5 of 130
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Bovely_49 (BD1), EnochSoames_52 (BD1), Hydra_50 (BD1), Indigo_48 (BD1), Leviticus_49 (BD1), Ozzie_48 (BD1),

Start 80:

- Found in 43 of 144 (29.9%) of genes in pham
- Manual Annotations of this start: 35 of 130
- Called 83.7% of time when present
- Phage (with cluster) where this start called: Azula_38 (CV), Begonia_38 (CV), Blino_41 (CV), Blueberry_37 (CV), Fairfaxidum_39 (CV), Fenry_37 (CV), Feyre_38 (K5), Gengar_38 (K5), Guillsminger_39 (K5), Heftyboy_38 (K5), Jalammah_42 (CV), JuJu_41 (CV), KappaFarmDelta_40 (CV), Leston_38 (K5), Lysidious_38 (CV), Malachai_38 (CV), MalagasyRose_41 (AG), Mellie_37 (CV), Miryou_40 (K5), MissRona_38 (CV), Murp_39 (CV), Omnicron_41 (K5), PCoral7_37 (CV), Paola_38 (K5), PrincePatrick_38 (CV), Rando14_40 (K5), Samba_38 (CV), SoSeph_38 (K5), Thyatira_40 (K5), TinyDot_31 (singleton), Utz_33 (CV), Waterfoul_39 (K5), William_40 (CV), Wisp_35 (CV), Wocket_39 (CV), ZiggyZoo_38 (CV),

Start 82:

- Found in 25 of 144 (17.4%) of genes in pham

- Manual Annotations of this start: 16 of 130
- Called 64.0% of time when present
- Phage (with cluster) where this start called: BeardedLady_49 (BD1), BryanRecycles_50 (BD1), Caliburn_48 (BD1), Eddasa_50 (BD1), Esperer_49 (BD1), Ibantik_5 (singleton), Izzy_50 (BD1), Jash_50 (BD1), LastHope_43 (K1), Legacy_48 (BD1), Nerdos_48 (BD1), Oliynyk_50 (BD1), Phettuccine_49 (BD1), Rusticus_50 (BD1), SunsetPointe_48 (BD1), Unstoppable_49 (BD1),

Start 89:

- Found in 26 of 144 (18.1%) of genes in pham
- Manual Annotations of this start: 2 of 130
- Called 15.4% of time when present
- Phage (with cluster) where this start called: Edugator_39 (K5), InvictusManeo_38 (K5), Neighly_39 (K3), ViviJ_38 (K5),

Start 93:

- Found in 8 of 144 (5.6%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 12.5% of time when present
- Phage (with cluster) where this start called: ELB20_52 (BD2),

Start 97:

- Found in 38 of 144 (26.4%) of genes in pham
- Manual Annotations of this start: 1 of 130
- Called 2.6% of time when present
- Phage (with cluster) where this start called: Aaronocolus_49 (BD1),

Summary by clusters:

There are 16 clusters represented in this pham: singleton, K5, AG, M2, M, CF, K3, K1, BD1, BD3, BD2, M1, AZ, CV, M3, EH,

Info for manual annotations of cluster AG:

- Start number 80 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster AZ:

- Start number 74 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster BD1:

- Start number 79 was manually annotated 5 times for cluster BD1.
- Start number 82 was manually annotated 14 times for cluster BD1.
- Start number 97 was manually annotated 1 time for cluster BD1.

Info for manual annotations of cluster BD2:

- Start number 37 was manually annotated 1 time for cluster BD2.
- Start number 46 was manually annotated 1 time for cluster BD2.
- Start number 47 was manually annotated 3 times for cluster BD2.
- Start number 63 was manually annotated 5 times for cluster BD2.
- Start number 66 was manually annotated 10 times for cluster BD2.
- Start number 93 was manually annotated 1 time for cluster BD2.

Info for manual annotations of cluster BD3:

- Start number 74 was manually annotated 3 times for cluster BD3.

- Start number 75 was manually annotated 1 time for cluster BD3.
- Start number 76 was manually annotated 1 time for cluster BD3.
- Start number 77 was manually annotated 1 time for cluster BD3.

Info for manual annotations of cluster CF:

- Start number 42 was manually annotated 1 time for cluster CF.
- Start number 44 was manually annotated 1 time for cluster CF.
- Start number 70 was manually annotated 1 time for cluster CF.

Info for manual annotations of cluster CV:

- Start number 33 was manually annotated 1 time for cluster CV.
- Start number 57 was manually annotated 1 time for cluster CV.
- Start number 68 was manually annotated 1 time for cluster CV.
- Start number 73 was manually annotated 1 time for cluster CV.
- Start number 80 was manually annotated 21 times for cluster CV.

Info for manual annotations of cluster EH:

- Start number 77 was manually annotated 6 times for cluster EH.

Info for manual annotations of cluster K1:

- Start number 70 was manually annotated 1 time for cluster K1.
- Start number 82 was manually annotated 1 time for cluster K1.

Info for manual annotations of cluster K5:

- Start number 71 was manually annotated 7 times for cluster K5.
- Start number 75 was manually annotated 1 time for cluster K5.
- Start number 80 was manually annotated 12 times for cluster K5.
- Start number 89 was manually annotated 2 times for cluster K5.

Info for manual annotations of cluster M1:

- Start number 44 was manually annotated 1 time for cluster M1.
- Start number 58 was manually annotated 12 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 58 was manually annotated 6 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 58 was manually annotated 1 time for cluster M3.

Gene Information:

Gene: *Aaronocolus_49* Start: 34181, Stop: 35398, Start Num: 97

Candidate Starts for *Aaronocolus_49*:

(Start: 79 @34064 has 5 MA's), (Start: 82 @34076 has 16 MA's), (86, 34091), (95, 34178), (Start: 97 @34181 has 1 MA's), (100, 34205), (104, 34247), (107, 34256), (115, 34298), (116, 34307), (118, 34319), (135, 34409), (136, 34418), (141, 34442), (153, 34562), (157, 34568), (173, 34658), (187, 34673), (189, 34682), (194, 34715), (212, 34826), (213, 34832), (229, 34880), (232, 34895), (237, 34910), (253, 34970), (260, 34994), (280, 35075), (287, 35105), (292, 35135), (301, 35183), (328, 35261), (340, 35309), (342, 35318), (350, 35345), (363, 35384),

Gene: Agent47_39 Start: 31420, Stop: 32865, Start Num: 71

Candidate Starts for Agent47_39:

(12, 31168), (20, 31231), (30, 31285), (54, 31372), (Start: 71 @31420 has 7 MA's), (Start: 89 @31495 has 2 MA's), (90, 31507), (105, 31618), (106, 31621), (111, 31654), (116, 31678), (127, 31741), (141, 31816), (178, 32092), (223, 32314), (225, 32326), (238, 32374), (244, 32404), (251, 32425), (258, 32449), (294, 32602), (315, 32683), (319, 32689), (323, 32701), (335, 32737), (337, 32743), (340, 32764), (344, 32779), (346, 32785), (360, 32833), (364, 32842),

Gene: AlleyCat_39 Start: 31272, Stop: 32717, Start Num: 71

Candidate Starts for AlleyCat_39:

(22, 31101), (30, 31137), (54, 31224), (Start: 71 @31272 has 7 MA's), (Start: 89 @31347 has 2 MA's), (90, 31359), (105, 31470), (106, 31473), (111, 31506), (116, 31530), (127, 31593), (141, 31668), (178, 31944), (223, 32166), (225, 32178), (238, 32226), (244, 32256), (251, 32277), (258, 32301), (294, 32454), (315, 32535), (319, 32541), (323, 32553), (335, 32589), (337, 32595), (339, 32613), (340, 32616), (344, 32631), (346, 32637), (360, 32685), (364, 32694),

Gene: Alsaber_52 Start: 36706, Stop: 38124, Start Num: 74

Candidate Starts for Alsaber_52:

(64, 36682), (Start: 74 @36706 has 4 MA's), (86, 36736), (Start: 93 @36817 has 1 MA's), (107, 36901), (109, 36919), (115, 36943), (116, 36952), (118, 36964), (122, 36991), (132, 37024), (136, 37063), (137, 37066), (141, 37087), (157, 37213), (167, 37276), (190, 37402), (197, 37447), (212, 37540), (237, 37624), (252, 37681), (256, 37693), (260, 37708), (281, 37792), (286, 37813), (292, 37849), (298, 37882), (323, 37960), (340, 38023), (346, 38041), (354, 38074), (355, 38077),

Gene: Alvy_56 Start: 38642, Stop: 40063, Start Num: 66

Candidate Starts for Alvy_56:

(40, 38561), (43, 38570), (Start: 47 @38582 has 3 MA's), (Start: 63 @38633 has 5 MA's), (Start: 66 @38642 has 10 MA's), (105, 38852), (112, 38879), (117, 38909), (139, 39017), (153, 39146), (163, 39194), (187, 39305), (189, 39314), (193, 39341), (196, 39362), (197, 39365), (204, 39404), (207, 39419), (241, 39563), (265, 39647), (289, 39764), (294, 39800), (305, 39854), (307, 39857), (320, 39890), (340, 39956), (356, 40013), (367, 40052),

Gene: Amela_51 Start: 37563, Stop: 38975, Start Num: 74

Candidate Starts for Amela_51:

(Start: 74 @37563 has 4 MA's), (86, 37593), (104, 37749), (107, 37758), (109, 37776), (111, 37785), (115, 37800), (116, 37809), (118, 37821), (122, 37848), (128, 37872), (132, 37881), (136, 37920), (137, 37923), (141, 37944), (157, 38070), (158, 38073), (167, 38133), (187, 38244), (190, 38259), (197, 38304), (212, 38397), (229, 38451), (232, 38466), (237, 38481), (256, 38550), (260, 38565), (274, 38628), (292, 38706), (301, 38754), (340, 38880), (346, 38898), (355, 38934), (363, 38955),

Gene: Amethyst_51 Start: 36872, Stop: 38293, Start Num: 66

Candidate Starts for Amethyst_51:

(40, 36791), (43, 36800), (Start: 47 @36812 has 3 MA's), (Start: 63 @36863 has 5 MA's), (Start: 66 @36872 has 10 MA's), (85, 36917), (103, 37061), (105, 37082), (112, 37109), (117, 37139), (139, 37247), (153, 37376), (158, 37385), (163, 37424), (168, 37454), (176, 37502), (187, 37535), (189, 37544), (196, 37592), (197, 37595), (204, 37634), (207, 37649), (241, 37793), (265, 37877), (289, 37994), (294, 38030), (305, 38084), (307, 38087), (320, 38120), (325, 38129), (340, 38186), (353, 38234), (356, 38243),

Gene: Auspice_131 Start: 69640, Stop: 68180, Start Num: 58

Candidate Starts for Auspice_131:

(Start: 44 @69682 has 2 MA's), (55, 69649), (Start: 58 @69640 has 19 MA's), (86, 69568), (Start: 97 @69487 has 1 MA's), (102, 69445), (105, 69421), (118, 69349), (136, 69232), (145, 69169), (154, 69085), (158, 69073), (164, 69031), (167, 69013), (201, 68851), (205, 68830), (214, 68779), (219, 68752), (231, 68725), (264, 68605), (294, 68455), (315, 68377), (333, 68332), (347, 68275),

Gene: Aziz_145 Start: 70550, Stop: 69096, Start Num: 58

Candidate Starts for Aziz_145:

(Start: 44 @70592 has 2 MA's), (55, 70559), (Start: 58 @70550 has 19 MA's), (81, 70496), (86, 70478), (94, 70403), (118, 70259), (136, 70142), (145, 70079), (158, 69989), (164, 69947), (208, 69734), (214, 69695), (219, 69668), (231, 69641), (252, 69560), (261, 69530), (263, 69524), (264, 69521), (294, 69371), (299, 69350), (315, 69293), (347, 69191),

Gene: Azula_38 Start: 30375, Stop: 31766, Start Num: 80

Candidate Starts for Azula_38:

(Start: 33 @30240 has 1 MA's), (Start: 68 @30354 has 1 MA's), (Start: 80 @30375 has 35 MA's), (99, 30495), (125, 30672), (146, 30798), (151, 30852), (168, 30969), (185, 31047), (196, 31110), (202, 31146), (215, 31224), (223, 31251), (226, 31266), (245, 31332), (247, 31335), (254, 31359), (257, 31368), (258, 31371), (281, 31449), (292, 31506), (299, 31542), (306, 31575), (310, 31584), (318, 31602), (337, 31653),

Gene: Barnstormer_59 Start: 38306, Stop: 39811, Start Num: 77

Candidate Starts for Barnstormer_59:

(14, 38096), (Start: 77 @38306 has 7 MA's), (105, 38498), (136, 38669), (164, 38861), (171, 38915), (179, 38963), (198, 39065), (242, 39302), (283, 39452), (301, 39551), (372, 39806),

Gene: BartholomewSD_56 Start: 37761, Stop: 39182, Start Num: 66

Candidate Starts for BartholomewSD_56:

(40, 37680), (43, 37689), (Start: 47 @37701 has 3 MA's), (Start: 63 @37752 has 5 MA's), (Start: 66 @37761 has 10 MA's), (105, 37971), (112, 37998), (117, 38028), (139, 38136), (153, 38265), (163, 38313), (187, 38424), (189, 38433), (193, 38460), (196, 38481), (197, 38484), (204, 38523), (207, 38538), (241, 38682), (265, 38766), (289, 38883), (294, 38919), (305, 38973), (307, 38976), (320, 39009), (340, 39075), (356, 39132), (367, 39171),

