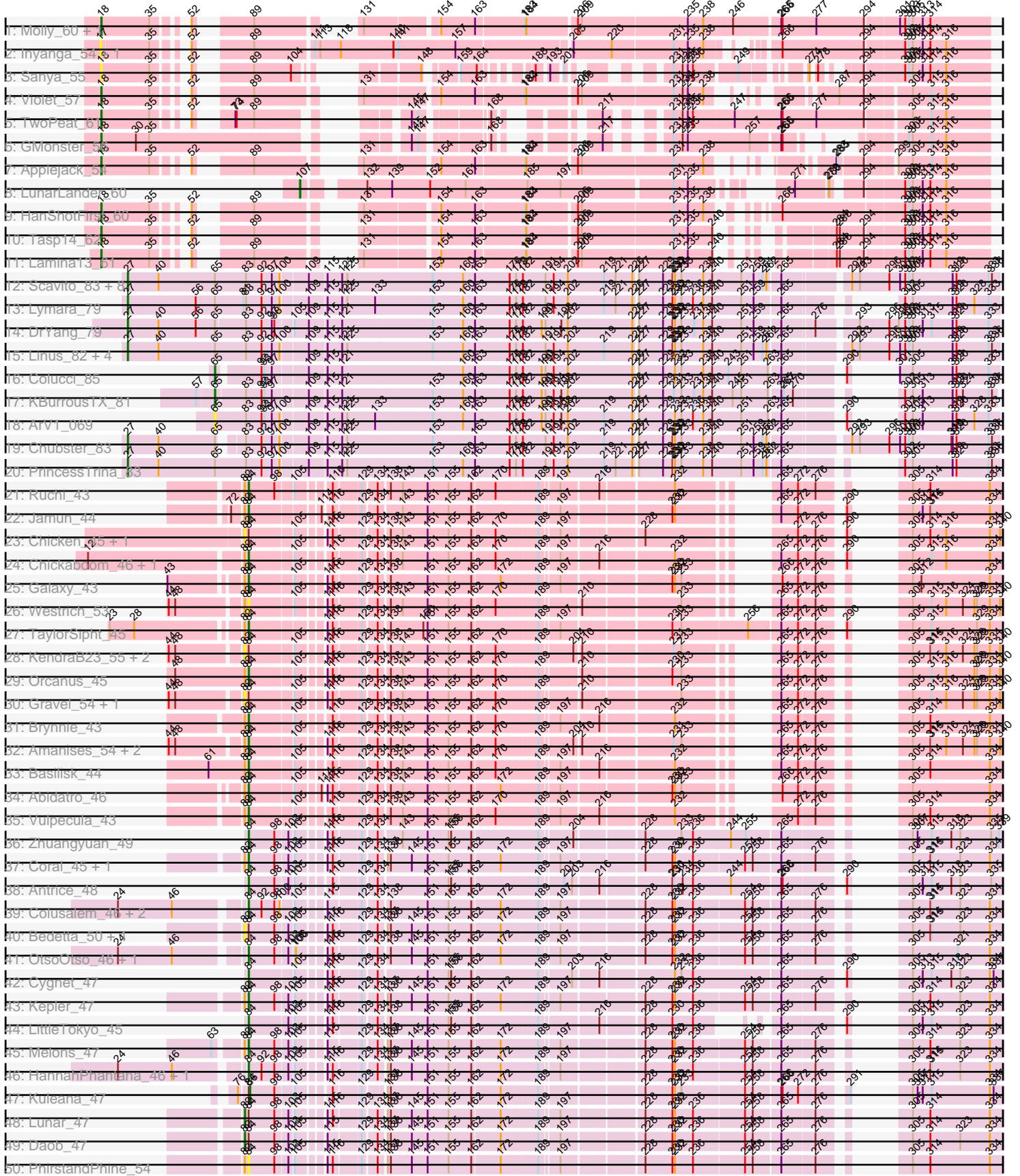


Pham 290937



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 290937 Report

This analysis was run 03/28/26 on database version 641.

Pham number 290937 has 138 members, 30 are drafts.

Phages represented in each track:

- Track 1 : Molly_60, Briton15_63
- Track 2 : Inyanga_54, Iqorha_54
- Track 3 : Sanya_55
- Track 4 : Violet_57
- Track 5 : TwoPeat_61
- Track 6 : GMonster_56
- Track 7 : Applejack_54
- Track 8 : LunarLander_60
- Track 9 : HanShotFirst_60
- Track 10 : Tasp14_62
- Track 11 : Lamina13_61
- Track 12 : Scavito_83, HumptyDumpty_82, JaNo_81, Kabreeze_82, Chocolat_82, Tophat_83, Chipper1996_830, Mordred_82, EdgarPoe_81
- Track 13 : Lymara_79
- Track 14 : DrYang_79
- Track 15 : Linus_82, RosiePosie_82, Conboy_80, MoyaNatalis_81, JayCookie_82
- Track 16 : Colucci_85
- Track 17 : KBurrousTX_81
- Track 18 : ArV1_069
- Track 19 : Chubster_83
- Track 20 : PrincessTrina_83
- Track 21 : Ruchi_43
- Track 22 : Jamun_44
- Track 23 : Chicken_45, Niblet_48
- Track 24 : Chickaboom_46, WileyE_46
- Track 25 : Galaxy_43
- Track 26 : Westrich_53
- Track 27 : TaylorSipht_45
- Track 28 : KendraB23_55, Zixiang_48, Shen_44
- Track 29 : Orcanus_45
- Track 30 : Gravel_54, Pelletreau_54
- Track 31 : Brynnie_43
- Track 32 : Amanises_54, Eesa_44, Toad24_47
- Track 33 : Basilisk_44
- Track 34 : Abidatro_46
- Track 35 : Vulpecula_43
- Track 36 : Zhuangyuan_49

- Track 37 : Coral_45, Cote_47
- Track 38 : Antrice_48
- Track 39 : Colusalem_46, Amelia_45, Jerole_46
- Track 40 : Bedetta_50, Pineda_48
- Track 41 : OtsoOtso_46, Polka_45
- Track 42 : Cygnet_47
- Track 43 : Kepler_47
- Track 44 : LittleTokyo_45
- Track 45 : Melons_47
- Track 46 : HannahPhantana_46, Bibble12_49
- Track 47 : Kuleana_47
- Track 48 : Lunar_47
- Track 49 : Daob_47
- Track 50 : PhirstandPhine_54
- Track 51 : Andrew_48
- Track 52 : Azaz_48
- Track 53 : StuartMinion_39, AlexMinion_49
- Track 54 : DanHam62_47, AmiCi24_46, Rattail_47, Oppalora_46, PhluffyCoco_47
- Track 55 : RedFox_47
- Track 56 : Leona_46
- Track 57 : Babushka_44
- Track 58 : Juno112_46, Fingolfin_47, Camara_47
- Track 59 : Atlantica_47
- Track 60 : AdoptaAdorbs_46
- Track 61 : Amphitrite_47, Glotell_48
- Track 62 : HamCheese_47, Laphuphu24k_46
- Track 63 : Renna12_46
- Track 64 : KHumphrey_47
- Track 65 : Wocket_66
- Track 66 : Belphegor_66
- Track 67 : Murica_102, MISSy_100
- Track 68 : StellaBean_97
- Track 69 : Goldilocks_102
- Track 70 : Bogg_99
- Track 71 : Tarkin_98
- Track 72 : Wee_78, Taj_79
- Track 73 : Leperchaun_59, JoeyJr_62, PHappiness_62, Polka14_65, Daenerys_61, RitaG_62
- Track 74 : Harley_68
- Track 75 : EleanorGeorge_68
- Track 76 : SG4_70
- Track 77 : Phalconet_70
- Track 78 : PhesterPhotato_66
- Track 79 : Hegedechwinu_73
- Track 80 : Mova_70
- Track 81 : Royals2015_69
- Track 82 : ShroomBoi_67
- Track 83 : Brushbloom_75
- Track 84 : Renaud18_76
- Track 85 : Optimus_142
- Track 86 : Gonephishing_142
- Track 87 : Klein_148
- Track 88 : Boilgate_58

- Track 89 : Xeno_59
- Track 90 : Thespis_55
- Track 91 : Polkaroo_53
- Track 92 : Nazo_56
- Track 93 : BigNuz_55
- Track 94 : DS6A_73
- Track 95 : MooMoo_65

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

The start number called the most often in the published annotations is 84, it was called in 40 of the 108 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abidatro_46, AdoptaAdorbs_46, AlexMinion_49, Amanises_54, Amelia_45, AmiCi24_46, Amphitrite_47, Andrew_48, Antrice_48, Atlantica_47, Babushka_44, Basilisk_44, Bibble12_49, Brynnie_43, Camara_47, Chickaboom_46, Colusalem_46, Coral_45, Cote_47, Cygnet_47, DanHam62_47, Eesa_44, Fingolfin_47, Galaxy_43, Glotell_48, HamCheese_47, HannahPhantana_46, Jamun_44, Jerole_46, Juno112_46, KHumphrey_47, Kepler_47, Laphuphu24k_46, LittleTokyo_45, Melons_47, Oppalora_46, Orcanus_45, OtsoOtso_46, PhirstandPhine_54, PhluffyCoco_47, Polka_45, Rattail_47, RedFox_47, Renna12_46, Ruchi_43, StuartMinion_39, TaylorSipht_45, Toad24_47, Vulpecula_43, Westrich_53, WileyE_46, Zhuangyuan_49,

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

- Bedetta_50, Chicken_45, Daob_47, Gravel_54, KendraB23_55, Kuleana_47, Lunar_47, Niblet_48, Pelletreau_54, Pineda_48, Shen_44, Zixiang_48,

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

- Applejack_54, ArV1_069, Azaz_48, Belphegor_66, BigNuz_55, Bogg_99, Boilgate_58, Briton15_63, Brushbloom_75, Chipper1996_830, Chocolat_82, Chubster_83, Colucci_85, Conboy_80, DS6A_73, Daenerys_61, DrYang_79, EdgarPoe_81, EleanorGeorge_68, GMonster_56, Goldilocks_102, Gonephishing_142, HanShotFirst_60, Harley_68, Hegedechwinu_73, HumptyDumpty_82, Inyanga_54, Iqorha_54, JaNo_81, JayCookie_82, JoeyJr_62, KBurrousTX_81, Kabreeze_82, Klein_148, Lamina13_61, Leona_46, Leperchaun_59, Linus_82, LunarLander_60, Lymara_79, MISSy_100, Molly_60, MooMoo_65, Mordred_82, Mova_70, MoyaNatalis_81, Murica_102, Nazo_56, Optimus_142, PHappiness_62, Phalconet_70, PhesterPhotato_66, Polka14_65, Polkaroo_53, PrincessTrina_83, Renaud18_76, RitaG_62, RosiePosie_82, Royals2015_69, SG4_70, Sanya_55, Scavito_83, ShroomBoi_67, StellaBean_97, Taj_79, Tarkin_98, Tasp14_62, Thespis_55, Tophat_83, TwoPeat_61, Violet_57, Wee_78, Wocket_66, Xeno_59,

Summary by start number:

Start 13:

- Found in 2 of 138 (1.4%) of genes in pham
- Manual Annotations of this start: 2 of 108

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hegedechwinu_73 (F1), SG4_70 (F1),

Start 14:

- Found in 3 of 138 (2.2%) of genes in pham
- Manual Annotations of this start: 3 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phalconet_70 (F1), Taj_79 (F1), Wee_78 (F1),

Start 15:

- Found in 1 of 138 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mova_70 (F1),

Start 16:

- Found in 6 of 138 (4.3%) of genes in pham
- Manual Annotations of this start: 5 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bogg_99 (E), Goldilocks_102 (E), MISSy_100 (E), Murica_102 (E), StellaBean_97 (E), Tarkin_98 (E),

Start 17:

- Found in 3 of 138 (2.2%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gonephishing_142 (J), Inyanga_54 (A1), Iqorha_54 (A1),

Start 18:

- Found in 10 of 138 (7.2%) of genes in pham
- Manual Annotations of this start: 9 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Applejack_54 (A1), Briton15_63 (A1), GMonster_56 (A1), HanShotFirst_60 (A1), Lamina13_61 (A1), Molly_60 (A1), Sanya_55 (A1), Tasp14_62 (A1), TwoPeat_61 (A1), Violet_57 (A1),

Start 19:

- Found in 1 of 138 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Optimus_142 (J),

Start 27:

- Found in 18 of 138 (13.0%) of genes in pham
- Manual Annotations of this start: 17 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chipper1996_830 (AR), Chocolat_82 (AR), Chubster_83 (AR), Conboy_80 (AR), DrYang_79 (AR), EdgarPoe_81 (AR), HumptyDumpty_82 (AR), JaNo_81 (AR), JayCookie_82 (AR), Kabreeze_82 (AR), Linus_82 (AR), Lymara_79 (AR), Mordred_82 (AR), MoyaNatalis_81 (AR), PrincessTrina_83 (AR), RosiePosie_82 (AR), Scavito_83 (AR), Tophat_83 (AR),

Start 49:

- Found in 2 of 138 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 108
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Xeno_59 (N),

Start 50:

- Found in 2 of 138 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 108
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Thespis_55 (P1),

Start 60:

- Found in 2 of 138 (1.4%) of genes in pham
- Manual Annotations of this start: 2 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Belphegor_66 (DE2), Boilgate_58 (K8),

Start 65:

- Found in 21 of 138 (15.2%) of genes in pham
- Manual Annotations of this start: 2 of 108
- Called 14.3% of time when present
- Phage (with cluster) where this start called: ArV1_069 (AR), Colucci_85 (AR), KBurrousTX_81 (AR),

Start 66:

- Found in 1 of 138 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Brushbloom_75 (F1),

Start 68:

- Found in 14 of 138 (10.1%) of genes in pham
- Manual Annotations of this start: 13 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Daenerys_61 (F1), EleanorGeorge_68 (F1), Harley_68 (F1), JoeyJr_62 (F1), Leperchaun_59 (F1), MooMoo_65 (singleton), PHappiness_62 (F1), PhesterPhotato_66 (F1), Polka14_65 (F1), Polkaroo_53 (P1), Renaud18_76 (F4), RitaG_62 (F1), Royals2015_69 (F1), ShroomBoi_67 (F1),

