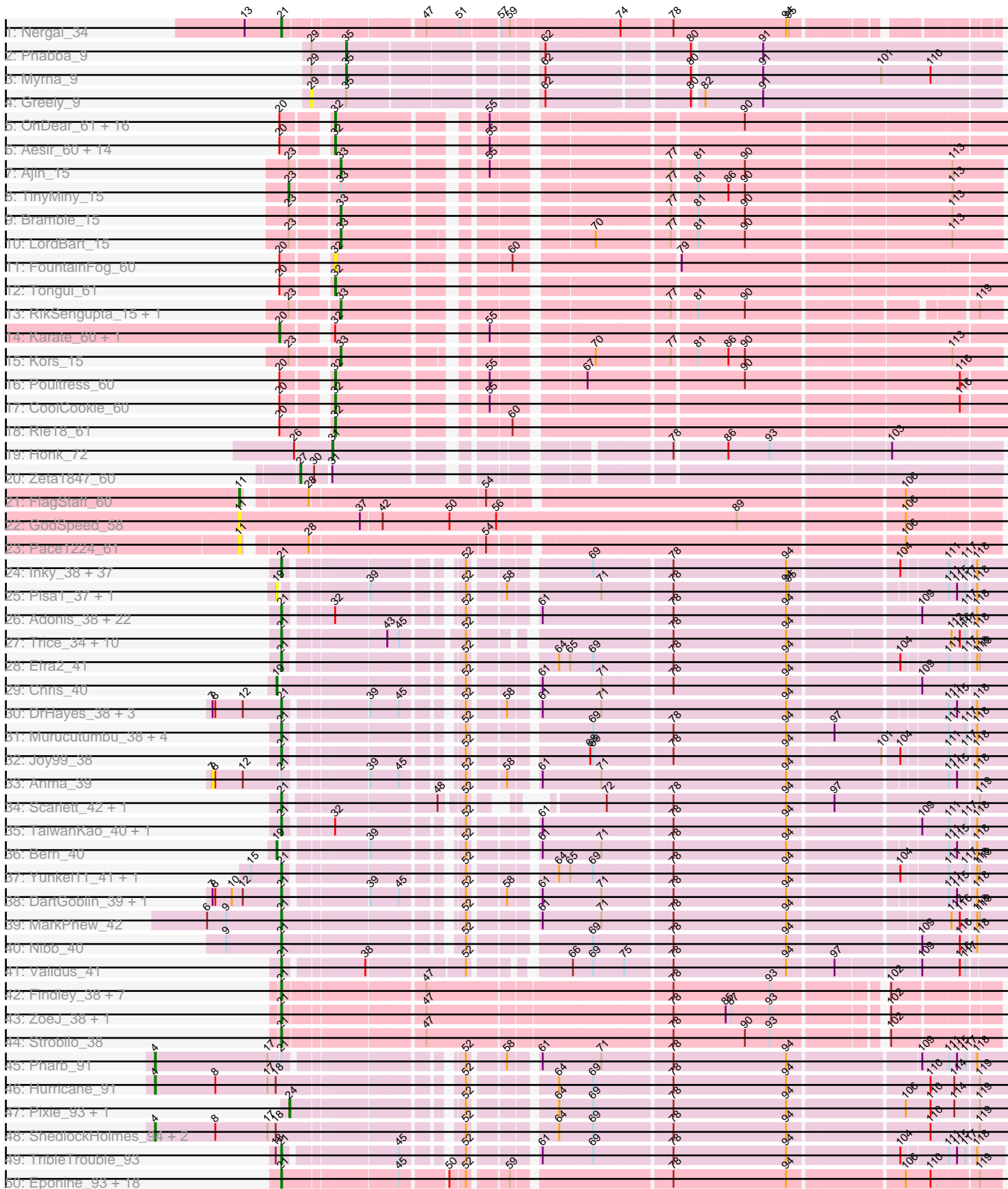
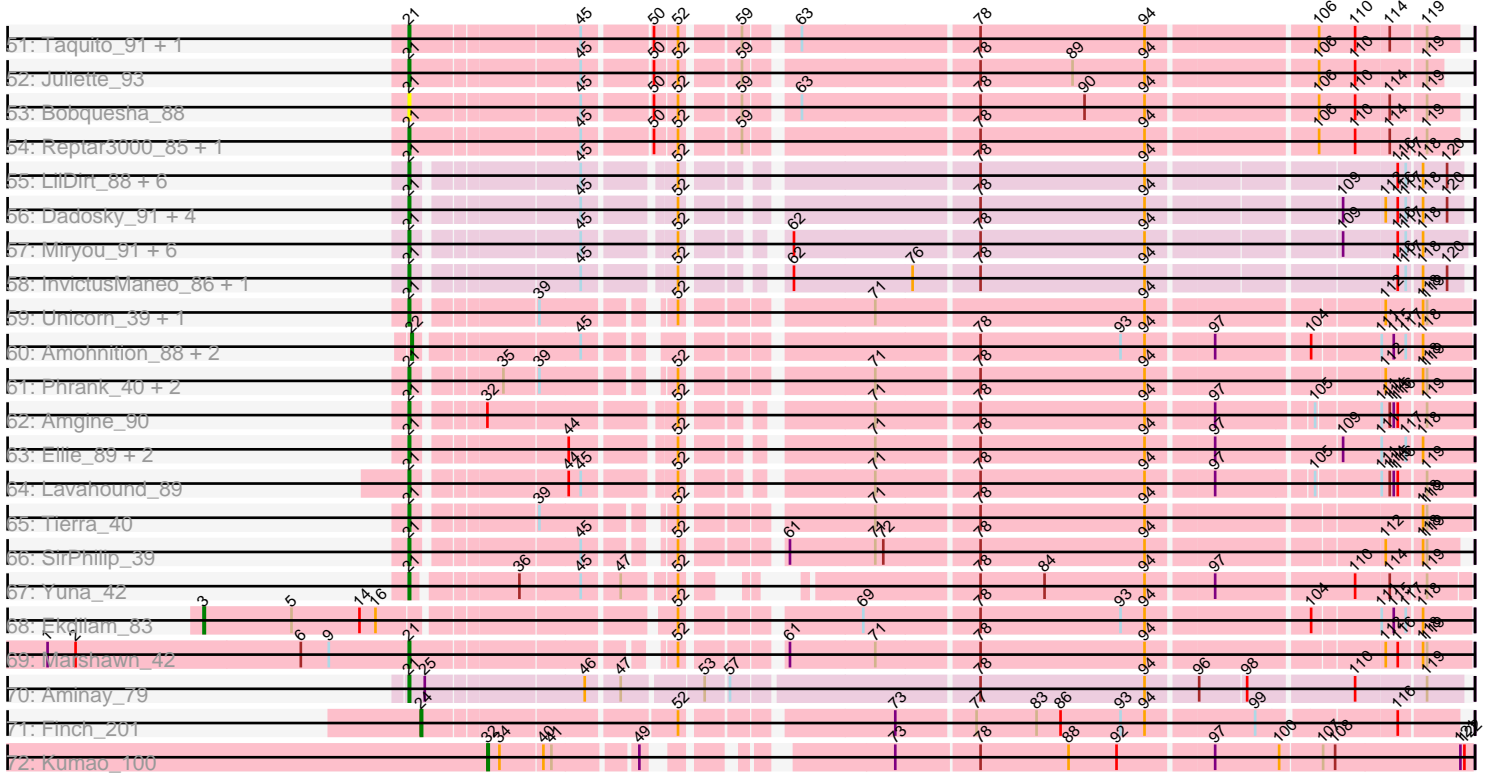


Pham 308019



Pham 308019



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 308019 Report

This analysis was run 06/27/26 on database version 652.

Pham number 308019 has 240 members, 18 are drafts.