Gene: BeardedLady_49 Start: 34453, Stop: 35775, Start Num: 82

Candidate Starts for BeardedLady_49:

(Start: 79 @34441 has 5 MA's), (Start: 82 @34453 has 16 MA's), (86, 34468), (95, 34555), (Start: 97 @34558 has 1 MA's), (100, 34582), (107, 34633), (115, 34675), (116, 34684), (118, 34696), (135, 34786), (136, 34795), (141, 34819), (153, 34939), (157, 34945), (173, 35035), (187, 35050), (189, 35059), (194, 35092), (212, 35203), (213, 35209), (229, 35257), (232, 35272), (237, 35287), (253, 35347), (260, 35371), (280, 35452), (287, 35482), (292, 35512), (301, 35560), (328, 35638), (340, 35686), (342, 35695), (350, 35722), (363, 35761),

Gene: Begonia_38 Start: 31872, Stop: 33263, Start Num: 80

Candidate Starts for Begonia_38:

(49, 31794), (59, 31824), (Start: 63 @31842 has 5 MA's), (Start: 80 @31872 has 35 MA's), (99, 31992), (110, 32085), (142, 32262), (143, 32268), (146, 32295), (151, 32349), (168, 32466), (185, 32544), (215, 32721), (223, 32748), (226, 32763), (245, 32829), (247, 32832), (253, 32853), (254, 32856), (257, 32865), (258, 32868), (281, 32946), (284, 32955), (292, 33003), (306, 33072), (310, 33081), (318, 33099), (335, 33144), (337, 33150), (340, 33171), (355, 33225),

Gene: Blino_41 Start: 33377, Stop: 34768, Start Num: 80

Candidate Starts for Blino_41:

(Start: 63 @33347 has 5 MA's), (Start: 73 @33368 has 1 MA's), (Start: 80 @33377 has 35 MA's), (99, 33497), (125, 33674), (142, 33767), (143, 33773), (146, 33800), (151, 33854), (168, 33971), (185, 34049), (202, 34148), (206, 34166), (208, 34175), (215, 34226), (223, 34253), (226, 34268), (245, 34334), (247, 34337), (253, 34358), (257, 34370), (258, 34373), (281, 34451), (292, 34508), (310, 34586), (318, 34604), (335, 34649), (337, 34655), (340, 34676), (355, 34730),

Gene: Blueberry_37 Start: 30375, Stop: 31766, Start Num: 80

Candidate Starts for Blueberry_37:

(Start: 33 @30240 has 1 MA's), (Start: 68 @30354 has 1 MA's), (Start: 80 @30375 has 35 MA's), (99, 30495), (125, 30672), (146, 30798), (151, 30852), (168, 30969), (185, 31047), (196, 31110), (202, 31146), (215, 31224), (223, 31251), (226, 31266), (245, 31332), (247, 31335), (254, 31359), (257, 31368), (258, 31371), (281, 31449), (292, 31506), (299, 31542), (306, 31575), (310, 31584), (318, 31602), (337, 31653),

Gene: Bongo_130 Start: 69256, Stop: 67796, Start Num: 58

Candidate Starts for Bongo_130:

(Start: 44 @69298 has 2 MA's), (55, 69265), (Start: 58 @69256 has 19 MA's), (86, 69184), (Start: 97 @69103 has 1 MA's), (102, 69061), (105, 69037), (118, 68965), (136, 68848), (145, 68785), (154, 68701), (158, 68689), (164, 68647), (167, 68629), (201, 68467), (205, 68446), (214, 68395), (219, 68368), (231, 68341), (264, 68221), (294, 68071), (315, 67993), (333, 67948), (347, 67891),

Gene: Bovely_49 Start: 34070, Stop: 35404, Start Num: 79

Candidate Starts for Bovely_49:

(Start: 79 @34070 has 5 MA's), (Start: 82 @34082 has 16 MA's), (86, 34097), (95, 34184), (Start: 97 @34187 has 1 MA's), (100, 34211), (104, 34253), (107, 34262), (115, 34304), (116, 34313), (118, 34325), (135, 34415), (136, 34424), (141, 34448), (153, 34568), (157, 34574), (173, 34664), (187, 34679), (189, 34688), (194, 34721), (212, 34832), (213, 34838), (229, 34886), (232, 34901), (237, 34916), (253, 34976), (256, 34985), (260, 35000), (280, 35081), (287, 35111), (292, 35141), (301, 35189), (328, 35267), (340, 35315), (342, 35324), (350, 35351), (363, 35390),

Gene: Bowden_53 Start: 38547, Stop: 39977, Start Num: 63

Candidate Starts for Bowden_53:

(40, 38475), (43, 38484), (Start: 47 @38496 has 3 MA's), (Start: 63 @38547 has 5 MA's), (Start: 66 @38556 has 10 MA's), (112, 38793), (139, 38931), (153, 39060), (163, 39108), (187, 39219), (189, 39228), (193, 39255), (196, 39276), (197, 39279), (204, 39318), (207, 39333), (241, 39477), (257, 39534), (265, 39561), (289, 39678), (294, 39714), (305, 39768), (307, 39771), (320, 39804), (340, 39870), (356, 39927), (367, 39966),

Gene: Bricole_133 Start: 69404, Stop: 67944, Start Num: 58

Candidate Starts for Bricole_133:

(Start: 44 @69446 has 2 MA's), (55, 69413), (Start: 58 @69404 has 19 MA's), (86, 69332), (Start: 97 @69251 has 1 MA's), (102, 69209), (105, 69185), (118, 69113), (136, 68996), (145, 68933), (154, 68849), (158, 68837), (164, 68795), (167, 68777), (201, 68615), (205, 68594), (214, 68543), (219, 68516), (231, 68489), (264, 68369), (294, 68219), (315, 68141), (333, 68096), (347, 68039),

Gene: BryanRecycles_50 Start: 34372, Stop: 35694, Start Num: 82

Candidate Starts for BryanRecycles_50:

(Start: 79 @34360 has 5 MA's), (Start: 82 @34372 has 16 MA's), (86, 34387), (95, 34474), (Start: 97 @34477 has 1 MA's), (100, 34501), (107, 34552), (115, 34594), (116, 34603), (118, 34615), (135, 34705), (136, 34714), (141, 34738), (153, 34858), (157, 34864), (173, 34954), (187, 34969), (189, 34978), (194, 35011), (212, 35122), (213, 35128), (229, 35176), (232, 35191), (237, 35206), (253, 35266), (256, 35275), (260, 35290), (276, 35368), (287, 35401), (292, 35431), (301, 35479), (328, 35557), (340, 35605), (342, 35614), (350, 35641), (363, 35680),

Gene: Caelum_54 Start: 37075, Stop: 38505, Start Num: 63

Candidate Starts for Caelum_54:

(40, 37003), (Start: 47 @37024 has 3 MA's), (Start: 63 @37075 has 5 MA's), (Start: 66 @37084 has 10 MA's), (105, 37294), (112, 37321), (121, 37372), (123, 37387), (125, 37393), (139, 37459), (153, 37588), (158, 37597), (163, 37636), (187, 37747), (189, 37756), (197, 37807), (207, 37861), (214, 37915), (241, 38005), (265, 38089), (289, 38206), (294, 38242), (307, 38299), (320, 38332), (325, 38341), (340, 38398), (356, 38455),

Gene: Caliburn_48 Start: 34183, Stop: 35505, Start Num: 82

Candidate Starts for Caliburn_48:

(Start: 79 @34171 has 5 MA's), (Start: 82 @34183 has 16 MA's), (86, 34198), (95, 34285), (Start: 97 @34288 has 1 MA's), (100, 34312), (107, 34363), (115, 34405), (116, 34414), (118, 34426), (135, 34516), (136, 34525), (141, 34549), (153, 34669), (157, 34675), (173, 34765), (187, 34780), (189, 34789), (194, 34822), (212, 34933), (213, 34939), (229, 34987), (232, 35002), (237, 35017), (253, 35077), (260, 35101), (280, 35182), (287, 35212), (292, 35242), (301, 35290), (328, 35368), (340, 35416), (342, 35425), (350, 35452), (363, 35491),

Gene: CarolAnn_40 Start: 33367, Stop: 34767, Start Num: 73

Candidate Starts for CarolAnn_40:

(Start: 63 @33346 has 5 MA's), (Start: 73 @33367 has 1 MA's), (Start: 80 @33376 has 35 MA's), (99, 33496), (125, 33673), (142, 33766), (143, 33772), (146, 33799), (151, 33853), (168, 33970), (185, 34048), (202, 34147), (206, 34165), (208, 34174), (215, 34225), (223, 34252), (226, 34267), (245, 34333), (247, 34336), (253, 34357), (257, 34369), (258, 34372), (281, 34450), (292, 34507), (310, 34585), (318, 34603), (335, 34648), (337, 34654), (340, 34675), (355, 34729),

Gene: Caron_62 Start: 38824, Stop: 40329, Start Num: 77

Candidate Starts for Caron_62:

(1, 38068), (2, 38149), (3, 38335), (7, 38500), (59, 38776), (Start: 77 @38824 has 7 MA's), (105, 39016), (136, 39187), (171, 39433), (174, 39466), (179, 39481), (198, 39583), (221, 39715), (242, 39820), (372, 40324),

Gene: Celery_54 Start: 36669, Stop: 38081, Start Num: 74

Candidate Starts for Celery_54:

(Start: 74 @36669 has 4 MA's), (86, 36699), (Start: 93 @36780 has 1 MA's), (Start: 97 @36789 has 1 MA's), (104, 36855), (107, 36864), (115, 36906), (116, 36915), (118, 36927), (122, 36954), (132, 36987), (136, 37026), (137, 37029), (141, 37050), (157, 37176), (167, 37239), (187, 37350), (190, 37365), (197, 37410), (212, 37503), (213, 37509), (215, 37530), (237, 37587), (256, 37656), (260, 37671), (274, 37734), (290, 37797), (292, 37812), (298, 37845), (301, 37860), (323, 37923), (340, 37986),

Gene: Collard_38 Start: 31381, Stop: 32826, Start Num: 71

Candidate Starts for Collard_38:

(12, 31129), (20, 31192), (30, 31246), (54, 31333), (Start: 71 @31381 has 7 MA's), (Start: 89 @31456 has 2 MA's), (90, 31468), (105, 31579), (106, 31582), (111, 31615), (116, 31639), (127, 31702), (141, 31777), (178, 32053), (223, 32275), (225, 32287), (238, 32335), (244, 32365), (251, 32386), (258, 32410), (294, 32563), (315, 32644), (319, 32650), (323, 32662), (335, 32698), (337, 32704), (340, 32725), (344, 32740), (346, 32746), (360, 32794), (364, 32803),

Gene: Curiosium_43 Start: 31007, Stop: 32419, Start Num: 70

Candidate Starts for Curiosium_43:

(65, 30998), (Start: 70 @31007 has 2 MA's), (Start: 82 @31028 has 16 MA's), (91, 31100), (100, 31157), (105, 31199), (106, 31202), (110, 31232), (112, 31238), (124, 31310), (145, 31433), (153,

31511), (160, 31541), (168, 31589), (177, 31658), (179, 31667), (187, 31694), (191, 31709), (196, 31748), (197, 31751), (201, 31778), (207, 31805), (215, 31859), (218, 31871), (221, 31877), (230, 31901), (257, 31994), (260, 32006), (261, 32009), (264, 32018), (268, 32036), (283, 32093), (284, 32096), (297, 32168), (300, 32183), (335, 32285), (346, 32330), (347, 32333), (369, 32414),

Gene: Dadosky_39 Start: 31274, Stop: 32719, Start Num: 71

Candidate Starts for Dadosky_39:

(22, 31103), (30, 31139), (54, 31226), (Start: 71 @31274 has 7 MA's), (Start: 89 @31349 has 2 MA's), (90, 31361), (105, 31472), (106, 31475), (111, 31508), (116, 31532), (127, 31595), (141, 31670), (178, 31946), (223, 32168), (225, 32180), (238, 32228), (244, 32258), (251, 32279), (258, 32303), (294, 32456), (315, 32537), (319, 32543), (323, 32555), (335, 32591), (337, 32597), (339, 32615), (340, 32618), (344, 32633), (346, 32639), (360, 32687), (364, 32696),

Gene: Daudau_52 Start: 37034, Stop: 38455, Start Num: 66

Candidate Starts for Daudau_52:

(40, 36953), (Start: 47 @36974 has 3 MA's), (Start: 63 @37025 has 5 MA's), (Start: 66 @37034 has 10 MA's), (112, 37271), (139, 37409), (153, 37538), (163, 37586), (187, 37697), (189, 37706), (193, 37733), (196, 37754), (197, 37757), (204, 37796), (207, 37811), (241, 37955), (265, 38039), (289, 38156), (294, 38192), (305, 38246), (307, 38249), (340, 38348), (356, 38405), (358, 38411),

Gene: Dexers_50 Start: 36616, Stop: 38022, Start Num: 75

Candidate Starts for Dexers_50:

