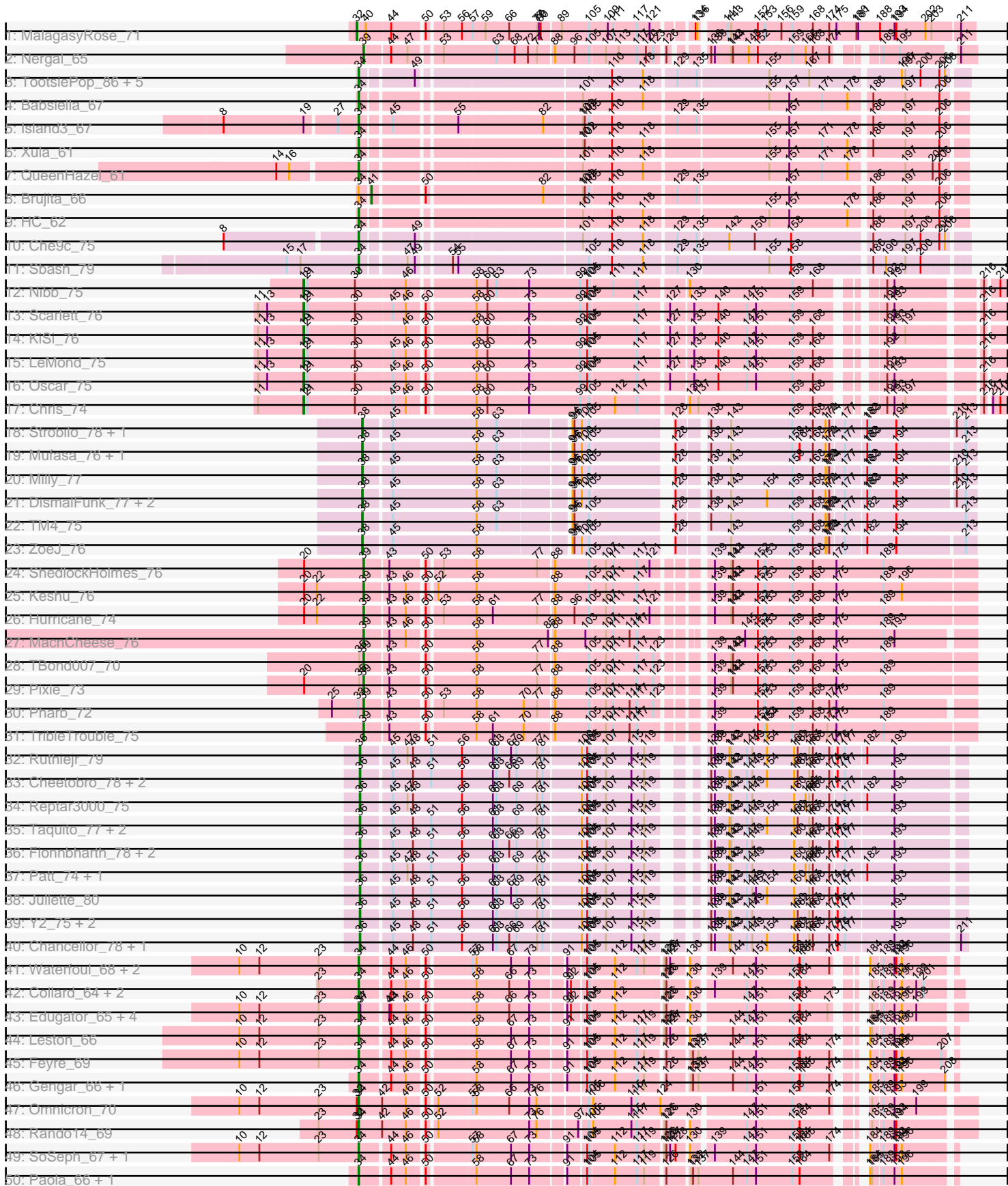
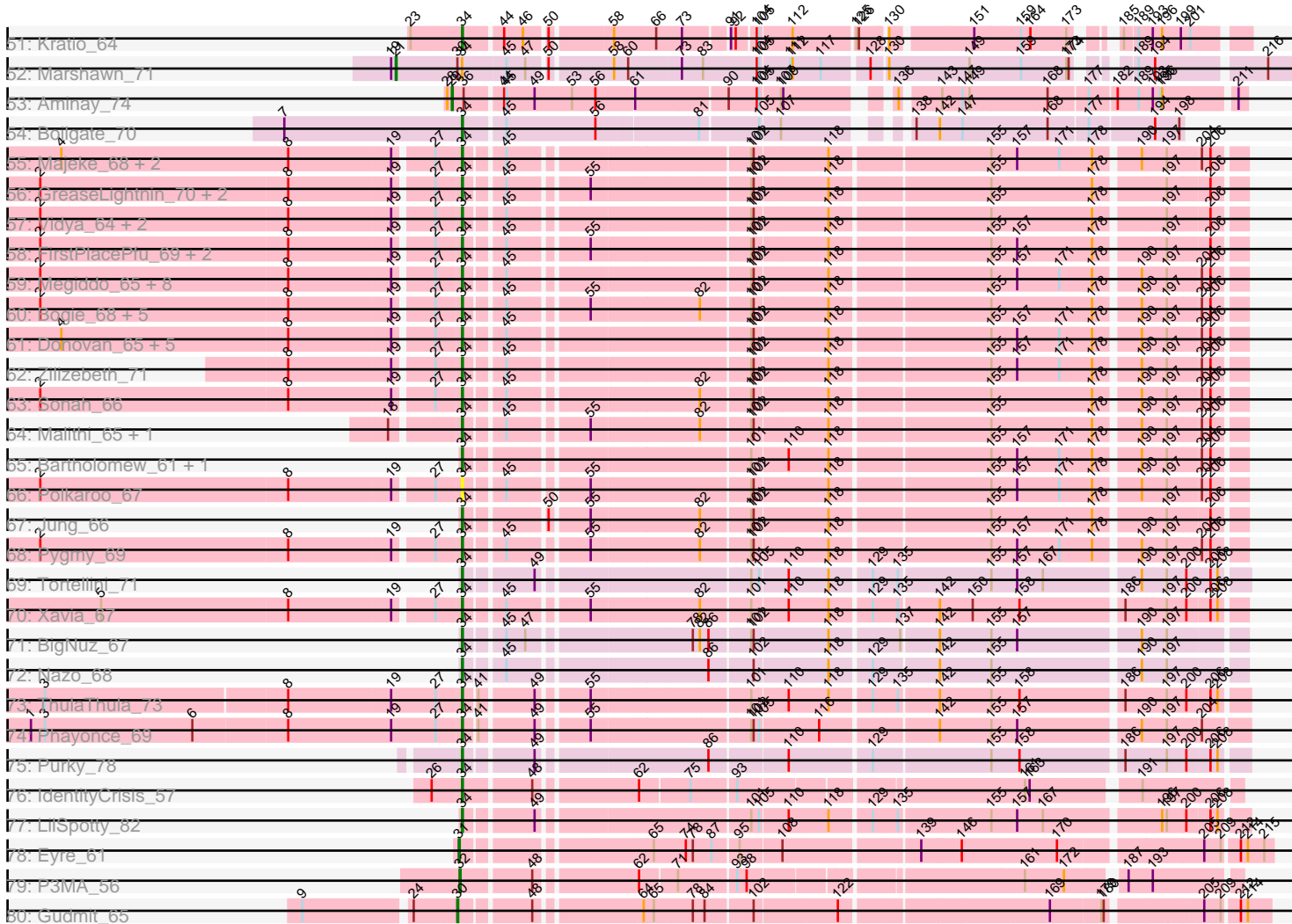


Pham 193815



Pham 193815



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 193815 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193815 has 138 members, 4 are drafts.

Phages represented in each track:

- Track 1 : MalagasyRose_71
- Track 2 : Nergal_65
- Track 3 : TootsiePop_86, Misha28_86, Awesomesauce_87, Piper2020_91, ChickenDinner_90, DocMcStuffins_84
- Track 4 : Babsiella_67
- Track 5 : Island3_67
- Track 6 : Xula_61
- Track 7 : QueenHazel_61
- Track 8 : Brujita_66
- Track 9 : HC_62
- Track 10 : Che9c_75
- Track 11 : Sbash_79
- Track 12 : Nibb_75
- Track 13 : Scarlett_76
- Track 14 : KiSi_76
- Track 15 : LeMond_75
- Track 16 : Oscar_75
- Track 17 : Chris_74
- Track 18 : Strobilo_78, Findley_77
- Track 19 : Mufasa_76, BoostSeason_76
- Track 20 : Milly_77
- Track 21 : DismalFunk_77, Marcoliusprime_76, DismalStressor_77
- Track 22 : TM4_75
- Track 23 : ZoeJ_76
- Track 24 : ShedlockHolmes_76
- Track 25 : Keshu_76
- Track 26 : Hurricane_74
- Track 27 : MacnCheese_76
- Track 28 : TBond007_70
- Track 29 : Pixie_73
- Track 30 : Pharb_72
- Track 31 : TribbleTrouble_75
- Track 32 : Ruthiejr_79
- Track 33 : Cheetobro_78, Slarp_78, OmniCritical_78
- Track 34 : Reptar3000_75
- Track 35 : Taquito_77, Malthus_79, Mitti_78
- Track 36 : Fionnbharth_78, Eponine_80, Wintermute_78

- Track 37 : Patt_74, MissDaisy_75
- Track 38 : Juliette_80
- Track 39 : Y2_75, Y10_75, JF1_78
- Track 40 : Chancellor_78, SamScheppers_77
- Track 41 : Waterfoul_68, Miryou_70, Thyatira_69
- Track 42 : Collard_64, InvictusManeo_64, Agent47_66
- Track 43 : Edugator_65, Dadosky_68, AlleyCat_68, Psycho_66, Larva_67
- Track 44 : Leston_66
- Track 45 : Feyre_69
- Track 46 : Gengar_66, OkiRoe_67
- Track 47 : Omnicron_70
- Track 48 : Rando14_69
- Track 49 : SoSeph_67, Heftyboy_67
- Track 50 : Paola_66, Guillsminger_67
- Track 51 : Kratio_64
- Track 52 : Marshawn_71
- Track 53 : Aminay_74
- Track 54 : Boilgate_70
- Track 55 : Majeke_68, Phegasus_68, Mangethe_68
- Track 56 : GreaseLightnin_70, StevieRay_70, Atcoo_67
- Track 57 : Vidya_64, Thespis_67, Brusacoram_67
- Track 58 : FirstPlacePfu_69, Bunnies_71, Ksquared_69
- Track 59 : Megiddo_65, Willsammy_67, Jebeks_66, CactusJack_66, Juniormint_63, StressBall_65, Glaske_65, Phalm_66, KilKor_66
- Track 60 : Bogie_68, HUHilltop_68, Necropolis_63, Camster_66, Dynamo_65, Shipwreck_68
- Track 61 : Donovan_65, Arib1_64, Fishburne_64, Techage_66, Kari_63, Langerak_65
- Track 62 : Zilizebeth_71
- Track 63 : Sonah_66
- Track 64 : Malithi_65, Phineas_66
- Track 65 : Bartholomew_61, Venti_63
- Track 66 : Polkaroo_67
- Track 67 : Jung_66
- Track 68 : Pygmy_69
- Track 69 : Tortellini_71
- Track 70 : Xavia_67
- Track 71 : BigNuz_67
- Track 72 : Nazo_68
- Track 73 : ThulaThula_73
- Track 74 : Phayonce_69
- Track 75 : Purky_78
- Track 76 : IdentityCrisis_57
- Track 77 : LilSpotty_82
- Track 78 : Eyre_61
- Track 79 : P3MA_56
- Track 80 : Gudmit_65

