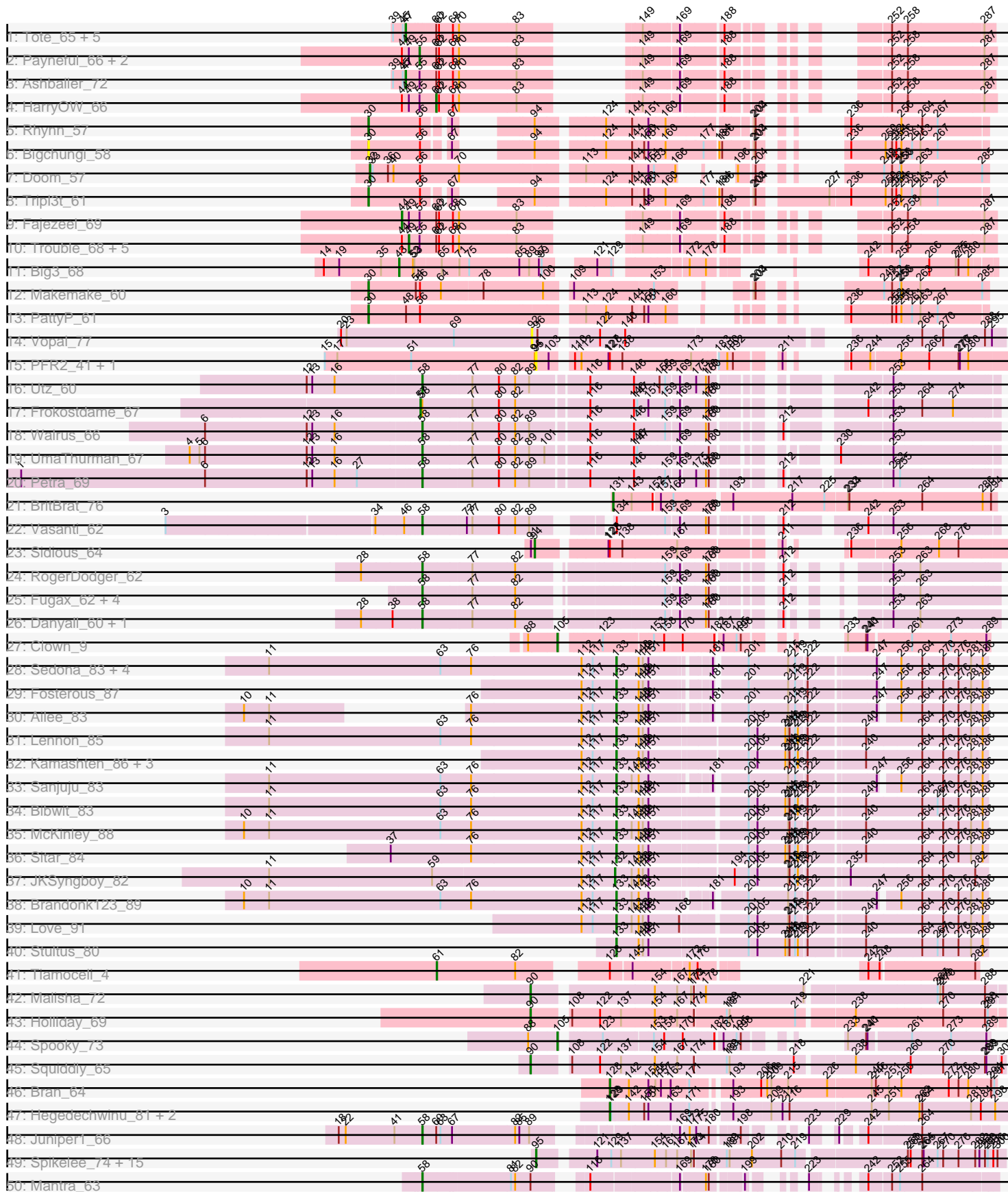
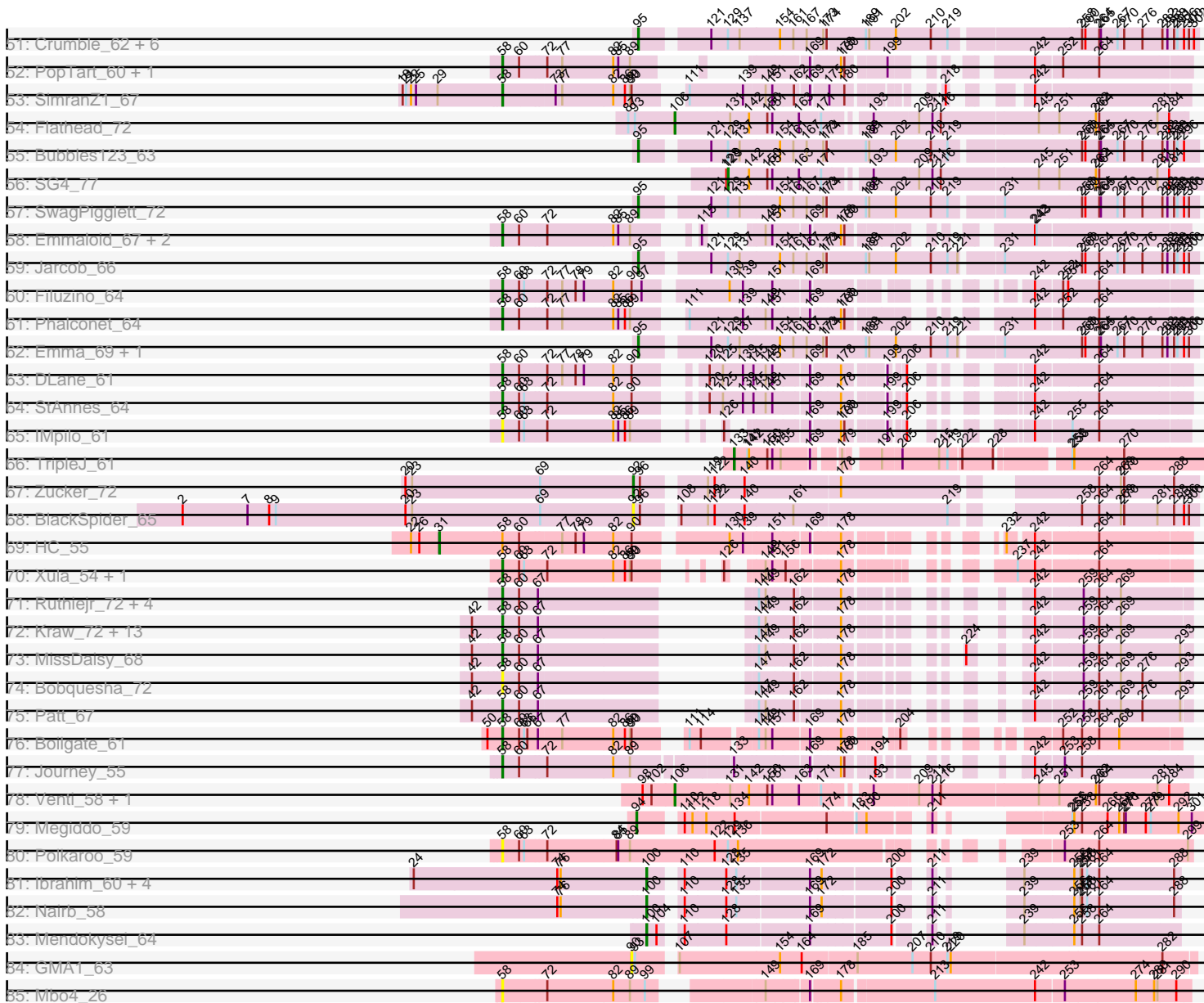


Pham 215898



Pham 215898



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 215898 Report

This analysis was run 02/22/25 on database version 588.

Pham number 215898 has 160 members, 15 are drafts.

Phages represented in each track:

- Track 1 : Tote_65, Lamina13_71, PSullivan_67, JuliaChild_70, Pita2_70, Swole_70
- Track 2 : Payneful_66, Acme_70, Greg_69
- Track 3 : Ashballer_72
- Track 4 : HarryOW_66
- Track 5 : Rhynn_57
- Track 6 : Bigchunggi_58
- Track 7 : Doom_57
- Track 8 : Tripl3t_61
- Track 9 : Fajezeel_69
- Track 10 : Trouble_68, Wheeler_71, Marchy_62, KSSJEB_67, Watermelon_68, GrecoEtereo_68
- Track 11 : Big3_68
- Track 12 : Makemake_60
- Track 13 : PattyP_61
- Track 14 : Vopal_77
- Track 15 : PFR2_41, PFR1_39
- Track 16 : Utz_60
- Track 17 : Frokostdame_67
- Track 18 : Walrus_66
- Track 19 : UmaThurman_67
- Track 20 : Petra_69
- Track 21 : BritBrat_76
- Track 22 : Vasanti_62
- Track 23 : Sidious_64
- Track 24 : RogerDodger_62
- Track 25 : Fugax_62, Barb_61, PinkCoffee_61, ClamChowder_61, KimmyK_60
- Track 26 : Danyall_60, PullumCavea_58
- Track 27 : Clown_9
- Track 28 : Sedona_83, Jabberwocky_84, BobBob_87, Fitzgerald_83, Keitabear_83
- Track 29 : Fosterous_87
- Track 30 : Ailee_83
- Track 31 : Lennon_85
- Track 32 : Kamashten_86, Galadriel_86, Thing3_86, Rofo_85
- Track 33 : Sanjuju_83
- Track 34 : Bibwit_83
- Track 35 : McKinley_88
- Track 36 : Sitar_84

- Track 37 : JKSyngboy_82
- Track 38 : Brandonk123_89
- Track 39 : Love_91
- Track 40 : Stultus_80
- Track 41 : Tiamoceli_4
- Track 42 : Malisha_72
- Track 43 : Holliday_69
- Track 44 : Spooky_73
- Track 45 : Squiddly_65
- Track 46 : Bran_64
- Track 47 : Hegedechwinu_81, JalFarm20_88, Smooch_24
- Track 48 : Juniper1_66
- Track 49 : Spikelee_74, Burwell21_65, Whouxphf_64, Yorick_66, Ramsey_66, Priscilla_67, Blexus_65, DaWorst_67, Maravista_69, NormanBulbieJr_67, Koella_61, MinionDave_66, CaptainTrips_65, Cabrinians_68, Fancypants_70, Aubs_67
- Track 50 : Mantra_63
- Track 51 : Crumble_62, ShowerHandel_70, Zizzle_71, BobaPhett_71, ByChance_60, Pippy_66, Estave1_72
- Track 52 : PopTart_60, SassyB_60
- Track 53 : SimranZ1_67
- Track 54 : Flathead_72
- Track 55 : Bubbles123_63
- Track 56 : SG4_77
- Track 57 : SwagPigglett_72
- Track 58 : Emmaloid_67, Slim_67, Rialto_71
- Track 59 : Jarcob_66
- Track 60 : Filuzino_64
- Track 61 : Phalconet_64
- Track 62 : Emma_69, Moonbeam_66
- Track 63 : DLane_61
- Track 64 : StAnnes_64
- Track 65 : IMpilo_61
- Track 66 : TripleJ_61
- Track 67 : Zucker_72
- Track 68 : BlackSpider_65
- Track 69 : HC_55
- Track 70 : Xula_54, QueenHazel_55
- Track 71 : Ruthiejr_72, Y2_68, Y10_68, JF1_71, OmniCritical_70
- Track 72 : Kraw_72, Cheetobro_71, Eponine_73, Chancellor_71, Reptar3000_68, Taquito_70, Malthus_72, Fionnbharth_71, Mitti_71, Juliette_73, Lebo14_72, Slarp_71, SamScheppers_69, Wintermute_71
- Track 73 : MissDaisy_68
- Track 74 : Bobquesha_72
- Track 75 : Patt_67
- Track 76 : Boilgate_61
- Track 77 : Journey_55
- Track 78 : Venti_58, Bartholomew_57
- Track 79 : Megiddo_59
- Track 80 : Polkaroo_59
- Track 81 : Ibrahim_60, ZenTime222_66, Whitty_59, Bernal13_60, RonRayGun_60
- Track 82 : Nairb_58
- Track 83 : Mendokysei_64
- Track 84 : GMA1_63

- Track 85 : Mbo4_26

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

The start number called the most often in the published annotations is 58, it was called in 46 of the 145 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Barb_61, Bobquesha_72, Boilgate_61, Chancellor_71, Cheetobro_71, ClamChowder_61, DLane_61, Danyall_60, Emmaloid_67, Eponine_73, Filuzino_64, Fionnbharth_71, Fugax_62, IMpilo_61, JF1_71, Journey_55, Juliette_73, Juniper1_66, KimmyK_60, Kraw_72, Lebo14_72, Malthus_72, Mantra_63, Mbo4_26, MissDaisy_68, Mitti_71, OmniCritical_70, Patt_67, Petra_69, Phalconet_64, PinkCoffee_61, Polkaroo_59, PopTart_60, PullumCavea_58, QueenHazel_55, Reptar3000_68, Rialto_71, RogerDodger_62, Ruthiejr_72, SamScheppers_69, SassyB_60, SimranZ1_67, Slarp_71, Slim_67, StAnnes_64, Taquito_70, UmaThurman_67, Utz_60, Vasanti_62, Walrus_66, Wintermute_71, Xula_54, Y10_68, Y2_68,