(65, 36595), (Start: 75 @36616 has 2 MA's), (86, 36646), (107, 36811), (109, 36829), (115, 36853), (116, 36862), (118, 36874), (135, 36964), (136, 36973), (137, 36976), (141, 36997), (158, 37126), (167, 37186), (187, 37297), (197, 37357), (218, 37489), (229, 37504), (257, 37606), (281, 37702), (292, 37759), (312, 37843), (319, 37858), (323, 37870), (346, 37951), (361, 38002),

Gene: Diminimus_131 Start: 69072, Stop: 67612, Start Num: 58

Candidate Starts for Diminimus_131:

(Start: 44 @69114 has 2 MA's), (55, 69081), (Start: 58 @69072 has 19 MA's), (86, 69000), (Start: 97 @68919 has 1 MA's), (102, 68877), (105, 68853), (118, 68781), (136, 68664), (145, 68601), (154, 68517), (158, 68505), (164, 68463), (167, 68445), (201, 68283), (205, 68262), (214, 68211), (219, 68184), (231, 68157), (264, 68037), (294, 67887), (315, 67809), (333, 67764), (347, 67707),

Gene: Dulcita_131 Start: 69073, Stop: 67613, Start Num: 58

Candidate Starts for Dulcita_131:

(Start: 44 @69115 has 2 MA's), (55, 69082), (Start: 58 @69073 has 19 MA's), (86, 69001), (Start: 97 @68920 has 1 MA's), (102, 68878), (105, 68854), (118, 68782), (136, 68665), (145, 68602), (154, 68518), (158, 68506), (164, 68464), (167, 68446), (201, 68284), (205, 68263), (214, 68212), (219, 68185), (231, 68158), (264, 68038), (294, 67888), (315, 67810), (333, 67765), (347, 67708),

Gene: ELB20_52 Start: 37707, Stop: 38996, Start Num: 93

Candidate Starts for ELB20_52:

(Start: 66 @37578 has 10 MA's), (67, 37581), (Start: 93 @37707 has 1 MA's), (95, 37713), (99, 37722), (105, 37785), (117, 37842), (121, 37863), (129, 37893), (130, 37896), (139, 37950), (153, 38079), (158, 38088), (163, 38127), (168, 38157), (187, 38238), (189, 38247), (197, 38298), (207, 38352), (265, 38580), (278, 38649), (294, 38733), (307, 38790), (320, 38823), (325, 38832), (340, 38889), (356, 38946), (358, 38952), (367, 38985),

Gene: Eddasa_50 Start: 34372, Stop: 35694, Start Num: 82

Candidate Starts for Eddasa_50:

(Start: 79 @34360 has 5 MA's), (Start: 82 @34372 has 16 MA's), (86, 34387), (95, 34474), (Start: 97 @34477 has 1 MA's), (100, 34501), (107, 34552), (115, 34594), (116, 34603), (118, 34615), (135,

34705), (136, 34714), (141, 34738), (153, 34858), (157, 34864), (173, 34954), (187, 34969), (189, 34978), (194, 35011), (212, 35122), (213, 35128), (229, 35176), (232, 35191), (237, 35206), (253, 35266), (256, 35275), (260, 35290), (276, 35368), (287, 35401), (292, 35431), (301, 35479), (328, 35557), (340, 35605), (342, 35614), (350, 35641), (363, 35680),

Gene: Edugator_39 Start: 31774, Stop: 33144, Start Num: 89

Candidate Starts for Edugator_39:

(12, 31447), (22, 31528), (30, 31564), (54, 31651), (Start: 71 @31699 has 7 MA's), (Start: 89 @31774 has 2 MA's), (90, 31786), (105, 31897), (106, 31900), (111, 31933), (116, 31957), (127, 32020), (141, 32095), (178, 32371), (223, 32593), (225, 32605), (238, 32653), (244, 32683), (251, 32704), (294, 32881), (315, 32962), (319, 32968), (323, 32980), (335, 33016), (337, 33022), (339, 33040), (340, 33043), (344, 33058), (346, 33064), (360, 33112), (364, 33121),

Gene: EnochSoames_52 Start: 34356, Stop: 35690, Start Num: 79

Candidate Starts for EnochSoames_52:

(Start: 79 @34356 has 5 MA's), (Start: 82 @34368 has 16 MA's), (86, 34383), (95, 34470), (Start: 97 @34473 has 1 MA's), (100, 34497), (104, 34539), (107, 34548), (115, 34590), (116, 34599), (118, 34611), (135, 34701), (136, 34710), (141, 34734), (153, 34854), (157, 34860), (173, 34950), (187, 34965), (189, 34974), (194, 35007), (212, 35118), (213, 35124), (229, 35172), (232, 35187), (237, 35202), (253, 35262), (256, 35271), (276, 35364), (287, 35397), (292, 35427), (301, 35475), (328, 35553), (340, 35601), (342, 35610), (350, 35637), (363, 35676),

Gene: Esperer_49 Start: 33895, Stop: 35217, Start Num: 82

Candidate Starts for Esperer_49:

(Start: 79 @33883 has 5 MA's), (Start: 82 @33895 has 16 MA's), (86, 33910), (95, 33997), (Start: 97 @34000 has 1 MA's), (100, 34024), (104, 34066), (107, 34075), (115, 34117), (116, 34126), (118, 34138), (135, 34228), (136, 34237), (141, 34261), (153, 34381), (157, 34387), (173, 34477), (187, 34492), (189, 34501), (194, 34534), (212, 34645), (213, 34651), (229, 34699), (232, 34714), (237, 34729), (253, 34789), (260, 34813), (280, 34894), (287, 34924), (292, 34954), (301, 35002), (328, 35080), (340, 35128), (342, 35137), (350, 35164), (363, 35203),

Gene: Estes_146 Start: 70719, Stop: 69265, Start Num: 58

Candidate Starts for Estes_146:

(11, 70932), (16, 70887), (26, 70836), (Start: 44 @70761 has 2 MA's), (55, 70728), (Start: 58 @70719 has 19 MA's), (81, 70665), (86, 70647), (94, 70572), (118, 70428), (136, 70311), (145, 70248), (158, 70158), (164, 70116), (208, 69903), (214, 69864), (219, 69837), (231, 69810), (252, 69729), (261, 69699), (263, 69693), (264, 69690), (294, 69540), (299, 69519), (315, 69462), (347, 69360), (358, 69318), (360, 69312),

Gene: Exile_44 Start: 37249, Stop: 38688, Start Num: 74

Candidate Starts for Exile_44:

(69, 37237), (Start: 74 @37249 has 4 MA's), (78, 37255), (84, 37273), (105, 37441), (114, 37486), (115, 37492), (128, 37552), (138, 37612), (161, 37780), (191, 37939), (217, 38107), (236, 38161), (261, 38254), (283, 38341), (308, 38464), (314, 38476), (316, 38482), (324, 38500), (340, 38560), (358, 38620),

Gene: Fairfaxidum_39 Start: 30789, Stop: 32177, Start Num: 80

Candidate Starts for Fairfaxidum_39:

(Start: 63 @30759 has 5 MA's), (Start: 80 @30789 has 35 MA's), (Start: 89 @30846 has 2 MA's), (144, 31200), (146, 31212), (151, 31266), (152, 31272), (155, 31299), (159, 31332), (160, 31335), (187, 31467), (202, 31560), (206, 31578), (219, 31653), (223, 31665), (226, 31680), (228, 31689), (238, 31716), (253, 31770), (257, 31782), (267, 31812), (281, 31863), (292, 31920), (306, 31989), (310, 31998), (311, 32001), (316, 32013), (318, 32016), (321, 32025), (349, 32121), (357, 32142), (363,

32157),

Gene: Fenry_37 Start: 30762, Stop: 32153, Start Num: 80

Candidate Starts for Fenry_37:

(59, 30714), (Start: 63 @30732 has 5 MA's), (Start: 73 @30753 has 1 MA's), (Start: 80 @30762 has 35 MA's), (99, 30882), (110, 30975), (142, 31152), (143, 31158), (146, 31185), (151, 31239), (168, 31356), (202, 31533), (206, 31551), (208, 31560), (215, 31611), (223, 31638), (226, 31653), (245, 31719), (247, 31722), (253, 31743), (254, 31746), (257, 31755), (258, 31758), (273, 31809), (281, 31836), (292, 31893), (299, 31929), (306, 31962), (318, 31989), (337, 32040), (355, 32115),

Gene: Feyre_38 Start: 31236, Stop: 32642, Start Num: 80

Candidate Starts for Feyre_38:

(Start: 75 @31227 has 2 MA's), (Start: 80 @31236 has 35 MA's), (99, 31356), (125, 31533), (133, 31557), (140, 31608), (145, 31650), (152, 31719), (155, 31746), (156, 31755), (160, 31782), (165, 31803), (167, 31821), (170, 31848), (182, 31893), (185, 31899), (208, 32004), (221, 32070), (223, 32079), (227, 32100), (231, 32118), (237, 32139), (260, 32226), (263, 32235), (264, 32238), (288, 32346), (293, 32382), (313, 32454), (316, 32463), (335, 32514), (343, 32553), (348, 32565), (349, 32574), (362, 32604), (366, 32619),

Gene: FreakyGoo_129 Start: 69557, Stop: 68097, Start Num: 58

Candidate Starts for FreakyGoo_129:

(Start: 44 @69599 has 2 MA's), (55, 69566), (Start: 58 @69557 has 19 MA's), (86, 69485), (Start: 97 @69404 has 1 MA's), (102, 69362), (105, 69338), (118, 69266), (136, 69149), (145, 69086), (154, 69002), (158, 68990), (164, 68948), (167, 68930), (201, 68768), (205, 68747), (214, 68696), (219, 68669), (231, 68642), (264, 68522), (294, 68372), (315, 68294), (333, 68249), (347, 68192),

Gene: Frokostdame_39 Start: 30677, Stop: 32089, Start Num: 68

Candidate Starts for Frokostdame_39:

(Start: 33 @30563 has 1 MA's), (Start: 68 @30677 has 1 MA's), (Start: 80 @30698 has 35 MA's), (99, 30818), (146, 31121), (151, 31175), (168, 31292), (185, 31370), (196, 31433), (202, 31469), (215, 31547), (223, 31574), (226, 31589), (245, 31655), (247, 31658), (257, 31691), (258, 31694), (281, 31772), (292, 31829), (299, 31865), (306, 31898), (318, 31925), (355, 32051),

Gene: Gambino_40 Start: 30240, Stop: 31766, Start Num: 33

Candidate Starts for Gambino_40:

(Start: 33 @30240 has 1 MA's), (Start: 68 @30354 has 1 MA's), (Start: 80 @30375 has 35 MA's), (99, 30495), (125, 30672), (146, 30798), (151, 30852), (168, 30969), (185, 31047), (196, 31110), (202, 31146), (215, 31224), (223, 31251), (226, 31266), (245, 31332), (247, 31335), (254, 31359), (257, 31368), (258, 31371), (281, 31449), (292, 31506), (299, 31542), (306, 31575), (310, 31584), (318, 31602), (337, 31653),

Gene: GardenSalsa_146 Start: 70892, Stop: 69438, Start Num: 58

Candidate Starts for GardenSalsa_146:

(26, 71009), (Start: 44 @70934 has 2 MA's), (55, 70901), (Start: 58 @70892 has 19 MA's), (81, 70838), (86, 70820), (94, 70745), (118, 70601), (136, 70484), (145, 70421), (158, 70331), (164, 70289), (208, 70076), (219, 70010), (231, 69983), (252, 69902), (261, 69872), (263, 69866), (264, 69863), (294, 69713), (299, 69692), (315, 69635), (347, 69533), (358, 69491),

Gene: GenevaB15_148 Start: 70550, Stop: 69096, Start Num: 58

Candidate Starts for GenevaB15_148:

(Start: 44 @70592 has 2 MA's), (55, 70559), (Start: 58 @70550 has 19 MA's), (81, 70496), (86, 70478), (94, 70403), (118, 70259), (136, 70142), (145, 70079), (158, 69989), (164, 69947), (208, 69734), (214, 69695), (219, 69668), (231, 69641), (252, 69560), (261, 69530), (263, 69524), (264, 69521), (294,

69371), (299, 69350), (315, 69293), (347, 69191),

Gene: Gengar_38 Start: 31346, Stop: 32752, Start Num: 80

Candidate Starts for Gengar_38:

(Start: 75 @31337 has 2 MA's), (Start: 80 @31346 has 35 MA's), (99, 31466), (125, 31643), (133, 31667), (140, 31718), (145, 31760), (152, 31829), (155, 31856), (156, 31865), (160, 31892), (165, 31913), (167, 31931), (170, 31958), (182, 32003), (185, 32009), (208, 32114), (221, 32180), (223, 32189), (227, 32210), (231, 32228), (260, 32336), (263, 32345), (264, 32348), (288, 32456), (293, 32492), (313, 32564), (316, 32573), (335, 32624), (343, 32663), (348, 32675), (349, 32684), (362, 32714), (366, 32729),

Gene: Glaske16_133 Start: 70191, Stop: 68731, Start Num: 58

Candidate Starts for Glaske16_133:

(Start: 44 @70233 has 2 MA's), (55, 70200), (Start: 58 @70191 has 19 MA's), (86, 70119), (Start: 97 @70038 has 1 MA's), (102, 69996), (105, 69972), (118, 69900), (136, 69783), (145, 69720), (154, 69636), (158, 69624), (164, 69582), (167, 69564), (201, 69402), (205, 69381), (214, 69330), (219, 69303), (231, 69276), (264, 69156), (294, 69006), (315, 68928), (333, 68883), (347, 68826),

