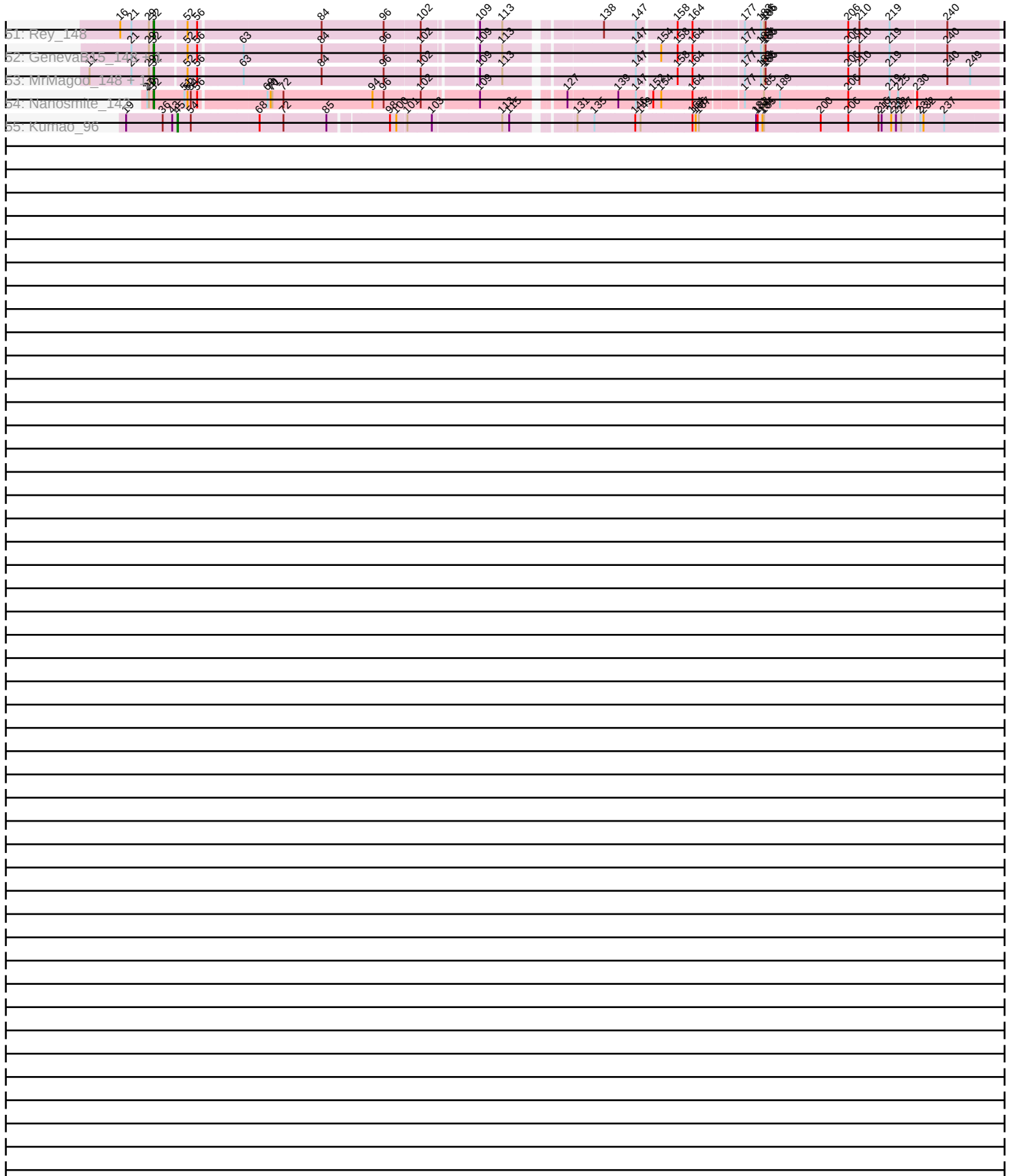


[illegible]

Pham 280303



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 280303 Report

This analysis was run 02/07/26 on database version 634.

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 280303 has 94 members, 12 are drafts.

Phages represented in each track:

- Track 1 : Ozzie_48, Bovely_49, Hydra_50
- Track 2 : Unstoppable_49, Esperer_49, Nerdos_48
- Track 3 : Legacy_48
- Track 4 : BeardedLady_49, Caliburn_48
- Track 5 : Phettuccine_49, SunsetPointe_48
- Track 6 : Izzy_50, BryanRecycles_50, Eddasa_50, Oliynyk_50, Rusticus_50, Jash_50
- Track 7 : EnochSoames_52
- Track 8 : Indigo_48, Leviticus_49
- Track 9 : Aaronocolus_49
- Track 10 : Marav_53
- Track 11 : Alvy_56, BartholomewSD_56
- Track 12 : Amethyst_51
- Track 13 : Jevington_52
- Track 14 : Paedore_54, Loofah_55
- Track 15 : Paolo_54
- Track 16 : R4_53
- Track 17 : Issmi_53
- Track 18 : TinaBelcher_53, Bowden_53
- Track 19 : Thestral_55
- Track 20 : Pablito_52
- Track 21 : TrvxScott_52
- Track 22 : Puginator_54
- Track 23 : Omar_55
- Track 24 : Zainub_54
- Track 25 : Daudau_52
- Track 26 : Caelum_54
- Track 27 : ELB20_52
- Track 28 : Celery_54
- Track 29 : Verabelle_54
- Track 30 : Alsaber_52
- Track 31 : Sudan_52
- Track 32 : phiCAM_49

- Track 33 : Saftant_50
- Track 34 : Dexers_50
- Track 35 : Amela_51
- Track 36 : Pavo_52
- Track 37 : Verse_51
- Track 38 : TingHuaYa_41
- Track 39 : Curiosium_43
- Track 40 : LastHope_43
- Track 41 : Neighly_39
- Track 42 : ViviJ_38, InvictusManeo_38, BananenDer11_38, DoubleChamp_38
- Track 43 : Collard_38, Agent47_39
- Track 44 : Psycho_39, Dadosky_39, Larva_39, AlleyCat_39
- Track 45 : Edugator_39
- Track 46 : Kratio_37
- Track 47 : SlimJimmy_130, Bongo_130, Bricole_133, PegLeg_134, Glaske16_133, Diminimus_131, Izel_131, KleverKiS_134, FreakyGoo_131, TyDawg_126, IPHane7_129, LilhomieP_131, Dulcita_131, Skinny_137, Auspice_131, TpudiCK_132
- Track 48 : Reindeer_133
- Track 49 : RoseMarie_140
- Track 50 : Estes_146
- Track 51 : Rey_148
- Track 52 : GenevaB15_148, Aziz_145
- Track 53 : MrMagoo_148, GardenSalsa_146
- Track 54 : Nanosmite_142
- Track 55 : 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 32, it was called in 21 of the 82 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Auspice_131, Aziz_145, Bongo_130, Bricole_133, Diminimus_131, Dulcita_131, Estes_146, FreakyGoo_131, GardenSalsa_146, GenevaB15_148, Glaske16_133, IPHane7_129, Izel_131, KleverKiS_134, LilhomieP_131, MrMagoo_148, Nanosmite_142, PegLeg_134, Rey_148, RoseMarie_140, Skinny_137, SlimJimmy_130, TpudiCK_132, TyDawg_126,

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

- Reindeer_133,

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

- Aaronocolus_49, Agent47_39, AlleyCat_39, Alsaber_52, Alvy_56, Amela_51, Amethyst_51, BananenDer11_38, BartholomewSD_56, BeardedLady_49, Bovely_49, Bowden_53, BryanRecycles_50, Caelum_54, Caliburn_48, Celery_54, Collard_38, Curiosium_43, Dadosky_39, Daudau_52, Dexers_50, DoubleChamp_38, ELB20_52, Eddasa_50, Edugator_39, EnochSoames_52, Esperer_49, Hydra_50, Indigo_48, InvictusManeo_38, Issmi_53, Izzy_50, Jash_50, Jevington_52, Kratio_37, Kumao_96, Larva_39, LastHope_43, Legacy_48, Leviticus_49, Loofah_55, Marav_53, Neighly_39, Nerdos_48, Oliynyk_50, Omar_55, Ozzie_48, Pablito_52, Paedore_54,

Paolo_54, Pavo_52, Phettuccine_49, Psycho_39, Puginator_54, R4_53, Rusticus_50, Saftant_50, Sudan_52, SunsetPointe_48, Thestral_55, TinaBelcher_53, TingHuaYa_41, TrvxScott_52, Unstoppable_49, Verabelle_54, Verse_51, ViviJ_38, Zainub_54, phiCAM_49,

Summary by start number:

Start 17:

- Found in 1 of 94 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 82
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Puginator_54 (BD2),

Start 21:

- Found in 23 of 94 (24.5%) of genes in pham
- Manual Annotations of this start: 1 of 82
- Called 4.3% of time when present
- Phage (with cluster) where this start called: Reindeer_133 (M1),

Start 23:

- Found in 1 of 94 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 82
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pablito_52 (BD2),

Start 24:

- Found in 17 of 94 (18.1%) of genes in pham
- Manual Annotations of this start: 3 of 82
- Called 17.6% of time when present
- Phage (with cluster) where this start called: Jevington_52 (BD2), Marav_53 (BD2), Paolo_54 (BD2),

Start 32:

- Found in 25 of 94 (26.6%) of genes in pham
- Manual Annotations of this start: 21 of 82
- Called 96.0% 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_131 (M1), GardenSalsa_146 (M2), GenevaB15_148 (M2), Glaske16_133 (M1), IPHane7_129 (M1), Izel_131 (M1), KleverKiS_134 (M1), LilhomieP_131 (M1), MrMagoo_148 (M2), Nanosmite_142 (M3), PegLeg_134 (M1), Rey_148 (M2), RoseMarie_140 (M1), Skinny_137 (M1), SlimJimmy_130 (M1), TpuDiCK_132 (M1), TyDawg_126 (M1),

Start 37:

- Found in 16 of 94 (17.0%) of genes in pham
- Manual Annotations of this start: 5 of 82
- Called 31.2% 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 41:

- Found in 21 of 94 (22.3%) of genes in pham

- Manual Annotations of this start: 10 of 82
- 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 43:

- Found in 6 of 94 (6.4%) of genes in pham
- Manual Annotations of this start: 1 of 82
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Curiosium_43 (K1), TingHuaYa_41 (K1), Verabelle_54 (BD3), phiCAM_49 (BD3),

Start 44:

- Found in 13 of 94 (13.8%) of genes in pham
- Manual Annotations of this start: 7 of 82
- Called 53.8% 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 45:

- Found in 1 of 94 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 82
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kumao_96 (singleton),

Start 46:

- Found in 5 of 94 (5.3%) of genes in pham
- Manual Annotations of this start: 3 of 82
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alsaber_52 (BD3), Amela_51 (BD3), Celery_54 (BD3), Sudan_52 (BD3), Verse_51 (BD3),

Start 47:

- Found in 1 of 94 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 82
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dexers_50 (BD3),

Start 48:

- Found in 1 of 94 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 82
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Saftant_50 (BD3),

Start 49:

- Found in 1 of 94 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 82
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pavo_52 (BD3),

Start 50:

- Found in 21 of 94 (22.3%) of genes in pham

- Manual Annotations of this start: 5 of 82
- 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 53:

- Found in 24 of 94 (25.5%) of genes in pham
- Manual Annotations of this start: 15 of 82
- Called 62.5% 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), 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 58:

- Found in 13 of 94 (13.8%) of genes in pham
- Manual Annotations of this start: 3 of 82
- Called 46.2% of time when present
- Phage (with cluster) where this start called: BananenDer11_38 (K5), DoubleChamp_38 (K5), Edugator_39 (K5), InvictusManeo_38 (K5), Neighly_39 (K3), ViviJ_38 (K5),

Start 62:

- Found in 9 of 94 (9.6%) of genes in pham
- Manual Annotations of this start: 1 of 82
- Called 11.1% of time when present
- Phage (with cluster) where this start called: ELB20_52 (BD2),

Start 65:

- Found in 23 of 94 (24.5%) of genes in pham
- Manual Annotations of this start: 1 of 82
- Called 4.3% of time when present
- Phage (with cluster) where this start called: Aaronocolus_49 (BD1),

Summary by clusters:

There are 10 clusters represented in this pham: singleton, BD3, BD2, K3, K1, BD1, K5, M2, M1, M3,

Info for manual annotations of cluster BD1:

- Start number 50 was manually annotated 5 times for cluster BD1.
- Start number 53 was manually annotated 14 times for cluster BD1.
- Start number 65 was manually annotated 1 time for cluster BD1.

Info for manual annotations of cluster BD2:

- Start number 17 was manually annotated 1 time for cluster BD2.
- Start number 23 was manually annotated 1 time for cluster BD2.
- Start number 24 was manually annotated 3 times for cluster BD2.
- Start number 37 was manually annotated 5 times for cluster BD2.
- Start number 41 was manually annotated 10 times for cluster BD2.
- Start number 62 was manually annotated 1 time for cluster BD2.

Info for manual annotations of cluster BD3:

- Start number 46 was manually annotated 3 times for cluster BD3.
- Start number 47 was manually annotated 1 time for cluster BD3.
- Start number 48 was manually annotated 1 time for cluster BD3.
- Start number 49 was manually annotated 1 time for cluster BD3.

Info for manual annotations of cluster K1:

- Start number 43 was manually annotated 1 time for cluster K1.
- Start number 53 was manually annotated 1 time for cluster K1.

Info for manual annotations of cluster K5:

- Start number 44 was manually annotated 7 times for cluster K5.
- Start number 58 was manually annotated 3 times for cluster K5.

Info for manual annotations of cluster M1:

- Start number 21 was manually annotated 1 time for cluster M1.
- Start number 32 was manually annotated 14 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 32 was manually annotated 6 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 32 was manually annotated 1 time for cluster M3.

Gene Information:

Gene: Aaronocolus_49 Start: 34181, Stop: 35398, Start Num: 65

Candidate Starts for Aaronocolus_49:

(Start: 50 @34064 has 5 MA's), (Start: 53 @34076 has 15 MA's), (56, 34091), (64, 34178), (Start: 65 @34181 has 1 MA's), (68, 34205), (72, 34247), (75, 34256), (81, 34298), (82, 34307), (84, 34319), (95, 34409), (96, 34418), (100, 34442), (106, 34562), (108, 34568), (119, 34658), (129, 34673), (130, 34682), (135, 34715), (152, 34826), (153, 34832), (161, 34880), (164, 34895), (168, 34910), (179, 34970), (185, 34994), (194, 35075), (201, 35105), (205, 35135), (212, 35183), (228, 35261), (234, 35309), (235, 35318), (242, 35345), (253, 35384),

Gene: Agent47_39 Start: 31420, Stop: 32865, Start Num: 44

Candidate Starts for Agent47_39:

(3, 31168), (8, 31231), (13, 31285), (30, 31372), (Start: 44 @31420 has 7 MA's), (Start: 58 @31495 has 3 MA's), (60, 31507), (72, 31618), (73, 31621), (78, 31654), (82, 31678), (91, 31741), (100, 31816), (124, 32092), (161, 32314), (163, 32326), (173, 32374), (175, 32404), (179, 32425), (185, 32449), (206, 32602), (220, 32683), (222, 32689), (227, 32701), (231, 32737), (232, 32743), (234, 32764), (236, 32779), (239, 32785), (251, 32833), (254, 32842),

Gene: AlleyCat_39 Start: 31272, Stop: 32717, Start Num: 44

Candidate Starts for AlleyCat_39:

(9, 31101), (13, 31137), (30, 31224), (Start: 44 @31272 has 7 MA's), (Start: 58 @31347 has 3 MA's), (60, 31359), (72, 31470), (73, 31473), (78, 31506), (82, 31530), (91, 31593), (100, 31668), (124, 31944), (161, 32166), (163, 32178), (173, 32226), (175, 32256), (179, 32277), (185, 32301), (206, 32454), (220, 32535), (222, 32541), (227, 32553), (231, 32589), (232, 32595), (233, 32613), (234, 32616), (236, 32631), (239, 32637), (251, 32685), (254, 32694),

Gene: Alsaber_52 Start: 36706, Stop: 38124, Start Num: 46

Candidate Starts for Alsaber_52:

(38, 36682), (Start: 46 @36706 has 3 MA's), (56, 36736), (Start: 62 @36817 has 1 MA's), (75, 36901), (76, 36919), (81, 36943), (82, 36952), (84, 36964), (87, 36991), (93, 37024), (96, 37063), (97, 37066), (100, 37087), (108, 37213), (116, 37276), (132, 37402), (138, 37447), (152, 37540), (168, 37624), (178, 37681), (181, 37693), (185, 37708), (195, 37792), (200, 37813), (205, 37849), (209, 37882), (226, 37960), (234, 38023), (238, 38041), (245, 38074), (246, 38077),

Gene: Alvy_56 Start: 38642, Stop: 40063, Start Num: 41

Candidate Starts for Alvy_56:

(20, 38561), (22, 38570), (Start: 24 @38582 has 3 MA's), (Start: 37 @38633 has 5 MA's), (Start: 41 @38642 has 10 MA's), (72, 38852), (79, 38879), (83, 38909), (99, 39017), (106, 39146), (112, 39194), (129, 39305), (130, 39314), (134, 39341), (137, 39362), (138, 39365), (142, 39404), (145, 39419), (172, 39563), (186, 39647), (202, 39764), (206, 39800), (215, 39854), (216, 39857), (224, 39890), (234, 39956), (247, 40013), (260, 40052),

Gene: Amela_51 Start: 37563, Stop: 38975, Start Num: 46

Candidate Starts for Amela_51:

(Start: 46 @37563 has 3 MA's), (56, 37593), (72, 37749), (75, 37758), (76, 37776), (78, 37785), (81, 37800), (82, 37809), (84, 37821), (87, 37848), (91, 37872), (93, 37881), (96, 37920), (97, 37923), (100, 37944), (108, 38070), (109, 38073), (116, 38133), (129, 38244), (132, 38259), (138, 38304), (152, 38397), (161, 38451), (164, 38466), (168, 38481), (181, 38550), (185, 38565), (191, 38628), (205, 38706), (212, 38754), (234, 38880), (238, 38898), (246, 38934), (253, 38955),

Gene: Amethyst_51 Start: 36872, Stop: 38293, Start Num: 41

Candidate Starts for Amethyst_51:

(20, 36791), (22, 36800), (Start: 24 @36812 has 3 MA's), (Start: 37 @36863 has 5 MA's), (Start: 41 @36872 has 10 MA's), (55, 36917), (71, 37061), (72, 37082), (79, 37109), (83, 37139), (99, 37247), (106, 37376), (109, 37385), (112, 37424), (117, 37454), (121, 37502), (129, 37535), (130, 37544), (137, 37592), (138, 37595), (142, 37634), (145, 37649), (172, 37793), (186, 37877), (202, 37994), (206, 38030), (215, 38084), (216, 38087), (224, 38120), (227, 38129), (234, 38186), (244, 38234), (247, 38243),

Gene: Auspice_131 Start: 69640, Stop: 68180, Start Num: 32

Candidate Starts for Auspice_131:

(Start: 21 @69682 has 1 MA's), (29, 69649), (Start: 32 @69640 has 21 MA's), (56, 69568), (66, 69487), (70, 69445), (72, 69421), (84, 69349), (96, 69232), (102, 69169), (107, 69085), (109, 69073), (113, 69031), (116, 69013), (139, 68851), (143, 68830), (154, 68779), (158, 68752), (164, 68725), (186, 68605), (206, 68455), (219, 68377), (230, 68332), (240, 68275),

Gene: Aziz_145 Start: 70550, Stop: 69096, Start Num: 32

Candidate Starts for Aziz_145:

(Start: 21 @70592 has 1 MA's), (29, 70559), (Start: 32 @70550 has 21 MA's), (52, 70496), (56, 70478), (63, 70403), (84, 70259), (96, 70142), (102, 70079), (109, 69989), (113, 69947), (147, 69734), (154, 69695), (158, 69668), (164, 69641), (177, 69560), (183, 69530), (185, 69524), (186, 69521), (206, 69371), (210, 69350), (219, 69293), (240, 69191),