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

- Frokostdame_67, HC_55,

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

- Acme_70, Ailee_83, Ashballer_72, Aubs_67, Bartholomew_57, Bernal13_60, Bibwit_83, Big3_68, Bigchungu_58, BlackSpider_65, Blexus_65, BobBob_87, BobaPhett_71, Bran_64, Brandonk123_89, BritBrat_76, Bubbles123_63, Burwell21_65, ByChance_60, Cabrinians_68, CaptainTrips_65, Clown_9, Crumble_62, DaWorst_67, Doom_57, Emma_69, Estave1_72, Fajezeel_69, Fancypants_70, Fitzgerald_83, Flathead_72, Fosterous_87, GMA1_63, Galadriel_86, GrecoEtereo_68, Greg_69, HarryOW_66, Hegedechwinu_81, Holliday_69, Ibrahim_60, JKSyngboy_82, Jabberwocky_84, JalFarm20_88, Jacob_66, JuliaChild_70, KSSJEB_67, Kamashten_86, Keitabear_83, Koella_61, Lamina13_71, Lennon_85, Love_91, Makemake_60, Malisha_72, Maravista_69, Marchy_62, McKinley_88, Megiddo_59, Mendokysei_64, MinionDave_66, Moonbeam_66, Nairb_58, NormanBulbieJr_67, PFR1_39, PFR2_41, PSullivan_67, PattyP_61, Payneful_66, Pippy_66, Pita2_70, Priscilla_67, Ramsey_66, Rhynn_57, Rofo_85, RonRayGun_60, SG4_77, Sanjuju_83, Sedona_83, ShowerHandel_70, Sidious_64, Sitar_84, Smooch_24, Spikelee_74, Spooky_73, Squiddly_65, Stultus_80, SwagPiggett_72, Swole_70, Thing3_86, Tiamoceli_4, Tote_65, Tripl3t_61, TripleJ_61, Trouble_68, Venti_58, Vopal_77, Watermelon_68, Wheeler_71, Whitty_59, Whouxphf_64, Yorick_66, ZenTime222_66, Zizzle_71, Zucker_72,

Summary by start number:

Start 30:

- Found in 5 of 160 (3.1%) of genes in pham
- Manual Annotations of this start: 4 of 145
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bigchungu_58 (A1), Makemake_60 (A1), PattyP_61 (A1), Rhynn_57 (A1), Tripl3t_61 (A1),

Start 31:

- Found in 1 of 160 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 145
- Called 100.0% of time when present
- Phage (with cluster) where this start called: HC_55 (I1),

Start 32:

- Found in 1 of 160 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 145
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Doom_57 (A1),

Start 43:

- Found in 1 of 160 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 145
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Big3_68 (A1),

Start 44:

- Found in 11 of 160 (6.9%) of genes in pham
- Manual Annotations of this start: 1 of 145
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Fajezeel_69 (A1),

Start 47:

- Found in 7 of 160 (4.4%) of genes in pham
- Manual Annotations of this start: 7 of 145
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ashballer_72 (A1), JuliaChild_70 (A1), Lamina13_71 (A1), PSullivan_67 (A1), Pita2_70 (A1), Swole_70 (A1), Tote_65 (A1),

Start 49:

- Found in 11 of 160 (6.9%) of genes in pham
- Manual Annotations of this start: 6 of 145
- Called 54.5% of time when present
- Phage (with cluster) where this start called: GrecoEtereo_68 (A1), KSSJEB_67 (A1), Marchy_62 (A1), Trouble_68 (A1), Watermelon_68 (A1), Wheeler_71 (A1),

Start 55:

- Found in 12 of 160 (7.5%) of genes in pham
- Manual Annotations of this start: 3 of 145
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Acme_70 (A1), Greg_69 (A1), Payneful_66 (A1),

Start 57:

- Found in 1 of 160 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 145
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Frokostdame_67 (CV),

Start 58:

- Found in 56 of 160 (35.0%) of genes in pham
- Manual Annotations of this start: 46 of 145
- Called 96.4% of time when present
- Phage (with cluster) where this start called: Barb_61 (DC1), Bobquesha_72 (K4), Boilgate_61 (K8), Chancellor_71 (K4), Cheetobro_71 (K4), ClamChowder_61 (DC1), DLane_61 (F1), Danyall_60 (DC1), Emmaloid_67 (F1), Eponine_73 (K4), Filuzino_64 (F1), Fionnbharth_71 (K4), Fugax_62 (DC1), IMpilo_61 (F1), JF1_71 (K4), Journey_55 (N), Juliette_73 (K4), Juniper1_66 (F1), KimmyK_60 (DC1), Kraw_72 (K4), Lebo14_72 (K4), Malthus_72 (K4), Mantra_63 (F1), Mbo4_26 (singleton), MissDaisy_68 (K4), Mitti_71 (K4), OmniCritical_70 (K4), Patt_67 (K4), Petra_69 (CV), Phalconet_64 (F1), PinkCoffee_61 (DC1), Polkaroo_59 (P1), PopTart_60 (F1), PullumCavea_58 (DC1), QueenHazel_55 (I1), Reptar3000_68 (K4), Rialto_71 (F1), RogerDodger_62 (DC1), Ruthiejr_72 (K4), SamScheppers_69 (K4), SassyB_60 (F1), SimranZ1_67 (F1), Slarp_71 (K4), Slim_67 (F1), StAnnes_64 (F1), Taquito_70 (K4), UmaThurman_67 (CV), Utz_60 (CV), Vasanti_62 (CZ2), Walrus_66 (CV), Wintermute_71 (K4), Xula_54 (I1), Y10_68 (K4), Y2_68 (K4),

Start 60:

- Found in 57 of 160 (35.6%) of genes in pham
- Manual Annotations of this start: 1 of 145
- Called 1.8% of time when present
- Phage (with cluster) where this start called: HarryOW_66 (A1),

Start 61:

- Found in 1 of 160 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 145
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tiamoceli_4 (DE3),

Start 90:

- Found in 13 of 160 (8.1%) of genes in pham
- Manual Annotations of this start: 3 of 145
- Called 30.8% of time when present
- Phage (with cluster) where this start called: GMA1_63 (singleton), Holliday_69 (DN1), Malisha_72 (DN), Squiddly_65 (DN2),

Start 92:

- Found in 3 of 160 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 145
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlackSpider_65 (FN), Vopal_77 (AY), Zucker_72 (FN),

Start 94:

- Found in 7 of 160 (4.4%) of genes in pham
- Manual Annotations of this start: 2 of 145
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Megiddo_59 (P1), Sidious_64 (CZ7),

Start 95:

- Found in 30 of 160 (18.8%) of genes in pham
- Manual Annotations of this start: 28 of 145
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Aubs_67 (F1), Blexus_65 (F1), BobaPhett_71 (F1), Bubbles123_63 (F1), Burwell21_65 (F1), ByChance_60 (F1), Cabrinians_68 (F1), CaptainTrips_65 (F1), Crumble_62 (F1), DaWorst_67 (F1), Emma_69 (F1), Estave1_72 (F1), Fancypants_70 (F1), Jarcob_66 (F1), Koella_61 (F1), Maravista_69 (F1), MinionDave_66 (F1), Moonbeam_66 (F1), NormanBulbieJr_67 (F1), PFR1_39 (BX), PFR2_41 (BX), Pippy_66 (F1), Priscilla_67 (F1), Ramsey_66 (F1), ShowerHandel_70 (F1), Spikelee_74 (F1), SwagPiggett_72 (F1), Whouxphf_64 (F1), Yorick_66 (F1), Zizzle_71 (F1),

Start 100:

- Found in 8 of 160 (5.0%) of genes in pham
- Manual Annotations of this start: 7 of 145
- Called 87.5% of time when present
- Phage (with cluster) where this start called: Bernal13_60 (T), Ibrahim_60 (T), Mendokysei_64 (T), Nairb_58 (T), RonRayGun_60 (T), Whitty_59 (T), ZenTime222_66 (T),

Start 105:

- Found in 2 of 160 (1.2%) of genes in pham
- Manual Annotations of this start: 2 of 145
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Clown_9 (DC2), Spooky_73 (DN2),

Start 106:

- Found in 3 of 160 (1.9%) of genes in pham
- Manual Annotations of this start: 3 of 145
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bartholomew_57 (P1), Flathead_72 (F1), Venti_58 (P1),

Start 128:

- Found in 16 of 160 (10.0%) of genes in pham
- Manual Annotations of this start: 4 of 145
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Bran_64 (EP), Hegedechwinu_81 (F1), JalFarm20_88 (F1), Smooch_24 (O),

Start 129:

- Found in 34 of 160 (21.2%) of genes in pham
- Manual Annotations of this start: 1 of 145
- Called 2.9% of time when present
- Phage (with cluster) where this start called: SG4_77 (F1),

Start 131:

- Found in 4 of 160 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 145
- Called 25.0% of time when present
- Phage (with cluster) where this start called: BritBrat_76 (CY2),

Start 132:

- Found in 1 of 160 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 145
- Called 100.0% of time when present

- Phage (with cluster) where this start called: JKSyngboy_82 (DE1),

Start 133:

- Found in 21 of 160 (13.1%) of genes in pham
- Manual Annotations of this start: 19 of 145
- Called 95.2% of time when present
- Phage (with cluster) where this start called: Ailee_83 (DE1), Bibwit_83 (DE1), BobBob_87 (DE1), Brandonk123_89 (DE1), Fitzgerald_83 (DE1), Fosterous_87 (DE1), Galadriel_86 (DE1), Jabberwocky_84 (DE1), Kamashten_86 (DE1), Keitabear_83 (DE1), Lennon_85 (DE1), Love_91 (DE1), McKinley_88 (DE1), Rofo_85 (DE1), Sanjuju_83 (DE1), Sedona_83 (DE1), Sitar_84 (DE1), Stultus_80 (DE1), Thing3_86 (DE1), TripleJ_61 (FJ),

Summary by clusters:

There are 26 clusters represented in this pham: DN, singleton, CZ2, CZ7, K4, FJ, K8, BX, FN, I1, CV, A1, DN1, DN2, CY2, P1, O, N, T, AY, DC2, EP, DC1, F1, DE1, DE3,

Info for manual annotations of cluster A1:

- Start number 30 was manually annotated 4 times for cluster A1.
- Start number 32 was manually annotated 1 time for cluster A1.
- Start number 43 was manually annotated 1 time for cluster A1.
- Start number 44 was manually annotated 1 time for cluster A1.
- Start number 47 was manually annotated 7 times for cluster A1.
- Start number 49 was manually annotated 6 times for cluster A1.
- Start number 55 was manually annotated 3 times for cluster A1.
- Start number 60 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster CV:

- Start number 57 was manually annotated 1 time for cluster CV.
- Start number 58 was manually annotated 4 times for cluster CV.

Info for manual annotations of cluster CY2:

- Start number 131 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CZ2:

- Start number 58 was manually annotated 1 time for cluster CZ2.

Info for manual annotations of cluster CZ7:

- Start number 94 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DC1:

- Start number 58 was manually annotated 8 times for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 105 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:

- Start number 132 was manually annotated 1 time for cluster DE1.
- Start number 133 was manually annotated 18 times for cluster DE1.

Info for manual annotations of cluster DE3:

- Start number 61 was manually annotated 1 time for cluster DE3.

Info for manual annotations of cluster DN:

- Start number 90 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 90 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 90 was manually annotated 1 time for cluster DN2.
- Start number 105 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster EP:

- Start number 128 was manually annotated 1 time for cluster EP.

Info for manual annotations of cluster F1:

- Start number 58 was manually annotated 10 times for cluster F1.
- Start number 95 was manually annotated 28 times for cluster F1.
- Start number 106 was manually annotated 1 time for cluster F1.
- Start number 128 was manually annotated 2 times for cluster F1.
- Start number 129 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster FJ:

- Start number 133 was manually annotated 1 time for cluster FJ.

Info for manual annotations of cluster FN:

- Start number 92 was manually annotated 1 time for cluster FN.

Info for manual annotations of cluster I1:

- Start number 31 was manually annotated 1 time for cluster I1.
- Start number 58 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster K4:

- Start number 58 was manually annotated 19 times for cluster K4.

Info for manual annotations of cluster K8:

- Start number 58 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster N:

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

Info for manual annotations of cluster O:

- Start number 128 was manually annotated 1 time for cluster O.

Info for manual annotations of cluster P1:

- Start number 94 was manually annotated 1 time for cluster P1.
- Start number 106 was manually annotated 2 times for cluster P1.

Info for manual annotations of cluster T:

- Start number 100 was manually annotated 7 times for cluster T.