Phages represented in each track:

- Track 1 : Nergal_34
- Track 2 : Phabba_9
- Track 3 : Myrna_9
- Track 4 : Greely_9
- Track 5 : OhDear_61, NarutoRun_61, Cybele_61, PhunaPhoke_61, OverHedge_60, Artiphact_61, Potty_60, Tiggy93_60, AnnaSerena_61, Pharpay_60, Krampus_61, Gilda_61, Neptune_61, Anakin_61, Rachella_61, Haunter_61, Kate_61
- Track 6 : Aesir_60, Annapurna_62, SilentWarrior_62, Crestdrop_61, Dauntless_60, MortySmith_59, Hager_62, Chivey_62, Hiddenleaf_62, Erudite_60, JDawG_60, Snakehole_62, JingleBells_61, FreddieHg_62, Tedro_61
- Track 7 : Ajin_15
- Track 8 : TinyMiny_15
- Track 9 : Bramble_15
- Track 10 : LordBart_15
- Track 11 : FountainFog_60
- Track 12 : Tongui_61
- Track 13 : RikSengupta_15, Sparcetus_15
- Track 14 : Karate_60, DannyDe_62
- Track 15 : Kors_15
- Track 16 : Poultruss_60
- Track 17 : CoolCookie_60
- Track 18 : Rie18_61
- Track 19 : Honk_72
- Track 20 : Zeta1847_60
- Track 21 : FlagStaff_60
- Track 22 : GodSpeed_58
- Track 23 : Pace1224_61
- Track 24 : Inky_38, Sunflower1121_41, Spock_38, BarrelRoll_38, Jayhawk_39, Tigress9_42, Tiri_39, Belladonna_38, Peel_38, Capricorn_38, BGlluviae_38, CREW_38, CallaLilly_38, Tachez_38, Topper_38, Krueger_42, Dalmuri_38, Syra333_42, Jarvi_38, Slimphazie_38, Jeckyll_38, Twitch_38, HedwigODU_38, Emerson_39, ActinUp_38, Veliki_38, Atiba_38, Rosmarinus_38, Rapunzel97_38, Beezoo_38, Padpat_39, TruffulaTree_38, Ximenita_43, Lunahalos_38, Llorens_38, Shadow1_41, Adephagia_38, Homura_38
- Track 25 : Pisa1_37, Pisa4_37
- Track 26 : Adonis_38, Deby_38, Piatt_38, Sulley_38, Asayake_38, JAWS_38, Apocalypse_39, Geraldini_38, BEEST_38, ShiaSurprise_39, Angelica_38, Boiiii_38,

CaseJules_39, QuincyRose_37, Ganymede_39, AlishaPH_38, MeaningOfLife_38, Ramen_38, Pokerus_37, Padfoot_38, Blizzard_38, Durfee_38, Hyperbowlee_38

- Track 27 : Trice_34, Enkosi_34, Binglebops_34, Amelie_34, SgtBeansprout_34, Teejan_34, Nikao_34, Torres_34, Nutello_34, LilPharaoh_34, Mdavu_34
- Track 28 : Efra2_41
- Track 29 : Chris_40
- Track 30 : DrHayes_38, TiniBug_38, SamuelLPlaqson_38, Urkel_38
- Track 31 : Murucutumbu_38, LaterM_38, Stinson_39, Ageofdapage_39, CrimD_38
- Track 32 : Joy99_38
- Track 33 : Anma_39
- Track 34 : Scarlett_42, Oscar_42
- Track 35 : TaiwanKao_40, Megsy_39
- Track 36 : Bern_40
- Track 37 : Yunkel11_41, Guanica15_41
- Track 38 : DartGoblin_39, Bella96_38
- Track 39 : MarkPhew_42
- Track 40 : Nibb_40
- Track 41 : Validus_41
- Track 42 : Findley_38, DismalStressor_38, Mufasa_39, Milly_38, DismalFunk_38, Marcoliusprime_38, Doughnut_39, BoostSeason_39
- Track 43 : ZoeJ_38, TM4_40
- Track 44 : Strobilo_38
- Track 45 : Pharb_91
- Track 46 : Hurricane_91
- Track 47 : Pixie_93, TBond007_90
- Track 48 : ShedlockHolmes_94, Lea83_92, Keshu_95
- Track 49 : TribbleTrouble_93
- Track 50 : Eponine_93, OmniCritical_91, Wintermute_91, Slarp_89, JF1_91, Mitti_91, Ruthiejr_93, Y2_87, Malthus_92, Kraw_91, Qhanda_91, Chancellor_91, Lebo14_90, SamScheppers_90, YasnayaPolyana_90, DanSyl44_94, Cheetobro_89, Fionnbharth_91, Y10_87
- Track 51 : Taquito_91, MissDaisy_85
- Track 52 : Juliette_93
- Track 53 : Bobquesha_88
- Track 54 : Reptar3000_85, Patt_84
- Track 55 : LilDirt_88, Collard_87, Edugator_85, Kratio_91, ViviJ_95, DoubleChamp_86, BananenDer11_89
- Track 56 : Dadosky_91, Neighly_91, Larva_90, Psycho_89, AlleyCat_91
- Track 57 : Miryou_91, Gengar_88, Heftyboy_90, OkiRoe_89, SoSeph_90, Leston_88, Waterfoul_88
- Track 58 : InvictusManeo_86, Agent47_88
- Track 59 : Unicorn_39, PhelpsODU_39
- Track 60 : Amohnition_88, DarthP_88, Hammy_88
- Track 61 : Phrank_40, Cain_40, Bryler_40
- Track 62 : Amgine_90
- Track 63 : Ellie_89, Fefferhead_91, Applecrisp_88
- Track 64 : Lavahound_89
- Track 65 : Tierra_40
- Track 66 : SirPhilip_39
- Track 67 : Yuna_42
- Track 68 : Ekdilam_83
- Track 69 : Marshawn_42
- Track 70 : Aminay_79

- Track 71 : Finch_201
- Track 72 : Kumao_100

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

The start number called the most often in the published annotations is 21, it was called in 160 of the 222 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp_38, Adephegia_38, Adonis_38, Agent47_88, Ageofdapage_39, AlishaPH_38, AlleyCat_91, Amelie_34, Amgine_90, Aminay_79, Angelica_38, Apocalypse_39, Applecrisp_88, Asayake_38, Atiba_38, BEEST_38, BGlluviae_38, BananenDer11_89, BarrelRoll_38, Beezoo_38, Bella96_38, Belladonna_38, Biglebops_34, Blizzard_38, Bobquesha_88, Boiii_38, BoostSeason_39, Bryler_40, CREW_38, Cain_40, CallaLilly_38, Capricorn_38, CaseJules_39, Chancellor_91, Cheetobro_89, Collard_87, CrimD_38, Dadosky_91, Dalmuri_38, DanSyl44_94, DartGoblin_39, Deby_38, DismalFunk_38, DismalStressor_38, DoubleChamp_86, Doughnut_39, DrHayes_38, Durfee_38, Edugator_85, Efra2_41, Ellie_89, Emerson_39, Enkosi_34, Eponine_93, Fefferhead_91, Findley_38, Fionnbharth_91, Ganymede_39, Gengar_88, Geraldini_38, Guanica15_41, HedwigODU_38, Heftyboy_90, Homura_38, Hyperbowlee_38, Inky_38, InvictusManeo_86, JAWS_38, JF1_91, Jarvi_38, Jayhawk_39, Jeckyll_38, Joy99_38, Juliette_93, Kratio_91, Kraw_91, Krueger_42, Larva_90, LaterM_38, Lavahound_89, Lebo14_90, Leston_88, LilDirt_88, LilPharaoh_34, Llorens_38, Lunahalos_38, Malthus_92, Marcoliusprime_38, MarkPhew_42, Marshawn_42, Mdavu_34, MeaningOfLife_38, Megsy_39, Milly_38, Miryou_91, MissDaisy_85, Mitti_91, Mufasa_39, Murucutumbu_38, Neighly_91, Nergal_34, Nibb_40, Nikao_34, Nutello_34, OkiRoe_89, OmniCritical_91, Oscar_42, Padfoot_38, Padpat_39, Patt_84, Peel_38, PhelpsODU_39, Phrank_40, Piatt_38, Pokerus_37, Psycho_89, Qhanda_91, QuincyRose_37, Ramen_38, Rapunzel97_38, Reptar3000_85, Rosmarinus_38, Ruthiejr_93, SamScheppers_90, SamuelLPlaqson_38, Scarlett_42, SgtBeansprout_34, Shadow1_41, ShiaSurprise_39, SirPhilip_39, Slarp_89, Slimphazie_38, SoSeph_90, Spock_38, Stinson_39, Strobilo_38, Sulley_38, Sunflower1121_41, Syra333_42, TM4_40, Tachez_38, TaiwanKao_40, Taquito_91, Teejan_34, Tierra_40, Tigress9_42, TiniBug_38, Tiri_39, Topper_38, Torres_34, TribbleTrouble_93, Trice_34, TruffulaTree_38, Twitch_38, Unicorn_39, Urkel_38, Validus_41, Veliki_38, ViviJ_95, Waterfoul_88, Wintermute_91, Ximenita_43, Y10_87, Y2_87, YasnayaPolyana_90, Yuna_42, Yunkel11_41, ZoeJ_38,