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

The start number called the most often in the published annotations is 34, it was called in 83 of the 134 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agent47_66, AlleyCat_68, Arib1_64, Atcoo_67, Awesomesauce_87, Babsiella_67, Bartholomew_61, BigNuz_67, Bogie_68, Boilgate_70, Brusacoram_67, Bunnies_71, CactusJack_66, Camster_66, Che9c_75, ChickenDinner_90, Collard_64, Dadosky_68, DocMcStuffins_84, Donovan_65, Dynamo_65, Edugator_65, Feyre_69, FirstPlacePfu_69, Fishburne_64, Gengar_66, Glaske_65, GreaseLightnin_70, Guillsminger_67, HC_62, HUHilltop_68, Heftyboy_67, IdentityCrisis_57, InvictusManeo_64, Island3_67, Jebeks_66, Jung_66, Juniormint_63, Kari_63, KilKor_66, Kratio_64, Ksquared_69, Langerak_65, Larva_67, Leston_66, LilSpotty_82, Majeke_68, Malithi_65, Mangethe_68, Megiddo_65, Miryou_70, Misha28_86, Nazo_68, Necropolis_63, OkiRoe_67, Omnicron_70, Paola_66, Phalm_66, Phayonce_69, Phegasus_68, Phineas_66, Piper2020_91, Polkaroo_67, Psycho_66, Purky_78, Pygmy_69, QueenHazel_61, Rando14_69, Sbash_79, Shipwreck_68, SoSeph_67, Sonah_66, StevieRay_70, StressBall_65, Techage_66, Thespis_67, ThulaThula_73, Thyatira_69, TootsiePop_86, Tortellini_71, Venti_63, Vidya_64, Waterfoul_68, Willsammy_67, Xavia_67, Xula_61, Zilizebeth_71,

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

- Brujita_66, Marshawn_71,

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

- Aminay_74, BoostSeason_76, Chancellor_78, Cheetobro_78, Chris_74, DismalFunk_77, DismalStressor_77, Eponine_80, Eyre_61, Findley_77, Fionnbharth_78, Gudmit_65, Hurricane_74, JF1_78, Juliette_80, Keshu_76, KiSi_76, LeMond_75, MacnCheese_76, MalagasyRose_71, Malthus_79, Marcoliusprime_76, Milly_77, MissDaisy_75, Mitti_78, Mufasa_76, Nergal_65, Nibb_75, OmniCritical_78, Oscar_75, P3MA_56, Patt_74, Pharb_72, Pixie_73, Reptar3000_75, Ruthiejr_79, SamScheppers_77, Scarlett_76, ShedlockHolmes_76, Slarp_78, Strobilo_78, TBond007_70, TM4_75, Taquito_77, TribbleTrouble_75, Wintermute_78, Y10_75, Y2_75, ZoeJ_76,

Summary by start number:

Start 19:

- Found in 48 of 138 (34.8%) of genes in pham
- Manual Annotations of this start: 6 of 134
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Chris_74 (K1), KiSi_76 (K1), LeMond_75 (K1), Nibb_75 (K1), Oscar_75 (K1), Scarlett_76 (K1),

Start 21:

- Found in 7 of 138 (5.1%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Marshawn_71 (K6),

Start 29:

- Found in 1 of 138 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Aminay_74 (K7),

Start 30:

- Found in 8 of 138 (5.8%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Gudmit_65 (singleton),

Start 31:

- Found in 1 of 138 (0.7%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Eyre_61 (singleton),

Start 32:

- Found in 4 of 138 (2.9%) of genes in pham
- Manual Annotations of this start: 2 of 134
- Called 50.0% of time when present
- Phage (with cluster) where this start called: MalagasyRose_71 (AG), P3MA_56 (singleton),

Start 34:

- Found in 89 of 138 (64.5%) of genes in pham
- Manual Annotations of this start: 83 of 134
- Called 97.8% of time when present
- Phage (with cluster) where this start called: Agent47_66 (K5), AlleyCat_68 (K5), Arib1_64 (P1), Atcoo_67 (P1), Awesomesauce_87 (F1), Babsiella_67 (I1), Bartholomew_61 (P1), BigNuz_67 (P4), Bogie_68 (P1), Boilgate_70 (K8), Brusacoram_67 (P1), Bunnies_71 (P1), CactusJack_66 (P1), Camster_66 (P1), Che9c_75 (I2), ChickenDinner_90 (F1), Collard_64 (K5), Dadosky_68 (K5), DocMcStuffins_84 (F1), Donovan_65 (P1), Dynamo_65 (P1), Edugator_65 (K5), Feyre_69 (K5), FirstPlacePfu_69 (P1), Fishburne_64 (P1), Gengar_66 (K5), Glaske_65 (P1), GreaseLightnin_70 (P1), Guillsminger_67 (K5), HC_62 (I1), HUHilltop_68 (P1), Heftyboy_67 (K5), IdentityCrisis_57 (singleton), InvictusManeo_64 (K5), Island3_67 (I1), Jebeks_66 (P1), Jung_66 (P1), Juniormint_63 (P1), Kari_63 (P1), KilKor_66 (P1), Kratio_64 (K5), Ksquared_69 (P1), Langerak_65 (P1), Larva_67 (K5), Leston_66 (K5), LilSpotty_82 (singleton), Majeke_68 (P1), Malithi_65 (P1), Mangethe_68 (P1), Megiddo_65 (P1), Miryou_70 (K5), Misha28_86 (F1), Nazo_68 (P4), Necropolis_63 (P1), OkiRoe_67 (K5), Omnicron_70 (K5), Paola_66 (K5), Phalm_66 (P1), Phayonce_69 (P5), Phegasus_68 (P1), Phineas_66 (P1), Piper2020_91 (F1), Polkaroo_67 (P1), Psycho_66 (K5), Purky_78 (P6), Pygmy_69 (P1), QueenHazel_61 (I1), Rando14_69 (K5), Sbash_79 (I2), Shipwreck_68 (P1), SoSeph_67 (K5), Sonah_66 (P1), StevieRay_70 (P1), StressBall_65 (P1), Techage_66 (P1), Thespis_67 (P1), ThulaThula_73 (P5), Thyatira_69 (K5), TootsiePop_86 (F1), Tortellini_71 (P2), Venti_63 (P1), Vidya_64 (P1), Waterfoul_68 (K5), Willsammy_67 (P1), Xavia_67 (P3), Xula_61 (I1), Zilizebeth_71 (P1),

Start 36:

- Found in 20 of 138 (14.5%) of genes in pham
- Manual Annotations of this start: 19 of 134
- Called 95.0% of time when present
- Phage (with cluster) where this start called: Chancellor_78 (K4), Cheetobro_78 (K4), Eponine_80 (K4), Fionnbharth_78 (K4), JF1_78 (K4), Juliette_80 (K4), Malthus_79

(K4), MissDaisy_75 (K4), Mitti_78 (K4), OmniCritical_78 (K4), Patt_74 (K4), Reptar3000_75 (K4), Ruthiejr_79 (K4), SamScheppers_77 (K4), Slarp_78 (K4), Taquito_77 (K4), Wintermute_78 (K4), Y10_75 (K4), Y2_75 (K4),

Start 38:

- Found in 10 of 138 (7.2%) of genes in pham
- Manual Annotations of this start: 10 of 134
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BoostSeason_76 (K2), DismalFunk_77 (K2), DismalStressor_77 (K2), Findley_77 (K2), Marcoliusprime_76 (K2), Milly_77 (K2), Mufasa_76 (K2), Strobilo_78 (K2), TM4_75 (K2), ZoeJ_76 (K2),

Start 39:

- Found in 9 of 138 (6.5%) of genes in pham
- Manual Annotations of this start: 9 of 134
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hurricane_74 (K3), Keshu_76 (K3), MacnCheese_76 (K3), Nergal_65 (AG), Pharb_72 (K3), Pixie_73 (K3), ShedlockHolmes_76 (K3), TBond007_70 (K3), TribbleTrouble_75 (K3),

Start 41:

- Found in 3 of 138 (2.2%) of genes in pham
- Manual Annotations of this start: 1 of 134
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Brujita_66 (I1),

Summary by clusters:

There are 19 clusters represented in this pham: P2, F1, singleton, P1, P6, P4, AG, P5, I1, P3, I2, K3, K2, K1, K7, K6, K5, K4, K8,

Info for manual annotations of cluster AG:

- Start number 32 was manually annotated 1 time for cluster AG.
- Start number 39 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster F1:

- Start number 34 was manually annotated 5 times for cluster F1.

Info for manual annotations of cluster I1:

- Start number 34 was manually annotated 5 times for cluster I1.
- Start number 41 was manually annotated 1 time for cluster I1.

Info for manual annotations of cluster I2:

- Start number 34 was manually annotated 2 times for cluster I2.

Info for manual annotations of cluster K1:

- Start number 19 was manually annotated 6 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 38 was manually annotated 10 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 39 was manually annotated 8 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 36 was manually annotated 19 times for cluster K4.

Info for manual annotations of cluster K5:

- Start number 34 was manually annotated 22 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 21 was manually annotated 1 time for cluster K6.

Info for manual annotations of cluster K7:

- Start number 29 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster K8:

- Start number 34 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster P1:

- Start number 34 was manually annotated 39 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 34 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 34 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 34 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 34 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:

- Start number 34 was manually annotated 1 time for cluster P6.

Gene Information:

Gene: Agent47_66 Start: 46221, Stop: 47066, Start Num: 34

Candidate Starts for Agent47_66:

(23, 46158), (Start: 34 @46221 has 83 MA's), (44, 46263), (46, 46287), (50, 46311), (58, 46383), (66, 46437), (73, 46470), (91, 46521), (92, 46527), (104, 46548), (105, 46551), (112, 46590), (125, 46665), (126, 46668), (130, 46698), (139, 46725), (147, 46776), (151, 46791), (159, 46848), (164, 46860), (185, 46935), (189, 46950), (193, 46968), (196, 46980), (199, 47004), (201, 47016),

Gene: AlleyCat_68 Start: 46549, Stop: 47403, Start Num: 34

Candidate Starts for AlleyCat_68:

(10, 46357), (12, 46390), (23, 46486), (Start: 34 @46549 has 83 MA's), (37, 46552), (43, 46591), (44, 46594), (46, 46618), (50, 46642), (58, 46714), (66, 46768), (73, 46801), (91, 46852), (92, 46858), (104, 46879), (105, 46882), (112, 46921), (125, 46996), (126, 46999), (130, 47029), (147, 47107), (151, 47122), (159, 47179), (164, 47191), (173, 47236), (185, 47266), (189, 47281), (193, 47299), (196, 47311), (199, 47335),

Gene: Aminay_74 Start: 48045, Stop: 48938, Start Num: 29

Candidate Starts for Aminay_74:

(28, 48039), (Start: 29 @48045 has 1 MA's), (Start: 36 @48060 has 19 MA's), (44, 48102), (45, 48105), (49, 48141), (53, 48189), (56, 48219), (61, 48261), (90, 48372), (104, 48408), (105, 48411), (107, 48435), (109, 48438), (136, 48540), (143, 48582), (147, 48606), (149, 48615), (168, 48711), (177, 48759), (182, 48789), (189, 48816), (193, 48834), (195, 48843), (196, 48846), (211, 48927),

Gene: Arib1_64 Start: 41089, Stop: 41991, Start Num: 34

Candidate Starts for Arib1_64:

(4, 40597), (8, 40885), (Start: 19 @41014 has 6 MA's), (27, 41059), (Start: 34 @41089 has 83 MA's), (45, 41131), (101, 41410), (102, 41413), (118, 41503), (155, 41695), (157, 41728), (171, 41782), (178, 41824), (190, 41875), (197, 41905), (204, 41944), (206, 41953),

Gene: Atcoo_67 Start: 44457, Stop: 45359, Start Num: 34

Candidate Starts for Atcoo_67:

(2, 43938), (8, 44253), (Start: 19 @44382 has 6 MA's), (27, 44427), (Start: 34 @44457 has 83 MA's), (45, 44499), (55, 44589), (101, 44778), (102, 44781), (118, 44871), (155, 45063), (178, 45192), (197, 45273), (206, 45321),