Gene Information:

Gene: Acme_70 Start: 44165, Stop: 43323, Start Num: 55

Candidate Starts for Acme_70:

(Start: 44 @44201 has 1 MA's), (Start: 49 @44186 has 6 MA's), (Start: 55 @44165 has 3 MA's), (Start: 60 @44135 has 1 MA's), (62, 44132), (68, 44102), (70, 44093), (83, 43973), (149, 43865), (169, 43796), (188, 43721), (252, 43535), (258, 43505), (287, 43346),

Gene: Ailee_83 Start: 57588, Stop: 58286, Start Num: 133

Candidate Starts for Ailee_83:

(10, 57051), (11, 57105), (76, 57276), (112, 57513), (117, 57537), (Start: 133 @57588 has 19 MA's), (148, 57636), (149, 57645), (151, 57657), (181, 57765), (201, 57825), (215, 57906), (219, 57921), (222, 57942), (247, 58074), (256, 58107), (264, 58149), (270, 58194), (276, 58227), (281, 58254), (286, 58275),

Gene: Ashballer_72 Start: 44821, Stop: 43955, Start Num: 47

Candidate Starts for Ashballer_72:

(39, 44848), (45, 44827), (Start: 47 @44821 has 7 MA's), (Start: 55 @44794 has 3 MA's), (Start: 60 @44764 has 1 MA's), (62, 44761), (68, 44731), (70, 44722), (83, 44602), (149, 44494), (169, 44425), (188, 44350), (252, 44164), (258, 44134), (287, 43975),

Gene: Aubs_67 Start: 44345, Stop: 45295, Start Num: 95

Candidate Starts for Aubs_67:

(Start: 95 @44345 has 28 MA's), (121, 44447), (Start: 129 @44477 has 1 MA's), (137, 44498), (154, 44570), (161, 44594), (167, 44618), (173, 44648), (174, 44654), (189, 44720), (191, 44726), (202, 44774), (210, 44837), (219, 44867), (258, 45086), (260, 45092), (264, 45116), (265, 45119), (267, 45149), (270, 45161), (276, 45194), (282, 45230), (283, 45239), (288, 45251), (291, 45257), (296, 45269), (300, 45278),

Gene: Barb_61 Start: 44265, Stop: 45221, Start Num: 58

Candidate Starts for Barb_61:

(Start: 58 @44265 has 46 MA's), (77, 44361), (82, 44451), (159, 44721), (169, 44745), (178, 44790), (180, 44796), (212, 44895), (253, 45006), (263, 45060),

Gene: Bartholomew_57 Start: 37622, Stop: 38488, Start Num: 106

Candidate Starts for Bartholomew_57:

(98, 37571), (102, 37586), (Start: 106 @37622 has 3 MA's), (Start: 131 @37721 has 1 MA's), (142, 37751), (150, 37784), (151, 37793), (163, 37841), (171, 37874), (193, 37943), (209, 38015), (211, 38039), (216, 38054), (245, 38225), (251, 38261), (262, 38327), (264, 38333), (281, 38438), (284, 38456),

Gene: Bernal13_60 Start: 41221, Stop: 41958, Start Num: 100

Candidate Starts for Bernal13_60:

(24, 40804), (74, 41062), (76, 41068), (Start: 100 @41221 has 7 MA's), (110, 41263), (Start: 128 @41335 has 4 MA's), (135, 41353), (169, 41479), (172, 41497), (200, 41611), (211, 41647), (239, 41692), (256, 41776), (257, 41785), (258, 41788), (261, 41797), (264, 41815), (288, 41947),

Gene: Bibwit_83 Start: 56952, Stop: 57692, Start Num: 133

Candidate Starts for Bibwit_83:

(11, 56205), (63, 56574), (76, 56640), (112, 56877), (117, 56901), (Start: 133 @56952 has 19 MA's), (148, 57000), (149, 57009), (151, 57021), (201, 57213), (205, 57228), (214, 57288), (215, 57294), (216, 57297), (219, 57309), (220, 57315), (222, 57330), (240, 57441), (264, 57555), (267, 57588), (270, 57600), (276, 57633), (281, 57660), (286, 57681),

Gene: Big3_68 Start: 44998, Stop: 44108, Start Num: 43

Candidate Starts for Big3_68:

(14, 45160), (19, 45127), (35, 45037), (Start: 43 @44998 has 1 MA's), (52, 44968), (53, 44965), (65, 44911), (71, 44878), (75, 44857), (85, 44752), (89, 44731), (97, 44710), (99, 44704), (121, 44629), (Start: 129 @44599 has 1 MA's), (172, 44482), (178, 44449), (242, 44368), (255, 44302), (266, 44242), (275, 44185), (276, 44179), (280, 44158),

Gene: Bigchungj_58 Start: 40164, Stop: 39178, Start Num: 30

Candidate Starts for Bigchungj_58:

(Start: 30 @40164 has 4 MA's), (56, 40056), (67, 40011), (Start: 94 @39927 has 2 MA's), (124, 39804), (144, 39750), (150, 39729), (151, 39720), (160, 39684), (177, 39606), (184, 39579), (186, 39573), (203, 39513), (204, 39510), (236, 39456), (250, 39384), (252, 39372), (254, 39363), (256, 39354), (261, 39333), (263, 39315), (267, 39279),

Gene: BlackSpider_65 Start: 37958, Stop: 38857, Start Num: 92

Candidate Starts for BlackSpider_65:

(2, 37145), (7, 37262), (8, 37301), (9, 37313), (20, 37547), (23, 37559), (69, 37790), (Start: 92 @37958 has 1 MA's), (96, 37967), (108, 38015), (119, 38063), (122, 38075), (140, 38129), (161, 38216), (219, 38489), (258, 38651), (264, 38681), (269, 38720), (270, 38726), (281, 38786), (288, 38816), (296, 38834), (300, 38843),

Gene: Blexus_65 Start: 44521, Stop: 45471, Start Num: 95

Candidate Starts for Blexus_65:

(Start: 95 @44521 has 28 MA's), (121, 44623), (Start: 129 @44653 has 1 MA's), (137, 44674), (154, 44746), (161, 44770), (167, 44794), (173, 44824), (174, 44830), (189, 44896), (191, 44902), (202, 44950), (210, 45013), (219, 45043), (258, 45262), (260, 45268), (264, 45292), (265, 45295), (267, 45325), (270, 45337), (276, 45370), (282, 45406), (283, 45415), (288, 45427), (291, 45433), (296, 45445), (300, 45454),

Gene: BobBob_87 Start: 57791, Stop: 58489, Start Num: 133

Candidate Starts for BobBob_87:

(11, 57044), (63, 57413), (76, 57479), (112, 57716), (117, 57740), (Start: 133 @57791 has 19 MA's), (148, 57839), (149, 57848), (151, 57860), (181, 57968), (201, 58028), (215, 58109), (219, 58124), (222, 58145), (247, 58277), (256, 58310), (264, 58352), (270, 58397), (276, 58430), (281, 58457), (286, 58478),

Gene: BobaPhett_71 Start: 46777, Stop: 47727, Start Num: 95

Candidate Starts for BobaPhett_71:

(Start: 95 @46777 has 28 MA's), (121, 46879), (Start: 129 @46909 has 1 MA's), (137, 46930), (154, 47002), (161, 47026), (167, 47050), (173, 47080), (174, 47086), (189, 47152), (191, 47158), (202, 47206), (210, 47269), (219, 47299), (258, 47518), (260, 47524), (264, 47548), (265, 47551), (267, 47581), (270, 47593), (276, 47626), (282, 47662), (283, 47671), (288, 47683), (291, 47689), (296, 47701), (300, 47710), (302, 47719),

Gene: Bobquesha_72 Start: 42529, Stop: 43374, Start Num: 58

Candidate Starts for Bobquesha_72:

(42, 42478), (Start: 58 @42529 has 46 MA's), (Start: 60 @42556 has 1 MA's), (67, 42586), (147, 42814), (162, 42874), (178, 42940), (242, 43114), (259, 43192), (264, 43219), (269, 43258), (276, 43297), (293, 43357),

Gene: Boilgate_61 Start: 43556, Stop: 44494, Start Num: 58

Candidate Starts for Boilgate_61:

(50, 43532), (Start: 58 @43556 has 46 MA's), (Start: 60 @43583 has 1 MA's), (63, 43589), (66, 43595), (67, 43613), (77, 43652), (82, 43742), (86, 43763), (89, 43772), (Start: 90 @43775 has 3 MA's), (111, 43835), (114, 43853), (147, 43940), (149, 43952), (151, 43964), (169, 44021), (178, 44066), (204, 44141), (252, 44291), (258, 44321), (264, 44351), (268, 44387),

Gene: Bran_64 Start: 40159, Stop: 40923, Start Num: 128

Candidate Starts for Bran_64:

(Start: 128 @40159 has 4 MA's), (142, 40192), (151, 40234), (155, 40249), (157, 40261), (163, 40282), (171, 40315), (193, 40384), (206, 40441), (208, 40450), (209, 40456), (215, 40492), (226, 40573), (245, 40663), (246, 40672), (251, 40699), (256, 40726), (272, 40828), (276, 40849), (280, 40870), (294, 40915), (297, 40918),

Gene: Brandonk123_89 Start: 57956, Stop: 58654, Start Num: 133

Candidate Starts for Brandonk123_89:

(10, 57155), (11, 57209), (63, 57578), (76, 57644), (112, 57881), (117, 57905), (Start: 133 @57956 has 19 MA's), (143, 57989), (148, 58004), (151, 58025), (181, 58133), (201, 58193), (215, 58274), (219, 58289), (222, 58310), (247, 58442), (256, 58475), (264, 58517), (270, 58562), (276, 58595), (281, 58622), (286, 58643),

Gene: BritBrat_76 Start: 47469, Stop: 48248, Start Num: 131

Candidate Starts for BritBrat_76:

(Start: 131 @47469 has 1 MA's), (143, 47505), (152, 47550), (157, 47562), (165, 47589), (193, 47703), (217, 47826), (225, 47892), (233, 47937), (234, 47940), (264, 48093), (286, 48222), (294, 48240),

Gene: Bubbles123_63 Start: 43534, Stop: 44484, Start Num: 95

Candidate Starts for Bubbles123_63:

(Start: 95 @43534 has 28 MA's), (121, 43636), (Start: 129 @43666 has 1 MA's), (137, 43687), (154, 43759), (161, 43783), (167, 43807), (173, 43837), (174, 43843), (189, 43909), (191, 43915), (202, 43963), (210, 44026), (219, 44056), (258, 44275), (260, 44281), (264, 44305), (265, 44308), (267, 44338), (270, 44350), (276, 44383), (282, 44419), (283, 44428), (288, 44440), (291, 44446), (296, 44458),

Gene: Burwell21_65 Start: 44099, Stop: 45049, Start Num: 95

Candidate Starts for Burwell21_65:

(Start: 95 @44099 has 28 MA's), (121, 44201), (Start: 129 @44231 has 1 MA's), (137, 44252), (154, 44324), (161, 44348), (167, 44372), (173, 44402), (174, 44408), (189, 44474), (191, 44480), (202, 44528), (210, 44591), (219, 44621), (258, 44840), (260, 44846), (264, 44870), (265, 44873), (267, 44903), (270, 44915), (276, 44948), (282, 44984), (283, 44993), (288, 45005), (291, 45011), (296, 45023), (300, 45032),

Gene: ByChance_60 Start: 40119, Stop: 41069, Start Num: 95

Candidate Starts for ByChance_60:

(Start: 95 @40119 has 28 MA's), (121, 40221), (Start: 129 @40251 has 1 MA's), (137, 40272), (154, 40344), (161, 40368), (167, 40392), (173, 40422), (174, 40428), (189, 40494), (191, 40500), (202, 40548), (210, 40611), (219, 40641), (258, 40860), (260, 40866), (264, 40890), (265, 40893), (267, 40923), (270, 40935), (276, 40968), (282, 41004), (283, 41013), (288, 41025), (291, 41031), (296, 41043), (300, 41052), (302, 41061),

Gene: Cabrinians_68 Start: 44177, Stop: 45127, Start Num: 95

Candidate Starts for Cabrinians_68:

(Start: 95 @44177 has 28 MA's), (121, 44279), (Start: 129 @44309 has 1 MA's), (137, 44330), (154, 44402), (161, 44426), (167, 44450), (173, 44480), (174, 44486), (189, 44552), (191, 44558), (202, 44606), (210, 44669), (219, 44699), (258, 44918), (260, 44924), (264, 44948), (265, 44951), (267,

44981), (270, 44993), (276, 45026), (282, 45062), (283, 45071), (288, 45083), (291, 45089), (296, 45101), (300, 45110),

Gene: CaptainTrips_65 Start: 43912, Stop: 44862, Start Num: 95

Candidate Starts for CaptainTrips_65:

(Start: 95 @43912 has 28 MA's), (121, 44014), (Start: 129 @44044 has 1 MA's), (137, 44065), (154, 44137), (161, 44161), (167, 44185), (173, 44215), (174, 44221), (189, 44287), (191, 44293), (202, 44341), (210, 44404), (219, 44434), (258, 44653), (260, 44659), (264, 44683), (265, 44686), (267, 44716), (270, 44728), (276, 44761), (282, 44797), (283, 44806), (288, 44818), (291, 44824), (296, 44836), (300, 44845),