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

- Anma_39, Pharb_91,

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

- Aesir_60, Ajin_15, Amohnition_88, Anakin_61, AnnaSerena_61, Annapurna_62, Artiphact_61, Bern_40, Bramble_15, Chivey_62, Chris_40, CoolCookie_60, Crestdrop_61, Cybele_61, DannyDe_62, DarthP_88, Dauntless_60, Ekdilam_83, Erudite_60, Finch_201, FlagStaff_60, FountainFog_60, FreddieHg_62, Gilda_61, GodSpeed_58, Greely_9, Hager_62, Hammy_88, Haunter_61, Hiddenleaf_62, Honk_72, Hurricane_91, JDawG_60, JingleBells_61, Karate_60, Kate_61, Keshu_95, Kors_15, Krampus_61, Kumao_100, Lea83_92, LordBart_15, MortySmith_59,

Myrna_9, NarutoRun_61, Neptune_61, OhDear_61, OverHedge_60, Pace1224_61, Phabba_9, Pharpay_60, PhunaPhoke_61, Pisa1_37, Pisa4_37, Pixie_93, Potty_60, Poultruss_60, Rachella_61, Rie18_61, RikSengupta_15, ShedlockHolmes_94, SilentWarrior_62, Snakehole_62, Sparcetus_15, TBond007_90, Tedro_61, Tiggy93_60, TinyMiny_15, Tongui_61, Zeta1847_60,

Summary by start number:

Start 3:

- Found in 1 of 240 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 222
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ekdilam_83 (K6),

Start 4:

- Found in 5 of 240 (2.1%) of genes in pham
- Manual Annotations of this start: 5 of 222
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hurricane_91 (K3), Keshu_95 (K3), Lea83_92 (K3), Pharb_91 (K3), ShedlockHolmes_94 (K3),

Start 7:

- Found in 7 of 240 (2.9%) of genes in pham
- No Manual Annotations of this start.
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Anma_39 (K1),

Start 11:

- Found in 3 of 240 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 222
- Called 100.0% of time when present
- Phage (with cluster) where this start called: FlagStaff_60 (G2), GodSpeed_58 (G2), Pace1224_61 (G2),

Start 19:

- Found in 4 of 240 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 222
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bern_40 (K1), Chris_40 (K1), Pisa1_37 (K1), Pisa4_37 (K1),

Start 20:

- Found in 39 of 240 (16.2%) of genes in pham
- Manual Annotations of this start: 2 of 222
- Called 5.1% of time when present
- Phage (with cluster) where this start called: DannyDe_62 (EF), Karate_60 (EF),

Start 21:

- Found in 170 of 240 (70.8%) of genes in pham
- Manual Annotations of this start: 160 of 222
- Called 98.8% of time when present
- Phage (with cluster) where this start called: ActinUp_38 (K1), Adepagia_38 (K1), Adonis_38 (K1), Agent47_88 (K5), Ageofdapage_39 (K1), AlishaPH_38 (K1),

AlleyCat_91 (K5), Amelie_34 (K1), Amgine_90 (K6), Aminay_79 (K7), Angelica_38 (K1), Apocalypse_39 (K1), Applecrisp_88 (K6), Asayake_38 (K1), Atiba_38 (K1), BEEST_38 (K1), BGlluviae_38 (K1), BananenDer11_89 (K5), BarrelRoll_38 (K1), Beezoo_38 (K1), Bella96_38 (K1), Belladonna_38 (K1), Binglebops_34 (K1), Blizzard_38 (K1), Bobquesha_88 (K4), Boiiii_38 (K1), BoostSeason_39 (K2), Bryler_40 (K6), CREW_38 (K1), Cain_40 (K6), CallaLilly_38 (K1), Capricorn_38 (K1), CaseJules_39 (K1), Chancellor_91 (K4), Cheetobro_89 (K4), Collard_87 (K5), CrimD_38 (K1), Dadosky_91 (K5), Dalmuri_38 (K1), DanSyl44_94 (K4), DartGoblin_39 (K1), Deby_38 (K1), DismalFunk_38 (K2), DismalStressor_38 (K2), DoubleChamp_86 (K5), Doughnut_39 (K2), DrHayes_38 (K1), Durfee_38 (K1), Edugator_85 (K5), Efra2_41 (K1), Ellie_89 (K6), Emerson_39 (K1), Enkosi_34 (K1), Eponine_93 (K4), Fefferhead_91 (K6), Findley_38 (K2), Fionnbharth_91 (K4), Ganymede_39 (K1), Gengar_88 (K5), Geraldini_38 (K1), Guanica15_41 (K1), HedwigODU_38 (K1), Heftyboy_90 (K5), Homura_38 (K1), Hyperbowlee_38 (K1), Inky_38 (K1), InvictusManeo_86 (K5), JAWS_38 (K1), JF1_91 (K4), Jarvi_38 (K1), Jayhawk_39 (K1), Jeckyll_38 (K1), Joy99_38 (K1), Juliette_93 (K4), Kratio_91 (K5), Kraw_91 (K4), Krueger_42 (K6), Larva_90 (K5), LaterM_38 (K1), Lavahound_89 (K6), Lebo14_90 (K4), Leston_88 (K5), LilDirt_88 (K5), LilPharaoh_34 (K1), Llorens_38 (K1), Lunahalos_38 (K1), Malthus_92 (K4), Marcoliusprime_38 (K2), MarkPhew_42 (K1), Marshawn_42 (K6), Mdavu_34 (K1), MeaningOfLife_38 (K1), Megsy_39 (K1), Milly_38 (K2), Miryou_91 (K5), MissDaisy_85 (K4), Mitti_91 (K4), Mufasa_39 (K2), Murucutumbu_38 (K1), Neighly_91 (K3), Nergal_34 (AG), Nibb_40 (K1), Nikao_34 (K1), Nutello_34 (K1), OkiRoe_89 (K5), OmniCritical_91 (K4), Oscar_42 (K1), Padfoot_38 (K1), Padpat_39 (K1), Patt_84 (K4), Peel_38 (K1), PhelpsODU_39 (K6), Phrank_40 (K6), Piatt_38 (K1), Pokerus_37 (K1), Psycho_89 (K5), Qhanda_91 (K4), QuincyRose_37 (K1), Ramen_38 (K1), Rapunzel97_38 (K1), Reptar3000_85 (K4), Rosmarinus_38 (K1), Ruthiejr_93 (K4), SamScheppers_90 (K4), SamuelLPlaqson_38 (K1), Scarlett_42 (K1), SgtBeansprout_34 (K1), Shadow1_41 (K6), ShiaSurprise_39 (K1), SirPhilip_39 (K6), Slarp_89 (K4), Slimphazie_38 (K1), SoSeph_90 (K5), Spock_38 (K1), Stinson_39 (K1), Strobilo_38 (K2), Sulley_38 (K1), Sunflower1121_41 (K6), Syra333_42 (K6), TM4_40 (K2), Tachez_38 (K1), TaiwanKao_40 (K1), Taquito_91 (K4), Teejan_34 (K1), Tierra_40 (K6), Tigress9_42 (K6), TiniBug_38 (K1), Tiri_39 (K1), Topper_38 (K1), Torres_34 (K1), TribbleTrouble_93 (K3), Trice_34 (K1), TruffulaTree_38 (K1), Twitch_38 (K1), Unicorn_39 (K6), Urkel_38 (K1), Validus_41 (K1), Veliki_38 (K1), ViviJ_95 (K5), Waterfoul_88 (K5), Wintermute_91 (K4), Ximenita_43 (K6), Y10_87 (K4), Y2_87 (K4), YasnayaPolyana_90 (K4), Yuna_42 (K6), Yunkel11_41 (K1), ZoeJ_38 (K2),

Start 22:

- Found in 3 of 240 (1.2%) of genes in pham
- Manual Annotations of this start: 3 of 222
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amohnition_88 (K6), DARTH_P_88 (K6), Hammy_88 (K6),

Start 23:

- Found in 7 of 240 (2.9%) of genes in pham
- Manual Annotations of this start: 1 of 222
- Called 14.3% of time when present
- Phage (with cluster) where this start called: TinyMiny_15 (EF),

Start 24:

- Found in 3 of 240 (1.2%) of genes in pham

- Manual Annotations of this start: 3 of 222
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finch_201 (singleton), Pixie_93 (K3), TBond007_90 (K3),

Start 27:

- Found in 1 of 240 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 222
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Zeta1847_60 (EH),

Start 29:

- Found in 3 of 240 (1.2%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Greely_9 (C2),

Start 31:

- Found in 2 of 240 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 222
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Honk_72 (EH),

Start 32:

- Found in 66 of 240 (27.5%) of genes in pham
- Manual Annotations of this start: 34 of 222
- Called 57.6% of time when present
- Phage (with cluster) where this start called: Aesir_60 (EF), Anakin_61 (EF), AnnaSerena_61 (EF), Annapurna_62 (EF), Artiphact_61 (EF), Chivey_62 (EF), CoolCookie_60 (EF), Crestdrop_61 (EF), Cybele_61 (EF), Dauntless_60 (EF), Erudite_60 (EF), FountainFog_60 (EF), FreddieHg_62 (EF), Gilda_61 (EF), Hager_62 (EF), Haunter_61 (EF), Hiddenleaf_62 (EF), JDawG_60 (EF), JingleBells_61 (EF), Kate_61 (EF), Krampus_61 (EF), Kumao_100 (singleton), MortySmith_59 (EF), NarutoRun_61 (EF), Neptune_61 (EF), OhDear_61 (EF), OverHedge_60 (EF), Pharpay_60 (EF), PhunaPhoke_61 (EF), Potty_60 (EF), Poultruss_60 (EF), Rachella_61 (EF), Rie18_61 (EF), SilentWarrior_62 (EF), Snakehole_62 (EF), Tedro_61 (EF), Tiggy93_60 (EF), Tongui_61 (EF),

Start 33:

- Found in 7 of 240 (2.9%) of genes in pham
- Manual Annotations of this start: 6 of 222
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Ajin_15 (EF), Bramble_15 (EF), Kors_15 (EF), LordBart_15 (EF), RikSengupta_15 (EF), Sparcetus_15 (EF),

Start 35:

- Found in 6 of 240 (2.5%) of genes in pham
- Manual Annotations of this start: 2 of 222
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Myrna_9 (C2), Phabba_9 (C2),

Summary by clusters:

There are 13 clusters represented in this pham: singleton, EH, AG, EF, K3, K2, K1, K7, K6, K5, K4, C2, G2,

Info for manual annotations of cluster AG:

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

Info for manual annotations of cluster C2:

- Start number 35 was manually annotated 2 times for cluster C2.

Info for manual annotations of cluster EF:

- Start number 20 was manually annotated 2 times for cluster EF.
- Start number 23 was manually annotated 1 time for cluster EF.
- Start number 32 was manually annotated 33 times for cluster EF.
- Start number 33 was manually annotated 6 times for cluster EF.

Info for manual annotations of cluster EH:

- Start number 27 was manually annotated 1 time for cluster EH.
- Start number 31 was manually annotated 1 time for cluster EH.

Info for manual annotations of cluster G2:

- Start number 11 was manually annotated 1 time for cluster G2.

Info for manual annotations of cluster K1:

- Start number 19 was manually annotated 2 times for cluster K1.
- Start number 21 was manually annotated 85 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 21 was manually annotated 11 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 4 was manually annotated 5 times for cluster K3.
- Start number 21 was manually annotated 1 time for cluster K3.
- Start number 24 was manually annotated 2 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 21 was manually annotated 22 times for cluster K4.

Info for manual annotations of cluster K5:

- Start number 21 was manually annotated 19 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 3 was manually annotated 1 time for cluster K6.
- Start number 21 was manually annotated 20 times for cluster K6.
- Start number 22 was manually annotated 3 times for cluster K6.

Info for manual annotations of cluster K7:

- Start number 21 was manually annotated 1 time for cluster K7.

Gene Information:

Gene: ActinUp_38 Start: 30545, Stop: 31231, Start Num: 21

Candidate Starts for ActinUp_38:

(Start: 21 @30545 has 160 MA's), (52, 30698), (69, 30809), (78, 30890), (94, 31013), (104, 31124), (111, 31169), (117, 31187), (118, 31196),

Gene: Adephagia_38 Start: 30542, Stop: 31228, Start Num: 21

Candidate Starts for Adephagia_38:

(Start: 21 @30542 has 160 MA's), (52, 30695), (69, 30806), (78, 30887), (94, 31010), (104, 31121), (111, 31166), (117, 31184), (118, 31193),

Gene: Adonis_38 Start: 30557, Stop: 31246, Start Num: 21

Candidate Starts for Adonis_38:

(Start: 21 @30557 has 160 MA's), (Start: 32 @30599 has 34 MA's), (52, 30710), (61, 30767), (78, 30902), (94, 31025), (109, 31157), (117, 31202), (118, 31211),

Gene: Aesir_60 Start: 46858, Stop: 47505, Start Num: 32

Candidate Starts for Aesir_60:

(Start: 20 @46816 has 2 MA's), (Start: 32 @46858 has 34 MA's), (55, 46996),

Gene: Agent47_88 Start: 55865, Stop: 56548, Start Num: 21

Candidate Starts for Agent47_88:

(Start: 21 @55865 has 160 MA's), (45, 55973), (52, 56030), (62, 56081), (76, 56168), (78, 56213), (94, 56336), (116, 56504), (117, 56510), (118, 56519), (120, 56537),

Gene: Ageofdapage_39 Start: 30504, Stop: 31190, Start Num: 21

Candidate Starts for Ageofdapage_39:

(Start: 21 @30504 has 160 MA's), (52, 30657), (69, 30768), (78, 30849), (94, 30972), (97, 31017), (111, 31128), (117, 31146), (118, 31155),

Gene: Ajin_15 Start: 7272, Stop: 7913, Start Num: 33

Candidate Starts for Ajin_15:

(Start: 23 @7224 has 1 MA's), (Start: 33 @7272 has 6 MA's), (55, 7404), (77, 7572), (81, 7596), (90, 7647), (113, 7860),

Gene: AlishaPH_38 Start: 30535, Stop: 31224, Start Num: 21

Candidate Starts for AlishaPH_38:

(Start: 21 @30535 has 160 MA's), (Start: 32 @30577 has 34 MA's), (52, 30688), (61, 30745), (78, 30880), (94, 31003), (109, 31135), (117, 31180), (118, 31189),

Gene: AlleyCat_91 Start: 57150, Stop: 57836, Start Num: 21

Candidate Starts for AlleyCat_91:

(Start: 21 @57150 has 160 MA's), (45, 57258), (52, 57315), (78, 57501), (94, 57624), (109, 57753), (112, 57783), (116, 57792), (117, 57798), (118, 57807), (120, 57825),

Gene: Amelie_34 Start: 29822, Stop: 30511, Start Num: 21

Candidate Starts for Amelie_34:

(Start: 21 @29822 has 160 MA's), (43, 29918), (45, 29930), (52, 29987), (78, 30170), (94, 30293), (112, 30452), (116, 30461), (117, 30467), (118, 30476),

Gene: Amgine_90 Start: 58501, Stop: 59190, Start Num: 21

Candidate Starts for Amgine_90:

(Start: 21 @58501 has 160 MA's), (Start: 32 @58543 has 34 MA's), (52, 58666), (71, 58777), (78, 58849), (94, 58972), (97, 59017), (105, 59083), (111, 59125), (114, 59131), (115, 59134), (116, 59137), (119, 59155),

Gene: Aminay_79 Start: 50480, Stop: 51199, Start Num: 21

Candidate Starts for Aminay_79:

(Start: 21 @50480 has 160 MA's), (25, 50492), (46, 50600), (47, 50621), (53, 50675), (57, 50690), (78, 50861), (94, 50984), (96, 51017), (98, 51050), (110, 51125), (119, 51173),

Gene: Amohnition_88 Start: 57523, Stop: 58212, Start Num: 22

Candidate Starts for Amohnition_88:

(Start: 22 @57523 has 3 MA's), (45, 57631), (78, 57871), (93, 57976), (94, 57994), (97, 58039), (104, 58105), (111, 58150), (115, 58159), (117, 58168), (118, 58177),

Gene: Anakin_61 Start: 47166, Stop: 47813, Start Num: 32

Candidate Starts for Anakin_61:

(Start: 20 @47124 has 2 MA's), (Start: 32 @47166 has 34 MA's), (55, 47304), (90, 47547),

Gene: Angelica_38 Start: 30492, Stop: 31181, Start Num: 21

Candidate Starts for Angelica_38:

(Start: 21 @30492 has 160 MA's), (Start: 32 @30534 has 34 MA's), (52, 30645), (61, 30702), (78, 30837), (94, 30960), (109, 31092), (117, 31137), (118, 31146),

Gene: Anma_39 Start: 30542, Stop: 31297, Start Num: 7

Candidate Starts for Anma_39:

(7, 30542), (8, 30545), (12, 30575), (Start: 21 @30614 has 160 MA's), (39, 30692), (45, 30722), (52, 30767), (58, 30800), (61, 30824), (71, 30887), (94, 31082), (111, 31235), (115, 31244), (118, 31262),

Gene: AnnaSerena_61 Start: 47200, Stop: 47847, Start Num: 32

Candidate Starts for AnnaSerena_61:

(Start: 20 @47158 has 2 MA's), (Start: 32 @47200 has 34 MA's), (55, 47338), (90, 47581),

Gene: Annapurna_62 Start: 46707, Stop: 47354, Start Num: 32

Candidate Starts for Annapurna_62:

(Start: 20 @46665 has 2 MA's), (Start: 32 @46707 has 34 MA's), (55, 46845),

Gene: Apocalypse_39 Start: 30512, Stop: 31201, Start Num: 21

Candidate Starts for Apocalypse_39:

(Start: 21 @30512 has 160 MA's), (Start: 32 @30554 has 34 MA's), (52, 30665), (61, 30722), (78, 30857), (94, 30980), (109, 31112), (117, 31157), (118, 31166),

Gene: Applecrisp_88 Start: 57683, Stop: 58378, Start Num: 21

Candidate Starts for Applecrisp_88:

(Start: 21 @57683 has 160 MA's), (44, 57782), (52, 57848), (71, 57959), (78, 58031), (94, 58154), (97, 58199), (109, 58286), (111, 58313), (117, 58331), (118, 58340),

Gene: Artiphact_61 Start: 47190, Stop: 47837, Start Num: 32

Candidate Starts for Artiphact_61:

(Start: 20 @47148 has 2 MA's), (Start: 32 @47190 has 34 MA's), (55, 47328), (90, 47571),

Gene: Asayake_38 Start: 30576, Stop: 31265, Start Num: 21

Candidate Starts for Asayake_38:

(Start: 21 @30576 has 160 MA's), (Start: 32 @30618 has 34 MA's), (52, 30729), (61, 30786), (78, 30921), (94, 31044), (109, 31176), (117, 31221), (118, 31230),

Gene: Atiba_38 Start: 30505, Stop: 31191, Start Num: 21

Candidate Starts for Atiba_38:

(Start: 21 @30505 has 160 MA's), (52, 30658), (69, 30769), (78, 30850), (94, 30973), (104, 31084), (111, 31129), (117, 31147), (118, 31156),

Gene: BEEST_38 Start: 30576, Stop: 31265, Start Num: 21

Candidate Starts for BEEST_38:

(Start: 21 @30576 has 160 MA's), (Start: 32 @30618 has 34 MA's), (52, 30729), (61, 30786), (78, 30921), (94, 31044), (109, 31176), (117, 31221), (118, 31230),

Gene: BGlluviae_38 Start: 30661, Stop: 31347, Start Num: 21

Candidate Starts for BGlluviae_38:

(Start: 21 @30661 has 160 MA's), (52, 30814), (69, 30925), (78, 31006), (94, 31129), (104, 31240), (111, 31285), (117, 31303), (118, 31312),

Gene: BananenDer11_89 Start: 56114, Stop: 56800, Start Num: 21

Candidate Starts for BananenDer11_89:

(Start: 21 @56114 has 160 MA's), (45, 56222), (52, 56279), (78, 56465), (94, 56588), (116, 56756), (117, 56762), (118, 56771), (120, 56789),

Gene: BarrelRoll_38 Start: 30528, Stop: 31214, Start Num: 21

Candidate Starts for BarrelRoll_38:

(Start: 21 @30528 has 160 MA's), (52, 30681), (69, 30792), (78, 30873), (94, 30996), (104, 31107), (111, 31152), (117, 31170), (118, 31179),

Gene: Beezoo_38 Start: 30552, Stop: 31238, Start Num: 21

Candidate Starts for Beezoo_38:

(Start: 21 @30552 has 160 MA's), (52, 30705), (69, 30816), (78, 30897), (94, 31020), (104, 31131), (111, 31176), (117, 31194), (118, 31203),

Gene: Bella96_38 Start: 30448, Stop: 31131, Start Num: 21

Candidate Starts for Bella96_38:

(7, 30376), (8, 30379), (10, 30397), (12, 30409), (Start: 21 @30448 has 160 MA's), (39, 30526), (45, 30556), (52, 30601), (58, 30634), (61, 30658), (71, 30721), (78, 30793), (94, 30916), (111, 31069), (115, 31078), (118, 31096),

Gene: Belladonna_38 Start: 30661, Stop: 31347, Start Num: 21

Candidate Starts for Belladonna_38:

(Start: 21 @30661 has 160 MA's), (52, 30814), (69, 30925), (78, 31006), (94, 31129), (104, 31240), (111, 31285), (117, 31303), (118, 31312),

Gene: Bern_40 Start: 30843, Stop: 31526, Start Num: 19

Candidate Starts for Bern_40:

(Start: 19 @30843 has 2 MA's), (39, 30921), (52, 30996), (61, 31053), (71, 31116), (78, 31188), (94, 31311), (111, 31464), (115, 31473), (118, 31491),

Gene: Biglebops_34 Start: 29822, Stop: 30511, Start Num: 21

Candidate Starts for Biglebops_34:

(Start: 21 @29822 has 160 MA's), (43, 29918), (45, 29930), (52, 29987), (78, 30170), (94, 30293), (112, 30452), (116, 30461), (117, 30467), (118, 30476),

Gene: Blizzard_38 Start: 30576, Stop: 31265, Start Num: 21

Candidate Starts for Blizzard_38:

(Start: 21 @30576 has 160 MA's), (Start: 32 @30618 has 34 MA's), (52, 30729), (61, 30786), (78, 30921), (94, 31044), (109, 31176), (117, 31221), (118, 31230),

Gene: Bobquesha_88 Start: 52322, Stop: 53029, Start Num: 21

Candidate Starts for Bobquesha_88:

(Start: 21 @52322 has 160 MA's), (45, 52439), (50, 52484), (52, 52499), (59, 52535), (63, 52565), (78, 52691), (90, 52769), (94, 52814), (106, 52931), (110, 52958), (114, 52982), (119, 53006),

Gene: Boiiii_38 Start: 30578, Stop: 31267, Start Num: 21

Candidate Starts for Boiiii_38:

(Start: 21 @30578 has 160 MA's), (Start: 32 @30620 has 34 MA's), (52, 30731), (61, 30788), (78, 30923), (94, 31046), (109, 31178), (117, 31223), (118, 31232),

Gene: BoostSeason_39 Start: 30244, Stop: 30951, Start Num: 21

Candidate Starts for BoostSeason_39:

(Start: 21 @30244 has 160 MA's), (47, 30385), (78, 30637), (93, 30742), (102, 30847),

Gene: Bramble_15 Start: 7239, Stop: 7880, Start Num: 33

Candidate Starts for Bramble_15:

(Start: 23 @7191 has 1 MA's), (Start: 33 @7239 has 6 MA's), (77, 7539), (81, 7563), (90, 7614), (113, 7827),

Gene: Bryler_40 Start: 30409, Stop: 31095, Start Num: 21

Candidate Starts for Bryler_40:

(Start: 21 @30409 has 160 MA's), (Start: 35 @30463 has 2 MA's), (39, 30487), (52, 30562), (71, 30682), (78, 30754), (94, 30877), (112, 31036), (118, 31060), (119, 31063),

Gene: CREW_38 Start: 30661, Stop: 31347, Start Num: 21

Candidate Starts for CREW_38:

(Start: 21 @30661 has 160 MA's), (52, 30814), (69, 30925), (78, 31006), (94, 31129), (104, 31240), (111, 31285), (117, 31303), (118, 31312),

Gene: Cain_40 Start: 30397, Stop: 31083, Start Num: 21

Candidate Starts for Cain_40:

(Start: 21 @30397 has 160 MA's), (Start: 35 @30451 has 2 MA's), (39, 30475), (52, 30550), (71, 30670), (78, 30742), (94, 30865), (112, 31024), (118, 31048), (119, 31051),

Gene: CallaLilly_38 Start: 30584, Stop: 31270, Start Num: 21

Candidate Starts for CallaLilly_38:

(Start: 21 @30584 has 160 MA's), (52, 30737), (69, 30848), (78, 30929), (94, 31052), (104, 31163), (111, 31208), (117, 31226), (118, 31235),

Gene: Capricorn_38 Start: 30661, Stop: 31347, Start Num: 21

Candidate Starts for Capricorn_38:

(Start: 21 @30661 has 160 MA's), (52, 30814), (69, 30925), (78, 31006), (94, 31129), (104, 31240), (111, 31285), (117, 31303), (118, 31312),

Gene: CaseJules_39 Start: 30576, Stop: 31265, Start Num: 21

Candidate Starts for CaseJules_39:

(Start: 21 @30576 has 160 MA's), (Start: 32 @30618 has 34 MA's), (52, 30729), (61, 30786), (78, 30921), (94, 31044), (109, 31176), (117, 31221), (118, 31230),