Gene: Awesomesauce_87 Start: 52119, Stop: 53024, Start Num: 34

Candidate Starts for Awesomesauce_87:

(Start: 34 @52119 has 83 MA's), (49, 52197), (110, 52482), (118, 52533), (129, 52581), (135, 52611), (155, 52725), (167, 52791), (196, 52929), (197, 52935), (200, 52959), (206, 52983), (208, 52992),

Gene: Babsiella_67 Start: 42425, Stop: 43327, Start Num: 34

Candidate Starts for Babsiella_67:

(Start: 34 @42425 has 83 MA's), (101, 42746), (110, 42788), (118, 42839), (155, 43031), (157, 43064), (171, 43118), (178, 43160), (186, 43190), (197, 43241), (206, 43289),

Gene: Bartholomew_61 Start: 40452, Stop: 41354, Start Num: 34

Candidate Starts for Bartholomew_61:

(Start: 34 @40452 has 83 MA's), (101, 40773), (110, 40815), (118, 40866), (155, 41058), (157, 41091), (171, 41145), (178, 41187), (190, 41238), (197, 41268), (204, 41307), (206, 41316),

Gene: BigNuz_67 Start: 43296, Stop: 44198, Start Num: 34

Candidate Starts for BigNuz_67:

(Start: 34 @43296 has 83 MA's), (45, 43338), (47, 43362), (78, 43551), (82, 43560), (86, 43569), (101, 43617), (102, 43620), (118, 43710), (137, 43791), (142, 43836), (155, 43902), (157, 43935), (190, 44082), (197, 44112),

Gene: Bogie_68 Start: 43439, Stop: 44341, Start Num: 34

Candidate Starts for Bogie_68:

(2, 42920), (8, 43235), (Start: 19 @43364 has 6 MA's), (27, 43409), (Start: 34 @43439 has 83 MA's), (45, 43481), (55, 43571), (82, 43703), (101, 43760), (102, 43763), (118, 43853), (155, 44045), (178, 44174), (190, 44225), (197, 44255), (204, 44294), (206, 44303),

Gene: Boilgate_70 Start: 51766, Stop: 52578, Start Num: 34

Candidate Starts for Boilgate_70:

(7, 51538), (Start: 34 @51766 has 83 MA's), (45, 51811), (56, 51925), (81, 52045), (105, 52114), (107, 52138), (138, 52255), (142, 52285), (147, 52312), (168, 52417), (177, 52465), (194, 52543), (198, 52573),

Gene: BoostSeason_76 Start: 50587, Stop: 51489, Start Num: 38

Candidate Starts for BoostSeason_76:

(Start: 38 @50587 has 10 MA's), (45, 50629), (58, 50764), (63, 50797), (94, 50899), (96, 50902), (100, 50914), (105, 50926), (128, 51040), (138, 51079), (143, 51112), (159, 51208), (164, 51220), (168, 51241), (172, 51262), (174, 51268), (177, 51289), (182, 51319), (183, 51322), (194, 51367), (213, 51472),

Gene: Brujita_66 Start: 42486, Stop: 43373, Start Num: 41

Candidate Starts for Brujita_66:

(Start: 34 @42471 has 83 MA's), (Start: 41 @42486 has 1 MA's), (50, 42558), (82, 42735), (101, 42792), (102, 42795), (105, 42801), (110, 42834), (129, 42933), (135, 42963), (157, 43110), (186, 43236), (197, 43287), (206, 43335),

Gene: Brusacoram_67 Start: 43000, Stop: 43902, Start Num: 34

Candidate Starts for Brusacoram_67:

(2, 42481), (8, 42796), (Start: 19 @42925 has 6 MA's), (27, 42970), (Start: 34 @43000 has 83 MA's), (45, 43042), (101, 43321), (102, 43324), (118, 43414), (155, 43606), (178, 43735), (197, 43816), (206, 43864),

Gene: Bunnies_71 Start: 44201, Stop: 45103, Start Num: 34

Candidate Starts for Bunnies_71:

(2, 43682), (8, 43997), (Start: 19 @44126 has 6 MA's), (27, 44171), (Start: 34 @44201 has 83 MA's), (45, 44243), (55, 44333), (101, 44522), (102, 44525), (118, 44615), (155, 44807), (157, 44840), (178, 44936), (197, 45017), (206, 45065),

Gene: CactusJack_66 Start: 43072, Stop: 43974, Start Num: 34

Candidate Starts for CactusJack_66:

(2, 42553), (8, 42868), (Start: 19 @42997 has 6 MA's), (27, 43042), (Start: 34 @43072 has 83 MA's), (45, 43114), (101, 43393), (102, 43396), (118, 43486), (155, 43678), (157, 43711), (171, 43765), (178, 43807), (190, 43858), (197, 43888), (204, 43927), (206, 43936),

Gene: Camster_66 Start: 41900, Stop: 42802, Start Num: 34

Candidate Starts for Camster_66:

(2, 41381), (8, 41696), (Start: 19 @41825 has 6 MA's), (27, 41870), (Start: 34 @41900 has 83 MA's), (45, 41942), (55, 42032), (82, 42164), (101, 42221), (102, 42224), (118, 42314), (155, 42506), (178, 42635), (190, 42686), (197, 42716), (204, 42755), (206, 42764),

Gene: Chancellor_78 Start: 49464, Stop: 50342, Start Num: 36

Candidate Starts for Chancellor_78:

(Start: 36 @49464 has 19 MA's), (45, 49509), (48, 49542), (51, 49572), (56, 49623), (61, 49665), (63, 49671), (66, 49692), (69, 49704), (77, 49737), (81, 49746), (100, 49803), (104, 49812), (105, 49815), (107, 49839), (115, 49881), (119, 49902), (138, 49953), (139, 49959), (142, 49983), (143, 49986), (147, 50010), (149, 50019), (154, 50043), (160, 50085), (162, 50091), (167, 50109), (168, 50115), (174, 50142), (176, 50151), (177, 50163), (193, 50238), (211, 50331),

Gene: Che9c_75 Start: 52152, Stop: 53057, Start Num: 34

Candidate Starts for Che9c_75:

(8, 51948), (Start: 34 @52152 has 83 MA's), (49, 52230), (101, 52473), (110, 52515), (118, 52566), (129, 52614), (135, 52644), (142, 52692), (150, 52734), (158, 52794), (186, 52917), (197, 52968), (200, 52992), (206, 53016), (208, 53025),

Gene: Cheetobro_78 Start: 49632, Stop: 50510, Start Num: 36

Candidate Starts for Cheetobro_78:

(Start: 36 @49632 has 19 MA's), (45, 49677), (48, 49710), (51, 49740), (56, 49791), (61, 49833), (63, 49839), (66, 49860), (69, 49872), (77, 49905), (81, 49914), (100, 49971), (104, 49980), (105, 49983), (107, 50007), (115, 50049), (119, 50070), (138, 50121), (139, 50127), (142, 50151), (143, 50154), (147, 50178), (149, 50187), (154, 50211), (160, 50253), (162, 50259), (167, 50277), (168, 50283), (174, 50310), (176, 50319), (177, 50331), (193, 50406),

Gene: ChickenDinner_90 Start: 51883, Stop: 52788, Start Num: 34

Candidate Starts for ChickenDinner_90:

(Start: 34 @51883 has 83 MA's), (49, 51961), (110, 52246), (118, 52297), (129, 52345), (135, 52375), (155, 52489), (167, 52555), (196, 52693), (197, 52699), (200, 52723), (206, 52747), (208, 52756),

Gene: Chris_74 Start: 49447, Stop: 50478, Start Num: 19

Candidate Starts for Chris_74:

(11, 49372), (Start: 19 @49447 has 6 MA's), (Start: 21 @49453 has 1 MA's), (Start: 30 @49531 has 1 MA's), (45, 49591), (46, 49612), (50, 49636), (58, 49711), (60, 49729), (73, 49795), (99, 49879), (105, 49894), (112, 49933), (117, 49969), (130, 50041), (137, 50053), (159, 50203), (168, 50236), (192, 50314), (193, 50326), (197, 50344), (216, 50449), (217, 50455), (218, 50467),

Gene: Collard_64 Start: 46182, Stop: 47027, Start Num: 34

Candidate Starts for Collard_64:

(23, 46119), (Start: 34 @46182 has 83 MA's), (44, 46224), (46, 46248), (50, 46272), (58, 46344), (66, 46398), (73, 46431), (91, 46482), (92, 46488), (104, 46509), (105, 46512), (112, 46551), (125, 46626), (126, 46629), (130, 46659), (139, 46686), (147, 46737), (151, 46752), (159, 46809), (164, 46821), (185, 46896), (189, 46911), (193, 46929), (196, 46941), (199, 46965), (201, 46977),

Gene: Dadosky_68 Start: 46551, Stop: 47405, Start Num: 34

Candidate Starts for Dadosky_68:

(10, 46359), (12, 46392), (23, 46488), (Start: 34 @46551 has 83 MA's), (37, 46554), (43, 46593), (44, 46596), (46, 46620), (50, 46644), (58, 46716), (66, 46770), (73, 46803), (91, 46854), (92, 46860), (104, 46881), (105, 46884), (112, 46923), (125, 46998), (126, 47001), (130, 47031), (147, 47109), (151, 47124), (159, 47181), (164, 47193), (173, 47238), (185, 47268), (189, 47283), (193, 47301), (196, 47313), (199, 47337),

Gene: DismalFunk_77 Start: 51116, Stop: 52018, Start Num: 38

Candidate Starts for DismalFunk_77:

(Start: 38 @51116 has 10 MA's), (45, 51158), (58, 51293), (63, 51326), (94, 51428), (96, 51431), (100, 51443), (105, 51455), (128, 51569), (138, 51608), (143, 51641), (154, 51698), (159, 51737), (168, 51770), (172, 51791), (174, 51797), (177, 51818), (182, 51848), (183, 51851), (194, 51896), (210, 51986), (213, 52001),

Gene: DismalStressor_77 Start: 51116, Stop: 52018, Start Num: 38

Candidate Starts for DismalStressor_77:

(Start: 38 @51116 has 10 MA's), (45, 51158), (58, 51293), (63, 51326), (94, 51428), (96, 51431), (100, 51443), (105, 51455), (128, 51569), (138, 51608), (143, 51641), (154, 51698), (159, 51737), (168, 51770), (172, 51791), (174, 51797), (177, 51818), (182, 51848), (183, 51851), (194, 51896), (210, 51986), (213, 52001),

Gene: DocMcStuffins_84 Start: 53513, Stop: 54418, Start Num: 34

Candidate Starts for DocMcStuffins_84:

(Start: 34 @53513 has 83 MA's), (49, 53591), (110, 53876), (118, 53927), (129, 53975), (135, 54005), (155, 54119), (167, 54185), (196, 54323), (197, 54329), (200, 54353), (206, 54377), (208, 54386),

Gene: Donovan_65 Start: 42034, Stop: 42936, Start Num: 34

Candidate Starts for Donovan_65:

(4, 41542), (8, 41830), (Start: 19 @41959 has 6 MA's), (27, 42004), (Start: 34 @42034 has 83 MA's), (45, 42076), (101, 42355), (102, 42358), (118, 42448), (155, 42640), (157, 42673), (171, 42727), (178, 42769), (190, 42820), (197, 42850), (204, 42889), (206, 42898),

Gene: Dynamo_65 Start: 41473, Stop: 42375, Start Num: 34

Candidate Starts for Dynamo_65:

(2, 40954), (8, 41269), (Start: 19 @41398 has 6 MA's), (27, 41443), (Start: 34 @41473 has 83 MA's), (45, 41515), (55, 41605), (82, 41737), (101, 41794), (102, 41797), (118, 41887), (155, 42079), (178, 42208), (190, 42259), (197, 42289), (204, 42328), (206, 42337),