Start 70:

- Found in 2 of 138 (1.4%) of genes in pham
- Manual Annotations of this start: 2 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BigNuz_55 (P4), Nazo_56 (P4),

Start 75:

- Found in 2 of 138 (1.4%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Azaz_48 (AS3),

Start 82:

- Found in 33 of 138 (23.9%) of genes in pham
- Manual Annotations of this start: 3 of 108
- Called 36.4% of time when present
- Phage (with cluster) where this start called: Bedetta_50 (AS2), Chicken_45 (AS1), Daob_47 (AS2), Gravel_54 (AS1), KendraB23_55 (AS1), Leona_46 (AS3), Lunar_47 (AS2), Niblet_48 (AS1), Pelletreau_54 (AS1), Pineda_48 (AS2), Shen_44 (AS1), Zixiang_48 (AS1),

Start 84:

- Found in 64 of 138 (46.4%) of genes in pham
- Manual Annotations of this start: 40 of 108
- Called 81.2% of time when present
- Phage (with cluster) where this start called: Abidatro_46 (AS1), AdoptaAdorbs_46 (AS3), AlexMinion_49 (AS3), Amanises_54 (AS1), Amelia_45 (AS2), AmiCi24_46 (AS3), Amphitrite_47 (AS3), Andrew_48 (AS3), Antrice_48 (AS2), Atlantica_47 (AS3), Babushka_44 (AS3), Basilisk_44 (AS1), Bibble12_49 (AS2), Brynnie_43 (AS1), Camara_47 (AS3), Chickaboom_46 (AS1), Colusalem_46 (AS2), Coral_45 (AS2), Cote_47 (AS2), Cygnet_47 (AS2), DanHam62_47 (AS3), Eesa_44 (AS1), Fingolfin_47 (AS3), Galaxy_43 (AS1), Glotell_48 (AS3), HamCheese_47 (AS3), HannahPhantana_46 (AS2), Jamun_44 (AS1), Jerole_46 (AS2), Juno112_46 (AS3), KHumphrey_47 (AS3), Kepler_47 (AS2), Laphuphu24k_46 (AS3), LittleTokyo_45 (AS2), Melons_47 (AS2), Oppalora_46 (AS3), Orcanus_45 (AS1), OtsoOtso_46 (AS2), PhirstandPhine_54 (AS2), PhluffyCoco_47 (AS3), Polka_45 (AS2), Rattail_47 (AS3), RedFox_47 (AS3), Renna12_46 (AS3), Ruchi_43 (AS1), StuartMinion_39 (AS3), TaylorSipht_45 (AS1), Toad24_47 (AS1), Vulpecula_43 (AS1), Westrich_53 (AS1), WileyE_46 (AS1), Zhuangyuan_49 (AS2),

Start 85:

- Found in 1 of 138 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DS6A_73 (singleton),

Start 86:

- Found in 2 of 138 (1.4%) of genes in pham
- Manual Annotations of this start: 2 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kuleana_47 (AS2), Wocket_66 (CV),

Start 107:

- Found in 2 of 138 (1.4%) of genes in pham
- Manual Annotations of this start: 2 of 108
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Klein_148 (J), LunarLander_60 (A1),

Summary by clusters:

There are 16 clusters represented in this pham: AS3, AS2, AS1, P1, E, P4, F1, DE2, J, singleton, N, A1, AR, F4, K8, CV,

Info for manual annotations of cluster A1:

- Start number 18 was manually annotated 9 times for cluster A1.

- Start number 107 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster AR:

- Start number 27 was manually annotated 17 times for cluster AR.
- Start number 65 was manually annotated 2 times for cluster AR.

Info for manual annotations of cluster AS1:

- Start number 84 was manually annotated 13 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 82 was manually annotated 2 times for cluster AS2.
- Start number 84 was manually annotated 14 times for cluster AS2.
- Start number 86 was manually annotated 1 time for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 82 was manually annotated 1 time for cluster AS3.
- Start number 84 was manually annotated 13 times for cluster AS3.

Info for manual annotations of cluster CV:

- Start number 86 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster DE2:

- Start number 60 was manually annotated 1 time for cluster DE2.

Info for manual annotations of cluster E:

- Start number 16 was manually annotated 5 times for cluster E.

Info for manual annotations of cluster F1:

- Start number 13 was manually annotated 2 times for cluster F1.
- Start number 14 was manually annotated 3 times for cluster F1.
- Start number 15 was manually annotated 1 time for cluster F1.
- Start number 66 was manually annotated 1 time for cluster F1.
- Start number 68 was manually annotated 11 times for cluster F1.

Info for manual annotations of cluster F4:

- Start number 68 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster J:

- Start number 19 was manually annotated 1 time for cluster J.
- Start number 107 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster K8:

- Start number 60 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster N:

- Start number 49 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster P1:

- Start number 50 was manually annotated 1 time for cluster P1.

Info for manual annotations of cluster P4:

- Start number 70 was manually annotated 2 times for cluster P4.

Gene Information:

Gene: Abidatro_46 Start: 30256, Stop: 31575, Start Num: 84

Candidate Starts for Abidatro_46:

(Start: 82 @30247 has 3 MA's), (Start: 84 @30256 has 40 MA's), (105, 30352), (114, 30397), (115, 30400), (116, 30412), (129, 30466), (134, 30490), (138, 30505), (143, 30526), (151, 30583), (155, 30631), (162, 30682), (172, 30742), (189, 30823), (197, 30862), (230, 31078), (232, 31084), (233, 31099), (266, 31216), (272, 31252), (276, 31285), (305, 31372), (334, 31549),

Gene: AdoptaAdorbs_46 Start: 29473, Stop: 30876, Start Num: 84

Candidate Starts for AdoptaAdorbs_46:

(Start: 84 @29473 has 40 MA's), (103, 29560), (105, 29569), (115, 29617), (116, 29629), (129, 29683), (134, 29707), (151, 29800), (155, 29848), (156, 29854), (161, 29887), (162, 29899), (189, 30040), (228, 30238), (230, 30295), (232, 30301), (254, 30448), (258, 30463), (264, 30493), (265, 30514), (266, 30517), (290, 30631), (291, 30640), (305, 30673), (315, 30715), (318, 30760), (323, 30781), (334, 30850), (340, 30871),

Gene: AlexMinion_49 Start: 29756, Stop: 31159, Start Num: 84

Candidate Starts for AlexMinion_49:

(Start: 84 @29756 has 40 MA's), (103, 29843), (105, 29852), (115, 29900), (116, 29912), (129, 29966), (134, 29990), (138, 30005), (146, 30050), (151, 30083), (155, 30131), (156, 30137), (162, 30182), (189, 30323), (203, 30386), (216, 30434), (228, 30521), (230, 30578), (232, 30584), (239, 30653), (254, 30731), (258, 30746), (264, 30776), (265, 30797), (290, 30914), (291, 30923), (305, 30956), (313, 30977), (318, 31043), (334, 31133),

Gene: Amanises_54 Start: 31184, Stop: 32503, Start Num: 84

Candidate Starts for Amanises_54:

(44, 31025), (48, 31040), (Start: 82 @31175 has 3 MA's), (Start: 84 @31184 has 40 MA's), (105, 31280), (115, 31328), (116, 31340), (129, 31394), (134, 31418), (138, 31433), (143, 31454), (151, 31511), (155, 31559), (162, 31610), (170, 31661), (189, 31751), (204, 31817), (210, 31829), (231, 32009), (233, 32027), (265, 32141), (272, 32180), (276, 32213), (305, 32300), (314, 32339), (315, 32342), (316, 32375), (324, 32414), (328, 32441), (329, 32447), (334, 32477), (340, 32498),

Gene: Amelia_45 Start: 28531, Stop: 29934, Start Num: 84

Candidate Starts for Amelia_45:

(24, 28270), (46, 28396), (Start: 84 @28531 has 40 MA's), (92, 28561), (98, 28591), (100, 28603), (105, 28627), (115, 28675), (129, 28741), (134, 28765), (138, 28780), (151, 28858), (155, 28906), (162, 28957), (172, 29017), (189, 29098), (197, 29137), (228, 29296), (230, 29353), (232, 29359), (236, 29398), (254, 29506), (258, 29521), (265, 29572), (276, 29644), (305, 29731), (314, 29770), (315, 29773), (323, 29839), (334, 29908),

Gene: AmiCi24_46 Start: 29582, Stop: 30985, Start Num: 84

Candidate Starts for AmiCi24_46:

(Start: 84 @29582 has 40 MA's), (103, 29669), (115, 29726), (116, 29738), (129, 29792), (134, 29816), (151, 29909), (155, 29957), (156, 29963), (161, 29996), (162, 30008), (189, 30149), (228, 30347), (230, 30404), (232, 30410), (254, 30557), (258, 30572), (264, 30602), (265, 30623), (290, 30740), (291, 30749), (305, 30782), (314, 30821), (315, 30824), (318, 30869), (323, 30890), (334, 30959), (340, 30980),

Gene: Amphitrite_47 Start: 29472, Stop: 30875, Start Num: 84

Candidate Starts for Amphitrite_47:

(Start: 84 @29472 has 40 MA's), (103, 29559), (105, 29568), (115, 29616), (116, 29628), (129, 29682), (134, 29706), (151, 29799), (155, 29847), (156, 29853), (161, 29886), (162, 29898), (186, 30021), (189, 30039), (230, 30294), (232, 30300), (254, 30447), (258, 30462), (264, 30492), (265, 30513), (266, 30516), (290, 30630), (291, 30639), (305, 30672), (314, 30711), (315, 30714), (318, 30759), (323, 30780), (334, 30849), (340, 30870),

Gene: Andrew_48 Start: 29461, Stop: 30864, Start Num: 84

Candidate Starts for Andrew_48:

(Start: 84 @29461 has 40 MA's), (103, 29548), (105, 29557), (115, 29605), (116, 29617), (129, 29671), (134, 29695), (138, 29710), (146, 29755), (151, 29788), (155, 29836), (156, 29842), (162, 29887), (189, 30028), (203, 30091), (226, 30205), (228, 30226), (230, 30283), (231, 30286), (254, 30436), (258, 30451), (264, 30481), (265, 30502), (291, 30628), (305, 30661), (313, 30682), (314, 30700), (318, 30748), (334, 30838), (340, 30859),

Gene: Antrice_48 Start: 29701, Stop: 31119, Start Num: 84

Candidate Starts for Antrice_48:

(Start: 84 @29701 has 40 MA's), (98, 29761), (103, 29788), (105, 29797), (116, 29857), (129, 29911), (134, 29935), (151, 30028), (155, 30076), (156, 30082), (162, 30127), (189, 30268), (201, 30316), (203, 30331), (216, 30379), (230, 30526), (231, 30529), (234, 30550), (236, 30571), (244, 30655), (265, 30754), (266, 30757), (290, 30874), (305, 30916), (313, 30937), (315, 30958), (318, 31003), (323, 31024), (335, 31096),

Gene: Applejack_54 Start: 38217, Stop: 36658, Start Num: 18

Candidate Starts for Applejack_54:

(Start: 18 @38217 has 9 MA's), (35, 38109), (52, 38064), (89, 37980), (131, 37839), (154, 37689), (163, 37611), (183, 37506), (184, 37503), (206, 37401), (209, 37392), (231, 37185), (238, 37119), (283, 36978), (285, 36975), (294, 36921), (299, 36867), (305, 36834), (315, 36792), (316, 36759),

Gene: ArV1_069 Start: 53043, Stop: 54641, Start Num: 65

Candidate Starts for ArV1_069:

(Start: 65 @53043 has 2 MA's), (83, 53115), (92, 53151), (93, 53157), (97, 53175), (100, 53193), (109, 53250), (115, 53286), (121, 53316), (125, 53328), (133, 53391), (153, 53520), (160, 53589), (163, 53616), (176, 53697), (179, 53712), (182, 53727), (190, 53769), (191, 53778), (194, 53796), (198, 53814), (202, 53829), (219, 53913), (226, 53979), (227, 53985), (229, 54039), (232, 54066), (233, 54081), (236, 54105), (238, 54129), (240, 54150), (251, 54213), (263, 54267), (265, 54291), (290, 54405), (302, 54429), (305, 54447), (313, 54468), (319, 54537), (320, 54546), (328, 54588), (333, 54621),

Gene: Atlantica_47 Start: 29584, Stop: 30987, Start Num: 84

Candidate Starts for Atlantica_47:

(Start: 84 @29584 has 40 MA's), (103, 29671), (105, 29680), (115, 29728), (116, 29740), (129, 29794), (134, 29818), (151, 29911), (155, 29959), (156, 29965), (161, 29998), (162, 30010), (189, 30151), (228, 30349), (230, 30406), (232, 30412), (254, 30559), (258, 30574), (264, 30604), (265, 30625), (290, 30742), (291, 30751), (305, 30784), (314, 30823), (315, 30826), (318, 30871), (323, 30892), (334, 30961), (340, 30982),

Gene: Azaz_48 Start: 29652, Stop: 31064, Start Num: 75

Candidate Starts for Azaz_48:

(75, 29652), (Start: 82 @29661 has 3 MA's), (103, 29748), (105, 29757), (115, 29805), (116, 29817), (129, 29871), (134, 29895), (138, 29910), (146, 29955), (151, 29988), (155, 30036), (156, 30042), (161, 30075), (162, 30087), (189, 30228), (228, 30426), (230, 30483), (232, 30489), (254, 30636), (258, 30651), (264, 30681), (265, 30702), (290, 30819), (291, 30828), (305, 30861), (318, 30948), (323, 30969), (334, 31038), (340, 31059),

Gene: Babushka_44 Start: 29406, Stop: 30809, Start Num: 84

Candidate Starts for Babushka_44:

(Start: 84 @29406 has 40 MA's), (103, 29493), (105, 29502), (115, 29550), (116, 29562), (129, 29616), (134, 29640), (138, 29655), (146, 29700), (151, 29733), (155, 29781), (156, 29787), (162, 29832), (189, 29973), (203, 30036), (228, 30171), (230, 30228), (239, 30303), (254, 30381), (258, 30396), (264, 30426), (265, 30447), (291, 30573), (305, 30606), (314, 30645), (318, 30693), (334, 30783), (340, 30804),

Gene: Basilisk_44 Start: 29453, Stop: 30772, Start Num: 84

Candidate Starts for Basilisk_44:

(61, 29360), (Start: 82 @29444 has 3 MA's), (Start: 84 @29453 has 40 MA's), (105, 29549), (116, 29609), (129, 29663), (134, 29687), (138, 29702), (143, 29723), (151, 29780), (155, 29828), (162, 29879), (170, 29930), (189, 30020), (197, 30059), (216, 30131), (232, 30281), (265, 30410), (272, 30449), (276, 30482), (305, 30569), (314, 30608), (334, 30746),

Gene: Bedetta_50 Start: 28689, Stop: 30101, Start Num: 82

Candidate Starts for Bedetta_50:

(Start: 82 @28689 has 3 MA's), (Start: 84 @28698 has 40 MA's), (98, 28758), (103, 28785), (105, 28794), (115, 28842), (116, 28854), (129, 28908), (134, 28932), (137, 28941), (138, 28947), (145, 28989), (151, 29025), (155, 29073), (162, 29124), (172, 29184), (189, 29265), (197, 29304), (228, 29463), (230, 29520), (232, 29526), (236, 29565), (254, 29673), (258, 29688), (265, 29739), (276, 29811), (305, 29898), (314, 29937), (315, 29940), (323, 30006), (334, 30075),

Gene: Belphegor_66 Start: 51910, Stop: 53616, Start Num: 60

Candidate Starts for Belphegor_66:

(59, 51907), (Start: 60 @51910 has 2 MA's), (62, 51937), (71, 51979), (79, 52006), (87, 52027), (90, 52036), (104, 52114), (112, 52165), (127, 52216), (134, 52267), (142, 52312), (160, 52456), (166, 52504), (185, 52600), (192, 52645), (204, 52702), (207, 52714), (231, 52918), (236, 52960), (257, 53080), (265, 53146), (299, 53383), (302, 53398), (305, 53416), (318, 53503), (320, 53515), (332, 53584),

Gene: Bible12_49 Start: 28526, Stop: 29929, Start Num: 84

Candidate Starts for Bible12_49:

(24, 28265), (46, 28391), (Start: 84 @28526 has 40 MA's), (92, 28556), (98, 28586), (103, 28613), (105, 28622), (115, 28670), (116, 28682), (129, 28736), (134, 28760), (137, 28769), (138, 28775), (145, 28817), (151, 28853), (155, 28901), (162, 28952), (172, 29012), (189, 29093), (197, 29132), (228, 29291), (230, 29348), (232, 29354), (236, 29393), (254, 29501), (258, 29516), (265, 29567), (276, 29639), (305, 29726), (314, 29765), (315, 29768), (323, 29834), (334, 29903),

Gene: BigNuz_55 Start: 38221, Stop: 39756, Start Num: 70

Candidate Starts for BigNuz_55:

(22, 37939), (55, 38140), (64, 38182), (Start: 70 @38221 has 2 MA's), (78, 38248), (80, 38254), (88, 38278), (95, 38314), (96, 38317), (102, 38347), (113, 38413), (145, 38563), (161, 38686), (185, 38824), (197, 38896), (231, 39142), (233, 39160), (248, 39250), (250, 39259), (268, 39301), (295, 39466), (297, 39511), (305, 39553), (308, 39565), (315, 39595), (330, 39709),

Gene: Bogg_99 Start: 57890, Stop: 59740, Start Num: 16

Candidate Starts for Bogg_99:

(4, 57743), (5, 57773), (9, 57821), (10, 57836), (11, 57848), (Start: 16 @57890 has 5 MA's), (21, 57908), (35, 58004), (52, 58049), (89, 58133), (111, 58256), (126, 58343), (127, 58349), (140, 58436), (141, 58448), (157, 58580), (177, 58700), (205, 58823), (220, 58910), (231, 59045), (235, 59075), (236, 59087), (265, 59270), (266, 59273), (305, 59561), (315, 59603), (316, 59636), (319, 59651),

Gene: Boilgate_58 Start: 41641, Stop: 43257, Start Num: 60

Candidate Starts for Boilgate_58:

(38, 41533), (42, 41566), (Start: 60 @41641 has 2 MA's), (62, 41668), (67, 41698), (90, 41767), (126, 41941), (133, 41992), (134, 41998), (146, 42073), (161, 42193), (199, 42400), (200, 42403), (213, 42451), (215, 42469), (231, 42622), (233, 42640), (235, 42655), (240, 42712), (281, 42904), (305, 43054), (315, 43096), (320, 43153), (332, 43222), (338, 43246),

Gene: Briton15_63 Start: 42021, Stop: 40291, Start Num: 18

Candidate Starts for Briton15_63:

(Start: 18 @42021 has 9 MA's), (35, 41913), (52, 41868), (89, 41784), (131, 41643), (154, 41493), (163, 41415), (183, 41310), (184, 41307), (206, 41205), (209, 41196), (235, 40959), (238, 40923), (246, 40860), (265, 40758), (266, 40755), (277, 40677), (294, 40569), (301, 40497), (302, 40485), (303, 40476), (305, 40467), (313, 40446), (314, 40428),

Gene: Brushbloom_75 Start: 46445, Stop: 47815, Start Num: 66

Candidate Starts for Brushbloom_75:

(Start: 49 @46343 has 1 MA's), (Start: 50 @46352 has 1 MA's), (Start: 66 @46445 has 1 MA's), (77, 46481), (87, 46505), (94, 46541), (102, 46574), (119, 46658), (140, 46733), (152, 46814), (161, 46895), (181, 46994), (208, 47111), (224, 47213), (231, 47300), (234, 47321), (235, 47330), (238, 47366), (265, 47510), (266, 47513), (280, 47615), (294, 47672), (298, 47729), (306, 47765),

Gene: Brynnie_43 Start: 29310, Stop: 30629, Start Num: 84

Candidate Starts for Brynnie_43:

(Start: 82 @29301 has 3 MA's), (Start: 84 @29310 has 40 MA's), (105, 29406), (116, 29466), (129, 29520), (134, 29544), (138, 29559), (143, 29580), (151, 29637), (155, 29685), (162, 29736), (170, 29787), (189, 29877), (197, 29916), (216, 29988), (232, 30138), (265, 30267), (272, 30306), (276, 30339), (305, 30426), (314, 30465), (334, 30603),

Gene: Camara_47 Start: 29475, Stop: 30878, Start Num: 84

Candidate Starts for Camara_47:

(Start: 84 @29475 has 40 MA's), (103, 29562), (105, 29571), (115, 29619), (116, 29631), (129, 29685), (134, 29709), (151, 29802), (155, 29850), (156, 29856), (161, 29889), (162, 29901), (186, 30024), (189, 30042), (228, 30240), (230, 30297), (232, 30303), (254, 30450), (258, 30465), (264, 30495), (265, 30516), (290, 30633), (291, 30642), (305, 30675), (314, 30714), (315, 30717), (318, 30762), (323, 30783), (334, 30852), (340, 30873),

Gene: Chickaboom_46 Start: 30037, Stop: 31356, Start Num: 84

Candidate Starts for Chickaboom_46:

(12, 29689), (Start: 82 @30028 has 3 MA's), (Start: 84 @30037 has 40 MA's), (105, 30133), (116, 30193), (129, 30247), (134, 30271), (138, 30286), (143, 30307), (151, 30364), (155, 30412), (162, 30463), (170, 30514), (189, 30604), (197, 30643), (216, 30715), (232, 30865), (265, 30994), (272, 31033), (276, 31066), (290, 31111), (305, 31153), (315, 31195), (316, 31228), (334, 31330),

Gene: Chicken_45 Start: 30485, Stop: 31816, Start Num: 82

Candidate Starts for Chicken_45:

(Start: 82 @30485 has 3 MA's), (Start: 84 @30494 has 40 MA's), (105, 30590), (115, 30638), (116, 30650), (129, 30704), (134, 30728), (138, 30743), (143, 30764), (151, 30821), (155, 30869), (162, 30920), (170, 30971), (189, 31061), (197, 31100), (228, 31259), (272, 31493), (276, 31526), (290, 31571), (305, 31613), (314, 31652), (316, 31688), (334, 31790), (340, 31811),

Gene: Chipper1996_830 Start: 54205, Stop: 56127, Start Num: 27

Candidate Starts for Chipper1996_830:

(Start: 27 @54205 has 17 MA's), (40, 54277), (Start: 65 @54409 has 2 MA's), (83, 54481), (92, 54517), (97, 54541), (100, 54559), (109, 54616), (115, 54652), (121, 54682), (125, 54694), (153, 54886), (160, 54955), (163, 54982), (176, 55063), (179, 55078), (182, 55093), (191, 55144), (194, 55162), (202, 55195), (219, 55279), (221, 55306), (226, 55345), (227, 55351), (229, 55405), (230, 55426), (231, 55429), (232, 55432), (233, 55447), (238, 55495), (240, 55516), (251, 55579), (259, 55603), (261, 55621), (262, 55630), (265, 55657), (292, 55792), (293, 55810), (296, 55879), (301, 55903), (302, 55915), (303, 55924), (305, 55933), (319, 56023), (320, 56032), (333, 56107), (336, 56113),

Gene: Chocolat_82 Start: 53912, Stop: 55834, Start Num: 27

Candidate Starts for Chocolat_82:

(Start: 27 @53912 has 17 MA's), (40, 53984), (Start: 65 @54116 has 2 MA's), (83, 54188), (92, 54224), (97, 54248), (100, 54266), (109, 54323), (115, 54359), (121, 54389), (125, 54401), (153, 54593), (160, 54662), (163, 54689), (176, 54770), (179, 54785), (182, 54800), (191, 54851), (194, 54869), (202, 54902), (219, 54986), (221, 55013), (226, 55052), (227, 55058), (229, 55112), (230, 55133), (231, 55136), (232, 55139), (233, 55154), (238, 55202), (240, 55223), (251, 55286), (259, 55310), (261, 55328), (262, 55337), (265, 55364), (292, 55499), (293, 55517), (296, 55586), (301, 55610), (302, 55622), (303, 55631), (305, 55640), (319, 55730), (320, 55739), (333, 55814), (336, 55820),

Gene: Chubster_83 Start: 54594, Stop: 56483, Start Num: 27

Candidate Starts for Chubster_83:

(Start: 27 @54594 has 17 MA's), (40, 54666), (Start: 65 @54798 has 2 MA's), (83, 54837), (92, 54873), (97, 54897), (100, 54915), (109, 54972), (115, 55008), (121, 55038), (125, 55050), (153, 55242), (163, 55338), (176, 55419), (179, 55434), (182, 55449), (191, 55500), (194, 55518), (202, 55551), (219, 55635), (226, 55701), (227, 55707), (229, 55761), (230, 55782), (231, 55785), (232, 55788), (233, 55803), (238, 55851), (240, 55872), (251, 55935), (259, 55959), (261, 55977), (262, 55986), (265, 56013), (292, 56148), (293, 56166), (296, 56235), (301, 56259), (302, 56271), (303, 56280), (305, 56289), (318, 56376), (319, 56379), (320, 56388), (333, 56463), (336, 56469),

Gene: Colucci_85 Start: 54914, Stop: 56491, Start Num: 65

Candidate Starts for Colucci_85:

(Start: 65 @54914 has 2 MA's), (92, 55001), (93, 55007), (97, 55025), (109, 55100), (115, 55136), (121, 55166), (160, 55439), (163, 55466), (176, 55547), (179, 55562), (182, 55577), (190, 55619), (191, 55628), (194, 55646), (202, 55679), (226, 55829), (227, 55835), (229, 55889), (232, 55916), (233, 55931), (238, 55979), (240, 56000), (243, 56036), (251, 56063), (263, 56117), (265, 56141), (290, 56255), (301, 56267), (305, 56297), (319, 56387), (320, 56396), (333, 56471),

Gene: Colusalem_46 Start: 28508, Stop: 29911, Start Num: 84

Candidate Starts for Colusalem_46:

(24, 28247), (46, 28373), (Start: 84 @28508 has 40 MA's), (92, 28538), (98, 28568), (100, 28580), (105, 28604), (115, 28652), (129, 28718), (134, 28742), (138, 28757), (151, 28835), (155, 28883), (162, 28934), (172, 28994), (189, 29075), (197, 29114), (228, 29273), (230, 29330), (232, 29336), (236, 29375), (254, 29483), (258, 29498), (265, 29549), (276, 29621), (305, 29708), (314, 29747), (315, 29750), (323, 29816), (334, 29885),

Gene: Conboy_80 Start: 53694, Stop: 55583, Start Num: 27

Candidate Starts for Conboy_80:

(Start: 27 @53694 has 17 MA's), (40, 53766), (Start: 65 @53898 has 2 MA's), (83, 53937), (92, 53973), (97, 53997), (100, 54015), (109, 54072), (115, 54108), (121, 54138), (125, 54150), (153, 54342), (160, 54411), (163, 54438), (176, 54519), (179, 54534), (182, 54549), (191, 54600), (194, 54618), (202, 54651), (219, 54735), (226, 54801), (227, 54807), (229, 54861), (230, 54882), (231, 54885), (232, 54888), (233, 54903), (238, 54951), (240, 54972), (251, 55035), (259, 55059), (261, 55077), (262, 55086), (265, 55113), (292, 55248), (293, 55266), (296, 55335), (301, 55359), (302, 55371), (303, 55380), (305, 55389), (319, 55479), (320, 55488), (333, 55563), (336, 55569),

Gene: Coral_45 Start: 28399, Stop: 29802, Start Num: 84

Candidate Starts for Coral_45:

(Start: 82 @28390 has 3 MA's), (Start: 84 @28399 has 40 MA's), (98, 28459), (103, 28486), (105, 28495), (115, 28543), (116, 28555), (129, 28609), (134, 28633), (137, 28642), (138, 28648), (145, 28690), (151, 28726), (155, 28774), (162, 28825), (172, 28885), (189, 28966), (197, 29005), (228, 29164), (230, 29221), (232, 29227), (236, 29266), (254, 29374), (258, 29389), (265, 29440), (276, 29512), (305, 29599), (314, 29638), (315, 29641), (323, 29707), (334, 29776),

Gene: Cote_47 Start: 28876, Stop: 30279, Start Num: 84

Candidate Starts for Cote_47:

(Start: 82 @28867 has 3 MA's), (Start: 84 @28876 has 40 MA's), (98, 28936), (103, 28963), (105, 28972), (115, 29020), (116, 29032), (129, 29086), (134, 29110), (137, 29119), (138, 29125), (145, 29167), (151, 29203), (155, 29251), (162, 29302), (172, 29362), (189, 29443), (197, 29482), (228, 29641), (230, 29698), (232, 29704), (236, 29743), (254, 29851), (258, 29866), (265, 29917), (276, 29989), (305, 30076), (314, 30115), (315, 30118), (323, 30184), (334, 30253),

Gene: Cygnet_47 Start: 30311, Stop: 31729, Start Num: 84

Candidate Starts for Cygnet_47:

(Start: 84 @30311 has 40 MA's), (105, 30407), (115, 30455), (116, 30467), (129, 30521), (134, 30545), (151, 30638), (155, 30686), (156, 30692), (162, 30737), (189, 30878), (203, 30941), (216, 30989), (232, 31142), (233, 31157), (236, 31181), (265, 31364), (290, 31484), (305, 31526), (313, 31547), (315, 31568), (318, 31613), (323, 31634), (334, 31703), (337, 31712),

Gene: DS6A_73 Start: 47459, Stop: 48829, Start Num: 85

Candidate Starts for DS6A_73:

(Start: 85 @47459 has 1 MA's), (92, 47483), (99, 47516), (109, 47582), (122, 47648), (155, 47882), (162, 47933), (189, 48065), (201, 48113), (218, 48188), (231, 48323), (232, 48326), (233, 48341), (291, 48593), (301, 48596), (305, 48626), (309, 48638), (312, 48644), (313, 48647), (315, 48668), (322, 48731),

Gene: Daenerys_61 Start: 41682, Stop: 43196, Start Num: 68

Candidate Starts for Daenerys_61:

(32, 41505), (Start: 68 @41682 has 13 MA's), (87, 41739), (94, 41775), (102, 41808), (135, 42030), (143, 42072), (158, 42198), (161, 42216), (171, 42276), (180, 42318), (183, 42330), (204, 42423), (211, 42447), (220, 42507), (231, 42630), (234, 42651), (235, 42660), (242, 42753), (275, 42933), (294, 43053), (300, 43113), (306, 43146), (308, 43155), (310, 43158),

Gene: DanHam62_47 Start: 29583, Stop: 30986, Start Num: 84

Candidate Starts for DanHam62_47:

(Start: 84 @29583 has 40 MA's), (103, 29670), (115, 29727), (116, 29739), (129, 29793), (134, 29817), (151, 29910), (155, 29958), (156, 29964), (161, 29997), (162, 30009), (189, 30150), (228, 30348), (230, 30405), (232, 30411), (254, 30558), (258, 30573), (264, 30603), (265, 30624), (290, 30741), (291, 30750), (305, 30783), (314, 30822), (315, 30825), (318, 30870), (323, 30891), (334, 30960), (340, 30981),

Gene: Daob_47 Start: 28875, Stop: 30287, Start Num: 82

Candidate Starts for Daob_47:

(Start: 82 @28875 has 3 MA's), (Start: 84 @28884 has 40 MA's), (98, 28944), (103, 28971), (105, 28980), (115, 29028), (129, 29094), (134, 29118), (137, 29127), (138, 29133), (145, 29175), (151, 29211), (155, 29259), (162, 29310), (172, 29370), (189, 29451), (197, 29490), (228, 29649), (230, 29706), (232, 29712), (236, 29751), (254, 29859), (258, 29874), (265, 29925), (276, 29997), (305, 30084), (314, 30123), (323, 30192), (334, 30261),

Gene: DrYang_79 Start: 54332, Stop: 56248, Start Num: 27

Candidate Starts for DrYang_79:

(Start: 27 @54332 has 17 MA's), (40, 54404), (56, 54491), (Start: 65 @54536 has 2 MA's), (83, 54602), (92, 54638), (97, 54662), (98, 54668), (105, 54704), (109, 54737), (115, 54773), (121, 54803), (153, 55007), (160, 55076), (163, 55103), (176, 55184), (179, 55199), (182, 55214), (190, 55256), (191, 55265), (198, 55301), (202, 55316), (226, 55466), (227, 55472), (229, 55526), (230, 55547), (231, 55550), (232, 55553), (233, 55568), (237, 55595), (238, 55616), (240, 55637), (251, 55700), (259, 55724), (265, 55778), (276, 55847), (293, 55931), (296, 56000), (299, 56021), (302, 56036), (303, 56045), (305, 56054), (313, 56075), (315, 56096), (319, 56144), (320, 56153), (333, 56228),

Gene: EdgarPoe_81 Start: 54069, Stop: 55991, Start Num: 27

Candidate Starts for EdgarPoe_81:

(Start: 27 @54069 has 17 MA's), (40, 54141), (Start: 65 @54273 has 2 MA's), (83, 54345), (92, 54381), (97, 54405), (100, 54423), (109, 54480), (115, 54516), (121, 54546), (125, 54558), (153, 54750), (160, 54819), (163, 54846), (176, 54927), (179, 54942), (182, 54957), (191, 55008), (194, 55026), (202, 55059), (219, 55143), (221, 55170), (226, 55209), (227, 55215), (229, 55269), (230, 55290), (231, 55293), (232, 55296), (233, 55311), (238, 55359), (240, 55380), (251, 55443), (259, 55467), (261, 55485), (262, 55494), (265, 55521), (292, 55656), (293, 55674), (296, 55743), (301, 55767), (302, 55779), (303, 55788), (305, 55797), (319, 55887), (320, 55896), (333, 55971), (336, 55977),

Gene: Eesa_44 Start: 30907, Stop: 32226, Start Num: 84

Candidate Starts for Eesa_44:

(44, 30748), (48, 30763), (Start: 82 @30898 has 3 MA's), (Start: 84 @30907 has 40 MA's), (105, 31003), (115, 31051), (116, 31063), (129, 31117), (134, 31141), (138, 31156), (143, 31177), (151, 31234), (155, 31282), (162, 31333), (170, 31384), (189, 31474), (204, 31540), (210, 31552), (231, 31732), (233, 31750), (265, 31864), (272, 31903), (276, 31936), (305, 32023), (314, 32062), (315, 32065), (316, 32098), (324, 32137), (328, 32164), (329, 32170), (334, 32200), (340, 32221),

Gene: EleanorGeorge_68 Start: 43670, Stop: 44953, Start Num: 68

Candidate Starts for EleanorGeorge_68:

(Start: 68 @43670 has 13 MA's), (77, 43703), (87, 43727), (102, 43796), (143, 43979), (144, 43982), (145, 44000), (146, 44003), (181, 44222), (208, 44339), (224, 44441), (231, 44528), (235, 44558), (280, 44753), (294, 44810), (298, 44867), (306, 44903),

Gene: Fingolfin_47 Start: 29586, Stop: 30989, Start Num: 84

Candidate Starts for Fingolfin_47:

(Start: 84 @29586 has 40 MA's), (103, 29673), (105, 29682), (115, 29730), (116, 29742), (129, 29796), (134, 29820), (151, 29913), (155, 29961), (156, 29967), (161, 30000), (162, 30012), (186, 30135), (189, 30153), (228, 30351), (230, 30408), (232, 30414), (254, 30561), (258, 30576), (264, 30606), (265, 30627), (290, 30744), (291, 30753), (305, 30786), (314, 30825), (315, 30828), (318, 30873), (323, 30894), (334, 30963), (340, 30984),

Gene: GMonster_56 Start: 39824, Stop: 38382, Start Num: 18

Candidate Starts for GMonster_56:

(Start: 18 @39824 has 9 MA's), (30, 39746), (35, 39716), (145, 39278), (147, 39263), (168, 39152), (217, 39017), (231, 38933), (234, 38912), (235, 38903), (257, 38765), (265, 38702), (266, 38699), (303, 38567), (305, 38558), (315, 38516), (316, 38483),

Gene: Galaxy_43 Start: 28676, Stop: 29995, Start Num: 84

Candidate Starts for Galaxy_43:

(43, 28526), (Start: 82 @28667 has 3 MA's), (Start: 84 @28676 has 40 MA's), (105, 28772), (115, 28820), (116, 28832), (129, 28886), (134, 28910), (138, 28925), (151, 29003), (155, 29051), (162,

29102), (172, 29162), (189, 29243), (197, 29282), (230, 29498), (232, 29504), (233, 29519), (266, 29636), (272, 29672), (276, 29705), (305, 29792), (312, 29810), (334, 29969),

Gene: Glotell_48 Start: 29631, Stop: 31034, Start Num: 84

Candidate Starts for Glotell_48:

(Start: 84 @29631 has 40 MA's), (103, 29718), (105, 29727), (115, 29775), (116, 29787), (129, 29841), (134, 29865), (151, 29958), (155, 30006), (156, 30012), (161, 30045), (162, 30057), (186, 30180), (189, 30198), (230, 30453), (232, 30459), (254, 30606), (258, 30621), (264, 30651), (265, 30672), (266, 30675), (290, 30789), (291, 30798), (305, 30831), (314, 30870), (315, 30873), (318, 30918), (323, 30939), (334, 31008), (340, 31029),

Gene: Goldilocks_102 Start: 57898, Stop: 59382, Start Num: 16

Candidate Starts for Goldilocks_102:

(4, 57751), (5, 57781), (9, 57829), (10, 57844), (11, 57856), (Start: 16 @57898 has 5 MA's), (21, 57916), (35, 58012), (52, 58057), (89, 58141), (148, 58372), (159, 58420), (164, 58456), (193, 58546), (201, 58564), (231, 58687), (234, 58708), (235, 58717), (238, 58753), (265, 58912), (266, 58915), (305, 59203), (315, 59245), (316, 59278), (319, 59293),

Gene: Gonephishing_142 Start: 76140, Stop: 77969, Start Num: 17

Candidate Starts for Gonephishing_142:

(17, 76140), (35, 76248), (52, 76293), (87, 76371), (89, 76377), (111, 76500), (140, 76662), (141, 76674), (157, 76806), (205, 77049), (220, 77136), (231, 77271), (234, 77292), (235, 77301), (238, 77337), (257, 77439), (265, 77502), (266, 77505), (302, 77775), (303, 77784), (305, 77793), (313, 77814), (314, 77832), (316, 77868),

Gene: Gravel_54 Start: 30988, Stop: 32316, Start Num: 82

Candidate Starts for Gravel_54:

(44, 30838), (48, 30853), (Start: 82 @30988 has 3 MA's), (Start: 84 @30997 has 40 MA's), (105, 31093), (115, 31141), (116, 31153), (129, 31207), (134, 31231), (138, 31246), (143, 31267), (151, 31324), (155, 31372), (162, 31423), (170, 31474), (189, 31564), (210, 31642), (233, 31840), (265, 31954), (272, 31993), (276, 32026), (305, 32113), (315, 32155), (316, 32188), (324, 32227), (328, 32254), (329, 32260), (334, 32290), (340, 32311),

Gene: HamCheese_47 Start: 29570, Stop: 30973, Start Num: 84

Candidate Starts for HamCheese_47:

(Start: 84 @29570 has 40 MA's), (103, 29657), (105, 29666), (116, 29726), (129, 29780), (134, 29804), (151, 29897), (155, 29945), (156, 29951), (161, 29984), (162, 29996), (189, 30137), (228, 30335), (230, 30392), (232, 30398), (254, 30545), (258, 30560), (264, 30590), (265, 30611), (290, 30728), (291, 30737), (305, 30770), (314, 30809), (315, 30812), (318, 30857), (323, 30878), (334, 30947), (340, 30968),

Gene: HanShotFirst_60 Start: 41970, Stop: 40321, Start Num: 18

Candidate Starts for HanShotFirst_60:

(Start: 18 @41970 has 9 MA's), (35, 41862), (52, 41817), (89, 41733), (131, 41592), (154, 41442), (163, 41364), (183, 41259), (184, 41256), (206, 41154), (209, 41145), (231, 40938), (235, 40908), (238, 40872), (266, 40785), (302, 40515), (303, 40506), (305, 40497), (313, 40476), (314, 40458), (316, 40422),

Gene: HannahPhantana_46 Start: 28526, Stop: 29929, Start Num: 84

Candidate Starts for HannahPhantana_46:

(24, 28265), (46, 28391), (Start: 84 @28526 has 40 MA's), (92, 28556), (98, 28586), (103, 28613), (105, 28622), (115, 28670), (116, 28682), (129, 28736), (134, 28760), (137, 28769), (138, 28775), (145, 28817), (151, 28853), (155, 28901), (162, 28952), (172, 29012), (189, 29093), (197, 29132),

(228, 29291), (230, 29348), (232, 29354), (236, 29393), (254, 29501), (258, 29516), (265, 29567), (276, 29639), (305, 29726), (314, 29765), (315, 29768), (323, 29834), (334, 29903),

Gene: Harley_68 Start: 43294, Stop: 44805, Start Num: 68

Candidate Starts for Harley_68:

(31, 43117), (33, 43123), (36, 43132), (Start: 68 @43294 has 13 MA's), (87, 43351), (94, 43387), (102, 43420), (135, 43642), (143, 43684), (158, 43810), (161, 43828), (171, 43888), (180, 43930), (183, 43942), (204, 44035), (211, 44059), (220, 44119), (231, 44242), (234, 44263), (235, 44272), (238, 44308), (257, 44410), (265, 44473), (266, 44476), (294, 44662), (300, 44722), (306, 44755), (308, 44764), (310, 44767),

Gene: Hegedechwinu_73 Start: 43329, Stop: 44918, Start Num: 13

Candidate Starts for Hegedechwinu_73:

(Start: 13 @43329 has 2 MA's), (20, 43368), (25, 43398), (29, 43434), (35, 43467), (74, 43668), (87, 43701), (120, 43878), (126, 43902), (138, 43965), (143, 43989), (144, 43992), (214, 44226), (231, 44328), (234, 44349), (235, 44358), (238, 44394), (286, 44553), (294, 44610), (305, 44712), (308, 44724), (313, 44733), (315, 44754), (330, 44868),

Gene: HumptyDumpty_82 Start: 53872, Stop: 55794, Start Num: 27

Candidate Starts for HumptyDumpty_82:

(Start: 27 @53872 has 17 MA's), (40, 53944), (Start: 65 @54076 has 2 MA's), (83, 54148), (92, 54184), (97, 54208), (100, 54226), (109, 54283), (115, 54319), (121, 54349), (125, 54361), (153, 54553), (160, 54622), (163, 54649), (176, 54730), (179, 54745), (182, 54760), (191, 54811), (194, 54829), (202, 54862), (219, 54946), (221, 54973), (226, 55012), (227, 55018), (229, 55072), (230, 55093), (231, 55096), (232, 55099), (233, 55114), (238, 55162), (240, 55183), (251, 55246), (259, 55270), (261, 55288), (262, 55297), (265, 55324), (292, 55459), (293, 55477), (296, 55546), (301, 55570), (302, 55582), (303, 55591), (305, 55600), (319, 55690), (320, 55699), (333, 55774), (336, 55780),

Gene: Inyanga_54 Start: 39801, Stop: 38044, Start Num: 17

Candidate Starts for Inyanga_54:

(17, 39801), (35, 39693), (52, 39648), (89, 39564), (111, 39441), (113, 39429), (118, 39384), (140, 39267), (141, 39255), (157, 39123), (205, 38880), (220, 38793), (231, 38658), (235, 38628), (238, 38592), (266, 38505), (294, 38322), (302, 38238), (303, 38229), (305, 38220), (313, 38199), (314, 38181), (316, 38145),

Gene: Iqorha_54 Start: 39800, Stop: 38043, Start Num: 17

Candidate Starts for Iqorha_54:

(17, 39800), (35, 39692), (52, 39647), (89, 39563), (111, 39440), (113, 39428), (118, 39383), (140, 39266), (141, 39254), (157, 39122), (205, 38879), (220, 38792), (231, 38657), (235, 38627), (238, 38591), (266, 38504), (294, 38321), (302, 38237), (303, 38228), (305, 38219), (313, 38198), (314, 38180), (316, 38144),

Gene: JaNo_81 Start: 53843, Stop: 55765, Start Num: 27

Candidate Starts for JaNo_81:

(Start: 27 @53843 has 17 MA's), (40, 53915), (Start: 65 @54047 has 2 MA's), (83, 54119), (92, 54155), (97, 54179), (100, 54197), (109, 54254), (115, 54290), (121, 54320), (125, 54332), (153, 54524), (160, 54593), (163, 54620), (176, 54701), (179, 54716), (182, 54731), (191, 54782), (194, 54800), (202, 54833), (219, 54917), (221, 54944), (226, 54983), (227, 54989), (229, 55043), (230, 55064), (231, 55067), (232, 55070), (233, 55085), (238, 55133), (240, 55154), (251, 55217), (259, 55241), (261, 55259), (262, 55268), (265, 55295), (292, 55430), (293, 55448), (296, 55517), (301, 55541), (302, 55553), (303, 55562), (305, 55571), (319, 55661), (320, 55670), (333, 55745), (336, 55751),

Gene: Jamun_44 Start: 30191, Stop: 31510, Start Num: 84

Candidate Starts for Jamun_44:

(72, 30158), (Start: 82 @30182 has 3 MA's), (Start: 84 @30191 has 40 MA's), (114, 30332), (116, 30347), (129, 30401), (134, 30425), (143, 30461), (151, 30518), (155, 30566), (162, 30617), (189, 30758), (197, 30797), (230, 31013), (232, 31019), (265, 31148), (272, 31187), (290, 31265), (305, 31307), (313, 31328), (314, 31346), (315, 31349), (334, 31484),

Gene: JayCookie_82 Start: 54405, Stop: 56327, Start Num: 27

Candidate Starts for JayCookie_82:

(Start: 27 @54405 has 17 MA's), (40, 54477), (Start: 65 @54609 has 2 MA's), (83, 54681), (92, 54717), (97, 54741), (100, 54759), (109, 54816), (115, 54852), (121, 54882), (125, 54894), (153, 55086), (160, 55155), (163, 55182), (176, 55263), (179, 55278), (182, 55293), (191, 55344), (194, 55362), (202, 55395), (219, 55479), (226, 55545), (227, 55551), (229, 55605), (230, 55626), (231, 55629), (232, 55632), (233, 55647), (238, 55695), (240, 55716), (251, 55779), (259, 55803), (261, 55821), (262, 55830), (265, 55857), (292, 55992), (293, 56010), (296, 56079), (301, 56103), (302, 56115), (303, 56124), (305, 56133), (319, 56223), (320, 56232), (333, 56307), (336, 56313),

Gene: Jerole_46 Start: 28650, Stop: 30053, Start Num: 84

Candidate Starts for Jerole_46:

(24, 28389), (46, 28515), (Start: 84 @28650 has 40 MA's), (92, 28680), (98, 28710), (100, 28722), (105, 28746), (115, 28794), (129, 28860), (134, 28884), (138, 28899), (151, 28977), (155, 29025), (162, 29076), (172, 29136), (189, 29217), (197, 29256), (228, 29415), (230, 29472), (232, 29478), (236, 29517), (254, 29625), (258, 29640), (265, 29691), (276, 29763), (305, 29850), (314, 29889), (315, 29892), (323, 29958), (334, 30027),

Gene: JoeyJr_62 Start: 41850, Stop: 43364, Start Num: 68

Candidate Starts for JoeyJr_62:

(32, 41673), (Start: 68 @41850 has 13 MA's), (87, 41907), (94, 41943), (102, 41976), (135, 42198), (143, 42240), (158, 42366), (161, 42384), (171, 42444), (180, 42486), (183, 42498), (204, 42591), (211, 42615), (220, 42675), (231, 42798), (234, 42819), (235, 42828), (242, 42921), (275, 43101), (294, 43221), (300, 43281), (306, 43314), (308, 43323), (310, 43326),

Gene: Juno112_46 Start: 29586, Stop: 30989, Start Num: 84

Candidate Starts for Juno112_46:

(Start: 84 @29586 has 40 MA's), (103, 29673), (105, 29682), (115, 29730), (116, 29742), (129, 29796), (134, 29820), (151, 29913), (155, 29961), (156, 29967), (161, 30000), (162, 30012), (186, 30135), (189, 30153), (228, 30351), (230, 30408), (232, 30414), (254, 30561), (258, 30576), (264, 30606), (265, 30627), (290, 30744), (291, 30753), (305, 30786), (314, 30825), (315, 30828), (318, 30873), (323, 30894), (334, 30963), (340, 30984),

Gene: KBurrousTX_81 Start: 56110, Stop: 57699, Start Num: 65

Candidate Starts for KBurrousTX_81:

(57, 56071), (Start: 65 @56110 has 2 MA's), (83, 56176), (92, 56212), (93, 56218), (97, 56236), (109, 56311), (115, 56347), (121, 56377), (153, 56581), (160, 56650), (163, 56677), (176, 56758), (179, 56773), (182, 56788), (190, 56830), (191, 56839), (194, 56857), (198, 56875), (202, 56890), (226, 57040), (227, 57046), (229, 57100), (231, 57124), (233, 57142), (237, 57169), (238, 57190), (240, 57211), (245, 57256), (251, 57274), (263, 57331), (265, 57355), (267, 57361), (270, 57382), (302, 57493), (305, 57511), (313, 57532), (319, 57601), (320, 57610), (324, 57625), (333, 57685), (336, 57691),

Gene: KHumphrey_47 Start: 29474, Stop: 30877, Start Num: 84

Candidate Starts for KHumphrey_47:

(Start: 84 @29474 has 40 MA's), (103, 29561), (105, 29570), (115, 29618), (116, 29630), (129, 29684), (134, 29708), (151, 29801), (155, 29849), (156, 29855), (161, 29888), (162, 29900), (186, 30023),

(189, 30041), (228, 30239), (230, 30296), (232, 30302), (254, 30449), (258, 30464), (264, 30494), (265, 30515), (290, 30632), (291, 30641), (305, 30674), (314, 30713), (315, 30716), (318, 30761), (323, 30782), (334, 30851),

Gene: Kabreeze_82 Start: 53929, Stop: 55851, Start Num: 27

Candidate Starts for Kabreeze_82:

(Start: 27 @53929 has 17 MA's), (40, 54001), (Start: 65 @54133 has 2 MA's), (83, 54205), (92, 54241), (97, 54265), (100, 54283), (109, 54340), (115, 54376), (121, 54406), (125, 54418), (153, 54610), (160, 54679), (163, 54706), (176, 54787), (179, 54802), (182, 54817), (191, 54868), (194, 54886), (202, 54919), (219, 55003), (221, 55030), (226, 55069), (227, 55075), (229, 55129), (230, 55150), (231, 55153), (232, 55156), (233, 55171), (238, 55219), (240, 55240), (251, 55303), (259, 55327), (261, 55345), (262, 55354), (265, 55381), (292, 55516), (293, 55534), (296, 55603), (301, 55627), (302, 55639), (303, 55648), (305, 55657), (319, 55747), (320, 55756), (333, 55831), (336, 55837),

Gene: KendraB23_55 Start: 31175, Stop: 32503, Start Num: 82

Candidate Starts for KendraB23_55:

(44, 31025), (48, 31040), (Start: 82 @31175 has 3 MA's), (Start: 84 @31184 has 40 MA's), (105, 31280), (115, 31328), (116, 31340), (129, 31394), (134, 31418), (138, 31433), (143, 31454), (151, 31511), (155, 31559), (162, 31610), (170, 31661), (189, 31751), (204, 31817), (210, 31829), (231, 32009), (233, 32027), (265, 32141), (272, 32180), (276, 32213), (305, 32300), (314, 32339), (315, 32342), (316, 32375), (324, 32414), (328, 32441), (329, 32447), (334, 32477), (340, 32498),

Gene: Kepler_47 Start: 29294, Stop: 30697, Start Num: 84

Candidate Starts for Kepler_47:

(Start: 82 @29285 has 3 MA's), (Start: 84 @29294 has 40 MA's), (98, 29354), (103, 29381), (105, 29390), (115, 29438), (116, 29450), (129, 29504), (134, 29528), (137, 29537), (138, 29543), (145, 29585), (151, 29621), (155, 29669), (162, 29720), (172, 29780), (189, 29861), (197, 29900), (228, 30059), (230, 30116), (232, 30122), (236, 30161), (254, 30269), (258, 30284), (265, 30335), (276, 30407), (305, 30494), (314, 30533), (323, 30602), (334, 30671),

Gene: Klein_148 Start: 78154, Stop: 79467, Start Num: 107

Candidate Starts for Klein_148:

(Start: 107 @78154 has 2 MA's), (132, 78262), (139, 78307), (145, 78349), (146, 78352), (152, 78391), (161, 78472), (185, 78610), (197, 78682), (231, 78928), (235, 78958), (236, 78970), (248, 79036), (289, 79147), (294, 79189), (302, 79273), (303, 79282), (305, 79291), (313, 79312), (314, 79330), (316, 79366),

Gene: Kuleana_47 Start: 28864, Stop: 30267, Start Num: 86

Candidate Starts for Kuleana_47:

(76, 28849), (Start: 84 @28861 has 40 MA's), (Start: 86 @28864 has 2 MA's), (98, 28921), (105, 28957), (116, 29017), (129, 29071), (137, 29104), (138, 29110), (151, 29188), (155, 29236), (162, 29287), (172, 29347), (189, 29428), (228, 29629), (230, 29686), (232, 29692), (233, 29707), (254, 29839), (258, 29854), (265, 29905), (266, 29908), (272, 29944), (276, 29977), (291, 30031), (305, 30064), (307, 30073), (313, 30085), (315, 30106), (334, 30241), (337, 30250),

Gene: Lamina13_61 Start: 41357, Stop: 39765, Start Num: 18

Candidate Starts for Lamina13_61:

(Start: 18 @41357 has 9 MA's), (35, 41249), (52, 41204), (89, 41120), (131, 40979), (154, 40829), (163, 40751), (183, 40646), (184, 40643), (206, 40541), (209, 40532), (231, 40325), (235, 40295), (240, 40238), (284, 40100), (288, 40097), (294, 40043), (302, 39959), (303, 39950), (305, 39941), (313, 39920), (314, 39902), (316, 39866),

Gene: Laphuphu24k_46 Start: 29570, Stop: 30973, Start Num: 84

Candidate Starts for Laphuphu24k_46:

(Start: 84 @29570 has 40 MA's), (103, 29657), (105, 29666), (116, 29726), (129, 29780), (134, 29804), (151, 29897), (155, 29945), (156, 29951), (161, 29984), (162, 29996), (189, 30137), (228, 30335), (230, 30392), (232, 30398), (254, 30545), (258, 30560), (264, 30590), (265, 30611), (290, 30728), (291, 30737), (305, 30770), (314, 30809), (315, 30812), (318, 30857), (323, 30878), (334, 30947), (340, 30968),

Gene: Leona_46 Start: 29662, Stop: 31065, Start Num: 82

Candidate Starts for Leona_46:

(75, 29653), (Start: 82 @29662 has 3 MA's), (103, 29749), (105, 29758), (115, 29806), (116, 29818), (129, 29872), (134, 29896), (138, 29911), (146, 29956), (151, 29989), (155, 30037), (156, 30043), (161, 30076), (162, 30088), (189, 30229), (228, 30427), (230, 30484), (254, 30637), (258, 30652), (264, 30682), (265, 30703), (290, 30820), (291, 30829), (305, 30862), (318, 30949), (323, 30970), (334, 31039), (340, 31060),