Gene: Chancellor_91 Start: 54897, Stop: 55604, Start Num: 21

Candidate Starts for Chancellor_91:

(Start: 21 @54897 has 160 MA's), (45, 55014), (50, 55059), (52, 55074), (59, 55110), (78, 55266), (94, 55389), (106, 55506), (110, 55533), (119, 55581),

Gene: Cheetobro_89 Start: 54451, Stop: 55158, Start Num: 21

Candidate Starts for Cheetobro_89:

(Start: 21 @54451 has 160 MA's), (45, 54568), (50, 54613), (52, 54628), (59, 54664), (78, 54820), (94, 54943), (106, 55060), (110, 55087), (119, 55135),

Gene: Chivey_62 Start: 46661, Stop: 47308, Start Num: 32

Candidate Starts for Chivey_62:

(Start: 20 @46619 has 2 MA's), (Start: 32 @46661 has 34 MA's), (55, 46799),

Gene: Chris_40 Start: 30964, Stop: 31665, Start Num: 19

Candidate Starts for Chris_40:

(Start: 19 @30964 has 2 MA's), (52, 31129), (61, 31186), (71, 31249), (78, 31321), (94, 31444), (109, 31576),

Gene: Collard_87 Start: 56114, Stop: 56800, Start Num: 21

Candidate Starts for Collard_87:

(Start: 21 @56114 has 160 MA's), (45, 56222), (52, 56279), (78, 56465), (94, 56588), (116, 56756), (117, 56762), (118, 56771), (120, 56789),

Gene: CoolCookie_60 Start: 47242, Stop: 47889, Start Num: 32

Candidate Starts for CoolCookie_60:

(Start: 20 @47200 has 2 MA's), (Start: 32 @47242 has 34 MA's), (55, 47380), (116, 47842),

Gene: Crestdrop_61 Start: 46885, Stop: 47532, Start Num: 32

Candidate Starts for Crestdrop_61:

(Start: 20 @46843 has 2 MA's), (Start: 32 @46885 has 34 MA's), (55, 47023),

Gene: CrimD_38 Start: 30512, Stop: 31198, Start Num: 21

Candidate Starts for CrimD_38:

(Start: 21 @30512 has 160 MA's), (52, 30665), (69, 30776), (78, 30857), (94, 30980), (97, 31025), (111, 31136), (117, 31154), (118, 31163),

Gene: Cybele_61 Start: 47196, Stop: 47843, Start Num: 32

Candidate Starts for Cybele_61:

(Start: 20 @47154 has 2 MA's), (Start: 32 @47196 has 34 MA's), (55, 47334), (90, 47577),

Gene: Dadosky_91 Start: 57151, Stop: 57837, Start Num: 21

Candidate Starts for Dadosky_91:

(Start: 21 @57151 has 160 MA's), (45, 57259), (52, 57316), (78, 57502), (94, 57625), (109, 57754), (112, 57784), (116, 57793), (117, 57799), (118, 57808), (120, 57826),

Gene: Dalmuri_38 Start: 30661, Stop: 31347, Start Num: 21

Candidate Starts for Dalmuri_38:

(Start: 21 @30661 has 160 MA's), (52, 30814), (69, 30925), (78, 31006), (94, 31129), (104, 31240), (111, 31285), (117, 31303), (118, 31312),

Gene: DanSyl44_94 Start: 56283, Stop: 56990, Start Num: 21

Candidate Starts for DanSyl44_94:

(Start: 21 @56283 has 160 MA's), (45, 56400), (50, 56445), (52, 56460), (59, 56496), (78, 56652), (94, 56775), (106, 56892), (110, 56919), (119, 56967),

Gene: DannyDe_62 Start: 46620, Stop: 47309, Start Num: 20

Candidate Starts for DannyDe_62:

(Start: 20 @46620 has 2 MA's), (Start: 32 @46662 has 34 MA's), (55, 46800),

Gene: DartGoblin_39 Start: 30443, Stop: 31126, Start Num: 21

Candidate Starts for DartGoblin_39:

(7, 30371), (8, 30374), (10, 30392), (12, 30404), (Start: 21 @30443 has 160 MA's), (39, 30521), (45, 30551), (52, 30596), (58, 30629), (61, 30653), (71, 30716), (78, 30788), (94, 30911), (111, 31064), (115, 31073), (118, 31091),

Gene: DarthP_88 Start: 57376, Stop: 58065, Start Num: 22

Candidate Starts for DarthP_88:

(Start: 22 @57376 has 3 MA's), (45, 57484), (78, 57724), (93, 57829), (94, 57847), (97, 57892), (104, 57958), (111, 58003), (115, 58012), (117, 58021), (118, 58030),

Gene: Dauntless_60 Start: 46793, Stop: 47440, Start Num: 32

Candidate Starts for Dauntless_60:

(Start: 20 @46751 has 2 MA's), (Start: 32 @46793 has 34 MA's), (55, 46931),

Gene: Deby_38 Start: 30510, Stop: 31199, Start Num: 21

Candidate Starts for Deby_38:

(Start: 21 @30510 has 160 MA's), (Start: 32 @30552 has 34 MA's), (52, 30663), (61, 30720), (78, 30855), (94, 30978), (109, 31110), (117, 31155), (118, 31164),

Gene: DismalFunk_38 Start: 30342, Stop: 31046, Start Num: 21

Candidate Starts for DismalFunk_38:

(Start: 21 @30342 has 160 MA's), (47, 30480), (78, 30732), (93, 30837), (102, 30942),

Gene: DismalStressor_38 Start: 30342, Stop: 31046, Start Num: 21

Candidate Starts for DismalStressor_38:

(Start: 21 @30342 has 160 MA's), (47, 30480), (78, 30732), (93, 30837), (102, 30942),

Gene: DoubleChamp_86 Start: 56114, Stop: 56800, Start Num: 21

Candidate Starts for DoubleChamp_86:

(Start: 21 @56114 has 160 MA's), (45, 56222), (52, 56279), (78, 56465), (94, 56588), (116, 56756), (117, 56762), (118, 56771), (120, 56789),

Gene: Doughnut_39 Start: 30236, Stop: 30940, Start Num: 21

Candidate Starts for Doughnut_39:

(Start: 21 @30236 has 160 MA's), (47, 30374), (78, 30626), (93, 30731), (102, 30836),

Gene: DrHayes_38 Start: 30614, Stop: 31297, Start Num: 21

Candidate Starts for DrHayes_38:

(7, 30542), (8, 30545), (12, 30575), (Start: 21 @30614 has 160 MA's), (39, 30692), (45, 30722), (52, 30767), (58, 30800), (61, 30824), (71, 30887), (94, 31082), (111, 31235), (115, 31244), (118, 31262),

Gene: Durfee_38 Start: 30576, Stop: 31265, Start Num: 21

Candidate Starts for Durfee_38:

(Start: 21 @30576 has 160 MA's), (Start: 32 @30618 has 34 MA's), (52, 30729), (61, 30786), (78, 30921), (94, 31044), (109, 31176), (117, 31221), (118, 31230),

Gene: Edugator_85 Start: 58350, Stop: 59036, Start Num: 21

Candidate Starts for Edugator_85:

(Start: 21 @58350 has 160 MA's), (45, 58458), (52, 58515), (78, 58701), (94, 58824), (116, 58992), (117, 58998), (118, 59007), (120, 59025),

Gene: Efra2_41 Start: 30355, Stop: 31041, Start Num: 21

Candidate Starts for Efra2_41:

(Start: 21 @30355 has 160 MA's), (52, 30508), (64, 30583), (65, 30595), (69, 30619), (78, 30700), (94, 30823), (104, 30934), (111, 30979), (117, 30997), (118, 31006), (119, 31009),

Gene: Ekdilam_83 Start: 57075, Stop: 57926, Start Num: 3

Candidate Starts for Ekdilam_83:

(Start: 3 @57075 has 1 MA's), (5, 57141), (14, 57192), (16, 57204), (52, 57393), (69, 57504), (78, 57585), (93, 57690), (94, 57708), (104, 57819), (111, 57864), (115, 57873), (117, 57882), (118, 57891),

Gene: Ellie_89 Start: 57673, Stop: 58368, Start Num: 21

Candidate Starts for Ellie_89:

(Start: 21 @57673 has 160 MA's), (44, 57772), (52, 57838), (71, 57949), (78, 58021), (94, 58144), (97, 58189), (109, 58276), (111, 58303), (117, 58321), (118, 58330),

Gene: Emerson_39 Start: 30536, Stop: 31222, Start Num: 21

Candidate Starts for Emerson_39:

(Start: 21 @30536 has 160 MA's), (52, 30689), (69, 30800), (78, 30881), (94, 31004), (104, 31115), (111, 31160), (117, 31178), (118, 31187),

Gene: Enkosi_34 Start: 29822, Stop: 30511, Start Num: 21

Candidate Starts for Enkosi_34:

(Start: 21 @29822 has 160 MA's), (43, 29918), (45, 29930), (52, 29987), (78, 30170), (94, 30293), (112, 30452), (116, 30461), (117, 30467), (118, 30476),

Gene: Eponine_93 Start: 55877, Stop: 56584, Start Num: 21

Candidate Starts for Eponine_93:

(Start: 21 @55877 has 160 MA's), (45, 55994), (50, 56039), (52, 56054), (59, 56090), (78, 56246), (94, 56369), (106, 56486), (110, 56513), (119, 56561),

Gene: Erudite_60 Start: 46793, Stop: 47440, Start Num: 32

Candidate Starts for Erudite_60:

(Start: 20 @46751 has 2 MA's), (Start: 32 @46793 has 34 MA's), (55, 46931),

Gene: Fefferhead_91 Start: 57464, Stop: 58159, Start Num: 21

Candidate Starts for Fefferhead_91:

(Start: 21 @57464 has 160 MA's), (44, 57563), (52, 57629), (71, 57740), (78, 57812), (94, 57935), (97, 57980), (109, 58067), (111, 58094), (117, 58112), (118, 58121),

Gene: Finch_201 Start: 116833, Stop: 117528, Start Num: 24

Candidate Starts for Finch_201:

(Start: 24 @116833 has 3 MA's), (52, 117004), (73, 117139), (77, 117193), (83, 117238), (86, 117256), (93, 117301), (94, 117319), (99, 117394), (116, 117487),

Gene: Findley_38 Start: 30335, Stop: 31039, Start Num: 21

Candidate Starts for Findley_38:

(Start: 21 @30335 has 160 MA's), (47, 30473), (78, 30725), (93, 30830), (102, 30935),

Gene: Fionnbharth_91 Start: 55275, Stop: 55982, Start Num: 21

Candidate Starts for Fionnbharth_91:

(Start: 21 @55275 has 160 MA's), (45, 55392), (50, 55437), (52, 55452), (59, 55488), (78, 55644), (94, 55767), (106, 55884), (110, 55911), (119, 55959),

Gene: FlagStaff_60 Start: 41465, Stop: 42217, Start Num: 11

Candidate Starts for FlagStaff_60:

(Start: 11 @41465 has 1 MA's), (28, 41522), (54, 41699), (106, 42119),

Gene: FountainFog_60 Start: 46425, Stop: 47069, Start Num: 32

Candidate Starts for FountainFog_60:

(Start: 20 @46383 has 2 MA's), (Start: 32 @46425 has 34 MA's), (60, 46581), (79, 46734),

Gene: FreddieHg_62 Start: 46678, Stop: 47325, Start Num: 32

Candidate Starts for FreddieHg_62:

(Start: 20 @46636 has 2 MA's), (Start: 32 @46678 has 34 MA's), (55, 46816),

Gene: Ganymede_39 Start: 30565, Stop: 31254, Start Num: 21

Candidate Starts for Ganymede_39:

(Start: 21 @30565 has 160 MA's), (Start: 32 @30607 has 34 MA's), (52, 30718), (61, 30775), (78, 30910), (94, 31033), (109, 31165), (117, 31210), (118, 31219),

Gene: Gengar_88 Start: 57248, Stop: 57934, Start Num: 21

Candidate Starts for Gengar_88:

(Start: 21 @57248 has 160 MA's), (45, 57356), (52, 57413), (62, 57464), (78, 57596), (94, 57719), (109, 57848), (116, 57887), (117, 57893), (118, 57902),

Gene: Geraldini_38 Start: 30636, Stop: 31325, Start Num: 21

Candidate Starts for Geraldini_38:

(Start: 21 @30636 has 160 MA's), (Start: 32 @30678 has 34 MA's), (52, 30789), (61, 30846), (78, 30981), (94, 31104), (109, 31236), (117, 31281), (118, 31290),

Gene: Gilda_61 Start: 47188, Stop: 47835, Start Num: 32

Candidate Starts for Gilda_61:

(Start: 20 @47146 has 2 MA's), (Start: 32 @47188 has 34 MA's), (55, 47326), (90, 47569),

Gene: GodSpeed_58 Start: 40769, Stop: 41575, Start Num: 11

Candidate Starts for GodSpeed_58:

(Start: 11 @40769 has 1 MA's), (37, 40901), (42, 40922), (50, 40994), (56, 41045), (89, 41306), (106, 41477),

Gene: Greely_9 Start: 3736, Stop: 4431, Start Num: 29

Candidate Starts for Greely_9:

(29, 3736), (Start: 35 @3772 has 2 MA's), (62, 3958), (80, 4105), (82, 4114), (91, 4177),

Gene: Guanica15_41 Start: 30311, Stop: 30997, Start Num: 21

Candidate Starts for Guanica15_41:

(15, 30281), (Start: 21 @30311 has 160 MA's), (52, 30464), (64, 30539), (65, 30551), (69, 30575), (78, 30656), (94, 30779), (104, 30890), (111, 30935), (117, 30953), (118, 30962), (119, 30965),

Gene: Hager_62 Start: 46579, Stop: 47226, Start Num: 32

Candidate Starts for Hager_62:

(Start: 20 @46537 has 2 MA's), (Start: 32 @46579 has 34 MA's), (55, 46717),

Gene: Hammy_88 Start: 57366, Stop: 58055, Start Num: 22

Candidate Starts for Hammy_88:

(Start: 22 @57366 has 3 MA's), (45, 57474), (78, 57714), (93, 57819), (94, 57837), (97, 57882), (104, 57948), (111, 57993), (115, 58002), (117, 58011), (118, 58020),

Gene: Haunter_61 Start: 46430, Stop: 47077, Start Num: 32

Candidate Starts for Haunter_61:

(Start: 20 @46388 has 2 MA's), (Start: 32 @46430 has 34 MA's), (55, 46568), (90, 46811),

Gene: HedwigODU_38 Start: 30545, Stop: 31231, Start Num: 21

Candidate Starts for HedwigODU_38:

(Start: 21 @30545 has 160 MA's), (52, 30698), (69, 30809), (78, 30890), (94, 31013), (104, 31124), (111, 31169), (117, 31187), (118, 31196),

Gene: Heftyboy_90 Start: 58017, Stop: 58703, Start Num: 21

Candidate Starts for Heftyboy_90:

(Start: 21 @58017 has 160 MA's), (45, 58125), (52, 58182), (62, 58233), (78, 58365), (94, 58488), (109, 58617), (116, 58656), (117, 58662), (118, 58671),

Gene: Hiddenleaf_62 Start: 46661, Stop: 47308, Start Num: 32

Candidate Starts for Hiddenleaf_62:

(Start: 20 @46619 has 2 MA's), (Start: 32 @46661 has 34 MA's), (55, 46799),

Gene: Homura_38 Start: 30661, Stop: 31347, Start Num: 21

Candidate Starts for Homura_38:

(Start: 21 @30661 has 160 MA's), (52, 30814), (69, 30925), (78, 31006), (94, 31129), (104, 31240), (111, 31285), (117, 31303), (118, 31312),

Gene: Honk_72 Start: 45240, Stop: 45872, Start Num: 31

Candidate Starts for Honk_72:

(26, 45204), (Start: 31 @45240 has 1 MA's), (78, 45540), (86, 45594), (93, 45639), (103, 45759),

Gene: Hurricane_91 Start: 56971, Stop: 57810, Start Num: 4

Candidate Starts for Hurricane_91:

(Start: 4 @56971 has 5 MA's), (8, 57037), (17, 57094), (18, 57103), (52, 57274), (64, 57349), (69, 57385), (78, 57466), (94, 57589), (110, 57733), (114, 57757), (119, 57781),

Gene: Hyperbowlee_38 Start: 30576, Stop: 31265, Start Num: 21

Candidate Starts for Hyperbowlee_38:

(Start: 21 @30576 has 160 MA's), (Start: 32 @30618 has 34 MA's), (52, 30729), (61, 30786), (78, 30921), (94, 31044), (109, 31176), (117, 31221), (118, 31230),

Gene: Inky_38 Start: 30661, Stop: 31347, Start Num: 21

Candidate Starts for Inky_38:

(Start: 21 @30661 has 160 MA's), (52, 30814), (69, 30925), (78, 31006), (94, 31129), (104, 31240), (111, 31285), (117, 31303), (118, 31312),