Gene: BananenDer11_38 Start: 31456, Stop: 32826, Start Num: 58

Candidate Starts for BananenDer11_38:

(3, 31129), (8, 31192), (13, 31246), (30, 31333), (Start: 44 @31381 has 7 MA's), (Start: 58 @31456 has 3 MA's), (60, 31468), (72, 31579), (73, 31582), (78, 31615), (82, 31639), (91, 31702), (100, 31777), (124, 32053), (161, 32275), (163, 32287), (173, 32335), (175, 32365), (179, 32386), (185, 32410),

(206, 32563), (220, 32644), (222, 32650), (227, 32662), (231, 32698), (232, 32704), (234, 32725), (236, 32740), (239, 32746), (251, 32794), (254, 32803),

Gene: BartholomewSD_56 Start: 37761, Stop: 39182, Start Num: 41

Candidate Starts for BartholomewSD_56:

(20, 37680), (22, 37689), (Start: 24 @37701 has 3 MA's), (Start: 37 @37752 has 5 MA's), (Start: 41 @37761 has 10 MA's), (72, 37971), (79, 37998), (83, 38028), (99, 38136), (106, 38265), (112, 38313), (129, 38424), (130, 38433), (134, 38460), (137, 38481), (138, 38484), (142, 38523), (145, 38538), (172, 38682), (186, 38766), (202, 38883), (206, 38919), (215, 38973), (216, 38976), (224, 39009), (234, 39075), (247, 39132), (260, 39171),

Gene: BeardedLady_49 Start: 34453, Stop: 35775, Start Num: 53

Candidate Starts for BeardedLady_49:

(Start: 50 @34441 has 5 MA's), (Start: 53 @34453 has 15 MA's), (56, 34468), (64, 34555), (Start: 65 @34558 has 1 MA's), (68, 34582), (75, 34633), (81, 34675), (82, 34684), (84, 34696), (95, 34786), (96, 34795), (100, 34819), (106, 34939), (108, 34945), (119, 35035), (129, 35050), (130, 35059), (135, 35092), (152, 35203), (153, 35209), (161, 35257), (164, 35272), (168, 35287), (179, 35347), (185, 35371), (194, 35452), (201, 35482), (205, 35512), (212, 35560), (228, 35638), (234, 35686), (235, 35695), (242, 35722), (253, 35761),

Gene: Bongo_130 Start: 69256, Stop: 67796, Start Num: 32

Candidate Starts for Bongo_130:

(Start: 21 @69298 has 1 MA's), (29, 69265), (Start: 32 @69256 has 21 MA's), (56, 69184), (66, 69103), (70, 69061), (72, 69037), (84, 68965), (96, 68848), (102, 68785), (107, 68701), (109, 68689), (113, 68647), (116, 68629), (139, 68467), (143, 68446), (154, 68395), (158, 68368), (164, 68341), (186, 68221), (206, 68071), (219, 67993), (230, 67948), (240, 67891),

Gene: Bovely_49 Start: 34070, Stop: 35404, Start Num: 50

Candidate Starts for Bovely_49:

(Start: 50 @34070 has 5 MA's), (Start: 53 @34082 has 15 MA's), (56, 34097), (64, 34184), (Start: 65 @34187 has 1 MA's), (68, 34211), (72, 34253), (75, 34262), (81, 34304), (82, 34313), (84, 34325), (95, 34415), (96, 34424), (100, 34448), (106, 34568), (108, 34574), (119, 34664), (129, 34679), (130, 34688), (135, 34721), (152, 34832), (153, 34838), (161, 34886), (164, 34901), (168, 34916), (179, 34976), (181, 34985), (185, 35000), (194, 35081), (201, 35111), (205, 35141), (212, 35189), (228, 35267), (234, 35315), (235, 35324), (242, 35351), (253, 35390),

Gene: Bowden_53 Start: 38547, Stop: 39977, Start Num: 37

Candidate Starts for Bowden_53:

(20, 38475), (22, 38484), (Start: 24 @38496 has 3 MA's), (Start: 37 @38547 has 5 MA's), (Start: 41 @38556 has 10 MA's), (79, 38793), (99, 38931), (106, 39060), (112, 39108), (129, 39219), (130, 39228), (134, 39255), (137, 39276), (138, 39279), (142, 39318), (145, 39333), (172, 39477), (179, 39534), (186, 39561), (202, 39678), (206, 39714), (215, 39768), (216, 39771), (224, 39804), (234, 39870), (247, 39927), (260, 39966),

Gene: Bricole_133 Start: 69404, Stop: 67944, Start Num: 32

Candidate Starts for Bricole_133:

(Start: 21 @69446 has 1 MA's), (29, 69413), (Start: 32 @69404 has 21 MA's), (56, 69332), (66, 69251), (70, 69209), (72, 69185), (84, 69113), (96, 68996), (102, 68933), (107, 68849), (109, 68837), (113, 68795), (116, 68777), (139, 68615), (143, 68594), (154, 68543), (158, 68516), (164, 68489), (186, 68369), (206, 68219), (219, 68141), (230, 68096), (240, 68039),

Gene: BryanRecycles_50 Start: 34372, Stop: 35694, Start Num: 53

Candidate Starts for BryanRecycles_50:

(Start: 50 @34360 has 5 MA's), (Start: 53 @34372 has 15 MA's), (56, 34387), (64, 34474), (Start: 65 @34477 has 1 MA's), (68, 34501), (75, 34552), (81, 34594), (82, 34603), (84, 34615), (95, 34705), (96, 34714), (100, 34738), (106, 34858), (108, 34864), (119, 34954), (129, 34969), (130, 34978), (135, 35011), (152, 35122), (153, 35128), (161, 35176), (164, 35191), (168, 35206), (179, 35266), (181, 35275), (185, 35290), (193, 35368), (201, 35401), (205, 35431), (212, 35479), (228, 35557), (234, 35605), (235, 35614), (242, 35641), (253, 35680),

Gene: Caelum_54 Start: 37075, Stop: 38505, Start Num: 37

Candidate Starts for Caelum_54:

(20, 37003), (Start: 24 @37024 has 3 MA's), (Start: 37 @37075 has 5 MA's), (Start: 41 @37084 has 10 MA's), (72, 37294), (79, 37321), (86, 37372), (88, 37387), (89, 37393), (99, 37459), (106, 37588), (109, 37597), (112, 37636), (129, 37747), (130, 37756), (138, 37807), (145, 37861), (154, 37915), (172, 38005), (186, 38089), (202, 38206), (206, 38242), (216, 38299), (224, 38332), (227, 38341), (234, 38398), (247, 38455),

Gene: Caliburn_48 Start: 34183, Stop: 35505, Start Num: 53

Candidate Starts for Caliburn_48:

(Start: 50 @34171 has 5 MA's), (Start: 53 @34183 has 15 MA's), (56, 34198), (64, 34285), (Start: 65 @34288 has 1 MA's), (68, 34312), (75, 34363), (81, 34405), (82, 34414), (84, 34426), (95, 34516), (96, 34525), (100, 34549), (106, 34669), (108, 34675), (119, 34765), (129, 34780), (130, 34789), (135, 34822), (152, 34933), (153, 34939), (161, 34987), (164, 35002), (168, 35017), (179, 35077), (185, 35101), (194, 35182), (201, 35212), (205, 35242), (212, 35290), (228, 35368), (234, 35416), (235, 35425), (242, 35452), (253, 35491),

Gene: Celery_54 Start: 36669, Stop: 38081, Start Num: 46

Candidate Starts for Celery_54:

(Start: 46 @36669 has 3 MA's), (56, 36699), (Start: 62 @36780 has 1 MA's), (Start: 65 @36789 has 1 MA's), (72, 36855), (75, 36864), (81, 36906), (82, 36915), (84, 36927), (87, 36954), (93, 36987), (96, 37026), (97, 37029), (100, 37050), (108, 37176), (116, 37239), (129, 37350), (132, 37365), (138, 37410), (152, 37503), (153, 37509), (155, 37530), (168, 37587), (181, 37656), (185, 37671), (191, 37734), (203, 37797), (205, 37812), (209, 37845), (212, 37860), (226, 37923), (234, 37986),

Gene: Collard_38 Start: 31381, Stop: 32826, Start Num: 44

Candidate Starts for Collard_38:

(3, 31129), (8, 31192), (13, 31246), (30, 31333), (Start: 44 @31381 has 7 MA's), (Start: 58 @31456 has 3 MA's), (60, 31468), (72, 31579), (73, 31582), (78, 31615), (82, 31639), (91, 31702), (100, 31777), (124, 32053), (161, 32275), (163, 32287), (173, 32335), (175, 32365), (179, 32386), (185, 32410), (206, 32563), (220, 32644), (222, 32650), (227, 32662), (231, 32698), (232, 32704), (234, 32725), (236, 32740), (239, 32746), (251, 32794), (254, 32803),

Gene: Curiosium_43 Start: 31007, Stop: 32419, Start Num: 43

Candidate Starts for Curiosium_43:

(39, 30998), (Start: 43 @31007 has 1 MA's), (Start: 53 @31028 has 15 MA's), (61, 31100), (68, 31157), (72, 31199), (73, 31202), (77, 31232), (79, 31238), (90, 31310), (102, 31433), (106, 31511), (111, 31541), (117, 31589), (128, 31658), (130, 31667), (134, 31694), (136, 31709), (140, 31748), (141, 31751), (148, 31778), (151, 31805), (160, 31859), (162, 31871), (165, 31877), (169, 31901), (182, 31994), (185, 32006), (186, 32009), (188, 32018), (189, 32036), (197, 32093), (198, 32096), (208, 32168), (211, 32183), (231, 32285), (237, 32330), (238, 32333), (259, 32414),

Gene: Dadosky_39 Start: 31274, Stop: 32719, Start Num: 44

Candidate Starts for Dadosky_39:

(9, 31103), (13, 31139), (30, 31226), (Start: 44 @31274 has 7 MA's), (Start: 58 @31349 has 3 MA's), (60, 31361), (72, 31472), (73, 31475), (78, 31508), (82, 31532), (91, 31595), (100, 31670), (124,