Gene: Leperchaun_59 Start: 41080, Stop: 42594, Start Num: 68

Candidate Starts for Leperchaun_59:

(32, 40903), (Start: 68 @41080 has 13 MA's), (87, 41137), (94, 41173), (102, 41206), (135, 41428), (143, 41470), (158, 41596), (161, 41614), (171, 41674), (180, 41716), (183, 41728), (204, 41821), (211, 41845), (220, 41905), (231, 42028), (234, 42049), (235, 42058), (242, 42151), (275, 42331), (294, 42451), (300, 42511), (306, 42544), (308, 42553), (310, 42556),

Gene: Linus_82 Start: 54377, Stop: 56299, Start Num: 27

Candidate Starts for Linus_82:

(Start: 27 @54377 has 17 MA's), (40, 54449), (Start: 65 @54581 has 2 MA's), (83, 54653), (92, 54689), (97, 54713), (100, 54731), (109, 54788), (115, 54824), (121, 54854), (125, 54866), (153, 55058), (160, 55127), (163, 55154), (176, 55235), (179, 55250), (182, 55265), (191, 55316), (194, 55334), (202, 55367), (219, 55451), (226, 55517), (227, 55523), (229, 55577), (230, 55598), (231, 55601), (232, 55604), (233, 55619), (238, 55667), (240, 55688), (251, 55751), (259, 55775), (261, 55793), (262, 55802), (265, 55829), (292, 55964), (293, 55982), (296, 56051), (301, 56075), (302, 56087), (303, 56096), (305, 56105), (319, 56195), (320, 56204), (333, 56279), (336, 56285),

Gene: LittleTokyo_45 Start: 28365, Stop: 29681, Start Num: 84

Candidate Starts for LittleTokyo_45:

(Start: 84 @28365 has 40 MA's), (103, 28452), (105, 28461), (115, 28509), (116, 28521), (129, 28575), (134, 28599), (138, 28614), (151, 28692), (155, 28740), (156, 28746), (162, 28791), (189, 28932), (216, 29043), (228, 29133), (230, 29190), (236, 29235), (265, 29316), (290, 29436), (305, 29478), (313, 29499), (315, 29520), (323, 29586), (334, 29655),

Gene: Lunar_47 Start: 29201, Stop: 30613, Start Num: 82

Candidate Starts for Lunar_47:

(Start: 82 @29201 has 3 MA's), (Start: 84 @29210 has 40 MA's), (98, 29270), (103, 29297), (105, 29306), (115, 29354), (116, 29366), (129, 29420), (134, 29444), (137, 29453), (138, 29459), (145, 29501), (151, 29537), (155, 29585), (162, 29636), (172, 29696), (189, 29777), (197, 29816), (228, 29975), (230, 30032), (232, 30038), (236, 30077), (254, 30185), (258, 30200), (265, 30251), (276, 30323), (305, 30410), (314, 30449), (334, 30587),

Gene: LunarLander_60 Start: 41007, Stop: 39667, Start Num: 107

Candidate Starts for LunarLander_60:

(Start: 107 @41007 has 2 MA's), (132, 40899), (139, 40854), (152, 40770), (161, 40689), (185, 40551), (197, 40479), (231, 40233), (235, 40203), (271, 40065), (279, 40002), (280, 39999), (294, 39945), (302, 39861), (303, 39852), (305, 39843), (313, 39822), (314, 39804), (316, 39768),

Gene: Lymara_79 Start: 53015, Stop: 54817, Start Num: 27

Candidate Starts for Lymara_79:

(Start: 27 @53015 has 17 MA's), (56, 53174), (Start: 65 @53219 has 2 MA's), (81, 53285), (83, 53291), (92, 53327), (97, 53351), (100, 53369), (109, 53426), (115, 53462), (121, 53492), (125, 53504), (133, 53567), (153, 53696), (160, 53765), (163, 53792), (176, 53873), (179, 53888), (182, 53903), (191, 53954), (194, 53972), (202, 54005), (219, 54089), (221, 54116), (226, 54155), (227, 54161), (229, 54215), (230, 54236), (232, 54242), (233, 54257), (236, 54281), (238, 54305), (240, 54326), (251, 54389), (259, 54413), (265, 54467), (302, 54605), (305, 54623), (319, 54713), (320, 54722), (328, 54764), (333, 54797),

Gene: MISSy_100 Start: 58583, Stop: 60391, Start Num: 16

Candidate Starts for MISSy_100:

(4, 58436), (5, 58466), (9, 58514), (10, 58529), (11, 58541), (Start: 16 @58583 has 5 MA's), (21, 58601), (35, 58697), (52, 58742), (89, 58826), (111, 58949), (126, 59036), (127, 59042), (140, 59129), (141, 59141), (157, 59273), (205, 59516), (220, 59603), (235, 59768), (236, 59780), (282, 60053), (305, 60212), (315, 60254), (316, 60287), (319, 60302),

Gene: Melons_47 Start: 29024, Stop: 30427, Start Num: 84

Candidate Starts for Melons_47:

(63, 28961), (Start: 82 @29015 has 3 MA's), (Start: 84 @29024 has 40 MA's), (98, 29084), (103, 29111), (105, 29120), (115, 29168), (129, 29234), (134, 29258), (137, 29267), (138, 29273), (145, 29315), (151, 29351), (155, 29399), (162, 29450), (172, 29510), (189, 29591), (197, 29630), (228, 29789), (230, 29846), (232, 29852), (236, 29891), (254, 29999), (258, 30014), (265, 30065), (276, 30137), (305, 30224), (314, 30263), (323, 30332), (334, 30401),

Gene: Molly_60 Start: 40691, Stop: 38961, Start Num: 18

Candidate Starts for Molly_60:

(Start: 18 @40691 has 9 MA's), (35, 40583), (52, 40538), (89, 40454), (131, 40313), (154, 40163), (163, 40085), (183, 39980), (184, 39977), (206, 39875), (209, 39866), (235, 39629), (238, 39593), (246, 39530), (265, 39428), (266, 39425), (277, 39347), (294, 39239), (301, 39167), (302, 39155), (303, 39146), (305, 39137), (313, 39116), (314, 39098),

Gene: MooMoo_65 Start: 41964, Stop: 43592, Start Num: 68

Candidate Starts for MooMoo_65:

(Start: 68 @41964 has 13 MA's), (74, 41991), (87, 42021), (102, 42090), (108, 42144), (136, 42321), (145, 42378), (161, 42501), (165, 42534), (169, 42555), (175, 42588), (180, 42603), (204, 42708), (231, 42912), (232, 42915), (236, 42954), (280, 43245), (294, 43302), (305, 43389), (308, 43401), (314, 43428), (315, 43431), (320, 43488), (329, 43536), (331, 43557),

Gene: Mordred_82 Start: 53968, Stop: 55890, Start Num: 27

Candidate Starts for Mordred_82:

(Start: 27 @53968 has 17 MA's), (40, 54040), (Start: 65 @54172 has 2 MA's), (83, 54244), (92, 54280), (97, 54304), (100, 54322), (109, 54379), (115, 54415), (121, 54445), (125, 54457), (153, 54649), (160, 54718), (163, 54745), (176, 54826), (179, 54841), (182, 54856), (191, 54907), (194, 54925), (202, 54958), (219, 55042), (221, 55069), (226, 55108), (227, 55114), (229, 55168), (230, 55189), (231, 55192), (232, 55195), (233, 55210), (238, 55258), (240, 55279), (251, 55342), (259, 55366), (261, 55384), (262, 55393), (265, 55420), (292, 55555), (293, 55573), (296, 55642), (301, 55666), (302, 55678), (303, 55687), (305, 55696), (319, 55786), (320, 55795), (333, 55870), (336, 55876),

Gene: Mova_70 Start: 42582, Stop: 44489, Start Num: 15

Candidate Starts for Mova_70:

(1, 42405), (2, 42420), (3, 42429), (8, 42525), (Start: 15 @42582 has 1 MA's), (25, 42639), (35, 42708), (74, 42909), (87, 42942), (120, 43119), (126, 43143), (138, 43206), (145, 43251), (167, 43410), (178,

43464), (184, 43491), (212, 43611), (222, 43668), (231, 43776), (235, 43806), (238, 43842), (252, 43920), (253, 43926), (294, 44184), (304, 44283), (305, 44286), (308, 44298), (313, 44307), (315, 44328), (339, 44481),

Gene: MoyaNatalis_81 Start: 53851, Stop: 55773, Start Num: 27

Candidate Starts for MoyaNatalis_81:

(Start: 27 @53851 has 17 MA's), (40, 53923), (Start: 65 @54055 has 2 MA's), (83, 54127), (92, 54163), (97, 54187), (100, 54205), (109, 54262), (115, 54298), (121, 54328), (125, 54340), (153, 54532), (160, 54601), (163, 54628), (176, 54709), (179, 54724), (182, 54739), (191, 54790), (194, 54808), (202, 54841), (219, 54925), (226, 54991), (227, 54997), (229, 55051), (230, 55072), (231, 55075), (232, 55078), (233, 55093), (238, 55141), (240, 55162), (251, 55225), (259, 55249), (261, 55267), (262, 55276), (265, 55303), (292, 55438), (293, 55456), (296, 55525), (301, 55549), (302, 55561), (303, 55570), (305, 55579), (319, 55669), (320, 55678), (333, 55753), (336, 55759),

Gene: Murica_102 Start: 59799, Stop: 61607, Start Num: 16

Candidate Starts for Murica_102:

(4, 59652), (5, 59682), (9, 59730), (10, 59745), (11, 59757), (Start: 16 @59799 has 5 MA's), (21, 59817), (35, 59913), (52, 59958), (89, 60042), (111, 60165), (126, 60252), (127, 60258), (140, 60345), (141, 60357), (157, 60489), (205, 60732), (220, 60819), (235, 60984), (236, 60996), (282, 61269), (305, 61428), (315, 61470), (316, 61503), (319, 61518),

Gene: Nazo_56 Start: 38421, Stop: 39956, Start Num: 70

Candidate Starts for Nazo_56:

(22, 38139), (55, 38340), (64, 38382), (Start: 70 @38421 has 2 MA's), (78, 38448), (80, 38454), (88, 38478), (95, 38514), (96, 38517), (102, 38547), (113, 38613), (145, 38763), (161, 38886), (185, 39024), (197, 39096), (231, 39342), (233, 39360), (248, 39450), (250, 39459), (268, 39501), (295, 39666), (297, 39711), (308, 39765), (315, 39795), (329, 39900),

Gene: Niblet_48 Start: 30572, Stop: 31903, Start Num: 82

Candidate Starts for Niblet_48:

(Start: 82 @30572 has 3 MA's), (Start: 84 @30581 has 40 MA's), (105, 30677), (115, 30725), (116, 30737), (129, 30791), (134, 30815), (138, 30830), (143, 30851), (151, 30908), (155, 30956), (162, 31007), (170, 31058), (189, 31148), (197, 31187), (228, 31346), (272, 31580), (276, 31613), (290, 31658), (305, 31700), (314, 31739), (316, 31775), (334, 31877), (340, 31898),

Gene: Oppalora_46 Start: 29584, Stop: 30987, Start Num: 84

Candidate Starts for Oppalora_46:

(Start: 84 @29584 has 40 MA's), (103, 29671), (115, 29728), (116, 29740), (129, 29794), (134, 29818), (151, 29911), (155, 29959), (156, 29965), (161, 29998), (162, 30010), (189, 30151), (228, 30349), (230, 30406), (232, 30412), (254, 30559), (258, 30574), (264, 30604), (265, 30625), (290, 30742), (291, 30751), (305, 30784), (314, 30823), (315, 30826), (318, 30871), (323, 30892), (334, 30961), (340, 30982),

Gene: Optimus_142 Start: 77338, Stop: 79065, Start Num: 19

Candidate Starts for Optimus_142:

(Start: 19 @77338 has 1 MA's), (35, 77446), (52, 77491), (89, 77575), (131, 77716), (154, 77866), (163, 77944), (183, 78049), (184, 78052), (206, 78154), (209, 78163), (231, 78370), (234, 78391), (235, 78400), (238, 78436), (257, 78538), (265, 78601), (266, 78604), (294, 78787), (302, 78871), (303, 78880), (305, 78889), (313, 78910), (314, 78928), (316, 78964),

Gene: Orcanus_45 Start: 30565, Stop: 31884, Start Num: 84

Candidate Starts for Orcanus_45:

(48, 30397), (Start: 82 @30556 has 3 MA's), (Start: 84 @30565 has 40 MA's), (105, 30661), (115, 30709), (116, 30721), (129, 30775), (134, 30799), (138, 30814), (143, 30835), (151, 30892), (155, 30940), (162, 30991), (170, 31042), (189, 31132), (210, 31210), (230, 31387), (233, 31408), (265, 31522), (272, 31561), (276, 31594), (305, 31681), (315, 31723), (316, 31756), (328, 31822), (329, 31828), (334, 31858), (340, 31879),

Gene: OtsoOtso_46 Start: 28380, Stop: 29783, Start Num: 84

Candidate Starts for OtsoOtso_46:

(24, 28119), (46, 28245), (Start: 84 @28380 has 40 MA's), (98, 28440), (103, 28467), (105, 28476), (106, 28479), (115, 28524), (116, 28536), (129, 28590), (134, 28614), (138, 28629), (145, 28671), (151, 28707), (155, 28755), (162, 28806), (172, 28866), (189, 28947), (197, 28986), (228, 29145), (230, 29202), (232, 29208), (236, 29247), (254, 29355), (258, 29370), (265, 29421), (276, 29493), (305, 29580), (321, 29682), (334, 29757),

Gene: PHappiness_62 Start: 41626, Stop: 43140, Start Num: 68

Candidate Starts for PHappiness_62:

(32, 41449), (Start: 68 @41626 has 13 MA's), (87, 41683), (94, 41719), (102, 41752), (135, 41974), (143, 42016), (158, 42142), (161, 42160), (171, 42220), (180, 42262), (183, 42274), (204, 42367), (211, 42391), (220, 42451), (231, 42574), (234, 42595), (235, 42604), (242, 42697), (275, 42877), (294, 42997), (300, 43057), (306, 43090), (308, 43099), (310, 43102),