Gene: Gretchen_58 Start: 38919, Stop: 40406, Start Num: 77

Candidate Starts for Gretchen_58:

(5, 38601), (12, 38670), (Start: 77 @38919 has 7 MA's), (Start: 89 @38982 has 2 MA's), (92, 39012), (105, 39111), (106, 39114), (112, 39150), (136, 39282), (138, 39294), (147, 39366), (153, 39423), (159, 39450), (171, 39528), (179, 39576), (209, 39753), (211, 39765), (233, 39885), (242, 39918), (260, 39978), (271, 40020), (272, 40032), (300, 40158), (302, 40173), (329, 40251), (335, 40269), (370, 40401),

Gene: Guillsminger_39 Start: 31317, Stop: 32723, Start Num: 80

Candidate Starts for Guillsminger_39:

(Start: 75 @31308 has 2 MA's), (Start: 80 @31317 has 35 MA's), (99, 31437), (125, 31614), (133, 31638), (140, 31689), (145, 31731), (150, 31779), (152, 31800), (155, 31827), (156, 31836), (160, 31863), (165, 31884), (167, 31902), (170, 31929), (182, 31974), (185, 31980), (208, 32085), (221, 32151), (223, 32160), (227, 32181), (231, 32199), (260, 32307), (263, 32316), (264, 32319), (288, 32427), (293, 32463), (313, 32535), (316, 32544), (335, 32595), (343, 32634), (348, 32646), (349, 32655), (362, 32685), (366, 32700),

Gene: Heftyboy_38 Start: 31463, Stop: 32869, Start Num: 80

Candidate Starts for Heftyboy_38:

(Start: 75 @31454 has 2 MA's), (Start: 80 @31463 has 35 MA's), (99, 31583), (125, 31760), (133, 31784), (140, 31835), (145, 31877), (150, 31925), (152, 31946), (155, 31973), (156, 31982), (160, 32009), (165, 32030), (167, 32048), (170, 32075), (182, 32120), (185, 32126), (208, 32231), (221, 32297), (223, 32306), (227, 32327), (231, 32345), (260, 32453), (263, 32462), (264, 32465), (286, 32561), (288, 32573), (293, 32609), (313, 32681), (316, 32690), (335, 32741), (343, 32780), (348, 32792), (349, 32801), (362, 32831), (366, 32846),

Gene: Hydra_50 Start: 34719, Stop: 36053, Start Num: 79

Candidate Starts for Hydra_50:

(Start: 79 @34719 has 5 MA's), (Start: 82 @34731 has 16 MA's), (86, 34746), (95, 34833), (Start: 97 @34836 has 1 MA's), (100, 34860), (104, 34902), (107, 34911), (115, 34953), (116, 34962), (118, 34974), (135, 35064), (136, 35073), (141, 35097), (153, 35217), (157, 35223), (173, 35313), (187, 35328), (189, 35337), (194, 35370), (212, 35481), (213, 35487), (229, 35535), (232, 35550), (237, 35565), (253, 35625), (256, 35634), (260, 35649), (280, 35730), (287, 35760), (292, 35790), (301, 35838), (328, 35916), (340, 35964), (342, 35973), (350, 36000), (363, 36039),

Gene: IPhane7_129 Start: 69256, Stop: 67796, Start Num: 58

Candidate Starts for IPhane7_129:

(Start: 44 @69298 has 2 MA's), (55, 69265), (Start: 58 @69256 has 19 MA's), (86, 69184), (Start: 97 @69103 has 1 MA's), (102, 69061), (105, 69037), (118, 68965), (136, 68848), (145, 68785), (154, 68701), (158, 68689), (164, 68647), (167, 68629), (201, 68467), (205, 68446), (214, 68395), (219, 68368), (231, 68341), (264, 68221), (294, 68071), (315, 67993), (333, 67948), (347, 67891),

Gene: Ibantik_5 Start: 2018, Stop: 3472, Start Num: 82

Candidate Starts for Ibantik_5:

(6, 1661), (10, 1733), (13, 1751), (25, 1826), (36, 1886), (55, 1943), (Start: 82 @2018 has 16 MA's), (98, 2126), (105, 2195), (106, 2198), (109, 2222), (111, 2231), (112, 2234), (131, 2345), (169, 2612), (172, 2639), (231, 2936), (255, 3026), (261, 3047), (265, 3059), (269, 3083), (346, 3395),

Gene: Indigo_48 Start: 34063, Stop: 35397, Start Num: 79

Candidate Starts for Indigo_48:

(Start: 79 @34063 has 5 MA's), (Start: 82 @34075 has 16 MA's), (86, 34090), (95, 34177), (Start: 97 @34180 has 1 MA's), (100, 34204), (104, 34246), (107, 34255), (115, 34297), (116, 34306), (118, 34318), (135, 34408), (136, 34417), (141, 34441), (153, 34561), (157, 34567), (173, 34657), (187, 34672), (189, 34681), (194, 34714), (212, 34825), (213, 34831), (229, 34879), (232, 34894), (237, 34909), (253, 34969), (260, 34993), (280, 35074), (287, 35104), (292, 35134), (301, 35182), (328, 35260), (340, 35308), (342, 35317), (350, 35344), (363, 35383),

Gene: InvictusManeo_38 Start: 31499, Stop: 32869, Start Num: 89

Candidate Starts for InvictusManeo_38:

(12, 31172), (20, 31235), (30, 31289), (54, 31376), (Start: 71 @31424 has 7 MA's), (Start: 89 @31499 has 2 MA's), (90, 31511), (105, 31622), (106, 31625), (111, 31658), (116, 31682), (127, 31745), (141, 31820), (178, 32096), (223, 32318), (225, 32330), (238, 32378), (244, 32408), (251, 32429), (258, 32453), (294, 32606), (315, 32687), (319, 32693), (323, 32705), (335, 32741), (337, 32747), (340, 32768), (344, 32783), (346, 32789), (360, 32837), (364, 32846),

Gene: Issmi_53 Start: 37574, Stop: 38995, Start Num: 66

Candidate Starts for Issmi_53:

(Start: 47 @37514 has 3 MA's), (Start: 63 @37565 has 5 MA's), (Start: 66 @37574 has 10 MA's), (105, 37784), (112, 37811), (123, 37877), (139, 37949), (153, 38078), (158, 38087), (163, 38126), (187, 38237), (193, 38273), (196, 38294), (197, 38297), (204, 38336), (207, 38351), (241, 38495), (265, 38579), (289, 38696), (294, 38732), (305, 38786), (307, 38789), (320, 38822), (340, 38888), (353, 38936), (356, 38945), (367, 38984),

Gene: Izel_129 Start: 69072, Stop: 67612, Start Num: 58

Candidate Starts for Izel_129:

(Start: 44 @69114 has 2 MA's), (55, 69081), (Start: 58 @69072 has 19 MA's), (86, 69000), (Start: 97 @68919 has 1 MA's), (102, 68877), (105, 68853), (118, 68781), (136, 68664), (145, 68601), (154, 68517), (158, 68505), (164, 68463), (167, 68445), (201, 68283), (205, 68262), (214, 68211), (219, 68184), (231, 68157), (264, 68037), (294, 67887), (315, 67809), (333, 67764), (347, 67707),

Gene: Izzy_50 Start: 34419, Stop: 35741, Start Num: 82

Candidate Starts for Izzy_50:

(Start: 79 @34407 has 5 MA's), (Start: 82 @34419 has 16 MA's), (86, 34434), (95, 34521), (Start: 97 @34524 has 1 MA's), (100, 34548), (107, 34599), (115, 34641), (116, 34650), (118, 34662), (135, 34752), (136, 34761), (141, 34785), (153, 34905), (157, 34911), (173, 35001), (187, 35016), (189, 35025), (194, 35058), (212, 35169), (213, 35175), (229, 35223), (232, 35238), (237, 35253), (253, 35313), (256, 35322), (260, 35337), (276, 35415), (287, 35448), (292, 35478), (301, 35526), (328, 35604), (340, 35652), (342, 35661), (350, 35688), (363, 35727),

Gene: Jalammah_42 Start: 32075, Stop: 33466, Start Num: 80

Candidate Starts for Jalammah_42:

(59, 32027), (Start: 63 @32045 has 5 MA's), (Start: 73 @32066 has 1 MA's), (Start: 80 @32075 has 35 MA's), (99, 32195), (110, 32288), (142, 32465), (143, 32471), (146, 32498), (151, 32552), (168, 32669), (202, 32846), (206, 32864), (208, 32873), (215, 32924), (223, 32951), (226, 32966), (245, 33032), (247, 33035), (253, 33056), (254, 33059), (257, 33068), (258, 33071), (273, 33122), (281, 33149), (292, 33206), (299, 33242), (306, 33275), (318, 33302), (337, 33353), (355, 33428),

Gene: Jash_50 Start: 34372, Stop: 35694, Start Num: 82

Candidate Starts for Jash_50:

(Start: 79 @34360 has 5 MA's), (Start: 82 @34372 has 16 MA's), (86, 34387), (95, 34474), (Start: 97 @34477 has 1 MA's), (100, 34501), (107, 34552), (115, 34594), (116, 34603), (118, 34615), (135, 34705), (136, 34714), (141, 34738), (153, 34858), (157, 34864), (173, 34954), (187, 34969), (189, 34978), (194, 35011), (212, 35122), (213, 35128), (229, 35176), (232, 35191), (237, 35206), (253, 35266), (256, 35275), (260, 35290), (276, 35368), (287, 35401), (292, 35431), (301, 35479), (328, 35557), (340, 35605), (342, 35614), (350, 35641), (363, 35680),

Gene: Jevington_52 Start: 36147, Stop: 37628, Start Num: 47

Candidate Starts for Jevington_52:

(8, 35931), (18, 36015), (19, 36021), (39, 36123), (Start: 47 @36147 has 3 MA's), (Start: 63 @36198 has 5 MA's), (Start: 66 @36207 has 10 MA's), (105, 36417), (112, 36444), (139, 36582), (153, 36711), (163, 36759), (187, 36870), (189, 36879), (196, 36927), (197, 36930), (204, 36969), (241, 37128), (265, 37212), (289, 37329), (294, 37365), (320, 37455), (325, 37464), (340, 37521), (353, 37569), (356, 37578), (367, 37617),

Gene: Jflix2_51 Start: 35443, Stop: 36906, Start Num: 42

Candidate Starts for Jflix2_51:

(25, 35365), (Start: 42 @35443 has 1 MA's), (48, 35461), (Start: 70 @35521 has 2 MA's), (86, 35566), (Start: 89 @35596 has 2 MA's), (96, 35650), (99, 35659), (100, 35677), (133, 35860), (137, 35893), (145, 35953), (160, 36085), (162, 36097), (167, 36124), (189, 36208), (206, 36310), (207, 36313), (216, 36373), (226, 36412), (234, 36439), (242, 36469), (243, 36475), (250, 36490), (253, 36502), (257, 36514), (271, 36556), (286, 36619), (297, 36679), (304, 36721), (335, 36796), (338, 36808), (340, 36823), (351, 36862),

Gene: JuJu_41 Start: 31203, Stop: 32594, Start Num: 80

Candidate Starts for JuJu_41:

(Start: 63 @31173 has 5 MA's), (Start: 80 @31203 has 35 MA's), (99, 31323), (125, 31500), (142, 31593), (143, 31599), (146, 31626), (151, 31680), (156, 31722), (168, 31797), (171, 31824), (185, 31875), (196, 31938), (200, 31965), (202, 31974), (206, 31992), (208, 32001), (215, 32052), (223, 32079), (226, 32094), (253, 32184), (257, 32196), (258, 32199), (281, 32277), (292, 32334), (310, 32412), (337, 32481),

Gene: KappaFarmDelta_40 Start: 29698, Stop: 31089, Start Num: 80

Candidate Starts for KappaFarmDelta_40:

(Start: 80 @29698 has 35 MA's), (125, 29995), (146, 30121), (151, 30175), (168, 30292), (196, 30433), (202, 30469), (206, 30487), (215, 30547), (223, 30574), (226, 30589), (238, 30625), (245, 30655), (257, 30691), (258, 30694), (281, 30772), (306, 30898), (337, 30976), (340, 30997), (355, 31051),

Gene: KleverKiS_134 Start: 70309, Stop: 68849, Start Num: 58

Candidate Starts for KleverKiS_134:

(Start: 44 @70351 has 2 MA's), (55, 70318), (Start: 58 @70309 has 19 MA's), (86, 70237), (Start: 97 @70156 has 1 MA's), (102, 70114), (105, 70090), (118, 70018), (136, 69901), (145, 69838), (154,

69754), (158, 69742), (164, 69700), (167, 69682), (201, 69520), (205, 69499), (214, 69448), (219, 69421), (231, 69394), (264, 69274), (294, 69124), (315, 69046), (333, 69001), (347, 68944),

Gene: Kratio_37 Start: 30972, Stop: 32417, Start Num: 71

Candidate Starts for Kratio_37:

(12, 30720), (20, 30783), (30, 30837), (54, 30924), (Start: 71 @30972 has 7 MA's), (Start: 89 @31047 has 2 MA's), (90, 31059), (105, 31170), (106, 31173), (111, 31206), (116, 31230), (127, 31293), (141, 31368), (178, 31644), (223, 31866), (225, 31878), (238, 31926), (244, 31956), (251, 31977), (258, 32001), (294, 32154), (315, 32235), (319, 32241), (323, 32253), (335, 32289), (337, 32295), (339, 32313), (340, 32316), (344, 32331), (346, 32337), (360, 32385), (364, 32394),

Gene: Kumao_96 Start: 59042, Stop: 60475, Start Num: 72

Candidate Starts for Kumao_96:

(41, 58946), (62, 59015), (Start: 70 @59033 has 2 MA's), (Start: 72 @59042 has 1 MA's), (83, 59066), (100, 59189), (105, 59231), (119, 59312), (138, 59414), (141, 59426), (142, 59441), (147, 59486), (164, 59609), (166, 59621), (181, 59714), (188, 59744), (199, 59816), (202, 59825), (220, 59915), (222, 59921), (224, 59927), (255, 60035), (257, 60038), (259, 60047), (260, 60050), (286, 60155), (294, 60206), (307, 60263), (309, 60269), (317, 60287), (320, 60296), (326, 60305), (335, 60335), (337, 60341), (346, 60380),

Gene: Larva_39 Start: 31141, Stop: 32586, Start Num: 71

Candidate Starts for Larva_39:

(22, 30970), (30, 31006), (54, 31093), (Start: 71 @31141 has 7 MA's), (Start: 89 @31216 has 2 MA's), (90, 31228), (105, 31339), (106, 31342), (111, 31375), (116, 31399), (127, 31462), (141, 31537), (178, 31813), (223, 32035), (225, 32047), (238, 32095), (244, 32125), (251, 32146), (258, 32170), (294, 32323), (315, 32404), (319, 32410), (323, 32422), (335, 32458), (337, 32464), (339, 32482), (340, 32485), (344, 32500), (346, 32506), (360, 32554), (364, 32563),

Gene: LastHope_43 Start: 31352, Stop: 32743, Start Num: 82

Candidate Starts for LastHope_43:

(65, 31322), (Start: 70 @31331 has 2 MA's), (Start: 82 @31352 has 16 MA's), (91, 31424), (100, 31481), (105, 31523), (106, 31526), (110, 31556), (112, 31562), (124, 31634), (145, 31757), (153, 31835), (160, 31865), (168, 31913), (171, 31940), (177, 31982), (179, 31991), (187, 32018), (195, 32066), (201, 32102), (203, 32111), (207, 32129), (215, 32183), (218, 32195), (230, 32225), (248, 32285), (254, 32312), (257, 32318), (259, 32327), (260, 32330), (264, 32342), (268, 32360), (283, 32417), (297, 32492), (300, 32507), (303, 32534), (335, 32609), (346, 32654), (347, 32657), (363, 32708), (368, 32732), (369, 32738),

Gene: Legacy_48 Start: 34174, Stop: 35496, Start Num: 82

Candidate Starts for Legacy_48:

(Start: 79 @34162 has 5 MA's), (Start: 82 @34174 has 16 MA's), (86, 34189), (95, 34276), (Start: 97 @34279 has 1 MA's), (100, 34303), (104, 34345), (107, 34354), (115, 34396), (116, 34405), (118, 34417), (135, 34507), (136, 34516), (141, 34540), (153, 34660), (157, 34666), (173, 34756), (187, 34771), (189, 34780), (194, 34813), (212, 34924), (213, 34930), (229, 34978), (232, 34993), (237, 35008), (253, 35068), (256, 35077), (260, 35092), (276, 35170), (287, 35203), (292, 35233), (301, 35281), (328, 35359), (340, 35407), (342, 35416), (350, 35443), (363, 35482),

Gene: Leston_38 Start: 31447, Stop: 32853, Start Num: 80

Candidate Starts for Leston_38:

(Start: 75 @31438 has 2 MA's), (Start: 80 @31447 has 35 MA's), (99, 31567), (125, 31744), (133, 31768), (140, 31819), (145, 31861), (150, 31909), (152, 31930), (155, 31957), (156, 31966), (160, 31993), (165, 32014), (167, 32032), (170, 32059), (182, 32104), (185, 32110), (208, 32215), (221, 32281), (223, 32290), (227, 32311), (231, 32329), (263, 32446), (264, 32449), (288, 32557), (293,

32593), (313, 32665), (316, 32674), (335, 32725), (343, 32764), (348, 32776), (349, 32785), (362, 32815), (366, 32830),

Gene: Leviticus_49 Start: 34067, Stop: 35401, Start Num: 79

Candidate Starts for Leviticus_49:

(Start: 79 @34067 has 5 MA's), (Start: 82 @34079 has 16 MA's), (86, 34094), (95, 34181), (Start: 97 @34184 has 1 MA's), (100, 34208), (104, 34250), (107, 34259), (115, 34301), (116, 34310), (118, 34322), (135, 34412), (136, 34421), (141, 34445), (153, 34565), (157, 34571), (173, 34661), (187, 34676), (189, 34685), (194, 34718), (212, 34829), (213, 34835), (229, 34883), (232, 34898), (237, 34913), (253, 34973), (260, 34997), (280, 35078), (287, 35108), (292, 35138), (301, 35186), (328, 35264), (340, 35312), (342, 35321), (350, 35348), (363, 35387),

Gene: LilhomieP_131 Start: 70102, Stop: 68642, Start Num: 58

Candidate Starts for LilhomieP_131:

(Start: 44 @70144 has 2 MA's), (55, 70111), (Start: 58 @70102 has 19 MA's), (86, 70030), (Start: 97 @69949 has 1 MA's), (102, 69907), (105, 69883), (118, 69811), (136, 69694), (145, 69631), (154, 69547), (158, 69535), (164, 69493), (167, 69475), (201, 69313), (205, 69292), (214, 69241), (219, 69214), (231, 69187), (264, 69067), (294, 68917), (315, 68839), (333, 68794), (347, 68737),

Gene: Loofah_55 Start: 37744, Stop: 39162, Start Num: 66

Candidate Starts for Loofah_55:

(Start: 66 @37744 has 10 MA's), (67, 37747), (Start: 93 @37873 has 1 MA's), (95, 37879), (105, 37951), (108, 37957), (121, 38029), (129, 38059), (130, 38062), (139, 38116), (153, 38245), (158, 38254), (163, 38293), (175, 38368), (187, 38404), (189, 38413), (197, 38464), (265, 38746), (278, 38815), (294, 38899), (320, 38989), (325, 38998), (340, 39055), (356, 39112), (358, 39118), (367, 39151),

Gene: Lysidious_38 Start: 30792, Stop: 32183, Start Num: 80

Candidate Starts for Lysidious_38:

(32, 30651), (36, 30678), (Start: 63 @30762 has 5 MA's), (Start: 73 @30783 has 1 MA's), (Start: 80 @30792 has 35 MA's), (Start: 89 @30849 has 2 MA's), (99, 30912), (110, 31005), (125, 31089), (126, 31092), (142, 31182), (143, 31188), (146, 31215), (151, 31269), (168, 31386), (185, 31464), (206, 31581), (208, 31590), (215, 31641), (223, 31668), (226, 31683), (245, 31749), (247, 31752), (253, 31773), (257, 31785), (258, 31788), (281, 31866), (292, 31923), (306, 31992), (310, 32001), (318, 32019), (337, 32070),

Gene: Madraxi_55 Start: 38153, Stop: 39541, Start Num: 70

Candidate Starts for Madraxi_55:

(Start: 42 @38075 has 1 MA's), (45, 38084), (Start: 70 @38153 has 2 MA's), (86, 38198), (Start: 89 @38228 has 2 MA's), (96, 38282), (99, 38291), (100, 38309), (133, 38492), (137, 38525), (145, 38585), (160, 38717), (162, 38729), (167, 38756), (189, 38840), (206, 38942), (207, 38945), (216, 39005), (226, 39044), (234, 39071), (242, 39101), (243, 39107), (250, 39122), (257, 39146), (271, 39188), (286, 39251), (296, 39311), (297, 39314), (335, 39431), (340, 39458), (342, 39467), (351, 39497),

Gene: Malachai_38 Start: 31872, Stop: 33263, Start Num: 80

Candidate Starts for Malachai_38:

(49, 31794), (59, 31824), (Start: 63 @31842 has 5 MA's), (Start: 80 @31872 has 35 MA's), (99, 31992), (110, 32085), (142, 32262), (143, 32268), (146, 32295), (151, 32349), (168, 32466), (185, 32544), (215, 32721), (223, 32748), (226, 32763), (245, 32829), (247, 32832), (253, 32853), (254, 32856), (257, 32865), (258, 32868), (281, 32946), (284, 32955), (292, 33003), (306, 33072), (310, 33081), (318, 33099), (335, 33144), (337, 33150), (340, 33171), (355, 33225),

Gene: MalagasyRose_41 Start: 30932, Stop: 32326, Start Num: 80

Candidate Starts for MalagasyRose_41:

(Start: 80 @30932 has 35 MA's), (86, 30956), (92, 31019), (99, 31052), (110, 31145), (111, 31148), (112, 31151), (120, 31196), (125, 31229), (126, 31232), (134, 31262), (140, 31304), (145, 31346), (150, 31394), (152, 31415), (156, 31451), (160, 31478), (168, 31526), (215, 31748), (216, 31751), (221, 31766), (223, 31775), (227, 31796), (231, 31814), (249, 31877), (260, 31922), (281, 32006), (293, 32075), (297, 32087), (316, 32156), (318, 32159), (321, 32168), (329, 32189), (332, 32195), (336, 32210), (346, 32255), (348, 32261), (349, 32270), (362, 32300),

Gene: Marav_53 Start: 36467, Stop: 37948, Start Num: 47

Candidate Starts for Marav_53:

(8, 36248), (15, 36326), (23, 36368), (27, 36386), (39, 36443), (Start: 47 @36467 has 3 MA's), (Start: 63 @36518 has 5 MA's), (Start: 66 @36527 has 10 MA's), (Start: 93 @36659 has 1 MA's), (105, 36737), (121, 36815), (130, 36848), (139, 36902), (153, 37031), (163, 37079), (187, 37190), (189, 37199), (196, 37247), (197, 37250), (204, 37289), (241, 37448), (265, 37532), (289, 37649), (294, 37685), (320, 37775), (325, 37784), (340, 37841), (353, 37889), (356, 37898), (367, 37937),

Gene: Mellie_37 Start: 29588, Stop: 30979, Start Num: 80

Candidate Starts for Mellie_37:

(Start: 80 @29588 has 35 MA's), (99, 29708), (110, 29801), (142, 29978), (146, 30011), (151, 30065), (167, 30173), (168, 30182), (185, 30260), (196, 30323), (200, 30350), (202, 30359), (206, 30377), (208, 30386), (223, 30464), (226, 30479), (238, 30515), (247, 30548), (257, 30581), (258, 30584), (281, 30662), (292, 30719), (306, 30788), (310, 30797), (318, 30815), (334, 30857), (337, 30866), (340, 30887), (355, 30941),

Gene: Miryou_40 Start: 33649, Stop: 35055, Start Num: 80

Candidate Starts for Miryou_40:

(Start: 75 @33640 has 2 MA's), (Start: 80 @33649 has 35 MA's), (99, 33769), (125, 33946), (133, 33970), (140, 34021), (145, 34063), (152, 34132), (155, 34159), (156, 34168), (160, 34195), (165, 34216), (167, 34234), (170, 34261), (182, 34306), (185, 34312), (208, 34417), (221, 34483), (223, 34492), (227, 34513), (231, 34531), (237, 34552), (260, 34639), (263, 34648), (264, 34651), (288, 34759), (293, 34795), (313, 34867), (316, 34876), (335, 34927), (343, 34966), (348, 34978), (349, 34987), (362, 35017), (366, 35032),

Gene: MissRona_38 Start: 30376, Stop: 31767, Start Num: 80

Candidate Starts for MissRona_38:

(Start: 33 @30241 has 1 MA's), (Start: 68 @30355 has 1 MA's), (Start: 80 @30376 has 35 MA's), (99, 30496), (125, 30673), (146, 30799), (151, 30853), (168, 30970), (185, 31048), (196, 31111), (202, 31147), (215, 31225), (223, 31252), (226, 31267), (245, 31333), (247, 31336), (254, 31360), (257, 31369), (258, 31372), (281, 31450), (292, 31507), (299, 31543), (306, 31576), (310, 31585), (318, 31603), (337, 31654),

Gene: MrMagoo_148 Start: 70893, Stop: 69439, Start Num: 58

Candidate Starts for MrMagoo_148:

(26, 71010), (Start: 44 @70935 has 2 MA's), (55, 70902), (Start: 58 @70893 has 19 MA's), (81, 70839), (86, 70821), (94, 70746), (118, 70602), (136, 70485), (145, 70422), (158, 70332), (164, 70290), (208, 70077), (219, 70011), (231, 69984), (252, 69903), (261, 69873), (263, 69867), (264, 69864), (294, 69714), (299, 69693), (315, 69636), (347, 69534), (358, 69492),

Gene: Murp_39 Start: 32170, Stop: 33561, Start Num: 80

Candidate Starts for Murp_39:

(Start: 80 @32170 has 35 MA's), (99, 32290), (125, 32467), (144, 32581), (145, 32584), (146, 32593), (151, 32647), (168, 32764), (202, 32941), (206, 32959), (208, 32968), (215, 33019), (226, 33061),