Gene: Chancellor_71 Start: 43637, Stop: 44482, Start Num: 58

Candidate Starts for Chancellor_71:

(42, 43586), (Start: 58 @43637 has 46 MA's), (Start: 60 @43664 has 1 MA's), (67, 43694), (147, 43922), (149, 43934), (162, 43982), (178, 44048), (242, 44222), (259, 44300), (264, 44327), (269, 44366),

Gene: Cheetobro_71 Start: 43634, Stop: 44479, Start Num: 58

Candidate Starts for Cheetobro_71:

(42, 43583), (Start: 58 @43634 has 46 MA's), (Start: 60 @43661 has 1 MA's), (67, 43691), (147, 43919), (149, 43931), (162, 43979), (178, 44045), (242, 44219), (259, 44297), (264, 44324), (269, 44363),

Gene: ClamChowder_61 Start: 44265, Stop: 45221, Start Num: 58

Candidate Starts for ClamChowder_61:

(Start: 58 @44265 has 46 MA's), (77, 44361), (82, 44451), (159, 44721), (169, 44745), (178, 44790), (180, 44796), (212, 44895), (253, 45006), (263, 45060),

Gene: Clown_9 Start: 5559, Stop: 6242, Start Num: 105

Candidate Starts for Clown_9:

(88, 5499), (Start: 105 @5559 has 2 MA's), (123, 5628), (153, 5730), (158, 5751), (170, 5787), (182, 5847), (187, 5859), (195, 5883), (198, 5892), (233, 5964), (240, 6000), (241, 6003), (261, 6081), (273, 6162), (289, 6234),

Gene: Crumble_62 Start: 40074, Stop: 41024, Start Num: 95

Candidate Starts for Crumble_62:

(Start: 95 @40074 has 28 MA's), (121, 40176), (Start: 129 @40206 has 1 MA's), (137, 40227), (154, 40299), (161, 40323), (167, 40347), (173, 40377), (174, 40383), (189, 40449), (191, 40455), (202, 40503), (210, 40566), (219, 40596), (258, 40815), (260, 40821), (264, 40845), (265, 40848), (267, 40878), (270, 40890), (276, 40923), (282, 40959), (283, 40968), (288, 40980), (291, 40986), (296, 40998), (300, 41007), (302, 41016),

Gene: DLane_61 Start: 40914, Stop: 41870, Start Num: 58

Candidate Starts for DLane_61:

(Start: 58 @40914 has 46 MA's), (Start: 60 @40941 has 1 MA's), (72, 40983), (77, 41010), (78, 41034), (79, 41049), (82, 41100), (Start: 90 @41133 has 3 MA's), (120, 41211), (125, 41235), (139, 41271), (145, 41286), (149, 41307), (151, 41319), (169, 41376), (178, 41421), (199, 41484), (206, 41505), (242, 41607), (264, 41712),

Gene: DaWorst_67 Start: 43677, Stop: 44627, Start Num: 95

Candidate Starts for DaWorst_67:

(Start: 95 @43677 has 28 MA's), (121, 43779), (Start: 129 @43809 has 1 MA's), (137, 43830), (154, 43902), (161, 43926), (167, 43950), (173, 43980), (174, 43986), (189, 44052), (191, 44058), (202,

44106), (210, 44169), (219, 44199), (258, 44418), (260, 44424), (264, 44448), (265, 44451), (267, 44481), (270, 44493), (276, 44526), (282, 44562), (283, 44571), (288, 44583), (291, 44589), (296, 44601), (300, 44610),

Gene: Danyall_60 Start: 44369, Stop: 45325, Start Num: 58

Candidate Starts for Danyall_60:

(28, 44243), (38, 44309), (Start: 58 @44369 has 46 MA's), (77, 44465), (82, 44555), (159, 44825), (169, 44849), (178, 44894), (180, 44900), (212, 44999), (253, 45110), (263, 45164),

Gene: Doom_57 Start: 40834, Stop: 39845, Start Num: 32

Candidate Starts for Doom_57:

(Start: 32 @40834 has 1 MA's), (33, 40828), (36, 40798), (40, 40786), (56, 40729), (70, 40645), (113, 40408), (144, 40312), (151, 40282), (153, 40270), (166, 40225), (196, 40213), (204, 40183), (249, 40060), (252, 40045), (255, 40030), (256, 40027), (263, 39988), (285, 39859),

Gene: Emma_69 Start: 43700, Stop: 44650, Start Num: 95

Candidate Starts for Emma_69:

(Start: 95 @43700 has 28 MA's), (121, 43802), (Start: 129 @43832 has 1 MA's), (137, 43853), (154, 43925), (161, 43949), (167, 43973), (173, 44003), (174, 44009), (189, 44075), (191, 44081), (202, 44129), (210, 44192), (219, 44222), (221, 44240), (231, 44306), (258, 44441), (260, 44447), (264, 44471), (265, 44474), (267, 44504), (270, 44516), (276, 44549), (282, 44585), (283, 44594), (288, 44606), (291, 44612), (296, 44624), (300, 44633),

Gene: Emmaloid_67 Start: 43421, Stop: 44344, Start Num: 58

Candidate Starts for Emmaloid_67:

(Start: 58 @43421 has 46 MA's), (Start: 60 @43448 has 1 MA's), (72, 43490), (82, 43607), (85, 43616), (89, 43637), (115, 43703), (149, 43739), (151, 43751), (169, 43808), (178, 43853), (180, 43859), (242, 44084), (243, 44087),

Gene: Eponine_73 Start: 44480, Stop: 45325, Start Num: 58

Candidate Starts for Eponine_73:

(42, 44429), (Start: 58 @44480 has 46 MA's), (Start: 60 @44507 has 1 MA's), (67, 44537), (147, 44765), (149, 44777), (162, 44825), (178, 44891), (242, 45065), (259, 45143), (264, 45170), (269, 45209),

Gene: Estave1_72 Start: 46536, Stop: 47486, Start Num: 95

Candidate Starts for Estave1_72:

(Start: 95 @46536 has 28 MA's), (121, 46638), (Start: 129 @46668 has 1 MA's), (137, 46689), (154, 46761), (161, 46785), (167, 46809), (173, 46839), (174, 46845), (189, 46911), (191, 46917), (202, 46965), (210, 47028), (219, 47058), (258, 47277), (260, 47283), (264, 47307), (265, 47310), (267, 47340), (270, 47352), (276, 47385), (282, 47421), (283, 47430), (288, 47442), (291, 47448), (296, 47460), (300, 47469), (302, 47478),

Gene: Fajezeel_69 Start: 43491, Stop: 42613, Start Num: 44

Candidate Starts for Fajezeel_69:

(Start: 44 @43491 has 1 MA's), (Start: 49 @43476 has 6 MA's), (Start: 55 @43455 has 3 MA's), (Start: 60 @43425 has 1 MA's), (62, 43422), (68, 43392), (70, 43383), (83, 43263), (149, 43155), (169, 43086), (188, 43011), (252, 42825), (258, 42795), (287, 42636),

Gene: Fancypants_70 Start: 44712, Stop: 45662, Start Num: 95

Candidate Starts for Fancypants_70:

(Start: 95 @44712 has 28 MA's), (121, 44814), (Start: 129 @44844 has 1 MA's), (137, 44865), (154, 44937), (161, 44961), (167, 44985), (173, 45015), (174, 45021), (189, 45087), (191, 45093), (202,

45141), (210, 45204), (219, 45234), (258, 45453), (260, 45459), (264, 45483), (265, 45486), (267, 45516), (270, 45528), (276, 45561), (282, 45597), (283, 45606), (288, 45618), (291, 45624), (296, 45636), (300, 45645),

Gene: Filuzino_64 Start: 41219, Stop: 42205, Start Num: 58

Candidate Starts for Filuzino_64:

(Start: 58 @41219 has 46 MA's), (Start: 60 @41246 has 1 MA's), (63, 41252), (72, 41288), (77, 41315), (78, 41339), (79, 41354), (82, 41405), (Start: 90 @41438 has 3 MA's), (97, 41456), (130, 41585), (139, 41609), (151, 41657), (169, 41714), (242, 41942), (252, 41987), (254, 41996), (264, 42047),

Gene: Fionnbharth_71 Start: 43878, Stop: 44723, Start Num: 58

Candidate Starts for Fionnbharth_71:

(42, 43827), (Start: 58 @43878 has 46 MA's), (Start: 60 @43905 has 1 MA's), (67, 43935), (147, 44163), (149, 44175), (162, 44223), (178, 44289), (242, 44463), (259, 44541), (264, 44568), (269, 44607),

Gene: Fitzgerald_83 Start: 58102, Stop: 58800, Start Num: 133

Candidate Starts for Fitzgerald_83:

(11, 57355), (63, 57724), (76, 57790), (112, 58027), (117, 58051), (Start: 133 @58102 has 19 MA's), (148, 58150), (149, 58159), (151, 58171), (181, 58279), (201, 58339), (215, 58420), (219, 58435), (222, 58456), (247, 58588), (256, 58621), (264, 58663), (270, 58708), (276, 58741), (281, 58768), (286, 58789),

Gene: Flathead_72 Start: 45157, Stop: 46023, Start Num: 106

Candidate Starts for Flathead_72:

(87, 45073), (93, 45085), (Start: 106 @45157 has 3 MA's), (Start: 131 @45256 has 1 MA's), (142, 45286), (150, 45319), (151, 45328), (163, 45376), (171, 45409), (193, 45478), (209, 45550), (211, 45574), (216, 45589), (245, 45760), (251, 45796), (262, 45862), (264, 45868), (281, 45973), (284, 45991),

Gene: Fosterous_87 Start: 58250, Stop: 58948, Start Num: 133

Candidate Starts for Fosterous_87:

(112, 58175), (117, 58199), (Start: 133 @58250 has 19 MA's), (148, 58298), (149, 58307), (151, 58319), (181, 58427), (201, 58487), (215, 58568), (219, 58583), (222, 58604), (247, 58736), (256, 58769), (264, 58811), (270, 58856), (276, 58889), (281, 58916), (286, 58937),

Gene: Frokostdame_67 Start: 43587, Stop: 44648, Start Num: 57

Candidate Starts for Frokostdame_67:

(Start: 57 @43587 has 1 MA's), (Start: 58 @43590 has 46 MA's), (77, 43686), (80, 43743), (82, 43776), (116, 43920), (146, 44010), (147, 44016), (151, 44040), (159, 44073), (169, 44097), (178, 44142), (180, 44148), (242, 44388), (253, 44436), (264, 44493), (274, 44559),

Gene: Fugax_62 Start: 44257, Stop: 45213, Start Num: 58

Candidate Starts for Fugax_62:

(Start: 58 @44257 has 46 MA's), (77, 44353), (82, 44443), (159, 44713), (169, 44737), (178, 44782), (180, 44788), (212, 44887), (253, 44998), (263, 45052),

Gene: GMA1_63 Start: 37160, Stop: 38131, Start Num: 90

Candidate Starts for GMA1_63:

(Start: 90 @37160 has 3 MA's), (93, 37166), (107, 37220), (154, 37400), (164, 37439), (185, 37535), (207, 37634), (210, 37667), (219, 37697), (220, 37703), (282, 38075),

Gene: Galadriel_86 Start: 58466, Stop: 59212, Start Num: 133

Candidate Starts for Galadriel_86:

(112, 58391), (117, 58415), (Start: 133 @58466 has 19 MA's), (148, 58514), (149, 58523), (151, 58535), (201, 58733), (205, 58748), (214, 58808), (215, 58814), (216, 58817), (219, 58829), (220, 58835), (222, 58850), (240, 58961), (264, 59075), (270, 59120), (276, 59153), (281, 59180), (286, 59201),

Gene: GrecoEtereo_68 Start: 43047, Stop: 42184, Start Num: 49

Candidate Starts for GrecoEtereo_68:

(Start: 44 @43062 has 1 MA's), (Start: 49 @43047 has 6 MA's), (Start: 55 @43026 has 3 MA's), (Start: 60 @42996 has 1 MA's), (62, 42993), (68, 42963), (70, 42954), (83, 42834), (149, 42726), (169, 42657), (188, 42582), (252, 42396), (258, 42366), (287, 42207),

Gene: Greg_69 Start: 43455, Stop: 42613, Start Num: 55

Candidate Starts for Greg_69:

(Start: 44 @43491 has 1 MA's), (Start: 49 @43476 has 6 MA's), (Start: 55 @43455 has 3 MA's), (Start: 60 @43425 has 1 MA's), (62, 43422), (68, 43392), (70, 43383), (83, 43263), (149, 43155), (169, 43086), (188, 43011), (252, 42825), (258, 42795), (287, 42636),

Gene: HC_55 Start: 36568, Stop: 37686, Start Num: 31

Candidate Starts for HC_55:

(22, 36517), (26, 36532), (Start: 31 @36568 has 1 MA's), (Start: 58 @36679 has 46 MA's), (Start: 60 @36709 has 1 MA's), (77, 36778), (78, 36802), (79, 36817), (82, 36868), (Start: 90 @36901 has 3 MA's), (130, 37048), (139, 37072), (151, 37120), (169, 37177), (178, 37222), (232, 37384), (242, 37423), (264, 37528),