Gene: Edugator_65 Start: 47969, Stop: 48823, Start Num: 34

Candidate Starts for Edugator_65:

(10, 47777), (12, 47810), (23, 47906), (Start: 34 @47969 has 83 MA's), (37, 47972), (43, 48011), (44, 48014), (46, 48038), (50, 48062), (58, 48134), (66, 48188), (73, 48221), (91, 48272), (92, 48278), (104, 48299), (105, 48302), (112, 48341), (125, 48416), (126, 48419), (130, 48449), (147, 48527), (151, 48542), (159, 48599), (164, 48611), (173, 48656), (185, 48686), (189, 48701), (193, 48719), (196, 48731), (199, 48755),

Gene: Eponine_80 Start: 50458, Stop: 51336, Start Num: 36

Candidate Starts for Eponine_80:

(Start: 36 @50458 has 19 MA's), (45, 50503), (48, 50536), (51, 50566), (56, 50617), (61, 50659), (63, 50665), (66, 50686), (69, 50698), (77, 50731), (81, 50740), (100, 50797), (104, 50806), (105, 50809), (107, 50833), (115, 50875), (119, 50896), (138, 50947), (139, 50953), (142, 50977), (143, 50980), (147, 51004), (149, 51013), (160, 51079), (167, 51103), (168, 51109), (174, 51136), (176, 51145), (177, 51157), (193, 51232),

Gene: Eyre_61 Start: 39340, Stop: 40278, Start Num: 31

Candidate Starts for Eyre_61:

(Start: 31 @39340 has 1 MA's), (65, 39550), (74, 39589), (78, 39598), (87, 39622), (95, 39652), (108, 39703), (139, 39862), (146, 39910), (170, 40030), (205, 40198), (209, 40219), (212, 40237), (214, 40246), (215, 40267),

Gene: Feyre_69 Start: 49943, Stop: 50788, Start Num: 34

Candidate Starts for Feyre_69:

(10, 49751), (12, 49784), (23, 49880), (Start: 34 @49943 has 83 MA's), (44, 49985), (46, 50009), (50, 50033), (58, 50105), (67, 50162), (73, 50192), (91, 50243), (104, 50270), (105, 50273), (112, 50312), (117, 50348), (119, 50360), (126, 50387), (131, 50420), (132, 50423), (137, 50432), (144, 50489), (151, 50525), (159, 50582), (164, 50594), (174, 50642), (184, 50666), (189, 50684), (193, 50702), (194, 50705), (196, 50714), (207, 50774),

Gene: Findley_77 Start: 51134, Stop: 52036, Start Num: 38

Candidate Starts for Findley_77:

(Start: 38 @51134 has 10 MA's), (45, 51176), (58, 51311), (63, 51344), (94, 51446), (96, 51449), (100, 51461), (105, 51473), (128, 51587), (138, 51626), (143, 51659), (159, 51755), (168, 51788), (172, 51809), (174, 51815), (177, 51836), (182, 51866), (183, 51869), (194, 51914), (210, 52004), (213, 52019),

Gene: Fionnbharth_78 Start: 49856, Stop: 50734, Start Num: 36

Candidate Starts for Fionnbharth_78:

(Start: 36 @49856 has 19 MA's), (45, 49901), (48, 49934), (51, 49964), (56, 50015), (61, 50057), (63, 50063), (66, 50084), (69, 50096), (77, 50129), (81, 50138), (100, 50195), (104, 50204), (105, 50207), (107, 50231), (115, 50273), (119, 50294), (138, 50345), (139, 50351), (142, 50375), (143, 50378),

(147, 50402), (149, 50411), (160, 50477), (167, 50501), (168, 50507), (174, 50534), (176, 50543), (177, 50555), (193, 50630),

Gene: FirstPlacePfu_69 Start: 41066, Stop: 41968, Start Num: 34

Candidate Starts for FirstPlacePfu_69:

(2, 40547), (8, 40862), (Start: 19 @40991 has 6 MA's), (27, 41036), (Start: 34 @41066 has 83 MA's), (45, 41108), (55, 41198), (101, 41387), (102, 41390), (118, 41480), (155, 41672), (157, 41705), (178, 41801), (197, 41882), (206, 41930),

Gene: Fishburne_64 Start: 41860, Stop: 42762, Start Num: 34

Candidate Starts for Fishburne_64:

(4, 41368), (8, 41656), (Start: 19 @41785 has 6 MA's), (27, 41830), (Start: 34 @41860 has 83 MA's), (45, 41902), (101, 42181), (102, 42184), (118, 42274), (155, 42466), (157, 42499), (171, 42553), (178, 42595), (190, 42646), (197, 42676), (204, 42715), (206, 42724),

Gene: Gengar_66 Start: 47930, Stop: 48778, Start Num: 34

Candidate Starts for Gengar_66:

(Start: 34 @47930 has 83 MA's), (44, 47972), (46, 47996), (50, 48020), (58, 48092), (67, 48149), (73, 48179), (91, 48230), (104, 48257), (105, 48260), (112, 48299), (117, 48335), (119, 48347), (126, 48374), (131, 48407), (132, 48410), (137, 48419), (144, 48476), (147, 48497), (151, 48512), (159, 48569), (164, 48581), (165, 48587), (174, 48629), (184, 48653), (189, 48671), (193, 48689), (194, 48692), (196, 48701), (208, 48770),

Gene: Glaske_65 Start: 43072, Stop: 43974, Start Num: 34

Candidate Starts for Glaske_65:

(2, 42553), (8, 42868), (Start: 19 @42997 has 6 MA's), (27, 43042), (Start: 34 @43072 has 83 MA's), (45, 43114), (101, 43393), (102, 43396), (118, 43486), (155, 43678), (157, 43711), (171, 43765), (178, 43807), (190, 43858), (197, 43888), (204, 43927), (206, 43936),

Gene: GreaseLightnin_70 Start: 43854, Stop: 44756, Start Num: 34

Candidate Starts for GreaseLightnin_70:

(2, 43335), (8, 43650), (Start: 19 @43779 has 6 MA's), (27, 43824), (Start: 34 @43854 has 83 MA's), (45, 43896), (55, 43986), (101, 44175), (102, 44178), (118, 44268), (155, 44460), (178, 44589), (197, 44670), (206, 44718),

Gene: Gudmit_65 Start: 38909, Stop: 39847, Start Num: 30

Candidate Starts for Gudmit_65:

(9, 38729), (24, 38858), (Start: 30 @38909 has 1 MA's), (48, 38990), (64, 39113), (65, 39125), (78, 39173), (84, 39188), (102, 39245), (122, 39347), (169, 39596), (179, 39659), (180, 39662), (205, 39770), (209, 39791), (212, 39809), (214, 39818),

Gene: Guillsminger_67 Start: 47872, Stop: 48717, Start Num: 34

Candidate Starts for Guillsminger_67:

(Start: 34 @47872 has 83 MA's), (44, 47914), (46, 47938), (50, 47962), (58, 48034), (67, 48091), (73, 48121), (91, 48172), (104, 48199), (105, 48202), (112, 48241), (117, 48277), (119, 48289), (126, 48316), (131, 48349), (132, 48352), (137, 48361), (144, 48418), (147, 48439), (151, 48454), (159, 48511), (164, 48523), (184, 48595), (185, 48598), (189, 48613), (193, 48631), (196, 48643),

Gene: HC_62 Start: 39977, Stop: 40879, Start Num: 34

Candidate Starts for HC_62:

(Start: 34 @39977 has 83 MA's), (101, 40298), (110, 40340), (118, 40391), (155, 40583), (157, 40616), (178, 40712), (186, 40742), (197, 40793), (206, 40841),

Gene: HUHilltop_68 Start: 41696, Stop: 42598, Start Num: 34

Candidate Starts for HUHilltop_68:

(2, 41177), (8, 41492), (Start: 19 @41621 has 6 MA's), (27, 41666), (Start: 34 @41696 has 83 MA's), (45, 41738), (55, 41828), (82, 41960), (101, 42017), (102, 42020), (118, 42110), (155, 42302), (178, 42431), (190, 42482), (197, 42512), (204, 42551), (206, 42560),

Gene: Heftyboy_67 Start: 48251, Stop: 49087, Start Num: 34

Candidate Starts for Heftyboy_67:

(10, 48059), (12, 48092), (23, 48188), (Start: 34 @48251 has 83 MA's), (44, 48293), (46, 48317), (50, 48341), (57, 48407), (58, 48413), (67, 48470), (73, 48500), (91, 48551), (104, 48578), (105, 48581), (112, 48620), (117, 48656), (119, 48668), (125, 48695), (126, 48698), (127, 48704), (128, 48713), (130, 48728), (139, 48755), (147, 48806), (151, 48821), (159, 48878), (164, 48890), (165, 48896), (174, 48938), (184, 48962), (189, 48980), (193, 48998), (194, 49001), (196, 49010),

Gene: Hurricane_74 Start: 48983, Stop: 49900, Start Num: 39

Candidate Starts for Hurricane_74:

(20, 48890), (22, 48911), (Start: 39 @48983 has 9 MA's), (43, 49019), (46, 49046), (50, 49070), (53, 49091), (58, 49142), (61, 49169), (77, 49241), (88, 49265), (96, 49295), (105, 49319), (107, 49343), (111, 49355), (117, 49394), (121, 49415), (139, 49484), (143, 49511), (144, 49514), (152, 49553), (153, 49565), (159, 49607), (168, 49640), (175, 49679), (189, 49754),

Gene: IdentityCrisis_57 Start: 35089, Stop: 35964, Start Num: 34

Candidate Starts for IdentityCrisis_57:

(26, 35053), (Start: 34 @35089 has 83 MA's), (48, 35170), (62, 35284), (75, 35341), (93, 35395), (161, 35725), (163, 35731), (191, 35851),

Gene: InvictusManeo_64 Start: 46225, Stop: 47070, Start Num: 34

Candidate Starts for InvictusManeo_64:

(23, 46162), (Start: 34 @46225 has 83 MA's), (44, 46267), (46, 46291), (50, 46315), (58, 46387), (66, 46441), (73, 46474), (91, 46525), (92, 46531), (104, 46552), (105, 46555), (112, 46594), (125, 46669), (126, 46672), (130, 46702), (139, 46729), (147, 46780), (151, 46795), (159, 46852), (164, 46864), (185, 46939), (189, 46954), (193, 46972), (196, 46984), (199, 47008), (201, 47020),

Gene: Island3_67 Start: 42444, Stop: 43346, Start Num: 34

Candidate Starts for Island3_67:

(8, 42237), (Start: 19 @42366 has 6 MA's), (27, 42414), (Start: 34 @42444 has 83 MA's), (45, 42486), (55, 42576), (82, 42708), (101, 42765), (102, 42768), (105, 42774), (110, 42807), (129, 42906), (135, 42936), (157, 43083), (186, 43209), (197, 43260), (206, 43308),

Gene: JF1_78 Start: 49773, Stop: 50651, Start Num: 36

Candidate Starts for JF1_78:

(Start: 36 @49773 has 19 MA's), (45, 49818), (48, 49851), (51, 49881), (56, 49932), (61, 49974), (63, 49980), (69, 50013), (77, 50046), (81, 50055), (100, 50112), (104, 50121), (105, 50124), (107, 50148), (115, 50190), (119, 50211), (138, 50262), (139, 50268), (142, 50292), (143, 50295), (147, 50319), (149, 50328), (160, 50394), (162, 50400), (167, 50418), (168, 50424), (174, 50451), (176, 50460), (177, 50472), (193, 50547),

Gene: Jebeks_66 Start: 40993, Stop: 41895, Start Num: 34

Candidate Starts for Jebeks_66:

(2, 40474), (8, 40789), (Start: 19 @40918 has 6 MA's), (27, 40963), (Start: 34 @40993 has 83 MA's), (45, 41035), (101, 41314), (102, 41317), (118, 41407), (155, 41599), (157, 41632), (171, 41686), (178, 41728), (190, 41779), (197, 41809), (204, 41848), (206, 41857),