(238, 33097), (245, 33127), (257, 33163), (258, 33166), (281, 33244), (292, 33301), (294, 33316), (306, 33370), (337, 33448),

Gene: Nanosmite_142 Start: 71091, Stop: 69622, Start Num: 58

Candidate Starts for Nanosmite_142:

(53, 71103), (55, 71100), (Start: 58 @71091 has 19 MA's), (Start: 80 @71034 has 35 MA's), (81, 71028), (83, 71022), (86, 71010), (101, 70893), (102, 70887), (103, 70884), (105, 70863), (134, 70695), (136, 70674), (145, 70611), (158, 70515), (186, 70383), (201, 70293), (208, 70260), (210, 70236), (214, 70221), (231, 70167), (252, 70086), (263, 70050), (269, 70020), (294, 69897), (315, 69819), (322, 69804), (333, 69774),

Gene: Neighly_39 Start: 31215, Stop: 32585, Start Num: 89

Candidate Starts for Neighly_39:

(22, 30969), (30, 31005), (54, 31092), (Start: 71 @31140 has 7 MA's), (Start: 89 @31215 has 2 MA's), (90, 31227), (105, 31338), (106, 31341), (111, 31374), (116, 31398), (127, 31461), (141, 31536), (178, 31812), (223, 32034), (225, 32046), (238, 32094), (244, 32124), (251, 32145), (258, 32169), (294, 32322), (315, 32403), (319, 32409), (323, 32421), (335, 32457), (337, 32463), (339, 32481), (340, 32484), (344, 32499), (346, 32505), (360, 32553), (364, 32562),

Gene: Nerdos_48 Start: 34074, Stop: 35396, Start Num: 82

Candidate Starts for Nerdos_48:

(Start: 79 @34062 has 5 MA's), (Start: 82 @34074 has 16 MA's), (86, 34089), (95, 34176), (Start: 97 @34179 has 1 MA's), (100, 34203), (104, 34245), (107, 34254), (115, 34296), (116, 34305), (118, 34317), (135, 34407), (136, 34416), (141, 34440), (153, 34560), (157, 34566), (173, 34656), (187, 34671), (189, 34680), (194, 34713), (212, 34824), (213, 34830), (229, 34878), (232, 34893), (237, 34908), (253, 34968), (260, 34992), (280, 35073), (287, 35103), (292, 35133), (301, 35181), (328, 35259), (340, 35307), (342, 35316), (350, 35343), (363, 35382),

Gene: OkiRoe_38 Start: 31310, Stop: 32725, Start Num: 75

Candidate Starts for OkiRoe_38:

(Start: 75 @31310 has 2 MA's), (Start: 80 @31319 has 35 MA's), (99, 31439), (125, 31616), (133, 31640), (140, 31691), (145, 31733), (152, 31802), (155, 31829), (156, 31838), (160, 31865), (165, 31886), (167, 31904), (170, 31931), (182, 31976), (185, 31982), (208, 32087), (221, 32153), (223, 32162), (227, 32183), (231, 32201), (237, 32222), (260, 32309), (263, 32318), (264, 32321), (288, 32429), (293, 32465), (313, 32537), (316, 32546), (335, 32597), (343, 32636), (348, 32648), (349, 32657), (362, 32687), (366, 32702),

Gene: Oliynyk_50 Start: 34372, Stop: 35694, Start Num: 82

Candidate Starts for Oliynyk_50:

(Start: 79 @34360 has 5 MA's), (Start: 82 @34372 has 16 MA's), (86, 34387), (95, 34474), (Start: 97 @34477 has 1 MA's), (100, 34501), (107, 34552), (115, 34594), (116, 34603), (118, 34615), (135, 34705), (136, 34714), (141, 34738), (153, 34858), (157, 34864), (173, 34954), (187, 34969), (189, 34978), (194, 35011), (212, 35122), (213, 35128), (229, 35176), (232, 35191), (237, 35206), (253, 35266), (256, 35275), (260, 35290), (276, 35368), (287, 35401), (292, 35431), (301, 35479), (328, 35557), (340, 35605), (342, 35614), (350, 35641), (363, 35680),

Gene: Omar_55 Start: 36249, Stop: 37679, Start Num: 63

Candidate Starts for Omar_55:

(34, 36147), (Start: 47 @36198 has 3 MA's), (Start: 63 @36249 has 5 MA's), (Start: 66 @36258 has 10 MA's), (105, 36468), (112, 36495), (139, 36633), (153, 36762), (163, 36810), (187, 36921), (189, 36930), (196, 36978), (197, 36981), (204, 37020), (207, 37035), (232, 37149), (241, 37179), (265, 37263), (289, 37380), (294, 37416), (320, 37506), (325, 37515), (340, 37572), (353, 37620), (356, 37629), (367, 37668),

Gene: Omnicron_41 Start: 30937, Stop: 32343, Start Num: 80

Candidate Starts for Omnicron_41:

(Start: 75 @30928 has 2 MA's), (Start: 80 @30937 has 35 MA's), (92, 31024), (99, 31057), (110, 31150), (126, 31237), (133, 31258), (140, 31309), (145, 31351), (150, 31399), (152, 31420), (155, 31447), (156, 31456), (159, 31480), (160, 31483), (165, 31504), (167, 31522), (182, 31594), (185, 31600), (221, 31771), (223, 31780), (227, 31801), (231, 31819), (253, 31903), (260, 31927), (264, 31939), (275, 31996), (286, 32035), (288, 32047), (293, 32083), (299, 32107), (313, 32155), (316, 32164), (343, 32254), (348, 32266), (349, 32275), (366, 32320),

Gene: Ozzie_48 Start: 34171, Stop: 35505, Start Num: 79

Candidate Starts for Ozzie_48:

(Start: 79 @34171 has 5 MA's), (Start: 82 @34183 has 16 MA's), (86, 34198), (95, 34285), (Start: 97 @34288 has 1 MA's), (100, 34312), (104, 34354), (107, 34363), (115, 34405), (116, 34414), (118, 34426), (135, 34516), (136, 34525), (141, 34549), (153, 34669), (157, 34675), (173, 34765), (187, 34780), (189, 34789), (194, 34822), (212, 34933), (213, 34939), (229, 34987), (232, 35002), (237, 35017), (253, 35077), (256, 35086), (260, 35101), (280, 35182), (287, 35212), (292, 35242), (301, 35290), (328, 35368), (340, 35416), (342, 35425), (350, 35452), (363, 35491),

Gene: PCoral7_37 Start: 30351, Stop: 31742, Start Num: 80

Candidate Starts for PCoral7_37:

(Start: 57 @30300 has 1 MA's), (59, 30303), (Start: 80 @30351 has 35 MA's), (86, 30375), (Start: 89 @30408 has 2 MA's), (99, 30471), (110, 30564), (125, 30648), (146, 30774), (151, 30828), (165, 30918), (168, 30945), (185, 31023), (196, 31086), (202, 31122), (208, 31149), (215, 31200), (223, 31227), (226, 31242), (253, 31332), (257, 31344), (258, 31347), (292, 31482), (318, 31578), (335, 31623), (337, 31629),

Gene: Pablito_52 Start: 36745, Stop: 38214, Start Num: 46

Candidate Starts for Pablito_52:

(Start: 46 @36745 has 1 MA's), (Start: 47 @36751 has 3 MA's), (Start: 57 @36781 has 1 MA's), (Start: 66 @36811 has 10 MA's), (67, 36814), (Start: 93 @36940 has 1 MA's), (95, 36946), (99, 36955), (105, 37018), (117, 37075), (121, 37096), (129, 37126), (130, 37129), (139, 37183), (153, 37312), (163, 37360), (165, 37363), (168, 37390), (187, 37462), (189, 37471), (192, 37492), (197, 37522), (239, 37708), (240, 37711), (294, 37951), (307, 38008), (320, 38041), (325, 38050), (340, 38107), (348, 38131), (353, 38155), (356, 38164), (363, 38182), (367, 38203),

Gene: Paedore_54 Start: 37729, Stop: 39147, Start Num: 66

Candidate Starts for Paedore_54:

(Start: 66 @37729 has 10 MA's), (67, 37732), (Start: 93 @37858 has 1 MA's), (95, 37864), (105, 37936), (108, 37942), (121, 38014), (129, 38044), (130, 38047), (139, 38101), (153, 38230), (158, 38239), (163, 38278), (175, 38353), (187, 38389), (189, 38398), (197, 38449), (265, 38731), (278, 38800), (294, 38884), (320, 38974), (325, 38983), (340, 39040), (356, 39097), (358, 39103), (367, 39136),

Gene: Paola_38 Start: 31317, Stop: 32723, Start Num: 80

Candidate Starts for Paola_38:

(Start: 75 @31308 has 2 MA's), (Start: 80 @31317 has 35 MA's), (99, 31437), (125, 31614), (133, 31638), (140, 31689), (145, 31731), (150, 31779), (152, 31800), (155, 31827), (156, 31836), (160, 31863), (165, 31884), (167, 31902), (170, 31929), (182, 31974), (185, 31980), (208, 32085), (221, 32151), (223, 32160), (227, 32181), (231, 32199), (260, 32307), (263, 32316), (264, 32319), (288, 32427), (293, 32463), (313, 32535), (316, 32544), (335, 32595), (343, 32634), (348, 32646), (349, 32655), (362, 32685), (366, 32700),

Gene: Paolo_54 Start: 37643, Stop: 39124, Start Num: 47

Candidate Starts for Paolo_54:

(Start: 47 @37643 has 3 MA's), (Start: 63 @37694 has 5 MA's), (Start: 66 @37703 has 10 MA's), (105, 37913), (112, 37940), (139, 38078), (153, 38207), (163, 38255), (187, 38366), (189, 38375), (193, 38402), (196, 38423), (197, 38426), (204, 38465), (241, 38624), (265, 38708), (289, 38825), (294, 38861), (320, 38951), (325, 38960), (340, 39017), (353, 39065), (356, 39074), (367, 39113),

Gene: Pavo_52 Start: 36851, Stop: 38260, Start Num: 77

Candidate Starts for Pavo_52:

(35, 36722), (52, 36788), (61, 36815), (Start: 77 @36851 has 7 MA's), (86, 36881), (95, 36968), (99, 36977), (107, 37046), (115, 37088), (116, 37097), (118, 37109), (135, 37199), (136, 37208), (137, 37211), (139, 37223), (141, 37232), (167, 37421), (180, 37508), (189, 37541), (197, 37592), (208, 37652), (212, 37685), (229, 37739), (257, 37841), (268, 37883), (271, 37895), (291, 37991), (292, 37994), (303, 38060), (312, 38078), (315, 38087), (340, 38168), (346, 38186), (348, 38192), (352, 38213), (359, 38234), (365, 38252),

Gene: PegLeg_134 Start: 69986, Stop: 68526, Start Num: 58

Candidate Starts for PegLeg_134:

(Start: 44 @70028 has 2 MA's), (55, 69995), (Start: 58 @69986 has 19 MA's), (86, 69914), (Start: 97 @69833 has 1 MA's), (102, 69791), (105, 69767), (118, 69695), (136, 69578), (145, 69515), (154, 69431), (158, 69419), (164, 69377), (167, 69359), (201, 69197), (205, 69176), (214, 69125), (219, 69098), (231, 69071), (264, 68951), (294, 68801), (315, 68723), (333, 68678), (347, 68621),

Gene: Percival_59 Start: 38819, Stop: 40306, Start Num: 77

Candidate Starts for Percival_59:

(Start: 77 @38819 has 7 MA's), (Start: 89 @38882 has 2 MA's), (92, 38912), (105, 39011), (106, 39014), (112, 39050), (136, 39182), (138, 39194), (147, 39266), (153, 39323), (159, 39350), (171, 39428), (179, 39476), (209, 39653), (211, 39665), (233, 39785), (242, 39818), (260, 39878), (271, 39920), (272, 39932), (300, 40058), (302, 40073), (329, 40151), (335, 40169), (370, 40301),

Gene: Phettuccine_49 Start: 34075, Stop: 35397, Start Num: 82

Candidate Starts for Phettuccine_49:

(Start: 79 @34063 has 5 MA's), (Start: 82 @34075 has 16 MA's), (86, 34090), (95, 34177), (Start: 97 @34180 has 1 MA's), (100, 34204), (104, 34246), (107, 34255), (115, 34297), (116, 34306), (118, 34318), (135, 34408), (136, 34417), (141, 34441), (153, 34561), (157, 34567), (173, 34657), (187, 34672), (189, 34681), (194, 34714), (212, 34825), (213, 34831), (229, 34879), (232, 34894), (237, 34909), (253, 34969), (256, 34978), (260, 34993), (280, 35074), (287, 35104), (292, 35134), (301, 35182), (328, 35260), (340, 35308), (342, 35317), (350, 35344), (363, 35383),

Gene: PrincePatrick_38 Start: 29413, Stop: 30801, Start Num: 80

Candidate Starts for PrincePatrick_38:

(Start: 80 @29413 has 35 MA's), (87, 29455), (Start: 89 @29470 has 2 MA's), (110, 29626), (121, 29683), (142, 29803), (146, 29836), (151, 29890), (152, 29896), (155, 29923), (160, 29959), (187, 30091), (197, 30151), (202, 30184), (206, 30202), (219, 30277), (223, 30289), (226, 30304), (238, 30340), (253, 30394), (257, 30406), (281, 30487), (294, 30559), (299, 30580), (306, 30613), (310, 30622), (311, 30625), (316, 30637), (318, 30640), (321, 30649), (349, 30745), (357, 30766), (363, 30781),