Gene: HarryOW_66 Start: 43503, Stop: 42691, Start Num: 60

Candidate Starts for HarryOW_66:

(Start: 44 @43569 has 1 MA's), (Start: 49 @43554 has 6 MA's), (Start: 55 @43533 has 3 MA's), (Start: 60 @43503 has 1 MA's), (62, 43500), (68, 43470), (70, 43461), (83, 43341), (149, 43233), (169, 43164), (188, 43089), (252, 42903), (258, 42873), (287, 42714),

Gene: Hegedechwinu_81 Start: 47355, Stop: 48155, Start Num: 128

Candidate Starts for Hegedechwinu_81:

(Start: 128 @47355 has 4 MA's), (Start: 129 @47358 has 1 MA's), (142, 47391), (150, 47424), (151, 47433), (163, 47481), (171, 47514), (193, 47583), (209, 47655), (211, 47679), (216, 47694), (245, 47865), (251, 47901), (262, 47967), (264, 47973), (281, 48078), (284, 48096), (298, 48126),

Gene: Holliday_69 Start: 42905, Stop: 43861, Start Num: 90

Candidate Starts for Holliday_69:

(Start: 90 @42905 has 3 MA's), (108, 42965), (122, 43025), (137, 43070), (154, 43142), (167, 43190), (174, 43226), (189, 43292), (191, 43298), (219, 43439), (238, 43550), (270, 43733), (288, 43823), (291, 43829),

Gene: IMpilo_61 Start: 40322, Stop: 41200, Start Num: 58

Candidate Starts for IMpilo_61:

(Start: 58 @40322 has 46 MA's), (Start: 60 @40349 has 1 MA's), (63, 40355), (72, 40391), (82, 40508), (85, 40517), (86, 40529), (89, 40538), (126, 40604), (169, 40709), (178, 40754), (180, 40760), (199, 40817), (206, 40838), (242, 40940), (255, 41000), (264, 41045),

Gene: Ibrahim_60 Start: 41425, Stop: 42162, Start Num: 100

Candidate Starts for Ibrahim_60:

(24, 41008), (74, 41266), (76, 41272), (Start: 100 @41425 has 7 MA's), (110, 41467), (Start: 128 @41539 has 4 MA's), (135, 41557), (169, 41683), (172, 41701), (200, 41815), (211, 41851), (239,

41896), (256, 41980), (257, 41989), (258, 41992), (261, 42001), (264, 42019), (288, 42151),

Gene: JF1_71 Start: 43844, Stop: 44689, Start Num: 58

Candidate Starts for JF1_71:

(Start: 58 @43844 has 46 MA's), (Start: 60 @43871 has 1 MA's), (67, 43901), (147, 44129), (149, 44141), (162, 44189), (178, 44255), (242, 44429), (259, 44507), (264, 44534), (269, 44573),

Gene: JKSyngboy_82 Start: 57242, Stop: 57988, Start Num: 132

Candidate Starts for JKSyngboy_82:

(11, 56504), (59, 56852), (112, 57170), (117, 57194), (Start: 132 @57242 has 1 MA's), (143, 57275), (148, 57290), (149, 57299), (151, 57311), (194, 57479), (201, 57509), (205, 57524), (215, 57590), (216, 57593), (219, 57605), (220, 57611), (222, 57626), (235, 57704), (264, 57851), (270, 57896), (282, 57965),

Gene: Jabberwocky_84 Start: 58563, Stop: 59261, Start Num: 133

Candidate Starts for Jabberwocky_84:

(11, 57816), (63, 58185), (76, 58251), (112, 58488), (117, 58512), (Start: 133 @58563 has 19 MA's), (148, 58611), (149, 58620), (151, 58632), (181, 58740), (201, 58800), (215, 58881), (219, 58896), (222, 58917), (247, 59049), (256, 59082), (264, 59124), (270, 59169), (276, 59202), (281, 59229), (286, 59250),

Gene: JalFarm20_88 Start: 49372, Stop: 50172, Start Num: 128

Candidate Starts for JalFarm20_88:

(Start: 128 @49372 has 4 MA's), (Start: 129 @49375 has 1 MA's), (142, 49408), (150, 49441), (151, 49450), (163, 49498), (171, 49531), (193, 49600), (209, 49672), (211, 49696), (216, 49711), (245, 49882), (251, 49918), (262, 49984), (264, 49990), (281, 50095), (284, 50113), (298, 50143),

Gene: Jacob_66 Start: 44101, Stop: 45051, Start Num: 95

Candidate Starts for Jacob_66:

(Start: 95 @44101 has 28 MA's), (121, 44203), (Start: 129 @44233 has 1 MA's), (137, 44254), (154, 44326), (161, 44350), (167, 44374), (173, 44404), (174, 44410), (189, 44476), (191, 44482), (202, 44530), (210, 44593), (219, 44623), (221, 44641), (231, 44707), (258, 44842), (260, 44848), (264, 44872), (267, 44905), (270, 44917), (276, 44950), (282, 44986), (283, 44995), (288, 45007), (291, 45013), (296, 45025), (300, 45034),

Gene: Journey_55 Start: 36648, Stop: 37631, Start Num: 58

Candidate Starts for Journey_55:

(Start: 58 @36648 has 46 MA's), (Start: 60 @36675 has 1 MA's), (72, 36717), (82, 36834), (89, 36864), (Start: 133 @37020 has 19 MA's), (169, 37143), (178, 37188), (180, 37194), (194, 37236), (242, 37362), (253, 37410), (258, 37437),

Gene: JuliaChild_70 Start: 44385, Stop: 43519, Start Num: 47

Candidate Starts for JuliaChild_70:

(39, 44412), (45, 44391), (Start: 47 @44385 has 7 MA's), (Start: 60 @44328 has 1 MA's), (62, 44325), (68, 44295), (70, 44286), (83, 44166), (149, 44058), (169, 43989), (188, 43914), (252, 43728), (258, 43698), (287, 43539),

Gene: Juliette_73 Start: 43942, Stop: 44787, Start Num: 58

Candidate Starts for Juliette_73:

(42, 43891), (Start: 58 @43942 has 46 MA's), (Start: 60 @43969 has 1 MA's), (67, 43999), (147, 44227), (149, 44239), (162, 44287), (178, 44353), (242, 44527), (259, 44605), (264, 44632), (269, 44671),

Gene: Juniper1_66 Start: 43088, Stop: 44041, Start Num: 58

Candidate Starts for Juniper1_66:

(18, 42911), (22, 42926), (41, 43031), (Start: 58 @43088 has 46 MA's), (Start: 60 @43115 has 1 MA's), (63, 43121), (67, 43145), (82, 43274), (85, 43283), (89, 43304), (169, 43541), (172, 43553), (175, 43565), (180, 43592), (198, 43646), (223, 43712), (229, 43745), (242, 43781), (264, 43886),

Gene: KSSJEB_67 Start: 42872, Stop: 42006, Start Num: 49

Candidate Starts for KSSJEB_67:

(Start: 44 @42887 has 1 MA's), (Start: 49 @42872 has 6 MA's), (Start: 55 @42851 has 3 MA's), (Start: 60 @42818 has 1 MA's), (62, 42815), (68, 42785), (70, 42776), (83, 42656), (149, 42548), (169, 42479), (188, 42404), (252, 42218), (258, 42188), (287, 42029),

Gene: Kamashten_86 Start: 58360, Stop: 59106, Start Num: 133

Candidate Starts for Kamashten_86:

(112, 58285), (117, 58309), (Start: 133 @58360 has 19 MA's), (148, 58408), (149, 58417), (151, 58429), (201, 58627), (205, 58642), (214, 58702), (215, 58708), (216, 58711), (219, 58723), (220, 58729), (222, 58744), (240, 58855), (264, 58969), (270, 59014), (276, 59047), (281, 59074), (286, 59095),

Gene: Keitabear_83 Start: 58873, Stop: 59571, Start Num: 133

Candidate Starts for Keitabear_83:

(11, 58126), (63, 58495), (76, 58561), (112, 58798), (117, 58822), (Start: 133 @58873 has 19 MA's), (148, 58921), (149, 58930), (151, 58942), (181, 59050), (201, 59110), (215, 59191), (219, 59206), (222, 59227), (247, 59359), (256, 59392), (264, 59434), (270, 59479), (276, 59512), (281, 59539), (286, 59560),

Gene: KimmyK_60 Start: 44699, Stop: 45655, Start Num: 58

Candidate Starts for KimmyK_60:

(Start: 58 @44699 has 46 MA's), (77, 44795), (82, 44885), (159, 45155), (169, 45179), (178, 45224), (180, 45230), (212, 45329), (253, 45440), (263, 45494),

Gene: Koella_61 Start: 40075, Stop: 41025, Start Num: 95

Candidate Starts for Koella_61:

(Start: 95 @40075 has 28 MA's), (121, 40177), (Start: 129 @40207 has 1 MA's), (137, 40228), (154, 40300), (161, 40324), (167, 40348), (173, 40378), (174, 40384), (189, 40450), (191, 40456), (202, 40504), (210, 40567), (219, 40597), (258, 40816), (260, 40822), (264, 40846), (265, 40849), (267, 40879), (270, 40891), (276, 40924), (282, 40960), (283, 40969), (288, 40981), (291, 40987), (296, 40999), (300, 41008),

Gene: Kraw_72 Start: 43630, Stop: 44475, Start Num: 58

Candidate Starts for Kraw_72:

(42, 43579), (Start: 58 @43630 has 46 MA's), (Start: 60 @43657 has 1 MA's), (67, 43687), (147, 43915), (149, 43927), (162, 43975), (178, 44041), (242, 44215), (259, 44293), (264, 44320), (269, 44359),

Gene: Lamina13_71 Start: 44833, Stop: 43967, Start Num: 47

Candidate Starts for Lamina13_71:

(39, 44860), (45, 44839), (Start: 47 @44833 has 7 MA's), (Start: 60 @44776 has 1 MA's), (62, 44773), (68, 44743), (70, 44734), (83, 44614), (149, 44506), (169, 44437), (188, 44362), (252, 44176), (258, 44146), (287, 43987),

Gene: Lebo14_72 Start: 43963, Stop: 44808, Start Num: 58

Candidate Starts for Lebo14_72:

(42, 43912), (Start: 58 @43963 has 46 MA's), (Start: 60 @43990 has 1 MA's), (67, 44020), (147, 44248), (149, 44260), (162, 44308), (178, 44374), (242, 44548), (259, 44626), (264, 44653), (269, 44692),

Gene: Lennon_85 Start: 59303, Stop: 60049, Start Num: 133

Candidate Starts for Lennon_85:

(11, 58556), (63, 58925), (76, 58991), (112, 59228), (117, 59252), (Start: 133 @59303 has 19 MA's), (148, 59351), (149, 59360), (151, 59372), (201, 59570), (205, 59585), (214, 59645), (215, 59651), (216, 59654), (219, 59666), (220, 59672), (222, 59687), (240, 59798), (264, 59912), (270, 59957), (276, 59990), (281, 60017), (286, 60038),

Gene: Love_91 Start: 59114, Stop: 59854, Start Num: 133

Candidate Starts for Love_91:

(112, 59039), (117, 59063), (Start: 133 @59114 has 19 MA's), (143, 59147), (148, 59162), (149, 59171), (151, 59183), (168, 59249), (201, 59375), (205, 59390), (215, 59456), (216, 59459), (219, 59471), (222, 59492), (240, 59603), (264, 59717), (270, 59762), (276, 59795), (281, 59822), (286, 59843),

Gene: Makemake_60 Start: 41383, Stop: 40385, Start Num: 30

Candidate Starts for Makemake_60:

(Start: 30 @41383 has 4 MA's), (54, 41284), (56, 41275), (64, 41230), (78, 41146), (Start: 100 @41023 has 7 MA's), (109, 40981), (153, 40816), (203, 40726), (204, 40723), (249, 40600), (252, 40585), (255, 40570), (256, 40567), (263, 40528), (285, 40399),

Gene: Malisha_72 Start: 44709, Stop: 45665, Start Num: 90

Candidate Starts for Malisha_72:

(Start: 90 @44709 has 3 MA's), (154, 44946), (167, 44994), (173, 45024), (174, 45030), (178, 45051), (221, 45261), (267, 45525), (269, 45531), (270, 45537), (288, 45627),

Gene: Malthus_72 Start: 43630, Stop: 44475, Start Num: 58

Candidate Starts for Malthus_72:

(42, 43579), (Start: 58 @43630 has 46 MA's), (Start: 60 @43657 has 1 MA's), (67, 43687), (147, 43915), (149, 43927), (162, 43975), (178, 44041), (242, 44215), (259, 44293), (264, 44320), (269, 44359),

Gene: Mantra_63 Start: 41560, Stop: 42504, Start Num: 58

Candidate Starts for Mantra_63:

(Start: 58 @41560 has 46 MA's), (81, 41737), (82, 41746), (Start: 90 @41779 has 3 MA's), (116, 41854), (169, 42025), (178, 42070), (180, 42076), (199, 42133), (223, 42184), (242, 42244), (252, 42289), (255, 42304), (264, 42349),