Gene: Pelletreau_54 Start: 30988, Stop: 32316, Start Num: 82

Candidate Starts for Pelletreau_54:

(44, 30838), (48, 30853), (Start: 82 @30988 has 3 MA's), (Start: 84 @30997 has 40 MA's), (105, 31093), (115, 31141), (116, 31153), (129, 31207), (134, 31231), (138, 31246), (143, 31267), (151, 31324), (155, 31372), (162, 31423), (170, 31474), (189, 31564), (210, 31642), (233, 31840), (265, 31954), (272, 31993), (276, 32026), (305, 32113), (315, 32155), (316, 32188), (324, 32227), (328, 32254), (329, 32260), (334, 32290), (340, 32311),

Gene: Phalconet_70 Start: 43833, Stop: 45551, Start Num: 14

Candidate Starts for Phalconet_70:

(6, 43743), (7, 43752), (8, 43779), (Start: 14 @43833 has 3 MA's), (20, 43863), (25, 43893), (29, 43929), (35, 43962), (74, 44163), (87, 44196), (120, 44373), (126, 44397), (138, 44460), (143, 44484), (144, 44487), (214, 44721), (231, 44823), (234, 44844), (235, 44853), (238, 44889), (257, 44991), (294, 45243), (305, 45345), (308, 45357), (315, 45387), (330, 45501),

Gene: PhesterPhotato_66 Start: 41796, Stop: 43328, Start Num: 68

Candidate Starts for PhesterPhotato_66:

(Start: 68 @41796 has 13 MA's), (87, 41853), (91, 41865), (102, 41922), (108, 41976), (143, 42189), (144, 42192), (146, 42213), (187, 42483), (196, 42531), (204, 42567), (220, 42657), (223, 42675), (231, 42798), (233, 42816), (235, 42828), (236, 42840), (240, 42885), (248, 42933), (280, 43128), (294, 43185), (300, 43245), (306, 43278), (308, 43287), (310, 43290),

Gene: PhirstandPhine_54 Start: 29170, Stop: 30573, Start Num: 84

Candidate Starts for PhirstandPhine_54:

(Start: 82 @29161 has 3 MA's), (Start: 84 @29170 has 40 MA's), (98, 29230), (103, 29257), (105, 29266), (115, 29314), (116, 29326), (129, 29380), (134, 29404), (137, 29413), (138, 29419), (145, 29461), (151, 29497), (155, 29545), (162, 29596), (172, 29656), (189, 29737), (197, 29776), (228, 29935), (230, 29992), (232, 29998), (236, 30037), (254, 30145), (258, 30160), (265, 30211), (276, 30283), (305, 30370), (314, 30409), (334, 30547),

Gene: PhluffyCoco_47 Start: 29684, Stop: 31087, Start Num: 84

Candidate Starts for PhluffyCoco_47:

(Start: 84 @29684 has 40 MA's), (103, 29771), (115, 29828), (116, 29840), (129, 29894), (134, 29918), (151, 30011), (155, 30059), (156, 30065), (161, 30098), (162, 30110), (189, 30251), (228, 30449), (230, 30506), (232, 30512), (254, 30659), (258, 30674), (264, 30704), (265, 30725), (290, 30842), (291, 30851), (305, 30884), (314, 30923), (315, 30926), (318, 30971), (323, 30992), (334, 31061), (340, 31082),

Gene: Pineda_48 Start: 28687, Stop: 30099, Start Num: 82

Candidate Starts for Pineda_48:

(Start: 82 @28687 has 3 MA's), (Start: 84 @28696 has 40 MA's), (98, 28756), (103, 28783), (105, 28792), (115, 28840), (116, 28852), (129, 28906), (134, 28930), (137, 28939), (138, 28945), (145, 28987), (151, 29023), (155, 29071), (162, 29122), (172, 29182), (189, 29263), (197, 29302), (228, 29461), (230, 29518), (232, 29524), (236, 29563), (254, 29671), (258, 29686), (265, 29737), (276, 29809), (305, 29896), (314, 29935), (315, 29938), (323, 30004), (334, 30073),

Gene: Polka_45 Start: 28380, Stop: 29783, Start Num: 84

Candidate Starts for Polka_45:

(24, 28119), (46, 28245), (Start: 84 @28380 has 40 MA's), (98, 28440), (103, 28467), (105, 28476), (106, 28479), (115, 28524), (116, 28536), (129, 28590), (134, 28614), (138, 28629), (145, 28671), (151, 28707), (155, 28755), (162, 28806), (172, 28866), (189, 28947), (197, 28986), (228, 29145), (230, 29202), (232, 29208), (236, 29247), (254, 29355), (258, 29370), (265, 29421), (276, 29493), (305, 29580), (321, 29682), (334, 29757),

Gene: Polka14_65 Start: 42690, Stop: 44204, Start Num: 68

Candidate Starts for Polka14_65:

(32, 42513), (Start: 68 @42690 has 13 MA's), (87, 42747), (94, 42783), (102, 42816), (135, 43038), (143, 43080), (158, 43206), (161, 43224), (171, 43284), (180, 43326), (183, 43338), (204, 43431), (211, 43455), (220, 43515), (231, 43638), (234, 43659), (235, 43668), (242, 43761), (275, 43941), (294, 44061), (300, 44121), (306, 44154), (308, 44163), (310, 44166),

Gene: Polkaroo_53 Start: 35895, Stop: 37256, Start Num: 68

Candidate Starts for Polkaroo_53:

(54, 35826), (Start: 68 @35895 has 13 MA's), (74, 35922), (77, 35928), (87, 35952), (94, 35988), (102, 36021), (124, 36111), (128, 36138), (152, 36270), (161, 36351), (173, 36393), (174, 36396), (233, 36615), (235, 36627), (266, 36807), (286, 36909), (294, 36966), (305, 37053), (308, 37065), (313, 37074), (314, 37092), (330, 37209),

Gene: PrincessTrina_83 Start: 54273, Stop: 56075, Start Num: 27

Candidate Starts for PrincessTrina_83:

(Start: 27 @54273 has 17 MA's), (40, 54345), (Start: 65 @54477 has 2 MA's), (83, 54549), (92, 54585), (97, 54609), (100, 54627), (109, 54684), (115, 54720), (121, 54750), (125, 54762), (153, 54954), (160, 55023), (163, 55050), (176, 55131), (179, 55146), (182, 55161), (191, 55212), (194, 55230), (202, 55263), (219, 55347), (221, 55374), (226, 55413), (227, 55419), (229, 55473), (230, 55494), (231, 55497), (232, 55500), (233, 55515), (238, 55563), (240, 55584), (251, 55647), (259, 55671), (261, 55689), (262, 55698), (265, 55725), (302, 55863), (305, 55881), (319, 55971), (320, 55980), (333, 56055), (336, 56061),

Gene: Rattail_47 Start: 29770, Stop: 31173, Start Num: 84

Candidate Starts for Rattail_47:

(Start: 84 @29770 has 40 MA's), (103, 29857), (115, 29914), (116, 29926), (129, 29980), (134, 30004), (151, 30097), (155, 30145), (156, 30151), (161, 30184), (162, 30196), (189, 30337), (228, 30535), (230, 30592), (232, 30598), (254, 30745), (258, 30760), (264, 30790), (265, 30811), (290, 30928), (291, 30937), (305, 30970), (314, 31009), (315, 31012), (318, 31057), (323, 31078), (334, 31147), (340, 31168),

Gene: RedFox_47 Start: 29683, Stop: 31086, Start Num: 84

Candidate Starts for RedFox_47:

(Start: 84 @29683 has 40 MA's), (103, 29770), (105, 29779), (115, 29827), (116, 29839), (129, 29893), (134, 29917), (138, 29932), (151, 30010), (155, 30058), (156, 30064), (161, 30097), (162, 30109), (189, 30250), (228, 30448), (230, 30505), (232, 30511), (254, 30658), (258, 30673), (264, 30703), (265, 30724), (266, 30727), (290, 30841), (291, 30850), (305, 30883), (315, 30925), (318, 30970), (323, 30991), (334, 31060), (340, 31081),

Gene: Renaud18_76 Start: 44560, Stop: 46092, Start Num: 68

Candidate Starts for Renaud18_76:

(32, 44383), (34, 44389), (36, 44398), (39, 44407), (45, 44446), (58, 44503), (Start: 68 @44560 has 13 MA's), (87, 44617), (91, 44629), (102, 44686), (108, 44740), (143, 44953), (144, 44956), (146, 44977), (187, 45247), (196, 45295), (204, 45331), (220, 45421), (223, 45439), (231, 45562), (233, 45580), (235, 45592), (236, 45604), (240, 45649), (248, 45697), (280, 45892), (294, 45949), (300, 46009), (306, 46042), (308, 46051), (310, 46054),

Gene: Renna12_46 Start: 29540, Stop: 30943, Start Num: 84

Candidate Starts for Renna12_46:

(Start: 84 @29540 has 40 MA's), (103, 29627), (105, 29636), (115, 29684), (116, 29696), (129, 29750), (134, 29774), (138, 29789), (143, 29810), (146, 29834), (151, 29867), (155, 29915), (156, 29921), (162, 29966), (189, 30107), (228, 30305), (230, 30362), (231, 30365), (254, 30515), (258, 30530), (264, 30560), (265, 30581), (290, 30698), (291, 30707), (302, 30722), (305, 30740), (314, 30779), (318, 30827), (323, 30848), (334, 30917), (340, 30938),

Gene: RitaG_62 Start: 41971, Stop: 43485, Start Num: 68

Candidate Starts for RitaG_62:

(32, 41794), (Start: 68 @41971 has 13 MA's), (87, 42028), (94, 42064), (102, 42097), (135, 42319), (143, 42361), (158, 42487), (161, 42505), (171, 42565), (180, 42607), (183, 42619), (204, 42712), (211, 42736), (220, 42796), (231, 42919), (234, 42940), (235, 42949), (242, 43042), (275, 43222), (294, 43342), (300, 43402), (306, 43435), (308, 43444), (310, 43447),

Gene: RosiePosie_82 Start: 54057, Stop: 55946, Start Num: 27

Candidate Starts for RosiePosie_82:

(Start: 27 @54057 has 17 MA's), (40, 54129), (Start: 65 @54261 has 2 MA's), (83, 54300), (92, 54336), (97, 54360), (100, 54378), (109, 54435), (115, 54471), (121, 54501), (125, 54513), (153, 54705), (160, 54774), (163, 54801), (176, 54882), (179, 54897), (182, 54912), (191, 54963), (194, 54981), (202, 55014), (219, 55098), (226, 55164), (227, 55170), (229, 55224), (230, 55245), (231, 55248), (232, 55251), (233, 55266), (238, 55314), (240, 55335), (251, 55398), (259, 55422), (261, 55440), (262, 55449), (265, 55476), (292, 55611), (293, 55629), (296, 55698), (301, 55722), (302, 55734), (303, 55743), (305, 55752), (319, 55842), (320, 55851), (333, 55926), (336, 55932),

Gene: Royals2015_69 Start: 42774, Stop: 44306, Start Num: 68

Candidate Starts for Royals2015_69:

(32, 42597), (34, 42603), (36, 42612), (45, 42660), (58, 42717), (Start: 68 @42774 has 13 MA's), (87, 42831), (91, 42843), (102, 42900), (108, 42954), (143, 43167), (144, 43170), (146, 43191), (187, 43461), (196, 43509), (204, 43545), (220, 43635), (223, 43653), (231, 43776), (233, 43794), (235, 43806), (236, 43818), (240, 43863), (248, 43911), (280, 44106), (294, 44163), (300, 44223), (306, 44256), (308, 44265), (310, 44268),

Gene: Ruchi_43 Start: 29375, Stop: 30694, Start Num: 84

Candidate Starts for Ruchi_43:

(Start: 82 @29366 has 3 MA's), (Start: 84 @29375 has 40 MA's), (98, 29435), (105, 29471), (116, 29531), (129, 29585), (134, 29609), (138, 29624), (143, 29645), (151, 29702), (155, 29750), (162, 29801), (170, 29852), (189, 29942), (197, 29981), (216, 30053), (232, 30203), (265, 30332), (272, 30371), (276, 30404), (305, 30491), (314, 30530), (334, 30668),

Gene: SG4_70 Start: 43702, Stop: 45480, Start Num: 13

Candidate Starts for SG4_70:

(Start: 13 @43702 has 2 MA's), (20, 43741), (25, 43771), (29, 43807), (35, 43840), (52, 43885), (131, 44110), (154, 44260), (163, 44338), (183, 44443), (184, 44446), (206, 44548), (209, 44557), (231, 44764), (234, 44785), (235, 44794), (238, 44830), (257, 44932), (265, 44995), (266, 44998), (269, 45013), (294, 45172), (305, 45274), (308, 45286), (313, 45295), (314, 45313), (330, 45430),

Gene: Sanya_55 Start: 41165, Stop: 39816, Start Num: 18

Candidate Starts for Sanya_55:

(Start: 18 @41165 has 9 MA's), (35, 41057), (52, 41012), (89, 40928), (104, 40847), (148, 40697), (159, 40649), (164, 40613), (188, 40544), (193, 40523), (201, 40505), (231, 40382), (234, 40361), (235, 40352), (236, 40340), (249, 40253), (274, 40151), (278, 40148), (294, 40094), (302, 40010), (303, 40001), (305, 39992), (313, 39971), (314, 39953), (316, 39917),

Gene: Scavito_83 Start: 54017, Stop: 55939, Start Num: 27

Candidate Starts for Scavito_83:

(Start: 27 @54017 has 17 MA's), (40, 54089), (Start: 65 @54221 has 2 MA's), (83, 54293), (92, 54329), (97, 54353), (100, 54371), (109, 54428), (115, 54464), (121, 54494), (125, 54506), (153, 54698), (160, 54767), (163, 54794), (176, 54875), (179, 54890), (182, 54905), (191, 54956), (194, 54974), (202, 55007), (219, 55091), (221, 55118), (226, 55157), (227, 55163), (229, 55217), (230, 55238), (231, 55241), (232, 55244), (233, 55259), (238, 55307), (240, 55328), (251, 55391), (259, 55415), (261, 55433), (262, 55442), (265, 55469), (292, 55604), (293, 55622), (296, 55691), (301, 55715), (302, 55727), (303, 55736), (305, 55745), (319, 55835), (320, 55844), (333, 55919), (336, 55925),