31946), (161, 32168), (163, 32180), (173, 32228), (175, 32258), (179, 32279), (185, 32303), (206, 32456), (220, 32537), (222, 32543), (227, 32555), (231, 32591), (232, 32597), (233, 32615), (234, 32618), (236, 32633), (239, 32639), (251, 32687), (254, 32696),

Gene: Daudau_52 Start: 37034, Stop: 38455, Start Num: 41

Candidate Starts for Daudau_52:

(20, 36953), (Start: 24 @36974 has 3 MA's), (Start: 37 @37025 has 5 MA's), (Start: 41 @37034 has 10 MA's), (79, 37271), (99, 37409), (106, 37538), (112, 37586), (129, 37697), (130, 37706), (134, 37733), (137, 37754), (138, 37757), (142, 37796), (145, 37811), (172, 37955), (186, 38039), (202, 38156), (206, 38192), (215, 38246), (216, 38249), (234, 38348), (247, 38405), (248, 38411),

Gene: Dexers_50 Start: 36616, Stop: 38022, Start Num: 47

Candidate Starts for Dexers_50:

(40, 36595), (Start: 47 @36616 has 1 MA's), (56, 36646), (75, 36811), (76, 36829), (81, 36853), (82, 36862), (84, 36874), (95, 36964), (96, 36973), (97, 36976), (100, 36997), (109, 37126), (116, 37186), (129, 37297), (138, 37357), (157, 37489), (161, 37504), (182, 37606), (195, 37702), (205, 37759), (218, 37843), (221, 37858), (226, 37870), (238, 37951), (252, 38002),

Gene: Diminimus_131 Start: 69072, Stop: 67612, Start Num: 32

Candidate Starts for Diminimus_131:

(Start: 21 @69114 has 1 MA's), (29, 69081), (Start: 32 @69072 has 21 MA's), (56, 69000), (66, 68919), (70, 68877), (72, 68853), (84, 68781), (96, 68664), (102, 68601), (107, 68517), (109, 68505), (113, 68463), (116, 68445), (139, 68283), (143, 68262), (154, 68211), (158, 68184), (164, 68157), (186, 68037), (206, 67887), (219, 67809), (230, 67764), (240, 67707),

Gene: DoubleChamp_38 Start: 31456, Stop: 32826, Start Num: 58

Candidate Starts for DoubleChamp_38:

(3, 31129), (8, 31192), (13, 31246), (30, 31333), (Start: 44 @31381 has 7 MA's), (Start: 58 @31456 has 3 MA's), (60, 31468), (72, 31579), (73, 31582), (78, 31615), (82, 31639), (91, 31702), (100, 31777), (124, 32053), (161, 32275), (163, 32287), (173, 32335), (175, 32365), (179, 32386), (185, 32410), (206, 32563), (220, 32644), (222, 32650), (227, 32662), (231, 32698), (232, 32704), (234, 32725), (236, 32740), (239, 32746), (251, 32794), (254, 32803),

Gene: Dulcita_131 Start: 69073, Stop: 67613, Start Num: 32

Candidate Starts for Dulcita_131:

(Start: 21 @69115 has 1 MA's), (29, 69082), (Start: 32 @69073 has 21 MA's), (56, 69001), (66, 68920), (70, 68878), (72, 68854), (84, 68782), (96, 68665), (102, 68602), (107, 68518), (109, 68506), (113, 68464), (116, 68446), (139, 68284), (143, 68263), (154, 68212), (158, 68185), (164, 68158), (186, 68038), (206, 67888), (219, 67810), (230, 67765), (240, 67708),

Gene: ELB20_52 Start: 37707, Stop: 38996, Start Num: 62

Candidate Starts for ELB20_52:

(Start: 41 @37578 has 10 MA's), (42, 37581), (Start: 62 @37707 has 1 MA's), (64, 37713), (67, 37722), (72, 37785), (83, 37842), (86, 37863), (92, 37893), (93, 37896), (99, 37950), (106, 38079), (109, 38088), (112, 38127), (117, 38157), (129, 38238), (130, 38247), (138, 38298), (145, 38352), (186, 38580), (192, 38649), (206, 38733), (216, 38790), (224, 38823), (227, 38832), (234, 38889), (247, 38946), (248, 38952), (260, 38985),

Gene: Eddasa_50 Start: 34372, Stop: 35694, Start Num: 53

Candidate Starts for Eddasa_50:

(Start: 50 @34360 has 5 MA's), (Start: 53 @34372 has 15 MA's), (56, 34387), (64, 34474), (Start: 65 @34477 has 1 MA's), (68, 34501), (75, 34552), (81, 34594), (82, 34603), (84, 34615), (95, 34705), (96, 34714), (100, 34738), (106, 34858), (108, 34864), (119, 34954), (129, 34969), (130, 34978), (135,

35011), (152, 35122), (153, 35128), (161, 35176), (164, 35191), (168, 35206), (179, 35266), (181, 35275), (185, 35290), (193, 35368), (201, 35401), (205, 35431), (212, 35479), (228, 35557), (234, 35605), (235, 35614), (242, 35641), (253, 35680),

Gene: Edugator_39 Start: 31774, Stop: 33144, Start Num: 58

Candidate Starts for Edugator_39:

(3, 31447), (9, 31528), (13, 31564), (30, 31651), (Start: 44 @31699 has 7 MA's), (Start: 58 @31774 has 3 MA's), (60, 31786), (72, 31897), (73, 31900), (78, 31933), (82, 31957), (91, 32020), (100, 32095), (124, 32371), (161, 32593), (163, 32605), (173, 32653), (175, 32683), (179, 32704), (206, 32881), (220, 32962), (222, 32968), (227, 32980), (231, 33016), (232, 33022), (233, 33040), (234, 33043), (236, 33058), (239, 33064), (251, 33112), (254, 33121),

Gene: EnochSoames_52 Start: 34356, Stop: 35690, Start Num: 50

Candidate Starts for EnochSoames_52:

(Start: 50 @34356 has 5 MA's), (Start: 53 @34368 has 15 MA's), (56, 34383), (64, 34470), (Start: 65 @34473 has 1 MA's), (68, 34497), (72, 34539), (75, 34548), (81, 34590), (82, 34599), (84, 34611), (95, 34701), (96, 34710), (100, 34734), (106, 34854), (108, 34860), (119, 34950), (129, 34965), (130, 34974), (135, 35007), (152, 35118), (153, 35124), (161, 35172), (164, 35187), (168, 35202), (179, 35262), (181, 35271), (193, 35364), (201, 35397), (205, 35427), (212, 35475), (228, 35553), (234, 35601), (235, 35610), (242, 35637), (253, 35676),

Gene: Esperer_49 Start: 33895, Stop: 35217, Start Num: 53

Candidate Starts for Esperer_49:

(Start: 50 @33883 has 5 MA's), (Start: 53 @33895 has 15 MA's), (56, 33910), (64, 33997), (Start: 65 @34000 has 1 MA's), (68, 34024), (72, 34066), (75, 34075), (81, 34117), (82, 34126), (84, 34138), (95, 34228), (96, 34237), (100, 34261), (106, 34381), (108, 34387), (119, 34477), (129, 34492), (130, 34501), (135, 34534), (152, 34645), (153, 34651), (161, 34699), (164, 34714), (168, 34729), (179, 34789), (185, 34813), (194, 34894), (201, 34924), (205, 34954), (212, 35002), (228, 35080), (234, 35128), (235, 35137), (242, 35164), (253, 35203),

Gene: Estes_146 Start: 70719, Stop: 69265, Start Num: 32

Candidate Starts for Estes_146:

(2, 70932), (4, 70887), (11, 70836), (Start: 21 @70761 has 1 MA's), (29, 70728), (Start: 32 @70719 has 21 MA's), (52, 70665), (56, 70647), (63, 70572), (84, 70428), (96, 70311), (102, 70248), (109, 70158), (113, 70116), (147, 69903), (154, 69864), (158, 69837), (164, 69810), (177, 69729), (183, 69699), (185, 69693), (186, 69690), (206, 69540), (210, 69519), (219, 69462), (240, 69360), (249, 69318), (252, 69312),

Gene: FreakyGoo_131 Start: 69557, Stop: 68097, Start Num: 32

Candidate Starts for FreakyGoo_131:

(Start: 21 @69599 has 1 MA's), (29, 69566), (Start: 32 @69557 has 21 MA's), (56, 69485), (66, 69404), (70, 69362), (72, 69338), (84, 69266), (96, 69149), (102, 69086), (107, 69002), (109, 68990), (113, 68948), (116, 68930), (139, 68768), (143, 68747), (154, 68696), (158, 68669), (164, 68642), (186, 68522), (206, 68372), (219, 68294), (230, 68249), (240, 68192),

Gene: GardenSalsa_146 Start: 70892, Stop: 69438, Start Num: 32

Candidate Starts for GardenSalsa_146:

(11, 71009), (Start: 21 @70934 has 1 MA's), (29, 70901), (Start: 32 @70892 has 21 MA's), (52, 70838), (56, 70820), (63, 70745), (84, 70601), (96, 70484), (102, 70421), (109, 70331), (113, 70289), (147, 70076), (158, 70010), (164, 69983), (177, 69902), (183, 69872), (185, 69866), (186, 69863), (206, 69713), (210, 69692), (219, 69635), (240, 69533), (249, 69491),

Gene: GenevaB15_148 Start: 70550, Stop: 69096, Start Num: 32

Candidate Starts for GenevaB15_148:

(Start: 21 @70592 has 1 MA's), (29, 70559), (Start: 32 @70550 has 21 MA's), (52, 70496), (56, 70478), (63, 70403), (84, 70259), (96, 70142), (102, 70079), (109, 69989), (113, 69947), (147, 69734), (154, 69695), (158, 69668), (164, 69641), (177, 69560), (183, 69530), (185, 69524), (186, 69521), (206, 69371), (210, 69350), (219, 69293), (240, 69191),

Gene: Glaske16_133 Start: 70191, Stop: 68731, Start Num: 32

Candidate Starts for Glaske16_133:

(Start: 21 @70233 has 1 MA's), (29, 70200), (Start: 32 @70191 has 21 MA's), (56, 70119), (66, 70038), (70, 69996), (72, 69972), (84, 69900), (96, 69783), (102, 69720), (107, 69636), (109, 69624), (113, 69582), (116, 69564), (139, 69402), (143, 69381), (154, 69330), (158, 69303), (164, 69276), (186, 69156), (206, 69006), (219, 68928), (230, 68883), (240, 68826),

Gene: Hydra_50 Start: 34719, Stop: 36053, Start Num: 50

Candidate Starts for Hydra_50:

(Start: 50 @34719 has 5 MA's), (Start: 53 @34731 has 15 MA's), (56, 34746), (64, 34833), (Start: 65 @34836 has 1 MA's), (68, 34860), (72, 34902), (75, 34911), (81, 34953), (82, 34962), (84, 34974), (95, 35064), (96, 35073), (100, 35097), (106, 35217), (108, 35223), (119, 35313), (129, 35328), (130, 35337), (135, 35370), (152, 35481), (153, 35487), (161, 35535), (164, 35550), (168, 35565), (179, 35625), (181, 35634), (185, 35649), (194, 35730), (201, 35760), (205, 35790), (212, 35838), (228, 35916), (234, 35964), (235, 35973), (242, 36000), (253, 36039),

Gene: IPhone7_129 Start: 69256, Stop: 67796, Start Num: 32

Candidate Starts for IPhone7_129:

(Start: 21 @69298 has 1 MA's), (29, 69265), (Start: 32 @69256 has 21 MA's), (56, 69184), (66, 69103), (70, 69061), (72, 69037), (84, 68965), (96, 68848), (102, 68785), (107, 68701), (109, 68689), (113, 68647), (116, 68629), (139, 68467), (143, 68446), (154, 68395), (158, 68368), (164, 68341), (186, 68221), (206, 68071), (219, 67993), (230, 67948), (240, 67891),

Gene: Indigo_48 Start: 34063, Stop: 35397, Start Num: 50

Candidate Starts for Indigo_48:

(Start: 50 @34063 has 5 MA's), (Start: 53 @34075 has 15 MA's), (56, 34090), (64, 34177), (Start: 65 @34180 has 1 MA's), (68, 34204), (72, 34246), (75, 34255), (81, 34297), (82, 34306), (84, 34318), (95, 34408), (96, 34417), (100, 34441), (106, 34561), (108, 34567), (119, 34657), (129, 34672), (130, 34681), (135, 34714), (152, 34825), (153, 34831), (161, 34879), (164, 34894), (168, 34909), (179, 34969), (185, 34993), (194, 35074), (201, 35104), (205, 35134), (212, 35182), (228, 35260), (234, 35308), (235, 35317), (242, 35344), (253, 35383),

Gene: InvictusManeo_38 Start: 31499, Stop: 32869, Start Num: 58

Candidate Starts for InvictusManeo_38:

(3, 31172), (8, 31235), (13, 31289), (30, 31376), (Start: 44 @31424 has 7 MA's), (Start: 58 @31499 has 3 MA's), (60, 31511), (72, 31622), (73, 31625), (78, 31658), (82, 31682), (91, 31745), (100, 31820), (124, 32096), (161, 32318), (163, 32330), (173, 32378), (175, 32408), (179, 32429), (185, 32453), (206, 32606), (220, 32687), (222, 32693), (227, 32705), (231, 32741), (232, 32747), (234, 32768), (236, 32783), (239, 32789), (251, 32837), (254, 32846),

Gene: Issmi_53 Start: 37574, Stop: 38995, Start Num: 41

Candidate Starts for Issmi_53:

(Start: 24 @37514 has 3 MA's), (Start: 37 @37565 has 5 MA's), (Start: 41 @37574 has 10 MA's), (72, 37784), (79, 37811), (88, 37877), (99, 37949), (106, 38078), (109, 38087), (112, 38126), (129, 38237), (134, 38273), (137, 38294), (138, 38297), (142, 38336), (145, 38351), (172, 38495), (186, 38579), (202, 38696), (206, 38732), (215, 38786), (216, 38789), (224, 38822), (234, 38888), (244, 38936), (247, 38945), (260, 38984),

Gene: Izel_131 Start: 69072, Stop: 67612, Start Num: 32

Candidate Starts for Izel_131:

(Start: 21 @69114 has 1 MA's), (29, 69081), (Start: 32 @69072 has 21 MA's), (56, 69000), (66, 68919), (70, 68877), (72, 68853), (84, 68781), (96, 68664), (102, 68601), (107, 68517), (109, 68505), (113, 68463), (116, 68445), (139, 68283), (143, 68262), (154, 68211), (158, 68184), (164, 68157), (186, 68037), (206, 67887), (219, 67809), (230, 67764), (240, 67707),

Gene: Izzy_50 Start: 34419, Stop: 35741, Start Num: 53

Candidate Starts for Izzy_50:

(Start: 50 @34407 has 5 MA's), (Start: 53 @34419 has 15 MA's), (56, 34434), (64, 34521), (Start: 65 @34524 has 1 MA's), (68, 34548), (75, 34599), (81, 34641), (82, 34650), (84, 34662), (95, 34752), (96, 34761), (100, 34785), (106, 34905), (108, 34911), (119, 35001), (129, 35016), (130, 35025), (135, 35058), (152, 35169), (153, 35175), (161, 35223), (164, 35238), (168, 35253), (179, 35313), (181, 35322), (185, 35337), (193, 35415), (201, 35448), (205, 35478), (212, 35526), (228, 35604), (234, 35652), (235, 35661), (242, 35688), (253, 35727),

Gene: Jash_50 Start: 34372, Stop: 35694, Start Num: 53

Candidate Starts for Jash_50:

(Start: 50 @34360 has 5 MA's), (Start: 53 @34372 has 15 MA's), (56, 34387), (64, 34474), (Start: 65 @34477 has 1 MA's), (68, 34501), (75, 34552), (81, 34594), (82, 34603), (84, 34615), (95, 34705), (96, 34714), (100, 34738), (106, 34858), (108, 34864), (119, 34954), (129, 34969), (130, 34978), (135, 35011), (152, 35122), (153, 35128), (161, 35176), (164, 35191), (168, 35206), (179, 35266), (181, 35275), (185, 35290), (193, 35368), (201, 35401), (205, 35431), (212, 35479), (228, 35557), (234, 35605), (235, 35614), (242, 35641), (253, 35680),

Gene: Jevington_52 Start: 36147, Stop: 37628, Start Num: 24

Candidate Starts for Jevington_52:

(1, 35931), (6, 36015), (7, 36021), (18, 36123), (Start: 24 @36147 has 3 MA's), (Start: 37 @36198 has 5 MA's), (Start: 41 @36207 has 10 MA's), (72, 36417), (79, 36444), (99, 36582), (106, 36711), (112, 36759), (129, 36870), (130, 36879), (137, 36927), (138, 36930), (142, 36969), (172, 37128), (186, 37212), (202, 37329), (206, 37365), (224, 37455), (227, 37464), (234, 37521), (244, 37569), (247, 37578), (260, 37617),

Gene: KleverKiS_134 Start: 70309, Stop: 68849, Start Num: 32

Candidate Starts for KleverKiS_134:

(Start: 21 @70351 has 1 MA's), (29, 70318), (Start: 32 @70309 has 21 MA's), (56, 70237), (66, 70156), (70, 70114), (72, 70090), (84, 70018), (96, 69901), (102, 69838), (107, 69754), (109, 69742), (113, 69700), (116, 69682), (139, 69520), (143, 69499), (154, 69448), (158, 69421), (164, 69394), (186, 69274), (206, 69124), (219, 69046), (230, 69001), (240, 68944),

Gene: Kratio_37 Start: 30972, Stop: 32417, Start Num: 44

Candidate Starts for Kratio_37:

(3, 30720), (8, 30783), (13, 30837), (30, 30924), (Start: 44 @30972 has 7 MA's), (Start: 58 @31047 has 3 MA's), (60, 31059), (72, 31170), (73, 31173), (78, 31206), (82, 31230), (91, 31293), (100, 31368), (124, 31644), (161, 31866), (163, 31878), (173, 31926), (175, 31956), (179, 31977), (185, 32001), (206, 32154), (220, 32235), (222, 32241), (227, 32253), (231, 32289), (232, 32295), (233, 32313), (234, 32316), (236, 32331), (239, 32337), (251, 32385), (254, 32394),

Gene: Kumao_96 Start: 59042, Stop: 60475, Start Num: 45

Candidate Starts for Kumao_96:

(19, 58946), (36, 59015), (Start: 43 @59033 has 1 MA's), (Start: 45 @59042 has 1 MA's), (54, 59066), (68, 59189), (72, 59231), (85, 59312), (98, 59414), (100, 59426), (101, 59441), (103, 59486), (113,

59609), (115, 59621), (131, 59714), (135, 59744), (146, 59816), (149, 59825), (164, 59915), (166, 59921), (167, 59927), (181, 60035), (182, 60038), (184, 60047), (185, 60050), (200, 60155), (206, 60206), (216, 60263), (217, 60269), (220, 60287), (223, 60296), (227, 60305), (231, 60335), (232, 60341), (237, 60380),

Gene: Larva_39 Start: 31141, Stop: 32586, Start Num: 44

Candidate Starts for Larva_39:

(9, 30970), (13, 31006), (30, 31093), (Start: 44 @31141 has 7 MA's), (Start: 58 @31216 has 3 MA's), (60, 31228), (72, 31339), (73, 31342), (78, 31375), (82, 31399), (91, 31462), (100, 31537), (124, 31813), (161, 32035), (163, 32047), (173, 32095), (175, 32125), (179, 32146), (185, 32170), (206, 32323), (220, 32404), (222, 32410), (227, 32422), (231, 32458), (232, 32464), (233, 32482), (234, 32485), (236, 32500), (239, 32506), (251, 32554), (254, 32563),

Gene: LastHope_43 Start: 31352, Stop: 32743, Start Num: 53

Candidate Starts for LastHope_43:

(39, 31322), (Start: 43 @31331 has 1 MA's), (Start: 53 @31352 has 15 MA's), (61, 31424), (68, 31481), (72, 31523), (73, 31526), (77, 31556), (79, 31562), (90, 31634), (102, 31757), (106, 31835), (111, 31865), (117, 31913), (118, 31940), (128, 31982), (130, 31991), (134, 32018), (139, 32066), (148, 32102), (150, 32111), (151, 32129), (160, 32183), (162, 32195), (169, 32225), (176, 32285), (180, 32312), (182, 32318), (184, 32327), (185, 32330), (188, 32342), (189, 32360), (197, 32417), (208, 32492), (211, 32507), (214, 32534), (231, 32609), (237, 32654), (238, 32657), (251, 32708), (258, 32732), (259, 32738),

Gene: Legacy_48 Start: 34174, Stop: 35496, Start Num: 53

Candidate Starts for Legacy_48:

(Start: 50 @34162 has 5 MA's), (Start: 53 @34174 has 15 MA's), (56, 34189), (64, 34276), (Start: 65 @34279 has 1 MA's), (68, 34303), (72, 34345), (75, 34354), (81, 34396), (82, 34405), (84, 34417), (95, 34507), (96, 34516), (100, 34540), (106, 34660), (108, 34666), (119, 34756), (129, 34771), (130, 34780), (135, 34813), (152, 34924), (153, 34930), (161, 34978), (164, 34993), (168, 35008), (179, 35068), (181, 35077), (185, 35092), (193, 35170), (201, 35203), (205, 35233), (212, 35281), (228, 35359), (234, 35407), (235, 35416), (242, 35443), (253, 35482),

Gene: Leviticus_49 Start: 34067, Stop: 35401, Start Num: 50

Candidate Starts for Leviticus_49:

(Start: 50 @34067 has 5 MA's), (Start: 53 @34079 has 15 MA's), (56, 34094), (64, 34181), (Start: 65 @34184 has 1 MA's), (68, 34208), (72, 34250), (75, 34259), (81, 34301), (82, 34310), (84, 34322), (95, 34412), (96, 34421), (100, 34445), (106, 34565), (108, 34571), (119, 34661), (129, 34676), (130, 34685), (135, 34718), (152, 34829), (153, 34835), (161, 34883), (164, 34898), (168, 34913), (179, 34973), (185, 34997), (194, 35078), (201, 35108), (205, 35138), (212, 35186), (228, 35264), (234, 35312), (235, 35321), (242, 35348), (253, 35387),

Gene: LilhomieP_131 Start: 70102, Stop: 68642, Start Num: 32

Candidate Starts for LilhomieP_131:

(Start: 21 @70144 has 1 MA's), (29, 70111), (Start: 32 @70102 has 21 MA's), (56, 70030), (66, 69949), (70, 69907), (72, 69883), (84, 69811), (96, 69694), (102, 69631), (107, 69547), (109, 69535), (113, 69493), (116, 69475), (139, 69313), (143, 69292), (154, 69241), (158, 69214), (164, 69187), (186, 69067), (206, 68917), (219, 68839), (230, 68794), (240, 68737),

Gene: Loofah_55 Start: 37744, Stop: 39162, Start Num: 41

Candidate Starts for Loofah_55:

(Start: 41 @37744 has 10 MA's), (42, 37747), (Start: 62 @37873 has 1 MA's), (64, 37879), (72, 37951), (74, 37957), (86, 38029), (92, 38059), (93, 38062), (99, 38116), (106, 38245), (109, 38254), (112, 38293), (120, 38368), (129, 38404), (130, 38413), (138, 38464), (186, 38746), (192, 38815), (206,

38899), (224, 38989), (227, 38998), (234, 39055), (247, 39112), (248, 39118), (260, 39151),

Gene: Marav_53 Start: 36467, Stop: 37948, Start Num: 24

Candidate Starts for Marav_53:

(1, 36248), (5, 36326), (10, 36368), (12, 36386), (18, 36443), (Start: 24 @36467 has 3 MA's), (Start: 37 @36518 has 5 MA's), (Start: 41 @36527 has 10 MA's), (Start: 62 @36659 has 1 MA's), (72, 36737), (86, 36815), (93, 36848), (99, 36902), (106, 37031), (112, 37079), (129, 37190), (130, 37199), (137, 37247), (138, 37250), (142, 37289), (172, 37448), (186, 37532), (202, 37649), (206, 37685), (224, 37775), (227, 37784), (234, 37841), (244, 37889), (247, 37898), (260, 37937),

Gene: MrMagoo_148 Start: 70893, Stop: 69439, Start Num: 32

Candidate Starts for MrMagoo_148:

(11, 71010), (Start: 21 @70935 has 1 MA's), (29, 70902), (Start: 32 @70893 has 21 MA's), (52, 70839), (56, 70821), (63, 70746), (84, 70602), (96, 70485), (102, 70422), (109, 70332), (113, 70290), (147, 70077), (158, 70011), (164, 69984), (177, 69903), (183, 69873), (185, 69867), (186, 69864), (206, 69714), (210, 69693), (219, 69636), (240, 69534), (249, 69492),

Gene: Nanosmite_142 Start: 71091, Stop: 69622, Start Num: 32

Candidate Starts for Nanosmite_142:

(27, 71103), (29, 71100), (Start: 32 @71091 has 21 MA's), (51, 71034), (52, 71028), (54, 71022), (56, 71010), (69, 70893), (70, 70887), (71, 70884), (72, 70863), (94, 70695), (96, 70674), (102, 70611), (109, 70515), (127, 70383), (139, 70293), (147, 70260), (152, 70236), (154, 70221), (164, 70167), (177, 70086), (185, 70050), (189, 70020), (206, 69897), (219, 69819), (225, 69804), (230, 69774),

Gene: Neighly_39 Start: 31215, Stop: 32585, Start Num: 58

Candidate Starts for Neighly_39:

(9, 30969), (13, 31005), (30, 31092), (Start: 44 @31140 has 7 MA's), (Start: 58 @31215 has 3 MA's), (60, 31227), (72, 31338), (73, 31341), (78, 31374), (82, 31398), (91, 31461), (100, 31536), (124, 31812), (161, 32034), (163, 32046), (173, 32094), (175, 32124), (179, 32145), (185, 32169), (206, 32322), (220, 32403), (222, 32409), (227, 32421), (231, 32457), (232, 32463), (233, 32481), (234, 32484), (236, 32499), (239, 32505), (251, 32553), (254, 32562),

Gene: Nerdos_48 Start: 34074, Stop: 35396, Start Num: 53

Candidate Starts for Nerdos_48:

(Start: 50 @34062 has 5 MA's), (Start: 53 @34074 has 15 MA's), (56, 34089), (64, 34176), (Start: 65 @34179 has 1 MA's), (68, 34203), (72, 34245), (75, 34254), (81, 34296), (82, 34305), (84, 34317), (95, 34407), (96, 34416), (100, 34440), (106, 34560), (108, 34566), (119, 34656), (129, 34671), (130, 34680), (135, 34713), (152, 34824), (153, 34830), (161, 34878), (164, 34893), (168, 34908), (179, 34968), (185, 34992), (194, 35073), (201, 35103), (205, 35133), (212, 35181), (228, 35259), (234, 35307), (235, 35316), (242, 35343), (253, 35382),

Gene: Oliynyk_50 Start: 34372, Stop: 35694, Start Num: 53

Candidate Starts for Oliynyk_50:

(Start: 50 @34360 has 5 MA's), (Start: 53 @34372 has 15 MA's), (56, 34387), (64, 34474), (Start: 65 @34477 has 1 MA's), (68, 34501), (75, 34552), (81, 34594), (82, 34603), (84, 34615), (95, 34705), (96, 34714), (100, 34738), (106, 34858), (108, 34864), (119, 34954), (129, 34969), (130, 34978), (135, 35011), (152, 35122), (153, 35128), (161, 35176), (164, 35191), (168, 35206), (179, 35266), (181, 35275), (185, 35290), (193, 35368), (201, 35401), (205, 35431), (212, 35479), (228, 35557), (234, 35605), (235, 35614), (242, 35641), (253, 35680),

Gene: Omar_55 Start: 36249, Stop: 37679, Start Num: 37

Candidate Starts for Omar_55:

(14, 36147), (Start: 24 @36198 has 3 MA's), (Start: 37 @36249 has 5 MA's), (Start: 41 @36258 has 10 MA's), (72, 36468), (79, 36495), (99, 36633), (106, 36762), (112, 36810), (129, 36921), (130, 36930), (137, 36978), (138, 36981), (142, 37020), (145, 37035), (166, 37149), (172, 37179), (186, 37263), (202, 37380), (206, 37416), (224, 37506), (227, 37515), (234, 37572), (244, 37620), (247, 37629), (260, 37668),

Gene: Ozzie_48 Start: 34171, Stop: 35505, Start Num: 50

Candidate Starts for Ozzie_48:

(Start: 50 @34171 has 5 MA's), (Start: 53 @34183 has 15 MA's), (56, 34198), (64, 34285), (Start: 65 @34288 has 1 MA's), (68, 34312), (72, 34354), (75, 34363), (81, 34405), (82, 34414), (84, 34426), (95, 34516), (96, 34525), (100, 34549), (106, 34669), (108, 34675), (119, 34765), (129, 34780), (130, 34789), (135, 34822), (152, 34933), (153, 34939), (161, 34987), (164, 35002), (168, 35017), (179, 35077), (181, 35086), (185, 35101), (194, 35182), (201, 35212), (205, 35242), (212, 35290), (228, 35368), (234, 35416), (235, 35425), (242, 35452), (253, 35491),

Gene: Pablito_52 Start: 36745, Stop: 38214, Start Num: 23

Candidate Starts for Pablito_52:

(Start: 23 @36745 has 1 MA's), (Start: 24 @36751 has 3 MA's), (33, 36781), (Start: 41 @36811 has 10 MA's), (42, 36814), (Start: 62 @36940 has 1 MA's), (64, 36946), (67, 36955), (72, 37018), (83, 37075), (86, 37096), (92, 37126), (93, 37129), (99, 37183), (106, 37312), (112, 37360), (114, 37363), (117, 37390), (129, 37462), (130, 37471), (133, 37492), (138, 37522), (170, 37708), (171, 37711), (206, 37951), (216, 38008), (224, 38041), (227, 38050), (234, 38107), (241, 38131), (244, 38155), (247, 38164), (255, 38182), (260, 38203),