Gene: Maravista_69 Start: 46025, Stop: 46975, Start Num: 95

Candidate Starts for Maravista_69:

(Start: 95 @46025 has 28 MA's), (121, 46127), (Start: 129 @46157 has 1 MA's), (137, 46178), (154, 46250), (161, 46274), (167, 46298), (173, 46328), (174, 46334), (189, 46400), (191, 46406), (202, 46454), (210, 46517), (219, 46547), (258, 46766), (260, 46772), (264, 46796), (265, 46799), (267, 46829), (270, 46841), (276, 46874), (282, 46910), (283, 46919), (288, 46931), (291, 46937), (296, 46949), (300, 46958),

Gene: Marchy_62 Start: 40457, Stop: 39594, Start Num: 49

Candidate Starts for Marchy_62:

(Start: 44 @40472 has 1 MA's), (Start: 49 @40457 has 6 MA's), (Start: 55 @40436 has 3 MA's), (Start: 60 @40406 has 1 MA's), (62, 40403), (68, 40373), (70, 40364), (83, 40244), (149, 40136), (169,

40067), (188, 39992), (252, 39806), (258, 39776), (287, 39617),

Gene: Mbo4_26 Start: 25859, Stop: 26965, Start Num: 58

Candidate Starts for Mbo4_26:

(Start: 58 @25859 has 46 MA's), (72, 25931), (82, 26048), (89, 26078), (99, 26105), (149, 26255), (169, 26324), (178, 26369), (213, 26525), (242, 26705), (253, 26753), (274, 26876), (280, 26909), (281, 26915), (290, 26942),

Gene: McKinley_88 Start: 58094, Stop: 58834, Start Num: 133

Candidate Starts for McKinley_88:

(10, 57293), (11, 57347), (63, 57716), (76, 57782), (112, 58019), (117, 58043), (Start: 133 @58094 has 19 MA's), (143, 58127), (148, 58142), (149, 58151), (151, 58163), (201, 58355), (205, 58370), (215, 58436), (216, 58439), (219, 58451), (222, 58472), (240, 58583), (264, 58697), (270, 58742), (276, 58775), (281, 58802), (286, 58823),

Gene: Megiddo_59 Start: 40265, Stop: 41059, Start Num: 94

Candidate Starts for Megiddo_59:

(Start: 94 @40265 has 2 MA's), (110, 40325), (112, 40337), (118, 40361), (134, 40412), (174, 40568), (183, 40610), (190, 40628), (211, 40709), (255, 40829), (256, 40832), (258, 40844), (266, 40886), (268, 40907), (270, 40916), (271, 40919), (278, 40955), (279, 40964), (292, 41009), (301, 41033),

Gene: Mendokysei_64 Start: 42338, Stop: 43075, Start Num: 100

Candidate Starts for Mendokysei_64:

(Start: 100 @42338 has 7 MA's), (104, 42356), (110, 42380), (Start: 128 @42452 has 4 MA's), (169, 42596), (200, 42728), (211, 42764), (239, 42809), (256, 42893), (258, 42905), (264, 42932),

Gene: MinionDave_66 Start: 44448, Stop: 45398, Start Num: 95

Candidate Starts for MinionDave_66:

(Start: 95 @44448 has 28 MA's), (121, 44550), (Start: 129 @44580 has 1 MA's), (137, 44601), (154, 44673), (161, 44697), (167, 44721), (173, 44751), (174, 44757), (189, 44823), (191, 44829), (202, 44877), (210, 44940), (219, 44970), (258, 45189), (260, 45195), (264, 45219), (265, 45222), (267, 45252), (270, 45264), (276, 45297), (282, 45333), (283, 45342), (288, 45354), (291, 45360), (296, 45372), (300, 45381),

Gene: MissDaisy_68 Start: 42544, Stop: 43389, Start Num: 58

Candidate Starts for MissDaisy_68:

(42, 42493), (Start: 58 @42544 has 46 MA's), (Start: 60 @42571 has 1 MA's), (67, 42601), (147, 42829), (149, 42841), (162, 42889), (178, 42955), (224, 43078), (242, 43129), (259, 43207), (264, 43234), (269, 43273), (293, 43372),

Gene: Mitti_71 Start: 43785, Stop: 44630, Start Num: 58

Candidate Starts for Mitti_71:

(42, 43734), (Start: 58 @43785 has 46 MA's), (Start: 60 @43812 has 1 MA's), (67, 43842), (147, 44070), (149, 44082), (162, 44130), (178, 44196), (242, 44370), (259, 44448), (264, 44475), (269, 44514),

Gene: Moonbeam_66 Start: 43629, Stop: 44579, Start Num: 95

Candidate Starts for Moonbeam_66:

(Start: 95 @43629 has 28 MA's), (121, 43731), (Start: 129 @43761 has 1 MA's), (137, 43782), (154, 43854), (161, 43878), (167, 43902), (173, 43932), (174, 43938), (189, 44004), (191, 44010), (202, 44058), (210, 44121), (219, 44151), (221, 44169), (231, 44235), (258, 44370), (260, 44376), (264, 44400), (265, 44403), (267, 44433), (270, 44445), (276, 44478), (282, 44514), (283, 44523), (288, 44535), (291, 44541), (296, 44553), (300, 44562),

Gene: Nairb_58 Start: 41222, Stop: 41959, Start Num: 100

Candidate Starts for Nairb_58:

(74, 41063), (76, 41069), (Start: 100 @41222 has 7 MA's), (110, 41264), (Start: 128 @41336 has 4 MA's), (135, 41354), (169, 41480), (172, 41498), (200, 41612), (211, 41648), (239, 41693), (256, 41777), (257, 41786), (258, 41789), (261, 41798), (264, 41816), (288, 41948),

Gene: NormanBulbieJr_67 Start: 44088, Stop: 45038, Start Num: 95

Candidate Starts for NormanBulbieJr_67:

(Start: 95 @44088 has 28 MA's), (121, 44190), (Start: 129 @44220 has 1 MA's), (137, 44241), (154, 44313), (161, 44337), (167, 44361), (173, 44391), (174, 44397), (189, 44463), (191, 44469), (202, 44517), (210, 44580), (219, 44610), (258, 44829), (260, 44835), (264, 44859), (265, 44862), (267, 44892), (270, 44904), (276, 44937), (282, 44973), (283, 44982), (288, 44994), (291, 45000), (296, 45012), (300, 45021),

Gene: OmniCritical_70 Start: 43718, Stop: 44563, Start Num: 58

Candidate Starts for OmniCritical_70:

(Start: 58 @43718 has 46 MA's), (Start: 60 @43745 has 1 MA's), (67, 43775), (147, 44003), (149, 44015), (162, 44063), (178, 44129), (242, 44303), (259, 44381), (264, 44408), (269, 44447),

Gene: PFR1_39 Start: 29215, Stop: 30003, Start Num: 95

Candidate Starts for PFR1_39:

(15, 28762), (17, 28789), (51, 28948), (Start: 94 @29212 has 2 MA's), (Start: 95 @29215 has 28 MA's), (103, 29242), (110, 29272), (112, 29284), (127, 29341), (Start: 128 @29344 has 4 MA's), (138, 29371), (173, 29515), (183, 29563), (190, 29581), (192, 29593), (211, 29662), (236, 29683), (244, 29722), (256, 29779), (266, 29833), (276, 29896), (277, 29899), (280, 29917),

Gene: PFR2_41 Start: 30784, Stop: 31572, Start Num: 95

Candidate Starts for PFR2_41:

(15, 30331), (17, 30358), (51, 30517), (Start: 94 @30781 has 2 MA's), (Start: 95 @30784 has 28 MA's), (103, 30811), (110, 30841), (112, 30853), (127, 30910), (Start: 128 @30913 has 4 MA's), (138, 30940), (173, 31084), (183, 31132), (190, 31150), (192, 31162), (211, 31231), (236, 31252), (244, 31291), (256, 31348), (266, 31402), (276, 31465), (277, 31468), (280, 31486),

Gene: PSullivan_67 Start: 42452, Stop: 41586, Start Num: 47

Candidate Starts for PSullivan_67:

(39, 42479), (45, 42458), (Start: 47 @42452 has 7 MA's), (Start: 60 @42395 has 1 MA's), (62, 42392), (68, 42362), (70, 42353), (83, 42233), (149, 42125), (169, 42056), (188, 41981), (252, 41795), (258, 41765), (287, 41606),

Gene: Patt_67 Start: 42268, Stop: 43113, Start Num: 58

Candidate Starts for Patt_67:

(42, 42217), (Start: 58 @42268 has 46 MA's), (Start: 60 @42295 has 1 MA's), (67, 42325), (147, 42553), (149, 42565), (162, 42613), (178, 42679), (242, 42853), (259, 42931), (264, 42958), (269, 42997), (276, 43036), (293, 43096),

Gene: PattyP_61 Start: 41484, Stop: 40504, Start Num: 30

Candidate Starts for PattyP_61:

(Start: 30 @41484 has 4 MA's), (48, 41406), (56, 41376), (113, 41055), (124, 41013), (144, 40959), (150, 40938), (151, 40929), (160, 40893), (236, 40782), (252, 40698), (254, 40689), (256, 40680), (261, 40659), (263, 40641), (267, 40605),

Gene: Payneful_66 Start: 43153, Stop: 42311, Start Num: 55

Candidate Starts for Payneful_66:

(Start: 44 @43189 has 1 MA's), (Start: 49 @43174 has 6 MA's), (Start: 55 @43153 has 3 MA's), (Start: 60 @43123 has 1 MA's), (62, 43120), (68, 43090), (70, 43081), (83, 42961), (149, 42853), (169, 42784), (188, 42709), (252, 42523), (258, 42493), (287, 42334),

Gene: Petra_69 Start: 42660, Stop: 43718, Start Num: 58

Candidate Starts for Petra_69:

(1, 41811), (6, 42207), (12, 42426), (13, 42438), (16, 42486), (27, 42534), (Start: 58 @42660 has 46 MA's), (77, 42756), (80, 42813), (82, 42846), (89, 42876), (116, 42990), (146, 43080), (159, 43143), (169, 43167), (175, 43191), (178, 43212), (180, 43218), (212, 43317), (253, 43506), (255, 43518),

Gene: Phalconet_64 Start: 40982, Stop: 41998, Start Num: 58

Candidate Starts for Phalconet_64:

(Start: 58 @40982 has 46 MA's), (Start: 60 @41009 has 1 MA's), (72, 41051), (77, 41078), (82, 41168), (85, 41177), (86, 41189), (89, 41198), (111, 41258), (139, 41354), (149, 41390), (151, 41402), (169, 41459), (178, 41504), (180, 41510), (242, 41735), (252, 41780), (264, 41840),

Gene: PinkCoffee_61 Start: 44274, Stop: 45227, Start Num: 58

Candidate Starts for PinkCoffee_61:

(Start: 58 @44274 has 46 MA's), (77, 44370), (82, 44460), (159, 44727), (169, 44751), (178, 44796), (180, 44802), (212, 44901), (253, 45012), (263, 45066),

Gene: Pippy_66 Start: 43387, Stop: 44337, Start Num: 95

Candidate Starts for Pippy_66:

(Start: 95 @43387 has 28 MA's), (121, 43489), (Start: 129 @43519 has 1 MA's), (137, 43540), (154, 43612), (161, 43636), (167, 43660), (173, 43690), (174, 43696), (189, 43762), (191, 43768), (202, 43816), (210, 43879), (219, 43909), (258, 44128), (260, 44134), (264, 44158), (265, 44161), (267, 44191), (270, 44203), (276, 44236), (282, 44272), (283, 44281), (288, 44293), (291, 44299), (296, 44311), (300, 44320), (302, 44329),

Gene: Pita2_70 Start: 43949, Stop: 43083, Start Num: 47

Candidate Starts for Pita2_70:

(39, 43976), (45, 43955), (Start: 47 @43949 has 7 MA's), (Start: 60 @43892 has 1 MA's), (62, 43889), (68, 43859), (70, 43850), (83, 43730), (149, 43622), (169, 43553), (188, 43478), (252, 43292), (258, 43262), (287, 43103),

Gene: Polkaroo_59 Start: 38517, Stop: 39569, Start Num: 58

Candidate Starts for Polkaroo_59:

(Start: 58 @38517 has 46 MA's), (Start: 60 @38544 has 1 MA's), (63, 38550), (72, 38586), (84, 38709), (85, 38712), (89, 38733), (122, 38886), (Start: 129 @38910 has 1 MA's), (136, 38928), (253, 39351), (264, 39408), (299, 39561),

Gene: PopTart_60 Start: 40607, Stop: 41515, Start Num: 58

Candidate Starts for PopTart_60:

(Start: 58 @40607 has 46 MA's), (Start: 60 @40634 has 1 MA's), (72, 40676), (77, 40703), (82, 40793), (85, 40802), (89, 40823), (169, 40976), (178, 41021), (180, 41027), (199, 41090), (242, 41252), (252, 41297), (264, 41357),

Gene: Priscilla_67 Start: 44187, Stop: 45137, Start Num: 95

Candidate Starts for Priscilla_67:

(Start: 95 @44187 has 28 MA's), (121, 44289), (Start: 129 @44319 has 1 MA's), (137, 44340), (154, 44412), (161, 44436), (167, 44460), (173, 44490), (174, 44496), (189, 44562), (191, 44568), (202, 44616), (210, 44679), (219, 44709), (258, 44928), (260, 44934), (264, 44958), (265, 44961), (267,

44991), (270, 45003), (276, 45036), (282, 45072), (283, 45081), (288, 45093), (291, 45099), (296, 45111), (300, 45120),

Gene: PullumCavea_58 Start: 44450, Stop: 45406, Start Num: 58

Candidate Starts for PullumCavea_58:

(28, 44324), (38, 44390), (Start: 58 @44450 has 46 MA's), (77, 44546), (82, 44636), (159, 44906), (169, 44930), (178, 44975), (180, 44981), (212, 45080), (253, 45191), (263, 45245),

Gene: QueenHazel_55 Start: 38490, Stop: 39401, Start Num: 58

Candidate Starts for QueenHazel_55:

(Start: 58 @38490 has 46 MA's), (Start: 60 @38517 has 1 MA's), (63, 38523), (72, 38559), (82, 38676), (86, 38697), (89, 38706), (Start: 90 @38709 has 3 MA's), (126, 38772), (149, 38808), (151, 38820), (156, 38841), (178, 38922), (237, 39108), (242, 39138), (264, 39243),

Gene: Ramsey_66 Start: 43916, Stop: 44866, Start Num: 95

Candidate Starts for Ramsey_66:

(Start: 95 @43916 has 28 MA's), (121, 44018), (Start: 129 @44048 has 1 MA's), (137, 44069), (154, 44141), (161, 44165), (167, 44189), (173, 44219), (174, 44225), (189, 44291), (191, 44297), (202, 44345), (210, 44408), (219, 44438), (258, 44657), (260, 44663), (264, 44687), (265, 44690), (267, 44720), (270, 44732), (276, 44765), (282, 44801), (283, 44810), (288, 44822), (291, 44828), (296, 44840), (300, 44849),

Gene: Reptar3000_68 Start: 42257, Stop: 43102, Start Num: 58

Candidate Starts for Reptar3000_68:

(42, 42206), (Start: 58 @42257 has 46 MA's), (Start: 60 @42284 has 1 MA's), (67, 42314), (147, 42542), (149, 42554), (162, 42602), (178, 42668), (242, 42842), (259, 42920), (264, 42947), (269, 42986),

Gene: Rhynn_57 Start: 39880, Stop: 38906, Start Num: 30

Candidate Starts for Rhynn_57:

(Start: 30 @39880 has 4 MA's), (56, 39772), (67, 39727), (Start: 94 @39643 has 2 MA's), (124, 39520), (144, 39466), (151, 39436), (160, 39400), (203, 39241), (204, 39238), (236, 39184), (256, 39082), (264, 39040), (267, 39007),

Gene: Rialto_71 Start: 44794, Stop: 45717, Start Num: 58

Candidate Starts for Rialto_71:

(Start: 58 @44794 has 46 MA's), (Start: 60 @44821 has 1 MA's), (72, 44863), (82, 44980), (85, 44989), (89, 45010), (115, 45076), (149, 45112), (151, 45124), (169, 45181), (178, 45226), (180, 45232), (242, 45457), (243, 45460),

Gene: Rofo_85 Start: 57833, Stop: 58579, Start Num: 133

Candidate Starts for Rofo_85:

(112, 57758), (117, 57782), (Start: 133 @57833 has 19 MA's), (148, 57881), (149, 57890), (151, 57902), (201, 58100), (205, 58115), (214, 58175), (215, 58181), (216, 58184), (219, 58196), (220, 58202), (222, 58217), (240, 58328), (264, 58442), (270, 58487), (276, 58520), (281, 58547), (286, 58568),

Gene: RogerDodger_62 Start: 44572, Stop: 45528, Start Num: 58

Candidate Starts for RogerDodger_62:

(28, 44446), (Start: 58 @44572 has 46 MA's), (77, 44668), (82, 44758), (159, 45028), (169, 45052), (178, 45097), (180, 45103), (212, 45202), (253, 45313), (263, 45367),

Gene: RonRayGun_60 Start: 41425, Stop: 42162, Start Num: 100

Candidate Starts for RonRayGun_60:

(24, 41008), (74, 41266), (76, 41272), (Start: 100 @41425 has 7 MA's), (110, 41467), (Start: 128 @41539 has 4 MA's), (135, 41557), (169, 41683), (172, 41701), (200, 41815), (211, 41851), (239, 41896), (256, 41980), (257, 41989), (258, 41992), (261, 42001), (264, 42019), (288, 42151),

Gene: Ruthiejr_72 Start: 43729, Stop: 44574, Start Num: 58

Candidate Starts for Ruthiejr_72:

(Start: 58 @43729 has 46 MA's), (Start: 60 @43756 has 1 MA's), (67, 43786), (147, 44014), (149, 44026), (162, 44074), (178, 44140), (242, 44314), (259, 44392), (264, 44419), (269, 44458),

Gene: SG4_77 Start: 47569, Stop: 48366, Start Num: 129

Candidate Starts for SG4_77:

(Start: 128 @47566 has 4 MA's), (Start: 129 @47569 has 1 MA's), (142, 47602), (150, 47635), (151, 47644), (163, 47692), (171, 47725), (193, 47794), (209, 47866), (211, 47890), (216, 47905), (245, 48076), (251, 48112), (262, 48178), (264, 48184), (281, 48289), (284, 48307),

Gene: SamScheppers_69 Start: 44109, Stop: 44954, Start Num: 58

Candidate Starts for SamScheppers_69:

(42, 44058), (Start: 58 @44109 has 46 MA's), (Start: 60 @44136 has 1 MA's), (67, 44166), (147, 44394), (149, 44406), (162, 44454), (178, 44520), (242, 44694), (259, 44772), (264, 44799), (269, 44838),

Gene: Sanjuju_83 Start: 58188, Stop: 58886, Start Num: 133

Candidate Starts for Sanjuju_83:

(11, 57441), (63, 57810), (76, 57876), (112, 58113), (117, 58137), (Start: 133 @58188 has 19 MA's), (143, 58221), (148, 58236), (151, 58257), (181, 58365), (201, 58425), (215, 58506), (219, 58521), (222, 58542), (247, 58674), (256, 58707), (264, 58749), (270, 58794), (276, 58827), (281, 58854), (286, 58875),

Gene: SassyB_60 Start: 40607, Stop: 41515, Start Num: 58

Candidate Starts for SassyB_60:

(Start: 58 @40607 has 46 MA's), (Start: 60 @40634 has 1 MA's), (72, 40676), (77, 40703), (82, 40793), (85, 40802), (89, 40823), (169, 40976), (178, 41021), (180, 41027), (199, 41090), (242, 41252), (252, 41297), (264, 41357),

Gene: Sedona_83 Start: 58685, Stop: 59383, Start Num: 133

Candidate Starts for Sedona_83:

(11, 57938), (63, 58307), (76, 58373), (112, 58610), (117, 58634), (Start: 133 @58685 has 19 MA's), (148, 58733), (149, 58742), (151, 58754), (181, 58862), (201, 58922), (215, 59003), (219, 59018), (222, 59039), (247, 59171), (256, 59204), (264, 59246), (270, 59291), (276, 59324), (281, 59351), (286, 59372),

Gene: ShowerHandel_70 Start: 44059, Stop: 45009, Start Num: 95

Candidate Starts for ShowerHandel_70:

(Start: 95 @44059 has 28 MA's), (121, 44161), (Start: 129 @44191 has 1 MA's), (137, 44212), (154, 44284), (161, 44308), (167, 44332), (173, 44362), (174, 44368), (189, 44434), (191, 44440), (202, 44488), (210, 44551), (219, 44581), (258, 44800), (260, 44806), (264, 44830), (265, 44833), (267, 44863), (270, 44875), (276, 44908), (282, 44944), (283, 44953), (288, 44965), (291, 44971), (296, 44983), (300, 44992), (302, 45001),

Gene: Sidious_64 Start: 44887, Stop: 45681, Start Num: 94

Candidate Starts for Sidious_64:

(91, 44884), (Start: 94 @44887 has 2 MA's), (127, 45019), (Start: 128 @45022 has 4 MA's), (138, 45049), (167, 45166), (211, 45340), (236, 45361), (256, 45457), (268, 45532), (276, 45574),

Gene: SimranZ1_67 Start: 43613, Stop: 44584, Start Num: 58

Candidate Starts for SimranZ1_67:

(18, 43436), (21, 43442), (22, 43451), (25, 43460), (29, 43499), (Start: 58 @43613 has 46 MA's), (73, 43697), (77, 43709), (82, 43799), (86, 43820), (89, 43829), (Start: 90 @43832 has 3 MA's), (111, 43889), (139, 43985), (149, 44021), (151, 44033), (162, 44069), (169, 44090), (175, 44114), (180, 44141), (218, 44249), (242, 44324),

Gene: Sitar_84 Start: 58707, Stop: 59453, Start Num: 133

Candidate Starts for Sitar_84:

(37, 58224), (76, 58395), (112, 58632), (117, 58656), (Start: 133 @58707 has 19 MA's), (148, 58755), (149, 58764), (151, 58776), (201, 58974), (205, 58989), (214, 59049), (215, 59055), (216, 59058), (219, 59070), (220, 59076), (222, 59091), (240, 59202), (264, 59316), (270, 59361), (276, 59394), (281, 59421), (286, 59442),

Gene: Slarp_71 Start: 43637, Stop: 44482, Start Num: 58

Candidate Starts for Slarp_71:

(42, 43586), (Start: 58 @43637 has 46 MA's), (Start: 60 @43664 has 1 MA's), (67, 43694), (147, 43922), (149, 43934), (162, 43982), (178, 44048), (242, 44222), (259, 44300), (264, 44327), (269, 44366),

Gene: Slim_67 Start: 43412, Stop: 44335, Start Num: 58

Candidate Starts for Slim_67:

(Start: 58 @43412 has 46 MA's), (Start: 60 @43439 has 1 MA's), (72, 43481), (82, 43598), (85, 43607), (89, 43628), (115, 43694), (149, 43730), (151, 43742), (169, 43799), (178, 43844), (180, 43850), (242, 44075), (243, 44078),

Gene: Smooch_24 Start: 10992, Stop: 11792, Start Num: 128

Candidate Starts for Smooch_24:

(Start: 128 @10992 has 4 MA's), (Start: 129 @10995 has 1 MA's), (142, 11028), (150, 11061), (151, 11070), (163, 11118), (171, 11151), (193, 11220), (209, 11292), (211, 11316), (216, 11331), (245, 11502), (251, 11538), (262, 11604), (264, 11610), (281, 11715), (284, 11733), (298, 11763),

Gene: Spikelee_74 Start: 45764, Stop: 46714, Start Num: 95

Candidate Starts for Spikelee_74:

(Start: 95 @45764 has 28 MA's), (121, 45866), (Start: 129 @45896 has 1 MA's), (137, 45917), (154, 45989), (161, 46013), (167, 46037), (173, 46067), (174, 46073), (189, 46139), (191, 46145), (202, 46193), (210, 46256), (219, 46286), (258, 46505), (260, 46511), (264, 46535), (265, 46538), (267, 46568), (270, 46580), (276, 46613), (282, 46649), (283, 46658), (288, 46670), (291, 46676), (296, 46688), (300, 46697),

Gene: Spooky_73 Start: 43405, Stop: 44088, Start Num: 105

Candidate Starts for Spooky_73:

(88, 43345), (Start: 105 @43405 has 2 MA's), (123, 43474), (153, 43576), (158, 43597), (170, 43633), (182, 43693), (187, 43705), (195, 43729), (198, 43738), (233, 43810), (240, 43846), (241, 43849), (261, 43927), (273, 44008), (289, 44080),

Gene: Squiddly_65 Start: 43028, Stop: 43984, Start Num: 90

Candidate Starts for Squiddly_65:

(Start: 90 @43028 has 3 MA's), (108, 43088), (122, 43148), (137, 43193), (154, 43265), (167, 43313), (174, 43349), (189, 43415), (191, 43421), (218, 43559), (238, 43673), (260, 43787), (270, 43856),

(288, 43946), (289, 43949), (302, 43976),

Gene: StAnnes_64 Start: 42680, Stop: 43636, Start Num: 58

Candidate Starts for StAnnes_64:

(Start: 58 @42680 has 46 MA's), (Start: 60 @42707 has 1 MA's), (63, 42713), (72, 42749), (82, 42866), (Start: 90 @42899 has 3 MA's), (120, 42977), (125, 43001), (139, 43037), (145, 43052), (149, 43073), (151, 43085), (169, 43142), (178, 43187), (199, 43250), (206, 43271), (242, 43373), (264, 43478),

Gene: Stultus_80 Start: 56979, Stop: 57725, Start Num: 133

Candidate Starts for Stultus_80:

(Start: 133 @56979 has 19 MA's), (148, 57027), (149, 57036), (151, 57048), (201, 57246), (205, 57261), (214, 57321), (215, 57327), (216, 57330), (219, 57342), (220, 57348), (222, 57363), (240, 57474), (264, 57588), (267, 57621), (270, 57633), (276, 57666), (281, 57693), (286, 57714),

Gene: SwagPiggett_72 Start: 46406, Stop: 47356, Start Num: 95

Candidate Starts for SwagPiggett_72:

(Start: 95 @46406 has 28 MA's), (121, 46508), (Start: 129 @46538 has 1 MA's), (137, 46559), (154, 46631), (161, 46655), (167, 46679), (173, 46709), (174, 46715), (189, 46781), (191, 46787), (202, 46835), (210, 46898), (219, 46928), (231, 47012), (258, 47147), (260, 47153), (264, 47177), (265, 47180), (267, 47210), (270, 47222), (276, 47255), (282, 47291), (283, 47300), (288, 47312), (291, 47318), (296, 47330), (300, 47339),

Gene: Swole_70 Start: 43859, Stop: 42993, Start Num: 47

Candidate Starts for Swole_70:

(39, 43886), (45, 43865), (Start: 47 @43859 has 7 MA's), (Start: 60 @43802 has 1 MA's), (62, 43799), (68, 43769), (70, 43760), (83, 43640), (149, 43532), (169, 43463), (188, 43388), (252, 43202), (258, 43172), (287, 43013),

Gene: Taquito_70 Start: 43842, Stop: 44687, Start Num: 58

Candidate Starts for Taquito_70:

(42, 43791), (Start: 58 @43842 has 46 MA's), (Start: 60 @43869 has 1 MA's), (67, 43899), (147, 44127), (149, 44139), (162, 44187), (178, 44253), (242, 44427), (259, 44505), (264, 44532), (269, 44571),

Gene: Thing3_86 Start: 58360, Stop: 59106, Start Num: 133

Candidate Starts for Thing3_86:

(112, 58285), (117, 58309), (Start: 133 @58360 has 19 MA's), (148, 58408), (149, 58417), (151, 58429), (201, 58627), (205, 58642), (214, 58702), (215, 58708), (216, 58711), (219, 58723), (220, 58729), (222, 58744), (240, 58855), (264, 58969), (270, 59014), (276, 59047), (281, 59074), (286, 59095),

Gene: Tiamoceli_4 Start: 2479, Stop: 3267, Start Num: 61

Candidate Starts for Tiamoceli_4:

(Start: 61 @2479 has 1 MA's), (82, 2644), (Start: 128 @2791 has 4 MA's), (145, 2833), (172, 2935), (176, 2950), (242, 3043), (248, 3067), (282, 3259),

Gene: Tote_65 Start: 41126, Stop: 40260, Start Num: 47

Candidate Starts for Tote_65:

(39, 41153), (45, 41132), (Start: 47 @41126 has 7 MA's), (Start: 60 @41069 has 1 MA's), (62, 41066), (68, 41036), (70, 41027), (83, 40907), (149, 40799), (169, 40730), (188, 40655), (252, 40469), (258, 40439), (287, 40280),

Gene: Tripl3t_61 Start: 42636, Stop: 41530, Start Num: 30

Candidate Starts for TripI3t_61:

(Start: 30 @42636 has 4 MA's), (56, 42525), (67, 42480), (Start: 94 @42396 has 2 MA's), (124, 42273), (144, 42219), (150, 42198), (151, 42189), (160, 42153), (177, 42075), (184, 42048), (186, 42042), (203, 41982), (204, 41979), (227, 41850), (236, 41808), (250, 41736), (252, 41724), (254, 41715), (256, 41706), (261, 41685), (263, 41667), (267, 41631),

Gene: TripleJ_61 Start: 37250, Stop: 37999, Start Num: 133

Candidate Starts for TripleJ_61:

(Start: 133 @37250 has 19 MA's), (141, 37274), (142, 37277), (150, 37310), (151, 37319), (155, 37334), (169, 37382), (179, 37415), (197, 37466), (205, 37499), (215, 37565), (219, 37580), (222, 37601), (228, 37655), (255, 37763), (256, 37766), (270, 37853),

Gene: Trouble_68 Start: 43948, Stop: 43082, Start Num: 49

Candidate Starts for Trouble_68:

(Start: 44 @43963 has 1 MA's), (Start: 49 @43948 has 6 MA's), (Start: 55 @43927 has 3 MA's), (Start: 60 @43894 has 1 MA's), (62, 43891), (68, 43861), (70, 43852), (83, 43732), (149, 43624), (169, 43555), (188, 43480), (252, 43294), (258, 43264), (287, 43105),

Gene: UmaThurman_67 Start: 42612, Stop: 43637, Start Num: 58

Candidate Starts for UmaThurman_67:

(4, 42123), (5, 42144), (6, 42156), (12, 42375), (13, 42387), (16, 42435), (Start: 58 @42612 has 46 MA's), (77, 42708), (80, 42765), (82, 42798), (89, 42828), (101, 42861), (116, 42942), (146, 43032), (147, 43038), (169, 43119), (180, 43170), (230, 43326), (253, 43425),

Gene: Utz_60 Start: 42126, Stop: 43184, Start Num: 58

Candidate Starts for Utz_60:

(12, 41889), (13, 41901), (16, 41949), (Start: 58 @42126 has 46 MA's), (77, 42222), (80, 42279), (82, 42312), (89, 42342), (116, 42456), (146, 42546), (156, 42597), (159, 42609), (169, 42633), (175, 42657), (178, 42678), (180, 42684), (253, 42972),

Gene: Vasanti_62 Start: 41618, Stop: 42619, Start Num: 58

Candidate Starts for Vasanti_62:

(3, 41102), (34, 41525), (46, 41585), (Start: 58 @41618 has 46 MA's), (73, 41702), (77, 41714), (80, 41771), (82, 41804), (89, 41834), (134, 41948), (159, 42044), (169, 42068), (178, 42113), (180, 42119), (212, 42218), (242, 42359), (253, 42407),

Gene: Venti_58 Start: 37622, Stop: 38488, Start Num: 106

Candidate Starts for Venti_58:

(98, 37571), (102, 37586), (Start: 106 @37622 has 3 MA's), (Start: 131 @37721 has 1 MA's), (142, 37751), (150, 37784), (151, 37793), (163, 37841), (171, 37874), (193, 37943), (209, 38015), (211, 38039), (216, 38054), (245, 38225), (251, 38261), (262, 38327), (264, 38333), (281, 38438), (284, 38456),

Gene: Vopal_77 Start: 43204, Stop: 44103, Start Num: 92

Candidate Starts for Vopal_77:

(20, 42793), (23, 42805), (69, 43036), (Start: 92 @43204 has 1 MA's), (96, 43213), (122, 43321), (140, 43375), (264, 43927), (270, 43972), (288, 44062), (295, 44077),

Gene: Walrus_66 Start: 42197, Stop: 43261, Start Num: 58

Candidate Starts for Walrus_66:

(6, 41744), (12, 41963), (13, 41975), (16, 42023), (Start: 58 @42197 has 46 MA's), (77, 42293), (80, 42350), (82, 42383), (89, 42413), (116, 42527), (146, 42617), (159, 42680), (169, 42704), (178, 42749), (180, 42755), (212, 42854), (253, 43043),

Gene: Watermelon_68 Start: 43252, Stop: 42389, Start Num: 49

Candidate Starts for Watermelon_68:

(Start: 44 @43267 has 1 MA's), (Start: 49 @43252 has 6 MA's), (Start: 55 @43231 has 3 MA's), (Start: 60 @43201 has 1 MA's), (62, 43198), (68, 43168), (70, 43159), (83, 43039), (149, 42931), (169, 42862), (188, 42787), (252, 42601), (258, 42571), (287, 42412),

Gene: Wheeler_71 Start: 44519, Stop: 43659, Start Num: 49

Candidate Starts for Wheeler_71:

(Start: 44 @44534 has 1 MA's), (Start: 49 @44519 has 6 MA's), (Start: 55 @44498 has 3 MA's), (Start: 60 @44468 has 1 MA's), (62, 44465), (68, 44435), (70, 44426), (83, 44306), (149, 44198), (169, 44129), (188, 44054), (252, 43868), (258, 43838), (287, 43679),

Gene: Whitty_59 Start: 41222, Stop: 41959, Start Num: 100

Candidate Starts for Whitty_59:

(24, 40805), (74, 41063), (76, 41069), (Start: 100 @41222 has 7 MA's), (110, 41264), (Start: 128 @41336 has 4 MA's), (135, 41354), (169, 41480), (172, 41498), (200, 41612), (211, 41648), (239, 41693), (256, 41777), (257, 41786), (258, 41789), (261, 41798), (264, 41816), (288, 41948),

Gene: Whouxphf_64 Start: 43966, Stop: 44916, Start Num: 95

Candidate Starts for Whouxphf_64:

(Start: 95 @43966 has 28 MA's), (121, 44068), (Start: 129 @44098 has 1 MA's), (137, 44119), (154, 44191), (161, 44215), (167, 44239), (173, 44269), (174, 44275), (189, 44341), (191, 44347), (202, 44395), (210, 44458), (219, 44488), (258, 44707), (260, 44713), (264, 44737), (265, 44740), (267, 44770), (270, 44782), (276, 44815), (282, 44851), (283, 44860), (288, 44872), (291, 44878), (296, 44890), (300, 44899),

Gene: Wintermute_71 Start: 43867, Stop: 44712, Start Num: 58

Candidate Starts for Wintermute_71:

(42, 43816), (Start: 58 @43867 has 46 MA's), (Start: 60 @43894 has 1 MA's), (67, 43924), (147, 44152), (149, 44164), (162, 44212), (178, 44278), (242, 44452), (259, 44530), (264, 44557), (269, 44596),

Gene: Xula_54 Start: 38111, Stop: 39022, Start Num: 58

Candidate Starts for Xula_54:

(Start: 58 @38111 has 46 MA's), (Start: 60 @38138 has 1 MA's), (63, 38144), (72, 38180), (82, 38297), (86, 38318), (89, 38327), (Start: 90 @38330 has 3 MA's), (126, 38393), (149, 38429), (151, 38441), (156, 38462), (178, 38543), (237, 38729), (242, 38759), (264, 38864),

Gene: Y10_68 Start: 43844, Stop: 44689, Start Num: 58

Candidate Starts for Y10_68:

(Start: 58 @43844 has 46 MA's), (Start: 60 @43871 has 1 MA's), (67, 43901), (147, 44129), (149, 44141), (162, 44189), (178, 44255), (242, 44429), (259, 44507), (264, 44534), (269, 44573),

Gene: Y2_68 Start: 43844, Stop: 44689, Start Num: 58

Candidate Starts for Y2_68:

(Start: 58 @43844 has 46 MA's), (Start: 60 @43871 has 1 MA's), (67, 43901), (147, 44129), (149, 44141), (162, 44189), (178, 44255), (242, 44429), (259, 44507), (264, 44534), (269, 44573),

Gene: Yorick_66 Start: 44206, Stop: 45156, Start Num: 95

Candidate Starts for Yorick_66:

(Start: 95 @44206 has 28 MA's), (121, 44308), (Start: 129 @44338 has 1 MA's), (137, 44359), (154, 44431), (161, 44455), (167, 44479), (173, 44509), (174, 44515), (189, 44581), (191, 44587), (202,

44635), (210, 44698), (219, 44728), (258, 44947), (260, 44953), (264, 44977), (265, 44980), (267, 45010), (270, 45022), (276, 45055), (282, 45091), (283, 45100), (288, 45112), (291, 45118), (296, 45130), (300, 45139),

Gene: ZenTime222_66 Start: 42173, Stop: 42910, Start Num: 100

Candidate Starts for ZenTime222_66:

(24, 41756), (74, 42014), (76, 42020), (Start: 100 @42173 has 7 MA's), (110, 42215), (Start: 128 @42287 has 4 MA's), (135, 42305), (169, 42431), (172, 42449), (200, 42563), (211, 42599), (239, 42644), (256, 42728), (257, 42737), (258, 42740), (261, 42749), (264, 42767), (288, 42899),

Gene: Zizzle_71 Start: 45692, Stop: 46642, Start Num: 95

Candidate Starts for Zizzle_71:

(Start: 95 @45692 has 28 MA's), (121, 45794), (Start: 129 @45824 has 1 MA's), (137, 45845), (154, 45917), (161, 45941), (167, 45965), (173, 45995), (174, 46001), (189, 46067), (191, 46073), (202, 46121), (210, 46184), (219, 46214), (258, 46433), (260, 46439), (264, 46463), (265, 46466), (267, 46496), (270, 46508), (276, 46541), (282, 46577), (283, 46586), (288, 46598), (291, 46604), (296, 46616), (300, 46625), (302, 46634),

Gene: Zucker_72 Start: 42192, Stop: 43091, Start Num: 92

Candidate Starts for Zucker_72:

(20, 41781), (23, 41793), (69, 42024), (Start: 92 @42192 has 1 MA's), (96, 42201), (119, 42297), (122, 42309), (140, 42363), (178, 42531), (264, 42915), (269, 42954), (270, 42960), (288, 43050),