Gene: Shen_44 Start: 29089, Stop: 30417, Start Num: 82

Candidate Starts for Shen_44:

(44, 28939), (48, 28954), (Start: 82 @29089 has 3 MA's), (Start: 84 @29098 has 40 MA's), (105, 29194), (115, 29242), (116, 29254), (129, 29308), (134, 29332), (138, 29347), (143, 29368), (151, 29425), (155, 29473), (162, 29524), (170, 29575), (189, 29665), (204, 29731), (210, 29743), (231, 29923), (233, 29941), (265, 30055), (272, 30094), (276, 30127), (305, 30214), (314, 30253), (315, 30256), (316, 30289), (324, 30328), (328, 30355), (329, 30361), (334, 30391), (340, 30412),

Gene: ShroomBoi_67 Start: 43105, Stop: 44667, Start Num: 68

Candidate Starts for ShroomBoi_67:

(32, 42928), (34, 42934), (36, 42943), (39, 42952), (45, 42991), (Start: 68 @43105 has 13 MA's), (87, 43162), (94, 43198), (102, 43231), (135, 43453), (143, 43495), (187, 43789), (196, 43837), (204, 43873), (217, 43942), (220, 43963), (223, 43981), (231, 44104), (234, 44125), (235, 44134), (236, 44146), (257, 44272), (265, 44335), (275, 44404), (294, 44524), (300, 44584), (306, 44617), (308, 44626), (310, 44629),

Gene: StellaBean_97 Start: 58301, Stop: 60040, Start Num: 16

Candidate Starts for StellaBean_97:

(4, 58154), (5, 58184), (9, 58232), (10, 58247), (11, 58259), (Start: 16 @58301 has 5 MA's), (21, 58319), (35, 58415), (52, 58460), (89, 58544), (131, 58685), (154, 58835), (163, 58913), (183, 59018), (184, 59021), (206, 59123), (209, 59132), (231, 59339), (235, 59369), (246, 59468), (265, 59570), (266, 59573), (277, 59651), (294, 59759), (301, 59831), (305, 59861), (315, 59903), (316, 59936), (319, 59951),

Gene: StuartMinion_39 Start: 26655, Stop: 28058, Start Num: 84

Candidate Starts for StuartMinion_39:

(Start: 84 @26655 has 40 MA's), (103, 26742), (105, 26751), (115, 26799), (116, 26811), (129, 26865), (134, 26889), (138, 26904), (146, 26949), (151, 26982), (155, 27030), (156, 27036), (162, 27081), (189, 27222), (203, 27285), (216, 27333), (228, 27420), (230, 27477), (232, 27483), (239, 27552), (254, 27630), (258, 27645), (264, 27675), (265, 27696), (290, 27813), (291, 27822), (305, 27855), (313, 27876), (318, 27942), (334, 28032),

Gene: Taj_79 Start: 46662, Stop: 48335, Start Num: 14

Candidate Starts for Taj_79:

(6, 46572), (7, 46581), (Start: 14 @46662 has 3 MA's), (20, 46692), (25, 46722), (26, 46734), (35, 46791), (74, 46992), (87, 47025), (120, 47202), (126, 47226), (138, 47289), (143, 47313), (144, 47316), (161, 47457), (173, 47499), (195, 47544), (214, 47556), (231, 47661), (234, 47682), (235, 47691), (236, 47703), (241, 47769), (265, 47865), (266, 47868), (286, 47970), (294, 48027), (305, 48129), (308, 48141), (313, 48150), (315, 48171), (330, 48285),

Gene: Tarkin_98 Start: 58765, Stop: 60504, Start Num: 16

Candidate Starts for Tarkin_98:

(4, 58618), (5, 58648), (9, 58696), (10, 58711), (11, 58723), (Start: 16 @58765 has 5 MA's), (21, 58783), (35, 58879), (52, 58924), (89, 59008), (101, 59071), (131, 59149), (154, 59299), (163, 59377), (183, 59482), (184, 59485), (206, 59587), (209, 59596), (231, 59803), (234, 59824), (235, 59833), (236, 59845), (246, 59932), (265, 60034), (266, 60037), (277, 60115), (294, 60223), (305, 60325), (315, 60367), (316, 60400), (319, 60415),

Gene: Tasp14_62 Start: 41981, Stop: 40389, Start Num: 18

Candidate Starts for Tasp14_62:

(Start: 18 @41981 has 9 MA's), (35, 41873), (52, 41828), (89, 41744), (131, 41603), (154, 41453), (163, 41375), (183, 41270), (184, 41267), (206, 41165), (209, 41156), (231, 40949), (235, 40919), (240, 40862), (284, 40724), (288, 40721), (294, 40667), (302, 40583), (303, 40574), (305, 40565), (313, 40544), (314, 40526), (316, 40490),

Gene: TaylorSipht_45 Start: 29940, Stop: 31352, Start Num: 84

Candidate Starts for TaylorSipht_45:

(23, 29658), (28, 29715), (Start: 82 @29931 has 3 MA's), (Start: 84 @29940 has 40 MA's), (115, 30084), (116, 30096), (129, 30150), (134, 30174), (138, 30189), (150, 30258), (151, 30267), (155, 30315), (162, 30366), (189, 30507), (197, 30546), (230, 30762), (233, 30783), (256, 30927), (265, 30990), (272, 31029), (276, 31062), (290, 31107), (305, 31149), (315, 31191), (329, 31296), (334, 31326),

Gene: Thespis_55 Start: 36748, Stop: 38346, Start Num: 50

Candidate Starts for Thespis_55:

(Start: 50 @36748 has 1 MA's), (51, 36757), (58, 36784), (69, 36850), (88, 36910), (96, 36949), (102, 36979), (110, 37036), (130, 37123), (143, 37201), (149, 37246), (170, 37408), (185, 37483), (197, 37555), (231, 37801), (233, 37819), (236, 37843), (271, 37978), (273, 38008), (280, 38044), (297, 38146), (311, 38203), (317, 38263), (325, 38296), (326, 38305), (327, 38308),

Gene: Toad24_47 Start: 31237, Stop: 32556, Start Num: 84

Candidate Starts for Toad24_47:

(44, 31078), (48, 31093), (Start: 82 @31228 has 3 MA's), (Start: 84 @31237 has 40 MA's), (105, 31333), (115, 31381), (116, 31393), (129, 31447), (134, 31471), (138, 31486), (143, 31507), (151, 31564), (155, 31612), (162, 31663), (170, 31714), (189, 31804), (204, 31870), (210, 31882), (231, 32062), (233, 32080), (265, 32194), (272, 32233), (276, 32266), (305, 32353), (314, 32392), (315, 32395), (316, 32428), (324, 32467), (328, 32494), (329, 32500), (334, 32530), (340, 32551),

Gene: Tophat_83 Start: 54206, Stop: 56128, Start Num: 27

Candidate Starts for Tophat_83:

(Start: 27 @54206 has 17 MA's), (40, 54278), (Start: 65 @54410 has 2 MA's), (83, 54482), (92, 54518), (97, 54542), (100, 54560), (109, 54617), (115, 54653), (121, 54683), (125, 54695), (153, 54887), (160, 54956), (163, 54983), (176, 55064), (179, 55079), (182, 55094), (191, 55145), (194, 55163), (202, 55196), (219, 55280), (221, 55307), (226, 55346), (227, 55352), (229, 55406), (230, 55427), (231, 55430), (232, 55433), (233, 55448), (238, 55496), (240, 55517), (251, 55580), (259, 55604), (261, 55622), (262, 55631), (265, 55658), (292, 55793), (293, 55811), (296, 55880), (301, 55904), (302, 55916), (303, 55925), (305, 55934), (319, 56024), (320, 56033), (333, 56108), (336, 56114),

Gene: TwoPeat_61 Start: 41088, Stop: 39625, Start Num: 18

Candidate Starts for TwoPeat_61:

(Start: 18 @41088 has 9 MA's), (35, 40980), (52, 40935), (73, 40893), (74, 40890), (89, 40851), (145, 40653), (147, 40638), (168, 40527), (217, 40392), (231, 40308), (234, 40287), (235, 40278), (236, 40266), (247, 40179), (265, 40077), (266, 40074), (277, 39996), (294, 39888), (305, 39801), (315, 39759), (316, 39726),

Gene: Violet_57 Start: 42062, Stop: 40485, Start Num: 18

Candidate Starts for Violet_57:

(Start: 18 @42062 has 9 MA's), (35, 41954), (52, 41909), (89, 41825), (131, 41684), (154, 41534), (163, 41456), (183, 41351), (184, 41348), (206, 41246), (209, 41237), (231, 41030), (234, 41009), (235, 41000), (238, 40964), (287, 40805), (294, 40748), (305, 40661), (315, 40619), (316, 40586),

Gene: Vulpecula_43 Start: 29052, Stop: 30371, Start Num: 84

Candidate Starts for Vulpecula_43:

(Start: 82 @29043 has 3 MA's), (Start: 84 @29052 has 40 MA's), (105, 29148), (116, 29208), (129, 29262), (134, 29286), (138, 29301), (143, 29322), (151, 29379), (155, 29427), (162, 29478), (170, 29529), (189, 29619), (197, 29658), (216, 29730), (232, 29880), (272, 30048), (276, 30081), (305, 30168), (314, 30207), (334, 30345),

Gene: Wee_78 Start: 46738, Stop: 48411, Start Num: 14

Candidate Starts for Wee_78:

(6, 46648), (7, 46657), (Start: 14 @46738 has 3 MA's), (20, 46768), (25, 46798), (26, 46810), (35, 46867), (74, 47068), (87, 47101), (120, 47278), (126, 47302), (138, 47365), (143, 47389), (144, 47392), (161, 47533), (173, 47575), (195, 47620), (214, 47632), (231, 47737), (234, 47758), (235, 47767), (236, 47779), (241, 47845), (265, 47941), (266, 47944), (286, 48046), (294, 48103), (305, 48205), (308, 48217), (313, 48226), (315, 48247), (330, 48361),

Gene: Westrich_53 Start: 30921, Stop: 32240, Start Num: 84

Candidate Starts for Westrich_53:

(44, 30762), (48, 30777), (Start: 82 @30912 has 3 MA's), (Start: 84 @30921 has 40 MA's), (105, 31017), (115, 31065), (116, 31077), (129, 31131), (134, 31155), (138, 31170), (143, 31191), (151, 31248), (155, 31296), (162, 31347), (170, 31398), (189, 31488), (210, 31566), (233, 31764), (265, 31878), (272, 31917), (276, 31950), (305, 32037), (315, 32079), (316, 32112), (324, 32151), (328, 32178), (329, 32184), (334, 32214), (340, 32235),

Gene: WileyE_46 Start: 30037, Stop: 31356, Start Num: 84

Candidate Starts for WileyE_46:

(12, 29689), (Start: 82 @30028 has 3 MA's), (Start: 84 @30037 has 40 MA's), (105, 30133), (116, 30193), (129, 30247), (134, 30271), (138, 30286), (143, 30307), (151, 30364), (155, 30412), (162, 30463), (170, 30514), (189, 30604), (197, 30643), (216, 30715), (232, 30865), (265, 30994), (272, 31033), (276, 31066), (290, 31111), (305, 31153), (315, 31195), (316, 31228), (334, 31330),

Gene: Wocket_66 Start: 42075, Stop: 43580, Start Num: 86

Candidate Starts for Wocket_66:

(33, 41838), (37, 41850), (47, 41898), (53, 41946), (Start: 86 @42075 has 2 MA's), (92, 42102), (98, 42132), (100, 42144), (105, 42168), (109, 42201), (117, 42258), (123, 42282), (163, 42576), (182, 42687), (188, 42717), (194, 42759), (202, 42789), (204, 42801), (217, 42858), (225, 42903), (260, 43185), (270, 43248), (302, 43359), (305, 43377), (320, 43476), (329, 43524),

Gene: Xeno_59 Start: 36538, Stop: 38031, Start Num: 49

Candidate Starts for Xeno_59:

(37, 36487), (41, 36502), (Start: 49 @36538 has 1 MA's), (67, 36637), (74, 36667), (87, 36697), (94, 36733), (102, 36766), (124, 36856), (128, 36883), (142, 36946), (143, 36952), (144, 36955), (161, 37096), (173, 37138), (174, 37141), (231, 37342), (235, 37372), (265, 37567), (266, 37570), (286, 37678), (294, 37738), (305, 37825), (308, 37837), (313, 37846), (314, 37864), (330, 37981),

Gene: Zhuangyuan_49 Start: 30152, Stop: 31570, Start Num: 84

Candidate Starts for Zhuangyuan_49:

(Start: 84 @30152 has 40 MA's), (98, 30212), (103, 30239), (105, 30248), (115, 30296), (116, 30308), (129, 30362), (134, 30386), (143, 30422), (151, 30479), (155, 30527), (156, 30533), (162, 30578), (189, 30719), (204, 30785), (228, 30920), (233, 30998), (236, 31022), (244, 31106), (255, 31139), (265, 31205), (305, 31367), (307, 31376), (315, 31409), (318, 31454), (323, 31475), (335, 31547), (339, 31562),

Gene: Zixiang_48 Start: 30593, Stop: 31921, Start Num: 82

Candidate Starts for Zixiang_48:

(44, 30443), (48, 30458), (Start: 82 @30593 has 3 MA's), (Start: 84 @30602 has 40 MA's), (105, 30698), (115, 30746), (116, 30758), (129, 30812), (134, 30836), (138, 30851), (143, 30872), (151, 30929), (155, 30977), (162, 31028), (170, 31079), (189, 31169), (204, 31235), (210, 31247), (231, 31427), (233, 31445), (265, 31559), (272, 31598), (276, 31631), (305, 31718), (314, 31757), (315, 31760), (316, 31793), (324, 31832), (328, 31859), (329, 31865), (334, 31895), (340, 31916),