Gene: Paedore_54 Start: 37729, Stop: 39147, Start Num: 41

Candidate Starts for Paedore_54:

(Start: 41 @37729 has 10 MA's), (42, 37732), (Start: 62 @37858 has 1 MA's), (64, 37864), (72, 37936), (74, 37942), (86, 38014), (92, 38044), (93, 38047), (99, 38101), (106, 38230), (109, 38239), (112, 38278), (120, 38353), (129, 38389), (130, 38398), (138, 38449), (186, 38731), (192, 38800), (206, 38884), (224, 38974), (227, 38983), (234, 39040), (247, 39097), (248, 39103), (260, 39136),

Gene: Paolo_54 Start: 37643, Stop: 39124, Start Num: 24

Candidate Starts for Paolo_54:

(Start: 24 @37643 has 3 MA's), (Start: 37 @37694 has 5 MA's), (Start: 41 @37703 has 10 MA's), (72, 37913), (79, 37940), (99, 38078), (106, 38207), (112, 38255), (129, 38366), (130, 38375), (134, 38402), (137, 38423), (138, 38426), (142, 38465), (172, 38624), (186, 38708), (202, 38825), (206, 38861), (224, 38951), (227, 38960), (234, 39017), (244, 39065), (247, 39074), (260, 39113),

Gene: Pavo_52 Start: 36851, Stop: 38260, Start Num: 49

Candidate Starts for Pavo_52:

(15, 36722), (28, 36788), (35, 36815), (Start: 49 @36851 has 1 MA's), (56, 36881), (64, 36968), (67, 36977), (75, 37046), (81, 37088), (82, 37097), (84, 37109), (95, 37199), (96, 37208), (97, 37211), (99, 37223), (100, 37232), (116, 37421), (122, 37508), (130, 37541), (138, 37592), (147, 37652), (152, 37685), (161, 37739), (182, 37841), (189, 37883), (190, 37895), (204, 37991), (205, 37994), (214, 38060), (218, 38078), (219, 38087), (234, 38168), (238, 38186), (241, 38192), (243, 38213), (250, 38234), (256, 38252),

Gene: PegLeg_134 Start: 69986, Stop: 68526, Start Num: 32

Candidate Starts for PegLeg_134:

(Start: 21 @70028 has 1 MA's), (29, 69995), (Start: 32 @69986 has 21 MA's), (56, 69914), (66, 69833), (70, 69791), (72, 69767), (84, 69695), (96, 69578), (102, 69515), (107, 69431), (109, 69419), (113, 69377), (116, 69359), (139, 69197), (143, 69176), (154, 69125), (158, 69098), (164, 69071), (186, 68951), (206, 68801), (219, 68723), (230, 68678), (240, 68621),

Gene: Phettuccine_49 Start: 34075, Stop: 35397, Start Num: 53

Candidate Starts for Phettuccine_49:

(Start: 50 @34063 has 5 MA's), (Start: 53 @34075 has 15 MA's), (56, 34090), (64, 34177), (Start: 65 @34180 has 1 MA's), (68, 34204), (72, 34246), (75, 34255), (81, 34297), (82, 34306), (84, 34318), (95, 34408), (96, 34417), (100, 34441), (106, 34561), (108, 34567), (119, 34657), (129, 34672), (130, 34681), (135, 34714), (152, 34825), (153, 34831), (161, 34879), (164, 34894), (168, 34909), (179, 34969), (181, 34978), (185, 34993), (194, 35074), (201, 35104), (205, 35134), (212, 35182), (228, 35260), (234, 35308), (235, 35317), (242, 35344), (253, 35383),

Gene: Psycho_39 Start: 31271, Stop: 32716, Start Num: 44

Candidate Starts for Psycho_39:

(9, 31100), (13, 31136), (30, 31223), (Start: 44 @31271 has 7 MA's), (Start: 58 @31346 has 3 MA's), (60, 31358), (72, 31469), (73, 31472), (78, 31505), (82, 31529), (91, 31592), (100, 31667), (124, 31943), (161, 32165), (163, 32177), (173, 32225), (175, 32255), (179, 32276), (185, 32300), (206, 32453), (220, 32534), (222, 32540), (227, 32552), (231, 32588), (232, 32594), (233, 32612), (234, 32615), (236, 32630), (239, 32636), (251, 32684), (254, 32693),

Gene: Puginator_54 Start: 37656, Stop: 39170, Start Num: 17

Candidate Starts for Puginator_54:

(Start: 17 @37656 has 1 MA's), (20, 37668), (22, 37677), (Start: 24 @37689 has 3 MA's), (Start: 37 @37740 has 5 MA's), (Start: 41 @37749 has 10 MA's), (72, 37959), (79, 37986), (99, 38124), (106, 38253), (112, 38301), (129, 38412), (130, 38421), (134, 38448), (137, 38469), (138, 38472), (142, 38511), (145, 38526), (171, 38667), (172, 38670), (186, 38754), (202, 38871), (206, 38907), (215, 38961), (216, 38964), (224, 38997), (234, 39063), (247, 39120), (260, 39159),

Gene: R4_53 Start: 37594, Stop: 39006, Start Num: 41

Candidate Starts for R4_53:

(Start: 41 @37594 has 10 MA's), (42, 37597), (Start: 62 @37723 has 1 MA's), (64, 37729), (67, 37738), (72, 37801), (86, 37879), (92, 37909), (93, 37912), (99, 37966), (106, 38095), (109, 38104), (112, 38143), (117, 38173), (120, 38218), (130, 38263), (138, 38314), (145, 38368), (159, 38452), (186, 38590), (206, 38743), (213, 38782), (216, 38800), (224, 38833), (227, 38842), (234, 38899), (237, 38914), (247, 38956), (248, 38962), (260, 38995),

Gene: Reindeer_133 Start: 71279, Stop: 69777, Start Num: 21

Candidate Starts for Reindeer_133:

(Start: 21 @71279 has 1 MA's), (29, 71246), (Start: 32 @71237 has 21 MA's), (56, 71165), (70, 71042), (72, 71018), (84, 70946), (88, 70907), (96, 70829), (99, 70814), (102, 70766), (105, 70727), (109, 70670), (116, 70610), (139, 70448), (154, 70376), (164, 70322), (177, 70241), (184, 70208), (189, 70175), (199, 70109), (206, 70052), (219, 69974), (230, 69929), (240, 69872), (249, 69830),

Gene: Rey_148 Start: 70427, Stop: 68973, Start Num: 32

Candidate Starts for Rey_148:

(16, 70490), (Start: 21 @70469 has 1 MA's), (29, 70436), (Start: 32 @70427 has 21 MA's), (52, 70373), (56, 70355), (84, 70136), (96, 70019), (102, 69956), (109, 69866), (113, 69824), (138, 69671), (147, 69611), (158, 69545), (164, 69518), (177, 69437), (183, 69407), (185, 69401), (186, 69398), (206, 69248), (210, 69227), (219, 69170), (240, 69068),

Gene: RoseMarie_140 Start: 73018, Stop: 71558, Start Num: 32

Candidate Starts for RoseMarie_140:

(29, 73027), (Start: 32 @73018 has 21 MA's), (56, 72946), (57, 72928), (70, 72823), (72, 72799), (84, 72727), (96, 72610), (102, 72547), (107, 72463), (109, 72451), (113, 72409), (116, 72391), (123, 72328), (139, 72229), (140, 72223), (143, 72208), (154, 72157), (158, 72130), (164, 72103), (174,

72046), (177, 72022), (192, 71917), (193, 71911), (206, 71833), (219, 71755), (230, 71710), (240, 71653),

Gene: Rusticus_50 Start: 34372, Stop: 35694, Start Num: 53

Candidate Starts for Rusticus_50:

(Start: 50 @34360 has 5 MA's), (Start: 53 @34372 has 15 MA's), (56, 34387), (64, 34474), (Start: 65 @34477 has 1 MA's), (68, 34501), (75, 34552), (81, 34594), (82, 34603), (84, 34615), (95, 34705), (96, 34714), (100, 34738), (106, 34858), (108, 34864), (119, 34954), (129, 34969), (130, 34978), (135, 35011), (152, 35122), (153, 35128), (161, 35176), (164, 35191), (168, 35206), (179, 35266), (181, 35275), (185, 35290), (193, 35368), (201, 35401), (205, 35431), (212, 35479), (228, 35557), (234, 35605), (235, 35614), (242, 35641), (253, 35680),

Gene: Saftant_50 Start: 36790, Stop: 38202, Start Num: 48

Candidate Starts for Saftant_50:

(25, 36718), (26, 36727), (31, 36736), (34, 36748), (Start: 48 @36790 has 1 MA's), (56, 36820), (75, 36985), (81, 37027), (82, 37036), (84, 37048), (95, 37138), (96, 37147), (97, 37150), (100, 37171), (116, 37360), (130, 37480), (152, 37624), (153, 37630), (161, 37678), (182, 37780), (189, 37822), (190, 37834), (204, 37930), (205, 37933), (218, 38017), (219, 38026), (228, 38059), (234, 38107), (241, 38131), (243, 38152), (252, 38176), (256, 38191),

Gene: Skinny_137 Start: 71103, Stop: 69643, Start Num: 32

Candidate Starts for Skinny_137:

(Start: 21 @71145 has 1 MA's), (29, 71112), (Start: 32 @71103 has 21 MA's), (56, 71031), (66, 70950), (70, 70908), (72, 70884), (84, 70812), (96, 70695), (102, 70632), (107, 70548), (109, 70536), (113, 70494), (116, 70476), (139, 70314), (143, 70293), (154, 70242), (158, 70215), (164, 70188), (186, 70068), (206, 69918), (219, 69840), (230, 69795), (240, 69738),

Gene: SlimJimmy_130 Start: 69812, Stop: 68352, Start Num: 32

Candidate Starts for SlimJimmy_130:

(Start: 21 @69854 has 1 MA's), (29, 69821), (Start: 32 @69812 has 21 MA's), (56, 69740), (66, 69659), (70, 69617), (72, 69593), (84, 69521), (96, 69404), (102, 69341), (107, 69257), (109, 69245), (113, 69203), (116, 69185), (139, 69023), (143, 69002), (154, 68951), (158, 68924), (164, 68897), (186, 68777), (206, 68627), (219, 68549), (230, 68504), (240, 68447),

Gene: Sudan_52 Start: 36704, Stop: 38122, Start Num: 46

Candidate Starts for Sudan_52:

(38, 36680), (Start: 46 @36704 has 3 MA's), (56, 36734), (Start: 62 @36815 has 1 MA's), (75, 36899), (76, 36917), (81, 36941), (82, 36950), (84, 36962), (87, 36989), (93, 37022), (96, 37061), (97, 37064), (100, 37085), (108, 37211), (116, 37274), (132, 37400), (138, 37445), (152, 37538), (168, 37622), (178, 37679), (181, 37691), (185, 37706), (195, 37790), (200, 37811), (205, 37847), (209, 37880), (226, 37958), (234, 38021), (238, 38039), (246, 38075),

Gene: SunsetPointe_48 Start: 34190, Stop: 35512, Start Num: 53

Candidate Starts for SunsetPointe_48:

(Start: 50 @34178 has 5 MA's), (Start: 53 @34190 has 15 MA's), (56, 34205), (64, 34292), (Start: 65 @34295 has 1 MA's), (68, 34319), (72, 34361), (75, 34370), (81, 34412), (82, 34421), (84, 34433), (95, 34523), (96, 34532), (100, 34556), (106, 34676), (108, 34682), (119, 34772), (129, 34787), (130, 34796), (135, 34829), (152, 34940), (153, 34946), (161, 34994), (164, 35009), (168, 35024), (179, 35084), (181, 35093), (185, 35108), (194, 35189), (201, 35219), (205, 35249), (212, 35297), (228, 35375), (234, 35423), (235, 35432), (242, 35459), (253, 35498),

Gene: Thestral_55 Start: 38547, Stop: 39968, Start Num: 41

Candidate Starts for Thestral_55:

(20, 38466), (22, 38475), (Start: 24 @38487 has 3 MA's), (Start: 37 @38538 has 5 MA's), (Start: 41 @38547 has 10 MA's), (79, 38784), (99, 38922), (106, 39051), (112, 39099), (129, 39210), (130, 39219), (134, 39246), (137, 39267), (138, 39270), (142, 39309), (145, 39324), (172, 39468), (179, 39525), (186, 39552), (202, 39669), (206, 39705), (215, 39759), (216, 39762), (224, 39795), (234, 39861), (247, 39918), (260, 39957),

Gene: TinaBelcher_53 Start: 38486, Stop: 39916, Start Num: 37

Candidate Starts for TinaBelcher_53:

(20, 38414), (22, 38423), (Start: 24 @38435 has 3 MA's), (Start: 37 @38486 has 5 MA's), (Start: 41 @38495 has 10 MA's), (79, 38732), (99, 38870), (106, 38999), (112, 39047), (129, 39158), (130, 39167), (134, 39194), (137, 39215), (138, 39218), (142, 39257), (145, 39272), (172, 39416), (179, 39473), (186, 39500), (202, 39617), (206, 39653), (215, 39707), (216, 39710), (224, 39743), (234, 39809), (247, 39866), (260, 39905),

Gene: TingHuaYa_41 Start: 31113, Stop: 32525, Start Num: 43

Candidate Starts for TingHuaYa_41:

(39, 31104), (Start: 43 @31113 has 1 MA's), (Start: 53 @31134 has 15 MA's), (61, 31206), (68, 31263), (72, 31305), (73, 31308), (77, 31338), (79, 31344), (90, 31416), (102, 31539), (106, 31617), (110, 31644), (111, 31647), (117, 31695), (118, 31722), (128, 31764), (130, 31773), (134, 31800), (139, 31848), (148, 31884), (150, 31893), (151, 31911), (160, 31965), (162, 31977), (169, 32007), (176, 32067), (180, 32094), (182, 32100), (184, 32109), (185, 32112), (188, 32124), (189, 32142), (208, 32274), (211, 32289), (231, 32391), (237, 32436), (238, 32439), (251, 32490), (258, 32514), (259, 32520),

Gene: TpudiCK_132 Start: 69077, Stop: 67617, Start Num: 32

Candidate Starts for TpudiCK_132:

(Start: 21 @69119 has 1 MA's), (29, 69086), (Start: 32 @69077 has 21 MA's), (56, 69005), (66, 68924), (70, 68882), (72, 68858), (84, 68786), (96, 68669), (102, 68606), (107, 68522), (109, 68510), (113, 68468), (116, 68450), (139, 68288), (143, 68267), (154, 68216), (158, 68189), (164, 68162), (186, 68042), (206, 67892), (219, 67814), (230, 67769), (240, 67712),

Gene: TrvxScott_52 Start: 38541, Stop: 39962, Start Num: 41

Candidate Starts for TrvxScott_52:

(20, 38460), (22, 38469), (Start: 24 @38481 has 3 MA's), (Start: 37 @38532 has 5 MA's), (Start: 41 @38541 has 10 MA's), (79, 38778), (99, 38916), (106, 39045), (112, 39093), (129, 39204), (130, 39213), (134, 39240), (137, 39261), (138, 39264), (142, 39303), (145, 39318), (172, 39462), (186, 39546), (202, 39663), (206, 39699), (215, 39753), (216, 39756), (224, 39789), (234, 39855), (247, 39912), (260, 39951),

Gene: TyDawg_126 Start: 69259, Stop: 67799, Start Num: 32

Candidate Starts for TyDawg_126:

(Start: 21 @69301 has 1 MA's), (29, 69268), (Start: 32 @69259 has 21 MA's), (56, 69187), (66, 69106), (70, 69064), (72, 69040), (84, 68968), (96, 68851), (102, 68788), (107, 68704), (109, 68692), (113, 68650), (116, 68632), (139, 68470), (143, 68449), (154, 68398), (158, 68371), (164, 68344), (186, 68224), (206, 68074), (219, 67996), (230, 67951), (240, 67894),

Gene: Unstoppable_49 Start: 34070, Stop: 35392, Start Num: 53

Candidate Starts for Unstoppable_49:

(Start: 50 @34058 has 5 MA's), (Start: 53 @34070 has 15 MA's), (56, 34085), (64, 34172), (Start: 65 @34175 has 1 MA's), (68, 34199), (72, 34241), (75, 34250), (81, 34292), (82, 34301), (84, 34313), (95, 34403), (96, 34412), (100, 34436), (106, 34556), (108, 34562), (119, 34652), (129, 34667), (130, 34676), (135, 34709), (152, 34820), (153, 34826), (161, 34874), (164, 34889), (168, 34904), (179, 34964), (185, 34988), (194, 35069), (201, 35099), (205, 35129), (212, 35177), (228, 35255), (234,

35303), (235, 35312), (242, 35339), (253, 35378),

Gene: Verabelle_54 Start: 36387, Stop: 37772, Start Num: 43

Candidate Starts for Verabelle_54:

(Start: 43 @36387 has 1 MA's), (83, 36657), (86, 36678), (92, 36708), (104, 36840), (125, 37026), (132, 37047), (135, 37074), (156, 37206), (164, 37245), (179, 37341), (187, 37371), (196, 37452), (206, 37521), (207, 37524), (217, 37584), (220, 37602), (229, 37638), (231, 37650), (233, 37674), (235, 37686), (238, 37698), (244, 37728),

Gene: Verse_51 Start: 37557, Stop: 38969, Start Num: 46

Candidate Starts for Verse_51:

(Start: 46 @37557 has 3 MA's), (56, 37587), (Start: 65 @37677 has 1 MA's), (72, 37743), (75, 37752), (76, 37770), (78, 37779), (81, 37794), (82, 37803), (84, 37815), (87, 37842), (91, 37866), (93, 37875), (96, 37914), (97, 37917), (100, 37938), (108, 38064), (109, 38067), (116, 38127), (129, 38238), (132, 38253), (138, 38298), (144, 38349), (152, 38391), (161, 38445), (164, 38460), (168, 38475), (181, 38544), (185, 38559), (191, 38622), (205, 38700), (209, 38733), (212, 38748), (234, 38874), (238, 38892), (246, 38928), (253, 38949),

Gene: ViviJ_38 Start: 31256, Stop: 32626, Start Num: 58

Candidate Starts for ViviJ_38:

(3, 30929), (8, 30992), (13, 31046), (30, 31133), (Start: 44 @31181 has 7 MA's), (Start: 58 @31256 has 3 MA's), (60, 31268), (72, 31379), (73, 31382), (78, 31415), (82, 31439), (91, 31502), (100, 31577), (124, 31853), (161, 32075), (163, 32087), (173, 32135), (175, 32165), (179, 32186), (185, 32210), (206, 32363), (220, 32444), (222, 32450), (227, 32462), (231, 32498), (232, 32504), (234, 32525), (236, 32540), (239, 32546), (251, 32594), (254, 32603),

Gene: Zainub_54 Start: 37669, Stop: 39099, Start Num: 37

Candidate Starts for Zainub_54:

(Start: 24 @37618 has 3 MA's), (Start: 37 @37669 has 5 MA's), (Start: 41 @37678 has 10 MA's), (72, 37888), (79, 37915), (99, 38053), (106, 38182), (112, 38230), (126, 38332), (129, 38341), (130, 38350), (134, 38377), (137, 38398), (138, 38401), (142, 38440), (145, 38455), (172, 38599), (186, 38683), (202, 38800), (206, 38836), (224, 38926), (227, 38935), (234, 38992), (244, 39040), (247, 39049), (260, 39088),

Gene: phiCAM_49 Start: 38659, Stop: 40071, Start Num: 43

Candidate Starts for phiCAM_49:

(Start: 43 @38659 has 1 MA's), (59, 38737), (80, 38902), (92, 38980), (104, 39112), (132, 39319), (139, 39391), (156, 39478), (164, 39517), (179, 39613), (192, 39709), (195, 39721), (198, 39730), (206, 39793), (215, 39847), (235, 39958), (257, 40036), (261, 40063),