Gene: Psycho_39 Start: 31271, Stop: 32716, Start Num: 71

Candidate Starts for Psycho_39:

(22, 31100), (30, 31136), (54, 31223), (Start: 71 @31271 has 7 MA's), (Start: 89 @31346 has 2 MA's), (90, 31358), (105, 31469), (106, 31472), (111, 31505), (116, 31529), (127, 31592), (141, 31667), (178, 31943), (223, 32165), (225, 32177), (238, 32225), (244, 32255), (251, 32276), (258, 32300), (294,

32453), (315, 32534), (319, 32540), (323, 32552), (335, 32588), (337, 32594), (339, 32612), (340, 32615), (344, 32630), (346, 32636), (360, 32684), (364, 32693),

Gene: Puginator_54 Start: 37656, Stop: 39170, Start Num: 37

Candidate Starts for Puginator_54:

(Start: 37 @37656 has 1 MA's), (40, 37668), (43, 37677), (Start: 47 @37689 has 3 MA's), (Start: 63 @37740 has 5 MA's), (Start: 66 @37749 has 10 MA's), (105, 37959), (112, 37986), (139, 38124), (153, 38253), (163, 38301), (187, 38412), (189, 38421), (193, 38448), (196, 38469), (197, 38472), (204, 38511), (207, 38526), (240, 38667), (241, 38670), (265, 38754), (289, 38871), (294, 38907), (305, 38961), (307, 38964), (320, 38997), (340, 39063), (356, 39120), (367, 39159),

Gene: R4_53 Start: 37594, Stop: 39006, Start Num: 66

Candidate Starts for R4_53:

(Start: 66 @37594 has 10 MA's), (67, 37597), (Start: 93 @37723 has 1 MA's), (95, 37729), (99, 37738), (105, 37801), (121, 37879), (129, 37909), (130, 37912), (139, 37966), (153, 38095), (158, 38104), (163, 38143), (168, 38173), (175, 38218), (189, 38263), (197, 38314), (207, 38368), (221, 38452), (265, 38590), (294, 38743), (302, 38782), (307, 38800), (320, 38833), (325, 38842), (340, 38899), (345, 38914), (356, 38956), (358, 38962), (367, 38995),

Gene: REQ1_22 Start: 7618, Stop: 9012, Start Num: 70

Candidate Starts for REQ1_22:

(Start: 70 @7618 has 2 MA's), (86, 7663), (Start: 89 @7693 has 2 MA's), (96, 7747), (99, 7756), (100, 7774), (137, 7990), (145, 8050), (160, 8182), (162, 8194), (167, 8221), (189, 8305), (207, 8410), (226, 8509), (235, 8539), (242, 8566), (243, 8572), (250, 8587), (257, 8611), (286, 8719), (297, 8779), (304, 8821), (335, 8896), (340, 8923),

Gene: Rando14_40 Start: 30508, Stop: 31914, Start Num: 80

Candidate Starts for Rando14_40:

(Start: 75 @30499 has 2 MA's), (Start: 80 @30508 has 35 MA's), (92, 30595), (99, 30628), (110, 30721), (118, 30760), (125, 30805), (133, 30829), (140, 30880), (145, 30922), (150, 30970), (152, 30991), (155, 31018), (156, 31027), (159, 31051), (160, 31054), (165, 31075), (167, 31093), (182, 31165), (185, 31171), (221, 31342), (227, 31372), (231, 31390), (253, 31474), (260, 31498), (264, 31510), (275, 31567), (286, 31606), (288, 31618), (293, 31654), (299, 31678), (313, 31726), (316, 31735), (327, 31759), (343, 31825), (348, 31837), (349, 31846), (362, 31876), (366, 31891),

Gene: Reindeer_133 Start: 71279, Stop: 69777, Start Num: 44

Candidate Starts for Reindeer_133:

(Start: 44 @71279 has 2 MA's), (55, 71246), (Start: 58 @71237 has 19 MA's), (86, 71165), (102, 71042), (105, 71018), (118, 70946), (124, 70907), (136, 70829), (139, 70814), (145, 70766), (149, 70727), (158, 70670), (167, 70610), (201, 70448), (214, 70376), (231, 70322), (252, 70241), (262, 70208), (269, 70175), (285, 70109), (294, 70052), (315, 69974), (333, 69929), (347, 69872), (358, 69830),

Gene: Rey_148 Start: 70427, Stop: 68973, Start Num: 58

Candidate Starts for Rey_148:

(38, 70490), (Start: 44 @70469 has 2 MA's), (55, 70436), (Start: 58 @70427 has 19 MA's), (81, 70373), (86, 70355), (118, 70136), (136, 70019), (145, 69956), (158, 69866), (164, 69824), (197, 69671), (208, 69611), (219, 69545), (231, 69518), (252, 69437), (261, 69407), (263, 69401), (264, 69398), (294, 69248), (299, 69227), (315, 69170), (347, 69068),

Gene: RoseMarie_140 Start: 73018, Stop: 71558, Start Num: 58

Candidate Starts for RoseMarie_140:

(55, 73027), (Start: 58 @73018 has 19 MA's), (86, 72946), (88, 72928), (102, 72823), (105, 72799), (118, 72727), (136, 72610), (145, 72547), (154, 72463), (158, 72451), (164, 72409), (167, 72391), (182, 72328), (201, 72229), (202, 72223), (205, 72208), (214, 72157), (219, 72130), (231, 72103), (246, 72046), (252, 72022), (277, 71917), (279, 71911), (294, 71833), (315, 71755), (333, 71710), (347, 71653),

Gene: Rusticus_50 Start: 34372, Stop: 35694, Start Num: 82

Candidate Starts for Rusticus_50:

(Start: 79 @34360 has 5 MA's), (Start: 82 @34372 has 16 MA's), (86, 34387), (95, 34474), (Start: 97 @34477 has 1 MA's), (100, 34501), (107, 34552), (115, 34594), (116, 34603), (118, 34615), (135, 34705), (136, 34714), (141, 34738), (153, 34858), (157, 34864), (173, 34954), (187, 34969), (189, 34978), (194, 35011), (212, 35122), (213, 35128), (229, 35176), (232, 35191), (237, 35206), (253, 35266), (256, 35275), (260, 35290), (276, 35368), (287, 35401), (292, 35431), (301, 35479), (328, 35557), (340, 35605), (342, 35614), (350, 35641), (363, 35680),

Gene: Saftant_50 Start: 36790, Stop: 38202, Start Num: 76

Candidate Starts for Saftant_50:

(50, 36718), (51, 36727), (56, 36736), (60, 36748), (Start: 76 @36790 has 1 MA's), (86, 36820), (107, 36985), (115, 37027), (116, 37036), (118, 37048), (135, 37138), (136, 37147), (137, 37150), (141, 37171), (167, 37360), (189, 37480), (212, 37624), (213, 37630), (229, 37678), (257, 37780), (268, 37822), (271, 37834), (291, 37930), (292, 37933), (312, 38017), (315, 38026), (328, 38059), (340, 38107), (348, 38131), (352, 38152), (361, 38176), (365, 38191),

Gene: Samba_38 Start: 31981, Stop: 33372, Start Num: 80

Candidate Starts for Samba_38:

(32, 31840), (36, 31867), (Start: 63 @31951 has 5 MA's), (Start: 73 @31972 has 1 MA's), (Start: 80 @31981 has 35 MA's), (Start: 89 @32038 has 2 MA's), (99, 32101), (110, 32194), (125, 32278), (126, 32281), (142, 32371), (143, 32377), (146, 32404), (151, 32458), (168, 32575), (185, 32653), (206, 32770), (208, 32779), (215, 32830), (223, 32857), (226, 32872), (245, 32938), (247, 32941), (253, 32962), (257, 32974), (258, 32977), (281, 33055), (292, 33112), (306, 33181), (310, 33190), (318, 33208), (337, 33259), (355, 33334),

Gene: Shagrat_42 Start: 32662, Stop: 34170, Start Num: 44

Candidate Starts for Shagrat_42:

(9, 32476), (10, 32485), (17, 32533), (21, 32554), (24, 32575), (25, 32578), (28, 32593), (29, 32605), (31, 32608), (Start: 44 @32662 has 2 MA's), (Start: 80 @32755 has 35 MA's), (86, 32779), (Start: 89 @32812 has 2 MA's), (99, 32875), (121, 33028), (125, 33055), (150, 33220), (162, 33316), (165, 33325), (182, 33427), (187, 33439), (189, 33448), (190, 33454), (207, 33553), (252, 33754), (257, 33769), (264, 33781), (270, 33805), (274, 33829), (292, 33910), (306, 33979), (341, 34084), (351, 34120),

Gene: Skinny_137 Start: 71103, Stop: 69643, Start Num: 58

Candidate Starts for Skinny_137:

(Start: 44 @71145 has 2 MA's), (55, 71112), (Start: 58 @71103 has 19 MA's), (86, 71031), (Start: 97 @70950 has 1 MA's), (102, 70908), (105, 70884), (118, 70812), (136, 70695), (145, 70632), (154, 70548), (158, 70536), (164, 70494), (167, 70476), (201, 70314), (205, 70293), (214, 70242), (219, 70215), (231, 70188), (264, 70068), (294, 69918), (315, 69840), (333, 69795), (347, 69738),

Gene: SlimJimmy_130 Start: 69812, Stop: 68352, Start Num: 58

Candidate Starts for SlimJimmy_130:

(Start: 44 @69854 has 2 MA's), (55, 69821), (Start: 58 @69812 has 19 MA's), (86, 69740), (Start: 97 @69659 has 1 MA's), (102, 69617), (105, 69593), (118, 69521), (136, 69404), (145, 69341), (154, 69257), (158, 69245), (164, 69203), (167, 69185), (201, 69023), (205, 69002), (214, 68951), (219,

68924), (231, 68897), (264, 68777), (294, 68627), (315, 68549), (333, 68504), (347, 68447),

Gene: SoSeph_38 Start: 31463, Stop: 32869, Start Num: 80

Candidate Starts for SoSeph_38:

(Start: 75 @31454 has 2 MA's), (Start: 80 @31463 has 35 MA's), (99, 31583), (125, 31760), (133, 31784), (140, 31835), (145, 31877), (150, 31925), (152, 31946), (155, 31973), (156, 31982), (160, 32009), (165, 32030), (167, 32048), (170, 32075), (182, 32120), (185, 32126), (208, 32231), (221, 32297), (223, 32306), (227, 32327), (231, 32345), (260, 32453), (263, 32462), (264, 32465), (286, 32561), (288, 32573), (293, 32609), (313, 32681), (316, 32690), (335, 32741), (343, 32780), (348, 32792), (349, 32801), (362, 32831), (366, 32846),

Gene: Soondubu_46 Start: 37732, Stop: 39171, Start Num: 74

Candidate Starts for Soondubu_46:

(69, 37720), (Start: 74 @37732 has 4 MA's), (78, 37738), (84, 37756), (96, 37852), (105, 37924), (114, 37969), (115, 37975), (128, 38035), (138, 38095), (161, 38263), (191, 38422), (217, 38590), (236, 38644), (261, 38737), (271, 38776), (283, 38824), (308, 38947), (314, 38959), (316, 38965), (324, 38983), (358, 39103),

Gene: SuMoo_64 Start: 40543, Stop: 42009, Start Num: 77

Candidate Starts for SuMoo_64:

(Start: 77 @40543 has 7 MA's), (105, 40735), (136, 40906), (138, 40918), (177, 41191), (179, 41200), (242, 41539), (272, 41653), (303, 41803), (346, 41917),

Gene: SunsetPointe_48 Start: 34190, Stop: 35512, Start Num: 82

Candidate Starts for SunsetPointe_48:

(Start: 79 @34178 has 5 MA's), (Start: 82 @34190 has 16 MA's), (86, 34205), (95, 34292), (Start: 97 @34295 has 1 MA's), (100, 34319), (104, 34361), (107, 34370), (115, 34412), (116, 34421), (118, 34433), (135, 34523), (136, 34532), (141, 34556), (153, 34676), (157, 34682), (173, 34772), (187, 34787), (189, 34796), (194, 34829), (212, 34940), (213, 34946), (229, 34994), (232, 35009), (237, 35024), (253, 35084), (256, 35093), (260, 35108), (280, 35189), (287, 35219), (292, 35249), (301, 35297), (328, 35375), (340, 35423), (342, 35432), (350, 35459), (363, 35498),

Gene: Thestral_55 Start: 38547, Stop: 39968, Start Num: 66

Candidate Starts for Thestral_55:

(40, 38466), (43, 38475), (Start: 47 @38487 has 3 MA's), (Start: 63 @38538 has 5 MA's), (Start: 66 @38547 has 10 MA's), (112, 38784), (139, 38922), (153, 39051), (163, 39099), (187, 39210), (189, 39219), (193, 39246), (196, 39267), (197, 39270), (204, 39309), (207, 39324), (241, 39468), (257, 39525), (265, 39552), (289, 39669), (294, 39705), (305, 39759), (307, 39762), (320, 39795), (340, 39861), (356, 39918), (367, 39957),