Gene: Juliette_80 Start: 49877, Stop: 50755, Start Num: 36

Candidate Starts for Juliette_80:

(Start: 36 @49877 has 19 MA's), (45, 49922), (48, 49955), (51, 49985), (56, 50036), (61, 50078), (63, 50084), (67, 50108), (69, 50117), (77, 50150), (81, 50159), (100, 50216), (104, 50225), (105, 50228), (107, 50252), (115, 50294), (119, 50315), (138, 50366), (139, 50372), (142, 50396), (143, 50399), (147, 50423), (149, 50432), (151, 50438), (154, 50456), (160, 50498), (167, 50522), (168, 50528), (174, 50555), (176, 50564), (177, 50576), (193, 50651),

Gene: Jung_66 Start: 41978, Stop: 42880, Start Num: 34

Candidate Starts for Jung_66:

(Start: 34 @41978 has 83 MA's), (50, 42065), (55, 42110), (82, 42242), (101, 42299), (102, 42302), (118, 42392), (155, 42584), (178, 42713), (197, 42794), (206, 42842),

Gene: Juniormint_63 Start: 40449, Stop: 41351, Start Num: 34

Candidate Starts for Juniormint_63:

(2, 39930), (8, 40245), (Start: 19 @40374 has 6 MA's), (27, 40419), (Start: 34 @40449 has 83 MA's), (45, 40491), (101, 40770), (102, 40773), (118, 40863), (155, 41055), (157, 41088), (171, 41142), (178, 41184), (190, 41235), (197, 41265), (204, 41304), (206, 41313),

Gene: Kari_63 Start: 41857, Stop: 42759, Start Num: 34

Candidate Starts for Kari_63:

(4, 41365), (8, 41653), (Start: 19 @41782 has 6 MA's), (27, 41827), (Start: 34 @41857 has 83 MA's), (45, 41899), (101, 42178), (102, 42181), (118, 42271), (155, 42463), (157, 42496), (171, 42550), (178, 42592), (190, 42643), (197, 42673), (204, 42712), (206, 42721),

Gene: Keshu_76 Start: 49138, Stop: 50055, Start Num: 39

Candidate Starts for Keshu_76:

(20, 49045), (22, 49066), (Start: 39 @49138 has 9 MA's), (43, 49174), (46, 49201), (50, 49225), (52, 49237), (58, 49297), (88, 49420), (105, 49474), (107, 49498), (111, 49510), (117, 49549), (139, 49639), (143, 49666), (144, 49669), (152, 49708), (153, 49720), (159, 49762), (168, 49795), (175, 49834), (189, 49909), (196, 49939),

Gene: KiSi_76 Start: 49435, Stop: 50466, Start Num: 19

Candidate Starts for KiSi_76:

(11, 49360), (13, 49375), (Start: 19 @49435 has 6 MA's), (Start: 21 @49441 has 1 MA's), (Start: 30 @49519 has 1 MA's), (46, 49600), (50, 49624), (58, 49699), (60, 49717), (73, 49783), (99, 49867), (104, 49879), (105, 49882), (117, 49957), (127, 50002), (133, 50035), (140, 50074), (147, 50119), (151, 50134), (159, 50191), (168, 50224), (192, 50302), (193, 50314), (197, 50332), (216, 50437),

Gene: KilKor_66 Start: 43765, Stop: 44667, Start Num: 34

Candidate Starts for KilKor_66:

(2, 43246), (8, 43561), (Start: 19 @43690 has 6 MA's), (27, 43735), (Start: 34 @43765 has 83 MA's), (45, 43807), (101, 44086), (102, 44089), (118, 44179), (155, 44371), (157, 44404), (171, 44458), (178, 44500), (190, 44551), (197, 44581), (204, 44620), (206, 44629),

Gene: Kratio_64 Start: 45964, Stop: 46821, Start Num: 34

Candidate Starts for Kratio_64:

(23, 45901), (Start: 34 @45964 has 83 MA's), (44, 46006), (46, 46030), (50, 46054), (58, 46126), (66, 46180), (73, 46213), (91, 46264), (92, 46270), (104, 46291), (105, 46294), (112, 46333), (125, 46408), (126, 46411), (130, 46441), (151, 46534), (159, 46591), (164, 46603), (173, 46648), (185, 46678), (189, 46693), (193, 46711), (196, 46723), (199, 46747), (201, 46759),

Gene: Ksquared_69 Start: 44078, Stop: 44980, Start Num: 34

Candidate Starts for Ksquared_69:

(2, 43559), (8, 43874), (Start: 19 @44003 has 6 MA's), (27, 44048), (Start: 34 @44078 has 83 MA's), (45, 44120), (55, 44210), (101, 44399), (102, 44402), (118, 44492), (155, 44684), (157, 44717), (178, 44813), (197, 44894), (206, 44942),

Gene: Langerak_65 Start: 41837, Stop: 42739, Start Num: 34

Candidate Starts for Langerak_65:

(4, 41345), (8, 41633), (Start: 19 @41762 has 6 MA's), (27, 41807), (Start: 34 @41837 has 83 MA's), (45, 41879), (101, 42158), (102, 42161), (118, 42251), (155, 42443), (157, 42476), (171, 42530), (178, 42572), (190, 42623), (197, 42653), (204, 42692), (206, 42701),

Gene: Larva_67 Start: 47423, Stop: 48277, Start Num: 34

Candidate Starts for Larva_67:

(10, 47231), (12, 47264), (23, 47360), (Start: 34 @47423 has 83 MA's), (37, 47426), (43, 47465), (44, 47468), (46, 47492), (50, 47516), (58, 47588), (66, 47642), (73, 47675), (91, 47726), (92, 47732), (104, 47753), (105, 47756), (112, 47795), (125, 47870), (126, 47873), (130, 47903), (147, 47981), (151, 47996), (159, 48053), (164, 48065), (173, 48110), (185, 48140), (189, 48155), (193, 48173), (196, 48185), (199, 48209),

Gene: LeMond_75 Start: 49039, Stop: 50070, Start Num: 19

Candidate Starts for LeMond_75:

(11, 48964), (13, 48979), (Start: 19 @49039 has 6 MA's), (Start: 21 @49045 has 1 MA's), (Start: 30 @49123 has 1 MA's), (45, 49183), (46, 49204), (50, 49228), (58, 49303), (60, 49321), (73, 49387), (99, 49471), (104, 49483), (105, 49486), (117, 49561), (127, 49606), (133, 49639), (140, 49678), (147, 49723), (151, 49738), (159, 49795), (168, 49828), (192, 49906), (216, 50041),

Gene: Leston_66 Start: 48001, Stop: 48834, Start Num: 34

Candidate Starts for Leston_66:

(10, 47809), (12, 47842), (23, 47938), (Start: 34 @48001 has 83 MA's), (44, 48043), (46, 48067), (50, 48091), (58, 48163), (67, 48220), (73, 48250), (91, 48301), (104, 48328), (105, 48331), (112, 48370), (117, 48406), (119, 48418), (125, 48445), (126, 48448), (127, 48454), (130, 48478), (144, 48535), (147, 48556), (151, 48571), (159, 48628), (164, 48640), (184, 48712), (185, 48715), (189, 48730), (193, 48748), (196, 48760),

Gene: LilSpotty_82 Start: 47559, Stop: 48464, Start Num: 34

Candidate Starts for LilSpotty_82:

(Start: 34 @47559 has 83 MA's), (49, 47637), (101, 47880), (105, 47889), (110, 47922), (118, 47973), (129, 48021), (135, 48051), (155, 48165), (157, 48198), (167, 48231), (196, 48369), (197, 48375), (200, 48399), (206, 48423), (208, 48432),

Gene: MacnCheese_76 Start: 49599, Stop: 50501, Start Num: 39

Candidate Starts for MacnCheese_76:

(Start: 39 @49599 has 9 MA's), (43, 49635), (46, 49662), (50, 49686), (58, 49758), (85, 49875), (88, 49881), (103, 49929), (107, 49959), (111, 49971), (114, 49998), (117, 50010), (145, 50142), (152, 50163), (153, 50175), (159, 50217), (168, 50250), (175, 50289), (189, 50364), (193, 50382),

Gene: Majeke_68 Start: 42487, Stop: 43389, Start Num: 34

Candidate Starts for Majeke_68:

(4, 41992), (8, 42283), (Start: 19 @42412 has 6 MA's), (27, 42457), (Start: 34 @42487 has 83 MA's), (45, 42529), (101, 42808), (102, 42811), (118, 42901), (155, 43093), (157, 43126), (171, 43180), (178, 43222), (190, 43273), (197, 43303), (204, 43342), (206, 43351),

Gene: MalagasyRose_71 Start: 47350, Stop: 48273, Start Num: 32

Candidate Starts for MalagasyRose_71:

(Start: 32 @47350 has 2 MA's), (40, 47365), (44, 47404), (50, 47452), (53, 47473), (56, 47503), (57, 47521), (59, 47542), (66, 47578), (77, 47623), (79, 47626), (80, 47629), (89, 47656), (105, 47698), (109, 47728), (111, 47737), (117, 47776), (121, 47797), (134, 47842), (136, 47845), (141, 47881), (143, 47887), (152, 47929), (153, 47941), (156, 47965), (159, 47983), (168, 48016), (174, 48043), (175, 48052), (180, 48085), (181, 48088), (188, 48124), (193, 48148), (194, 48151), (202, 48199), (203, 48208), (211, 48250),

Gene: Malithi_65 Start: 41622, Stop: 42524, Start Num: 34

Candidate Starts for Malithi_65:

(18, 41544), (Start: 34 @41622 has 83 MA's), (45, 41664), (55, 41754), (82, 41886), (101, 41943), (102, 41946), (118, 42036), (155, 42228), (178, 42357), (190, 42408), (197, 42438), (204, 42477), (206, 42486),

Gene: Malthus_79 Start: 49580, Stop: 50458, Start Num: 36

Candidate Starts for Malthus_79:

(Start: 36 @49580 has 19 MA's), (45, 49625), (48, 49658), (51, 49688), (56, 49739), (61, 49781), (63, 49787), (69, 49820), (77, 49853), (81, 49862), (100, 49919), (104, 49928), (105, 49931), (107, 49955), (115, 49997), (119, 50018), (138, 50069), (139, 50075), (142, 50099), (143, 50102), (147, 50126), (149, 50135), (154, 50159), (160, 50201), (162, 50207), (167, 50225), (168, 50231), (174, 50258), (176, 50267), (177, 50279), (193, 50354),

Gene: Mangethe_68 Start: 42487, Stop: 43389, Start Num: 34

Candidate Starts for Mangethe_68:

(4, 41992), (8, 42283), (Start: 19 @42412 has 6 MA's), (27, 42457), (Start: 34 @42487 has 83 MA's), (45, 42529), (101, 42808), (102, 42811), (118, 42901), (155, 43093), (157, 43126), (171, 43180), (178, 43222), (190, 43273), (197, 43303), (204, 43342), (206, 43351),

Gene: Marcoliusprime_76 Start: 51116, Stop: 52018, Start Num: 38

Candidate Starts for Marcoliusprime_76:

(Start: 38 @51116 has 10 MA's), (45, 51158), (58, 51293), (63, 51326), (94, 51428), (96, 51431), (100, 51443), (105, 51455), (128, 51569), (138, 51608), (143, 51641), (154, 51698), (159, 51737), (168, 51770), (172, 51791), (174, 51797), (177, 51818), (182, 51848), (183, 51851), (194, 51896), (210, 51986), (213, 52001),

Gene: Marshawn_71 Start: 48922, Stop: 49965, Start Num: 21

Candidate Starts for Marshawn_71:

(Start: 19 @48916 has 6 MA's), (Start: 21 @48922 has 1 MA's), (Start: 30 @49000 has 1 MA's), (Start: 34 @49006 has 83 MA's), (45, 49060), (47, 49084), (50, 49105), (58, 49180), (60, 49198), (73, 49264), (83, 49291), (104, 49360), (105, 49363), (111, 49399), (112, 49402), (117, 49438), (128, 49492), (130, 49510), (149, 49609), (159, 49672), (173, 49729), (174, 49732), (189, 49777), (194, 49798), (216, 49927),

Gene: Megiddo_65 Start: 43633, Stop: 44535, Start Num: 34

Candidate Starts for Megiddo_65:

(2, 43114), (8, 43429), (Start: 19 @43558 has 6 MA's), (27, 43603), (Start: 34 @43633 has 83 MA's), (45, 43675), (101, 43954), (102, 43957), (118, 44047), (155, 44239), (157, 44272), (171, 44326), (178, 44368), (190, 44419), (197, 44449), (204, 44488), (206, 44497),

Gene: Milly_77 Start: 51107, Stop: 52009, Start Num: 38

Candidate Starts for Milly_77:

(Start: 38 @51107 has 10 MA's), (45, 51149), (58, 51284), (63, 51317), (94, 51419), (96, 51422), (100, 51434), (105, 51446), (128, 51560), (138, 51599), (143, 51632), (159, 51728), (168, 51761), (172,

51782), (173, 51785), (174, 51788), (177, 51809), (182, 51839), (183, 51842), (194, 51887), (210, 51977), (213, 51992),

Gene: Miryou_70 Start: 50627, Stop: 51463, Start Num: 34

Candidate Starts for Miryou_70:

(10, 50435), (12, 50468), (23, 50564), (Start: 34 @50627 has 83 MA's), (44, 50669), (46, 50693), (50, 50717), (57, 50783), (58, 50789), (67, 50846), (73, 50876), (91, 50927), (104, 50954), (105, 50957), (112, 50996), (117, 51032), (119, 51044), (125, 51071), (126, 51074), (127, 51080), (130, 51104), (144, 51161), (151, 51197), (159, 51254), (164, 51266), (165, 51272), (174, 51314), (184, 51338), (189, 51356), (193, 51374), (194, 51377), (196, 51386),

Gene: Misha28_86 Start: 52818, Stop: 53723, Start Num: 34

Candidate Starts for Misha28_86:

(Start: 34 @52818 has 83 MA's), (49, 52896), (110, 53181), (118, 53232), (129, 53280), (135, 53310), (155, 53424), (167, 53490), (196, 53628), (197, 53634), (200, 53658), (206, 53682), (208, 53691),

Gene: MissDaisy_75 Start: 48011, Stop: 48889, Start Num: 36

Candidate Starts for MissDaisy_75:

(Start: 36 @48011 has 19 MA's), (45, 48056), (47, 48080), (48, 48089), (51, 48119), (56, 48170), (61, 48212), (63, 48218), (69, 48251), (77, 48284), (81, 48293), (100, 48350), (104, 48359), (105, 48362), (107, 48386), (115, 48428), (119, 48449), (138, 48500), (139, 48506), (142, 48530), (143, 48533), (147, 48557), (149, 48566), (160, 48632), (166, 48650), (167, 48656), (168, 48662), (174, 48689), (177, 48710), (182, 48740), (193, 48785),

Gene: Mitti_78 Start: 49771, Stop: 50649, Start Num: 36

Candidate Starts for Mitti_78:

(Start: 36 @49771 has 19 MA's), (45, 49816), (48, 49849), (51, 49879), (56, 49930), (61, 49972), (63, 49978), (69, 50011), (77, 50044), (81, 50053), (100, 50110), (104, 50119), (105, 50122), (107, 50146), (115, 50188), (119, 50209), (138, 50260), (139, 50266), (142, 50290), (143, 50293), (147, 50317), (149, 50326), (154, 50350), (160, 50392), (162, 50398), (167, 50416), (168, 50422), (174, 50449), (176, 50458), (177, 50470), (193, 50545),

Gene: Mufasa_76 Start: 50574, Stop: 51476, Start Num: 38

Candidate Starts for Mufasa_76:

(Start: 38 @50574 has 10 MA's), (45, 50616), (58, 50751), (63, 50784), (94, 50886), (96, 50889), (100, 50901), (105, 50913), (128, 51027), (138, 51066), (143, 51099), (159, 51195), (164, 51207), (168, 51228), (172, 51249), (174, 51255), (177, 51276), (182, 51306), (183, 51309), (194, 51354), (213, 51459),

Gene: Nazo_68 Start: 43481, Stop: 44383, Start Num: 34

Candidate Starts for Nazo_68:

(Start: 34 @43481 has 83 MA's), (45, 43523), (86, 43754), (102, 43805), (118, 43895), (129, 43943), (142, 44021), (155, 44087), (190, 44267), (197, 44297),

Gene: Necropolis_63 Start: 41062, Stop: 41964, Start Num: 34

Candidate Starts for Necropolis_63:

(2, 40543), (8, 40858), (Start: 19 @40987 has 6 MA's), (27, 41032), (Start: 34 @41062 has 83 MA's), (45, 41104), (55, 41194), (82, 41326), (101, 41383), (102, 41386), (118, 41476), (155, 41668), (178, 41797), (190, 41848), (197, 41878), (204, 41917), (206, 41926),

Gene: Nergal_65 Start: 45413, Stop: 46264, Start Num: 39

Candidate Starts for Nergal_65:

(Start: 39 @45413 has 9 MA's), (44, 45452), (47, 45479), (53, 45521), (63, 45605), (68, 45635), (72, 45656), (77, 45671), (88, 45695), (96, 45725), (105, 45749), (107, 45773), (113, 45794), (117, 45824), (120, 45839), (123, 45851), (126, 45863), (138, 45902), (139, 45908), (143, 45935), (144, 45938), (148, 45962), (152, 45977), (159, 46031), (166, 46052), (168, 46064), (174, 46091), (189, 46136), (195, 46163), (211, 46238),

Gene: Nibb_75 Start: 48740, Stop: 49771, Start Num: 19

Candidate Starts for Nibb_75:

(Start: 19 @48740 has 6 MA's), (Start: 21 @48746 has 1 MA's), (Start: 30 @48824 has 1 MA's), (46, 48905), (58, 49004), (60, 49022), (63, 49037), (73, 49088), (99, 49172), (104, 49184), (105, 49187), (111, 49223), (117, 49262), (130, 49334), (159, 49496), (168, 49529), (192, 49607), (193, 49619), (216, 49742), (218, 49760),

Gene: OkiRoe_67 Start: 48299, Stop: 49147, Start Num: 34

Candidate Starts for OkiRoe_67:

(Start: 34 @48299 has 83 MA's), (44, 48341), (46, 48365), (50, 48389), (58, 48461), (67, 48518), (73, 48548), (91, 48599), (104, 48626), (105, 48629), (112, 48668), (117, 48704), (119, 48716), (126, 48743), (131, 48776), (132, 48779), (137, 48788), (144, 48845), (147, 48866), (151, 48881), (159, 48938), (164, 48950), (165, 48956), (174, 48998), (184, 49022), (189, 49040), (193, 49058), (194, 49061), (196, 49070), (208, 49139),

Gene: OmniCritical_78 Start: 49773, Stop: 50651, Start Num: 36

Candidate Starts for OmniCritical_78:

(Start: 36 @49773 has 19 MA's), (45, 49818), (48, 49851), (51, 49881), (56, 49932), (61, 49974), (63, 49980), (66, 50001), (69, 50013), (77, 50046), (81, 50055), (100, 50112), (104, 50121), (105, 50124), (107, 50148), (115, 50190), (119, 50211), (138, 50262), (139, 50268), (142, 50292), (143, 50295), (147, 50319), (149, 50328), (154, 50352), (160, 50394), (162, 50400), (167, 50418), (168, 50424), (174, 50451), (176, 50460), (177, 50472), (193, 50547),

Gene: Omnicron_70 Start: 48420, Stop: 49313, Start Num: 34

Candidate Starts for Omnicron_70:

(10, 48228), (12, 48261), (23, 48357), (Start: 32 @48417 has 2 MA's), (Start: 34 @48420 has 83 MA's), (42, 48459), (46, 48498), (50, 48522), (52, 48534), (57, 48588), (58, 48594), (66, 48648), (73, 48681), (76, 48693), (105, 48762), (106, 48765), (115, 48828), (117, 48837), (124, 48876), (151, 49017), (159, 49074), (174, 49134), (185, 49161), (189, 49176), (193, 49194), (199, 49230),

Gene: Oscar_75 Start: 48959, Stop: 49990, Start Num: 19

Candidate Starts for Oscar_75:

(11, 48884), (13, 48899), (Start: 19 @48959 has 6 MA's), (Start: 21 @48965 has 1 MA's), (Start: 30 @49043 has 1 MA's), (45, 49103), (46, 49124), (50, 49148), (58, 49223), (60, 49241), (73, 49307), (99, 49391), (104, 49403), (105, 49406), (117, 49481), (127, 49526), (133, 49559), (140, 49598), (147, 49643), (151, 49658), (159, 49715), (168, 49748), (192, 49826), (193, 49838), (216, 49961),

Gene: P3MA_56 Start: 37899, Stop: 38774, Start Num: 32

Candidate Starts for P3MA_56:

(Start: 32 @37899 has 2 MA's), (48, 37983), (62, 38097), (71, 38139), (93, 38208), (98, 38220), (161, 38538), (172, 38586), (187, 38646), (193, 38676),

Gene: Paola_66 Start: 47872, Stop: 48717, Start Num: 34

Candidate Starts for Paola_66:

(Start: 34 @47872 has 83 MA's), (44, 47914), (46, 47938), (50, 47962), (58, 48034), (67, 48091), (73, 48121), (91, 48172), (104, 48199), (105, 48202), (112, 48241), (117, 48277), (119, 48289), (126, 48316), (131, 48349), (132, 48352), (137, 48361), (144, 48418), (147, 48439), (151, 48454), (159,

48511), (164, 48523), (184, 48595), (185, 48598), (189, 48613), (193, 48631), (196, 48643),

Gene: Patt_74 Start: 47732, Stop: 48610, Start Num: 36

Candidate Starts for Patt_74:

(Start: 36 @47732 has 19 MA's), (45, 47777), (47, 47801), (48, 47810), (51, 47840), (56, 47891), (61, 47933), (63, 47939), (69, 47972), (77, 48005), (81, 48014), (100, 48071), (104, 48080), (105, 48083), (107, 48107), (115, 48149), (119, 48170), (138, 48221), (139, 48227), (142, 48251), (143, 48254), (147, 48278), (149, 48287), (160, 48353), (166, 48371), (167, 48377), (168, 48383), (174, 48410), (177, 48431), (182, 48461), (193, 48506),

Gene: Phalm_66 Start: 43063, Stop: 43965, Start Num: 34

Candidate Starts for Phalm_66:

(2, 42544), (8, 42859), (Start: 19 @42988 has 6 MA's), (27, 43033), (Start: 34 @43063 has 83 MA's), (45, 43105), (101, 43384), (102, 43387), (118, 43477), (155, 43669), (157, 43702), (171, 43756), (178, 43798), (190, 43849), (197, 43879), (204, 43918), (206, 43927),

Gene: Pharb_72 Start: 48273, Stop: 49181, Start Num: 39

Candidate Starts for Pharb_72:

(25, 48225), (33, 48264), (Start: 39 @48273 has 9 MA's), (43, 48309), (50, 48360), (53, 48381), (58, 48432), (70, 48510), (77, 48531), (88, 48555), (105, 48609), (107, 48633), (111, 48645), (114, 48672), (117, 48684), (123, 48711), (139, 48774), (152, 48843), (153, 48855), (159, 48897), (168, 48930), (174, 48957), (175, 48969), (189, 49044),

Gene: Phayonce_69 Start: 45605, Stop: 46513, Start Num: 34

Candidate Starts for Phayonce_69:

(1, 45062), (3, 45080), (6, 45269), (8, 45386), (Start: 19 @45518 has 6 MA's), (27, 45575), (Start: 34 @45605 has 83 MA's), (Start: 41 @45620 has 1 MA's), (49, 45683), (55, 45737), (101, 45926), (102, 45929), (105, 45935), (116, 46007), (142, 46145), (155, 46211), (157, 46244), (190, 46391), (197, 46421), (204, 46460),

Gene: Phegasus_68 Start: 42454, Stop: 43356, Start Num: 34

Candidate Starts for Phegasus_68:

(4, 41959), (8, 42250), (Start: 19 @42379 has 6 MA's), (27, 42424), (Start: 34 @42454 has 83 MA's), (45, 42496), (101, 42775), (102, 42778), (118, 42868), (155, 43060), (157, 43093), (171, 43147), (178, 43189), (190, 43240), (197, 43270), (204, 43309), (206, 43318),

Gene: Phineas_66 Start: 42030, Stop: 42932, Start Num: 34

Candidate Starts for Phineas_66:

(18, 41952), (Start: 34 @42030 has 83 MA's), (45, 42072), (55, 42162), (82, 42294), (101, 42351), (102, 42354), (118, 42444), (155, 42636), (178, 42765), (190, 42816), (197, 42846), (204, 42885), (206, 42894),

Gene: Piper2020_91 Start: 53066, Stop: 53971, Start Num: 34

Candidate Starts for Piper2020_91:

(Start: 34 @53066 has 83 MA's), (49, 53144), (110, 53429), (118, 53480), (129, 53528), (135, 53558), (155, 53672), (167, 53738), (196, 53876), (197, 53882), (200, 53906), (206, 53930), (208, 53939),

Gene: Pixie_73 Start: 48565, Stop: 49482, Start Num: 39

Candidate Starts for Pixie_73:

(20, 48472), (35, 48559), (Start: 39 @48565 has 9 MA's), (43, 48601), (50, 48652), (58, 48724), (77, 48823), (88, 48847), (105, 48901), (107, 48925), (111, 48937), (117, 48976), (123, 49003), (139, 49066), (143, 49093), (144, 49096), (152, 49135), (153, 49147), (159, 49189), (168, 49222), (175, 49261), (189, 49336),

Gene: Polkaroo_67 Start: 43777, Stop: 44679, Start Num: 34

Candidate Starts for Polkaroo_67:

(2, 43258), (8, 43573), (Start: 19 @43702 has 6 MA's), (27, 43747), (Start: 34 @43777 has 83 MA's), (45, 43819), (55, 43909), (101, 44098), (102, 44101), (118, 44191), (155, 44383), (157, 44416), (171, 44470), (178, 44512), (190, 44563), (197, 44593), (204, 44632), (206, 44641),

Gene: Psycho_66 Start: 46548, Stop: 47402, Start Num: 34

Candidate Starts for Psycho_66:

(10, 46356), (12, 46389), (23, 46485), (Start: 34 @46548 has 83 MA's), (37, 46551), (43, 46590), (44, 46593), (46, 46617), (50, 46641), (58, 46713), (66, 46767), (73, 46800), (91, 46851), (92, 46857), (104, 46878), (105, 46881), (112, 46920), (125, 46995), (126, 46998), (130, 47028), (147, 47106), (151, 47121), (159, 47178), (164, 47190), (173, 47235), (185, 47265), (189, 47280), (193, 47298), (196, 47310), (199, 47334),

Gene: Purky_78 Start: 47557, Stop: 48462, Start Num: 34

Candidate Starts for Purky_78:

(Start: 34 @47557 has 83 MA's), (49, 47635), (86, 47830), (110, 47920), (129, 48019), (155, 48163), (158, 48199), (186, 48322), (197, 48373), (200, 48397), (206, 48421), (208, 48430),

Gene: Pygmy_69 Start: 43495, Stop: 44397, Start Num: 34

Candidate Starts for Pygmy_69:

(2, 42976), (8, 43291), (Start: 19 @43420 has 6 MA's), (27, 43465), (Start: 34 @43495 has 83 MA's), (45, 43537), (55, 43627), (82, 43759), (101, 43816), (102, 43819), (118, 43909), (155, 44101), (157, 44134), (171, 44188), (178, 44230), (190, 44281), (197, 44311), (204, 44350), (206, 44359),

Gene: QueenHazel_61 Start: 41353, Stop: 42255, Start Num: 34

Candidate Starts for QueenHazel_61:

(14, 41236), (16, 41254), (Start: 34 @41353 has 83 MA's), (101, 41674), (110, 41716), (118, 41767), (155, 41959), (157, 41992), (171, 42046), (178, 42088), (197, 42169), (204, 42208), (206, 42217),

Gene: Rando14_69 Start: 47204, Stop: 48082, Start Num: 34

Candidate Starts for Rando14_69:

(23, 47141), (Start: 32 @47201 has 2 MA's), (Start: 34 @47204 has 83 MA's), (42, 47243), (46, 47282), (50, 47306), (52, 47318), (73, 47465), (76, 47477), (97, 47534), (105, 47546), (106, 47549), (115, 47612), (117, 47621), (125, 47660), (126, 47663), (130, 47693), (147, 47771), (151, 47786), (159, 47843), (164, 47855), (185, 47930), (189, 47945), (193, 47963), (194, 47966),

Gene: Reptar3000_75 Start: 47721, Stop: 48599, Start Num: 36

Candidate Starts for Reptar3000_75:

(Start: 36 @47721 has 19 MA's), (45, 47766), (47, 47790), (48, 47799), (56, 47880), (61, 47922), (63, 47928), (69, 47961), (77, 47994), (81, 48003), (100, 48060), (104, 48069), (105, 48072), (107, 48096), (115, 48138), (119, 48159), (138, 48210), (139, 48216), (142, 48240), (143, 48243), (147, 48267), (149, 48276), (160, 48342), (166, 48360), (167, 48366), (168, 48372), (174, 48399), (177, 48420), (182, 48450), (193, 48495),

Gene: Ruthiejr_79 Start: 49661, Stop: 50539, Start Num: 36

Candidate Starts for Ruthiejr_79:

(Start: 36 @49661 has 19 MA's), (45, 49706), (47, 49730), (48, 49739), (51, 49769), (56, 49820), (61, 49862), (63, 49868), (67, 49892), (69, 49901), (77, 49934), (81, 49943), (100, 50000), (104, 50009), (105, 50012), (107, 50036), (115, 50078), (119, 50099), (138, 50153), (139, 50159), (142, 50183), (143, 50186), (147, 50210), (149, 50219), (154, 50243), (160, 50285), (162, 50291), (167, 50309), (168, 50315), (174, 50342), (176, 50351), (177, 50363), (182, 50393), (193, 50438),

Gene: SamScheppers_77 Start: 49936, Stop: 50814, Start Num: 36

Candidate Starts for SamScheppers_77:

(Start: 36 @49936 has 19 MA's), (45, 49981), (48, 50014), (51, 50044), (56, 50095), (61, 50137), (63, 50143), (66, 50164), (69, 50176), (77, 50209), (81, 50218), (100, 50275), (104, 50284), (105, 50287), (107, 50311), (115, 50353), (119, 50374), (138, 50425), (139, 50431), (142, 50455), (143, 50458), (147, 50482), (149, 50491), (154, 50515), (160, 50557), (162, 50563), (167, 50581), (168, 50587), (174, 50614), (176, 50623), (177, 50635), (193, 50710), (211, 50803),

Gene: Sbash_79 Start: 50602, Stop: 51504, Start Num: 34

Candidate Starts for Sbash_79:

(15, 50491), (17, 50509), (Start: 34 @50602 has 83 MA's), (47, 50668), (49, 50680), (54, 50725), (55, 50734), (105, 50932), (110, 50965), (118, 51016), (129, 51064), (135, 51094), (155, 51208), (158, 51244), (186, 51367), (190, 51388), (197, 51418), (200, 51442),

Gene: Scarlett_76 Start: 49295, Stop: 50326, Start Num: 19

Candidate Starts for Scarlett_76:

(11, 49220), (13, 49235), (Start: 19 @49295 has 6 MA's), (Start: 21 @49301 has 1 MA's), (Start: 30 @49379 has 1 MA's), (45, 49439), (46, 49460), (50, 49484), (58, 49559), (60, 49577), (73, 49643), (99, 49727), (104, 49739), (105, 49742), (117, 49817), (127, 49862), (133, 49895), (140, 49934), (147, 49979), (151, 49994), (159, 50051), (192, 50162), (193, 50174), (216, 50297),

Gene: ShedlockHolmes_76 Start: 49078, Stop: 49995, Start Num: 39

Candidate Starts for ShedlockHolmes_76:

(20, 48985), (Start: 39 @49078 has 9 MA's), (43, 49114), (50, 49165), (53, 49186), (58, 49237), (77, 49336), (88, 49360), (105, 49414), (107, 49438), (111, 49450), (117, 49489), (121, 49510), (139, 49579), (143, 49606), (144, 49609), (152, 49648), (153, 49660), (159, 49702), (168, 49735), (175, 49774), (189, 49849),

Gene: Shipwreck_68 Start: 43470, Stop: 44372, Start Num: 34

Candidate Starts for Shipwreck_68:

(2, 42951), (8, 43266), (Start: 19 @43395 has 6 MA's), (27, 43440), (Start: 34 @43470 has 83 MA's), (45, 43512), (55, 43602), (82, 43734), (101, 43791), (102, 43794), (118, 43884), (155, 44076), (178, 44205), (190, 44256), (197, 44286), (204, 44325), (206, 44334),

Gene: Slarp_78 Start: 49635, Stop: 50513, Start Num: 36

Candidate Starts for Slarp_78:

(Start: 36 @49635 has 19 MA's), (45, 49680), (48, 49713), (51, 49743), (56, 49794), (61, 49836), (63, 49842), (66, 49863), (69, 49875), (77, 49908), (81, 49917), (100, 49974), (104, 49983), (105, 49986), (107, 50010), (115, 50052), (119, 50073), (138, 50124), (139, 50130), (142, 50154), (143, 50157), (147, 50181), (149, 50190), (154, 50214), (160, 50256), (162, 50262), (167, 50280), (168, 50286), (174, 50313), (176, 50322), (177, 50334), (193, 50409),

Gene: SoSeph_67 Start: 48251, Stop: 49087, Start Num: 34

Candidate Starts for SoSeph_67:

(10, 48059), (12, 48092), (23, 48188), (Start: 34 @48251 has 83 MA's), (44, 48293), (46, 48317), (50, 48341), (57, 48407), (58, 48413), (67, 48470), (73, 48500), (91, 48551), (104, 48578), (105, 48581), (112, 48620), (117, 48656), (119, 48668), (125, 48695), (126, 48698), (127, 48704), (128, 48713), (130, 48728), (139, 48755), (147, 48806), (151, 48821), (159, 48878), (164, 48890), (165, 48896), (174, 48938), (184, 48962), (189, 48980), (193, 48998), (194, 49001), (196, 49010),

Gene: Sonah_66 Start: 41167, Stop: 42069, Start Num: 34

Candidate Starts for Sonah_66:

(2, 40648), (8, 40963), (Start: 19 @41092 has 6 MA's), (27, 41137), (Start: 34 @41167 has 83 MA's), (45, 41209), (82, 41431), (101, 41488), (102, 41491), (118, 41581), (155, 41773), (178, 41902), (190, 41953), (197, 41983), (204, 42022), (206, 42031),

Gene: StevieRay_70 Start: 44234, Stop: 45136, Start Num: 34

Candidate Starts for StevieRay_70:

(2, 43715), (8, 44030), (Start: 19 @44159 has 6 MA's), (27, 44204), (Start: 34 @44234 has 83 MA's), (45, 44276), (55, 44366), (101, 44555), (102, 44558), (118, 44648), (155, 44840), (178, 44969), (197, 45050), (206, 45098),

Gene: StressBall_65 Start: 42765, Stop: 43667, Start Num: 34

Candidate Starts for StressBall_65:

(2, 42246), (8, 42561), (Start: 19 @42690 has 6 MA's), (27, 42735), (Start: 34 @42765 has 83 MA's), (45, 42807), (101, 43086), (102, 43089), (118, 43179), (155, 43371), (157, 43404), (171, 43458), (178, 43500), (190, 43551), (197, 43581), (204, 43620), (206, 43629),

Gene: Strobilo_78 Start: 51113, Stop: 52015, Start Num: 38

Candidate Starts for Strobilo_78:

(Start: 38 @51113 has 10 MA's), (45, 51155), (58, 51290), (63, 51323), (94, 51425), (96, 51428), (100, 51440), (105, 51452), (128, 51566), (138, 51605), (143, 51638), (159, 51734), (168, 51767), (172, 51788), (174, 51794), (177, 51815), (182, 51845), (183, 51848), (194, 51893), (210, 51983), (213, 51998),

Gene: TBond007_70 Start: 48564, Stop: 49481, Start Num: 39

Candidate Starts for TBond007_70:

(35, 48558), (Start: 39 @48564 has 9 MA's), (43, 48600), (50, 48651), (58, 48723), (77, 48822), (88, 48846), (105, 48900), (107, 48924), (111, 48936), (117, 48975), (123, 49002), (139, 49065), (143, 49092), (144, 49095), (152, 49134), (153, 49146), (159, 49188), (168, 49221), (175, 49260), (189, 49335),

Gene: TM4_75 Start: 45538, Stop: 46449, Start Num: 38

Candidate Starts for TM4_75:

(Start: 38 @45538 has 10 MA's), (45, 45580), (58, 45715), (63, 45748), (94, 45850), (96, 45853), (105, 45877), (128, 45991), (138, 46030), (143, 46063), (159, 46159), (168, 46192), (172, 46213), (173, 46216), (174, 46219), (177, 46240), (182, 46270), (194, 46318), (213, 46432),

Gene: Taquito_77 Start: 49669, Stop: 50547, Start Num: 36

Candidate Starts for Taquito_77:

(Start: 36 @49669 has 19 MA's), (45, 49714), (48, 49747), (51, 49777), (56, 49828), (61, 49870), (63, 49876), (69, 49909), (77, 49942), (81, 49951), (100, 50008), (104, 50017), (105, 50020), (107, 50044), (115, 50086), (119, 50107), (138, 50158), (139, 50164), (142, 50188), (143, 50191), (147, 50215), (149, 50224), (154, 50248), (160, 50290), (162, 50296), (167, 50314), (168, 50320), (174, 50347), (176, 50356), (177, 50368), (193, 50443),

Gene: Techage_66 Start: 42044, Stop: 42946, Start Num: 34

Candidate Starts for Techage_66:

(4, 41552), (8, 41840), (Start: 19 @41969 has 6 MA's), (27, 42014), (Start: 34 @42044 has 83 MA's), (45, 42086), (101, 42365), (102, 42368), (118, 42458), (155, 42650), (157, 42683), (171, 42737), (178, 42779), (190, 42830), (197, 42860), (204, 42899), (206, 42908),

Gene: Thespis_67 Start: 43000, Stop: 43902, Start Num: 34

Candidate Starts for Thespis_67:

(2, 42481), (8, 42796), (Start: 19 @42925 has 6 MA's), (27, 42970), (Start: 34 @43000 has 83 MA's), (45, 43042), (101, 43321), (102, 43324), (118, 43414), (155, 43606), (178, 43735), (197, 43816), (206, 43864),

Gene: ThulaThula_73 Start: 47020, Stop: 47925, Start Num: 34

Candidate Starts for ThulaThula_73:

(3, 46501), (8, 46804), (Start: 19 @46933 has 6 MA's), (27, 46990), (Start: 34 @47020 has 83 MA's), (Start: 41 @47035 has 1 MA's), (49, 47098), (55, 47152), (101, 47341), (110, 47383), (118, 47434), (129, 47482), (135, 47512), (142, 47560), (155, 47626), (158, 47662), (186, 47785), (197, 47836), (200, 47860), (206, 47884), (208, 47893),

Gene: Thyatira_69 Start: 50243, Stop: 51079, Start Num: 34

Candidate Starts for Thyatira_69:

(10, 50051), (12, 50084), (23, 50180), (Start: 34 @50243 has 83 MA's), (44, 50285), (46, 50309), (50, 50333), (57, 50399), (58, 50405), (67, 50462), (73, 50492), (91, 50543), (104, 50570), (105, 50573), (112, 50612), (117, 50648), (119, 50660), (125, 50687), (126, 50690), (127, 50696), (130, 50720), (144, 50777), (151, 50813), (159, 50870), (164, 50882), (165, 50888), (174, 50930), (184, 50954), (189, 50972), (193, 50990), (194, 50993), (196, 51002),

Gene: TootsiePop_86 Start: 52818, Stop: 53723, Start Num: 34

Candidate Starts for TootsiePop_86:

(Start: 34 @52818 has 83 MA's), (49, 52896), (110, 53181), (118, 53232), (129, 53280), (135, 53310), (155, 53424), (167, 53490), (196, 53628), (197, 53634), (200, 53658), (206, 53682), (208, 53691),

Gene: Tortellini_71 Start: 46722, Stop: 47627, Start Num: 34

Candidate Starts for Tortellini_71:

(Start: 34 @46722 has 83 MA's), (49, 46800), (101, 47043), (105, 47052), (110, 47085), (118, 47136), (129, 47184), (135, 47214), (155, 47328), (157, 47361), (167, 47394), (190, 47508), (197, 47538), (200, 47562), (206, 47586), (208, 47595),

Gene: TribbleTrouble_75 Start: 49560, Stop: 50477, Start Num: 39

Candidate Starts for TribbleTrouble_75:

(Start: 39 @49560 has 9 MA's), (43, 49596), (50, 49647), (58, 49719), (61, 49746), (70, 49797), (88, 49842), (105, 49896), (107, 49920), (111, 49932), (114, 49959), (117, 49971), (139, 50061), (152, 50130), (153, 50142), (154, 50145), (159, 50184), (168, 50217), (173, 50241), (175, 50256), (189, 50331),

Gene: Venti_63 Start: 40452, Stop: 41354, Start Num: 34

Candidate Starts for Venti_63:

(Start: 34 @40452 has 83 MA's), (101, 40773), (110, 40815), (118, 40866), (155, 41058), (157, 41091), (171, 41145), (178, 41187), (190, 41238), (197, 41268), (204, 41307), (206, 41316),

Gene: Vidya_64 Start: 41288, Stop: 42190, Start Num: 34

Candidate Starts for Vidya_64:

(2, 40769), (8, 41084), (Start: 19 @41213 has 6 MA's), (27, 41258), (Start: 34 @41288 has 83 MA's), (45, 41330), (101, 41609), (102, 41612), (118, 41702), (155, 41894), (178, 42023), (197, 42104), (206, 42152),

Gene: Waterfoul_68 Start: 48313, Stop: 49149, Start Num: 34

Candidate Starts for Waterfoul_68:

(10, 48121), (12, 48154), (23, 48250), (Start: 34 @48313 has 83 MA's), (44, 48355), (46, 48379), (50, 48403), (57, 48469), (58, 48475), (67, 48532), (73, 48562), (91, 48613), (104, 48640), (105, 48643), (112, 48682), (117, 48718), (119, 48730), (125, 48757), (126, 48760), (127, 48766), (130, 48790),

(144, 48847), (151, 48883), (159, 48940), (164, 48952), (165, 48958), (174, 49000), (184, 49024), (189, 49042), (193, 49060), (194, 49063), (196, 49072),

Gene: Willsammy_67 Start: 43249, Stop: 44151, Start Num: 34

Candidate Starts for Willsammy_67:

(2, 42730), (8, 43045), (Start: 19 @43174 has 6 MA's), (27, 43219), (Start: 34 @43249 has 83 MA's), (45, 43291), (101, 43570), (102, 43573), (118, 43663), (155, 43855), (157, 43888), (171, 43942), (178, 43984), (190, 44035), (197, 44065), (204, 44104), (206, 44113),

Gene: Wintermute_78 Start: 49845, Stop: 50723, Start Num: 36

Candidate Starts for Wintermute_78:

(Start: 36 @49845 has 19 MA's), (45, 49890), (48, 49923), (51, 49953), (56, 50004), (61, 50046), (63, 50052), (66, 50073), (69, 50085), (77, 50118), (81, 50127), (100, 50184), (104, 50193), (105, 50196), (107, 50220), (115, 50262), (119, 50283), (138, 50334), (139, 50340), (142, 50364), (143, 50367), (147, 50391), (149, 50400), (160, 50466), (167, 50490), (168, 50496), (174, 50523), (176, 50532), (177, 50544), (193, 50619),

Gene: Xavia_67 Start: 47327, Stop: 48229, Start Num: 34

Candidate Starts for Xavia_67:

(5, 46886), (8, 47123), (Start: 19 @47252 has 6 MA's), (27, 47297), (Start: 34 @47327 has 83 MA's), (45, 47369), (55, 47459), (82, 47591), (101, 47648), (110, 47690), (118, 47741), (129, 47789), (135, 47819), (142, 47867), (150, 47909), (158, 47969), (186, 48092), (197, 48143), (200, 48167), (206, 48191), (208, 48200),

Gene: Xula_61 Start: 41279, Stop: 42181, Start Num: 34

Candidate Starts for Xula_61:

(Start: 34 @41279 has 83 MA's), (101, 41600), (102, 41603), (110, 41642), (118, 41693), (155, 41885), (157, 41918), (171, 41972), (178, 42014), (186, 42044), (197, 42095), (206, 42143),

Gene: Y10_75 Start: 49773, Stop: 50651, Start Num: 36

Candidate Starts for Y10_75:

(Start: 36 @49773 has 19 MA's), (45, 49818), (48, 49851), (51, 49881), (56, 49932), (61, 49974), (63, 49980), (69, 50013), (77, 50046), (81, 50055), (100, 50112), (104, 50121), (105, 50124), (107, 50148), (115, 50190), (119, 50211), (138, 50262), (139, 50268), (142, 50292), (143, 50295), (147, 50319), (149, 50328), (160, 50394), (162, 50400), (167, 50418), (168, 50424), (174, 50451), (176, 50460), (177, 50472), (193, 50547),

Gene: Y2_75 Start: 49773, Stop: 50651, Start Num: 36

Candidate Starts for Y2_75:

(Start: 36 @49773 has 19 MA's), (45, 49818), (48, 49851), (51, 49881), (56, 49932), (61, 49974), (63, 49980), (69, 50013), (77, 50046), (81, 50055), (100, 50112), (104, 50121), (105, 50124), (107, 50148), (115, 50190), (119, 50211), (138, 50262), (139, 50268), (142, 50292), (143, 50295), (147, 50319), (149, 50328), (160, 50394), (162, 50400), (167, 50418), (168, 50424), (174, 50451), (176, 50460), (177, 50472), (193, 50547),

Gene: Zilizebeth_71 Start: 42809, Stop: 43711, Start Num: 34

Candidate Starts for Zilizebeth_71:

(8, 42605), (Start: 19 @42734 has 6 MA's), (27, 42779), (Start: 34 @42809 has 83 MA's), (45, 42851), (101, 43130), (102, 43133), (118, 43223), (155, 43415), (157, 43448), (171, 43502), (178, 43544), (190, 43595), (197, 43625), (204, 43664), (206, 43673),

Gene: ZoeJ_76 Start: 50548, Stop: 51450, Start Num: 38

Candidate Starts for ZoeJ_76:

(Start: 38 @50548 has 10 MA's), (45, 50590), (58, 50725), (94, 50860), (96, 50863), (100, 50875), (105, 50887), (128, 51001), (143, 51073), (159, 51169), (168, 51202), (172, 51223), (173, 51226), (174, 51229), (177, 51250), (182, 51280), (194, 51328), (213, 51433),