Gene: Thyatira_40 Start: 33664, Stop: 35070, Start Num: 80

Candidate Starts for Thyatira_40:

(Start: 75 @33655 has 2 MA's), (Start: 80 @33664 has 35 MA's), (99, 33784), (125, 33961), (133, 33985), (140, 34036), (145, 34078), (150, 34126), (152, 34147), (155, 34174), (156, 34183), (160, 34210), (165, 34231), (167, 34249), (170, 34276), (182, 34321), (185, 34327), (208, 34432), (221, 34498), (223, 34507), (227, 34528), (231, 34546), (260, 34654), (263, 34663), (264, 34666), (286, 34762), (288, 34774), (293, 34810), (313, 34882), (316, 34891), (335, 34942), (343, 34981), (348, 34993), (349, 35002), (362, 35032), (366, 35047),

Gene: TinaBelcher_53 Start: 38486, Stop: 39916, Start Num: 63

Candidate Starts for TinaBelcher_53:

(40, 38414), (43, 38423), (Start: 47 @38435 has 3 MA's), (Start: 63 @38486 has 5 MA's), (Start: 66 @38495 has 10 MA's), (112, 38732), (139, 38870), (153, 38999), (163, 39047), (187, 39158), (189,

39167), (193, 39194), (196, 39215), (197, 39218), (204, 39257), (207, 39272), (241, 39416), (257, 39473), (265, 39500), (289, 39617), (294, 39653), (305, 39707), (307, 39710), (320, 39743), (340, 39809), (356, 39866), (367, 39905),

Gene: TingHuaYa_41 Start: 31113, Stop: 32525, Start Num: 70

Candidate Starts for TingHuaYa_41:

(65, 31104), (Start: 70 @31113 has 2 MA's), (Start: 82 @31134 has 16 MA's), (91, 31206), (100, 31263), (105, 31305), (106, 31308), (110, 31338), (112, 31344), (124, 31416), (145, 31539), (153, 31617), (159, 31644), (160, 31647), (168, 31695), (171, 31722), (177, 31764), (179, 31773), (187, 31800), (195, 31848), (201, 31884), (203, 31893), (207, 31911), (215, 31965), (218, 31977), (230, 32007), (248, 32067), (254, 32094), (257, 32100), (259, 32109), (260, 32112), (264, 32124), (268, 32142), (297, 32274), (300, 32289), (335, 32391), (346, 32436), (347, 32439), (363, 32490), (368, 32514), (369, 32520),

Gene: TinyDot_31 Start: 24778, Stop: 26145, Start Num: 80

Candidate Starts for TinyDot_31:

(Start: 80 @24778 has 35 MA's), (92, 24865), (125, 25075), (171, 25399), (223, 25633), (226, 25648), (331, 26017),

Gene: Toast_37 Start: 30300, Stop: 31742, Start Num: 57

Candidate Starts for Toast_37:

(Start: 57 @30300 has 1 MA's), (59, 30303), (Start: 80 @30351 has 35 MA's), (86, 30375), (Start: 89 @30408 has 2 MA's), (99, 30471), (110, 30564), (125, 30648), (146, 30774), (151, 30828), (165, 30918), (168, 30945), (185, 31023), (196, 31086), (202, 31122), (208, 31149), (215, 31200), (223, 31227), (226, 31242), (253, 31332), (257, 31344), (258, 31347), (292, 31482), (318, 31578), (335, 31623), (337, 31629),

Gene: TrvxScott_52 Start: 38541, Stop: 39962, Start Num: 66

Candidate Starts for TrvxScott_52:

(40, 38460), (43, 38469), (Start: 47 @38481 has 3 MA's), (Start: 63 @38532 has 5 MA's), (Start: 66 @38541 has 10 MA's), (112, 38778), (139, 38916), (153, 39045), (163, 39093), (187, 39204), (189, 39213), (193, 39240), (196, 39261), (197, 39264), (204, 39303), (207, 39318), (241, 39462), (265, 39546), (289, 39663), (294, 39699), (305, 39753), (307, 39756), (320, 39789), (340, 39855), (356, 39912), (367, 39951),

Gene: TyDawg_126 Start: 69259, Stop: 67799, Start Num: 58

Candidate Starts for TyDawg_126:

(Start: 44 @69301 has 2 MA's), (55, 69268), (Start: 58 @69259 has 19 MA's), (86, 69187), (Start: 97 @69106 has 1 MA's), (102, 69064), (105, 69040), (118, 68968), (136, 68851), (145, 68788), (154, 68704), (158, 68692), (164, 68650), (167, 68632), (201, 68470), (205, 68449), (214, 68398), (219, 68371), (231, 68344), (264, 68224), (294, 68074), (315, 67996), (333, 67951), (347, 67894),

Gene: Unstoppable_49 Start: 34070, Stop: 35392, Start Num: 82

Candidate Starts for Unstoppable_49:

(Start: 79 @34058 has 5 MA's), (Start: 82 @34070 has 16 MA's), (86, 34085), (95, 34172), (Start: 97 @34175 has 1 MA's), (100, 34199), (104, 34241), (107, 34250), (115, 34292), (116, 34301), (118, 34313), (135, 34403), (136, 34412), (141, 34436), (153, 34556), (157, 34562), (173, 34652), (187, 34667), (189, 34676), (194, 34709), (212, 34820), (213, 34826), (229, 34874), (232, 34889), (237, 34904), (253, 34964), (260, 34988), (280, 35069), (287, 35099), (292, 35129), (301, 35177), (328, 35255), (340, 35303), (342, 35312), (350, 35339), (363, 35378),

Gene: Utz_33 Start: 30671, Stop: 32062, Start Num: 80

Candidate Starts for Utz_33:

(32, 30530), (36, 30557), (Start: 63 @30641 has 5 MA's), (Start: 73 @30662 has 1 MA's), (Start: 80 @30671 has 35 MA's), (99, 30791), (125, 30968), (142, 31061), (143, 31067), (146, 31094), (151, 31148), (168, 31265), (185, 31343), (215, 31520), (223, 31547), (226, 31562), (245, 31628), (247, 31631), (253, 31652), (257, 31664), (258, 31667), (281, 31745), (292, 31802), (306, 31871), (318, 31898), (337, 31949), (340, 31970),

Gene: UtzChips_59 Start: 38303, Stop: 39808, Start Num: 77

Candidate Starts for UtzChips_59:

(4, 37964), (Start: 58 @38255 has 19 MA's), (Start: 77 @38303 has 7 MA's), (105, 38495), (136, 38666), (164, 38858), (171, 38912), (179, 38960), (198, 39062), (242, 39299), (283, 39449), (301, 39548), (372, 39803),

Gene: Verabelle_54 Start: 36387, Stop: 37772, Start Num: 68

Candidate Starts for Verabelle_54:

(Start: 68 @36387 has 1 MA's), (117, 36657), (121, 36678), (129, 36708), (148, 36840), (183, 37026), (190, 37047), (194, 37074), (216, 37206), (231, 37245), (257, 37341), (266, 37371), (282, 37452), (294, 37521), (295, 37524), (309, 37584), (317, 37602), (330, 37638), (335, 37650), (339, 37674), (342, 37686), (346, 37698), (353, 37728),

Gene: Verse_51 Start: 37557, Stop: 38969, Start Num: 74

Candidate Starts for Verse_51:

(Start: 74 @37557 has 4 MA's), (86, 37587), (Start: 97 @37677 has 1 MA's), (104, 37743), (107, 37752), (109, 37770), (111, 37779), (115, 37794), (116, 37803), (118, 37815), (122, 37842), (128, 37866), (132, 37875), (136, 37914), (137, 37917), (141, 37938), (157, 38064), (158, 38067), (167, 38127), (187, 38238), (190, 38253), (197, 38298), (206, 38349), (212, 38391), (229, 38445), (232, 38460), (237, 38475), (256, 38544), (260, 38559), (274, 38622), (292, 38700), (298, 38733), (301, 38748), (340, 38874), (346, 38892), (355, 38928), (363, 38949),

Gene: ViviJ_38 Start: 31256, Stop: 32626, Start Num: 89

Candidate Starts for ViviJ_38:

(12, 30929), (20, 30992), (30, 31046), (54, 31133), (Start: 71 @31181 has 7 MA's), (Start: 89 @31256 has 2 MA's), (90, 31268), (105, 31379), (106, 31382), (111, 31415), (116, 31439), (127, 31502), (141, 31577), (178, 31853), (223, 32075), (225, 32087), (238, 32135), (244, 32165), (251, 32186), (258, 32210), (294, 32363), (315, 32444), (319, 32450), (323, 32462), (335, 32498), (337, 32504), (340, 32525), (344, 32540), (346, 32546), (360, 32594), (364, 32603),

Gene: Waterfoul_39 Start: 31558, Stop: 32964, Start Num: 80

Candidate Starts for Waterfoul_39:

(Start: 75 @31549 has 2 MA's), (Start: 80 @31558 has 35 MA's), (99, 31678), (125, 31855), (133, 31879), (140, 31930), (145, 31972), (150, 32020), (152, 32041), (155, 32068), (156, 32077), (160, 32104), (165, 32125), (167, 32143), (170, 32170), (182, 32215), (185, 32221), (208, 32326), (221, 32392), (223, 32401), (227, 32422), (231, 32440), (260, 32548), (263, 32557), (264, 32560), (286, 32656), (288, 32668), (293, 32704), (313, 32776), (316, 32785), (335, 32836), (343, 32875), (348, 32887), (349, 32896), (362, 32926), (366, 32941),

Gene: William_40 Start: 31099, Stop: 32487, Start Num: 80

Candidate Starts for William_40:

(Start: 80 @31099 has 35 MA's), (87, 31141), (Start: 89 @31156 has 2 MA's), (110, 31312), (121, 31369), (142, 31489), (146, 31522), (151, 31576), (152, 31582), (155, 31609), (160, 31645), (187, 31777), (197, 31837), (202, 31870), (206, 31888), (219, 31963), (223, 31975), (226, 31990), (238, 32026), (253, 32080), (257, 32092), (281, 32173), (292, 32230), (294, 32245), (299, 32266), (306, 32299), (310, 32308), (311, 32311), (316, 32323), (318, 32326), (321, 32335), (349, 32431), (357, 32452), (363, 32467),

Gene: Wisp_35 Start: 29114, Stop: 30505, Start Num: 80

Candidate Starts for Wisp_35:

(32, 28973), (36, 29000), (Start: 63 @29084 has 5 MA's), (Start: 73 @29105 has 1 MA's), (Start: 80 @29114 has 35 MA's), (Start: 89 @29171 has 2 MA's), (99, 29234), (110, 29327), (125, 29411), (142, 29504), (143, 29510), (146, 29537), (151, 29591), (168, 29708), (185, 29786), (206, 29903), (208, 29912), (215, 29963), (223, 29990), (226, 30005), (245, 30071), (247, 30074), (253, 30095), (257, 30107), (258, 30110), (281, 30188), (292, 30245), (306, 30314), (310, 30323), (318, 30341), (337, 30392), (355, 30467),

Gene: Wocket_39 Start: 29863, Stop: 31254, Start Num: 80

Candidate Starts for Wocket_39:

(Start: 80 @29863 has 35 MA's), (125, 30160), (146, 30286), (151, 30340), (168, 30457), (196, 30598), (202, 30634), (206, 30652), (215, 30712), (223, 30739), (226, 30754), (238, 30790), (245, 30820), (257, 30856), (258, 30859), (281, 30937), (306, 31063), (337, 31141), (340, 31162), (355, 31216),

Gene: Zainub_54 Start: 37669, Stop: 39099, Start Num: 63

Candidate Starts for Zainub_54:

(Start: 47 @37618 has 3 MA's), (Start: 63 @37669 has 5 MA's), (Start: 66 @37678 has 10 MA's), (105, 37888), (112, 37915), (139, 38053), (153, 38182), (163, 38230), (184, 38332), (187, 38341), (189, 38350), (193, 38377), (196, 38398), (197, 38401), (204, 38440), (207, 38455), (241, 38599), (265, 38683), (289, 38800), (294, 38836), (320, 38926), (325, 38935), (340, 38992), (353, 39040), (356, 39049), (367, 39088),

Gene: ZiggyZoo_38 Start: 30330, Stop: 31721, Start Num: 80

Candidate Starts for ZiggyZoo_38:

(49, 30252), (59, 30282), (Start: 63 @30300 has 5 MA's), (Start: 80 @30330 has 35 MA's), (99, 30450), (110, 30543), (122, 30609), (142, 30720), (146, 30753), (151, 30807), (168, 30924), (185, 31002), (215, 31179), (223, 31206), (226, 31221), (245, 31287), (247, 31290), (253, 31311), (254, 31314), (257, 31323), (258, 31326), (281, 31404), (292, 31461), (299, 31497), (306, 31530), (310, 31539), (318, 31557), (337, 31608), (340, 31629), (355, 31683),

Gene: phiCAM_49 Start: 38659, Stop: 40071, Start Num: 68

Candidate Starts for phiCAM_49:

(Start: 68 @38659 has 1 MA's), (Start: 89 @38737 has 2 MA's), (113, 38902), (129, 38980), (148, 39112), (190, 39319), (201, 39391), (216, 39478), (231, 39517), (257, 39613), (278, 39709), (281, 39721), (284, 39730), (294, 39793), (305, 39847), (342, 39958), (366, 40036), (371, 40063),