Gene: InvictusManeo_86 Start: 55869, Stop: 56552, Start Num: 21

Candidate Starts for InvictusManeo_86:

(Start: 21 @55869 has 160 MA's), (45, 55977), (52, 56034), (62, 56085), (76, 56172), (78, 56217), (94, 56340), (116, 56508), (117, 56514), (118, 56523), (120, 56541),

Gene: JAWS_38 Start: 30529, Stop: 31218, Start Num: 21

Candidate Starts for JAWS_38:

(Start: 21 @30529 has 160 MA's), (Start: 32 @30571 has 34 MA's), (52, 30682), (61, 30739), (78, 30874), (94, 30997), (109, 31129), (117, 31174), (118, 31183),

Gene: JDawG_60 Start: 46853, Stop: 47500, Start Num: 32

Candidate Starts for JDawG_60:

(Start: 20 @46811 has 2 MA's), (Start: 32 @46853 has 34 MA's), (55, 46991),

Gene: JF1_91 Start: 55199, Stop: 55906, Start Num: 21

Candidate Starts for JF1_91:

(Start: 21 @55199 has 160 MA's), (45, 55316), (50, 55361), (52, 55376), (59, 55412), (78, 55568), (94, 55691), (106, 55808), (110, 55835), (119, 55883),

Gene: Jarvi_38 Start: 30661, Stop: 31347, Start Num: 21

Candidate Starts for Jarvi_38:

(Start: 21 @30661 has 160 MA's), (52, 30814), (69, 30925), (78, 31006), (94, 31129), (104, 31240), (111, 31285), (117, 31303), (118, 31312),

Gene: Jayhawk_39 Start: 30543, Stop: 31229, Start Num: 21

Candidate Starts for Jayhawk_39:

(Start: 21 @30543 has 160 MA's), (52, 30696), (69, 30807), (78, 30888), (94, 31011), (104, 31122), (111, 31167), (117, 31185), (118, 31194),

Gene: Jeckyll_38 Start: 30661, Stop: 31347, Start Num: 21

Candidate Starts for Jeckyll_38:

(Start: 21 @30661 has 160 MA's), (52, 30814), (69, 30925), (78, 31006), (94, 31129), (104, 31240), (111, 31285), (117, 31303), (118, 31312),

Gene: JingleBells_61 Start: 46766, Stop: 47413, Start Num: 32

Candidate Starts for JingleBells_61:

(Start: 20 @46724 has 2 MA's), (Start: 32 @46766 has 34 MA's), (55, 46904),

Gene: Joy99_38 Start: 30590, Stop: 31276, Start Num: 21

Candidate Starts for Joy99_38:

(Start: 21 @30590 has 160 MA's), (52, 30743), (68, 30851), (69, 30854), (78, 30935), (94, 31058), (101, 31154), (104, 31169), (111, 31214), (117, 31232), (118, 31241),

Gene: Juliette_93 Start: 55291, Stop: 55986, Start Num: 21

Candidate Starts for Juliette_93:

(Start: 21 @55291 has 160 MA's), (45, 55408), (50, 55453), (52, 55468), (59, 55504), (78, 55660), (89, 55729), (94, 55783), (106, 55900), (110, 55927), (119, 55975),

Gene: Karate_60 Start: 46963, Stop: 47652, Start Num: 20

Candidate Starts for Karate_60:

(Start: 20 @46963 has 2 MA's), (Start: 32 @47005 has 34 MA's), (55, 47143),

Gene: Kate_61 Start: 47105, Stop: 47752, Start Num: 32

Candidate Starts for Kate_61:

(Start: 20 @47063 has 2 MA's), (Start: 32 @47105 has 34 MA's), (55, 47243), (90, 47486),

Gene: Keshu_95 Start: 57373, Stop: 58212, Start Num: 4

Candidate Starts for Keshu_95:

(Start: 4 @57373 has 5 MA's), (8, 57439), (17, 57496), (18, 57505), (52, 57676), (64, 57751), (69, 57787), (78, 57868), (94, 57991), (110, 58135), (119, 58183),

Gene: Kors_15 Start: 7305, Stop: 7943, Start Num: 33

Candidate Starts for Kors_15:

(Start: 23 @7257 has 1 MA's), (Start: 33 @7305 has 6 MA's), (70, 7527), (77, 7602), (81, 7626), (86, 7659), (90, 7677), (113, 7890),

Gene: Krampus_61 Start: 47201, Stop: 47848, Start Num: 32

Candidate Starts for Krampus_61:

(Start: 20 @47159 has 2 MA's), (Start: 32 @47201 has 34 MA's), (55, 47339), (90, 47582),

Gene: Kratio_91 Start: 57046, Stop: 57732, Start Num: 21

Candidate Starts for Kratio_91:

(Start: 21 @57046 has 160 MA's), (45, 57154), (52, 57211), (78, 57397), (94, 57520), (116, 57688), (117, 57694), (118, 57703), (120, 57721),

Gene: Kraw_91 Start: 55006, Stop: 55713, Start Num: 21

Candidate Starts for Kraw_91:

(Start: 21 @55006 has 160 MA's), (45, 55123), (50, 55168), (52, 55183), (59, 55219), (78, 55375), (94, 55498), (106, 55615), (110, 55642), (119, 55690),

Gene: Krueger_42 Start: 30580, Stop: 31269, Start Num: 21

Candidate Starts for Krueger_42:

(Start: 21 @30580 has 160 MA's), (52, 30736), (69, 30847), (78, 30928), (94, 31051), (104, 31162), (111, 31207), (117, 31225), (118, 31234),

Gene: Kumao_100 Start: 62319, Stop: 61672, Start Num: 32

Candidate Starts for Kumao_100:

(Start: 32 @62319 has 34 MA's), (34, 62310), (40, 62280), (41, 62274), (49, 62220), (73, 62088), (78, 62028), (88, 61962), (92, 61926), (97, 61860), (100, 61812), (107, 61782), (108, 61773), (121, 61680), (122, 61677),

Gene: Larva_90 Start: 58023, Stop: 58709, Start Num: 21

Candidate Starts for Larva_90:

(Start: 21 @58023 has 160 MA's), (45, 58131), (52, 58188), (78, 58374), (94, 58497), (109, 58626), (112, 58656), (116, 58665), (117, 58671), (118, 58680), (120, 58698),

Gene: LaterM_38 Start: 30491, Stop: 31177, Start Num: 21

Candidate Starts for LaterM_38:

(Start: 21 @30491 has 160 MA's), (52, 30644), (69, 30755), (78, 30836), (94, 30959), (97, 31004), (111, 31115), (117, 31133), (118, 31142),

Gene: Lavahound_89 Start: 58632, Stop: 59321, Start Num: 21

Candidate Starts for Lavahound_89:

(Start: 21 @58632 has 160 MA's), (44, 58731), (45, 58740), (52, 58797), (71, 58908), (78, 58980), (94, 59103), (97, 59148), (105, 59214), (111, 59256), (114, 59262), (115, 59265), (116, 59268), (119, 59286),

Gene: Lea83_92 Start: 57199, Stop: 58038, Start Num: 4

Candidate Starts for Lea83_92:

(Start: 4 @57199 has 5 MA's), (8, 57265), (17, 57322), (18, 57331), (52, 57502), (64, 57577), (69, 57613), (78, 57694), (94, 57817), (110, 57961), (119, 58009),

Gene: Lebo14_90 Start: 55429, Stop: 56136, Start Num: 21

Candidate Starts for Lebo14_90:

(Start: 21 @55429 has 160 MA's), (45, 55546), (50, 55591), (52, 55606), (59, 55642), (78, 55798), (94, 55921), (106, 56038), (110, 56065), (119, 56113),

Gene: Leston_88 Start: 57198, Stop: 57884, Start Num: 21

Candidate Starts for Leston_88:

(Start: 21 @57198 has 160 MA's), (45, 57306), (52, 57363), (62, 57414), (78, 57546), (94, 57669), (109, 57798), (116, 57837), (117, 57843), (118, 57852),

Gene: LilDirt_88 Start: 55915, Stop: 56601, Start Num: 21

Candidate Starts for LilDirt_88:

(Start: 21 @55915 has 160 MA's), (45, 56023), (52, 56080), (78, 56266), (94, 56389), (116, 56557), (117, 56563), (118, 56572), (120, 56590),

Gene: LilPharaoh_34 Start: 29822, Stop: 30511, Start Num: 21

Candidate Starts for LilPharaoh_34:

(Start: 21 @29822 has 160 MA's), (43, 29918), (45, 29930), (52, 29987), (78, 30170), (94, 30293), (112, 30452), (116, 30461), (117, 30467), (118, 30476),

Gene: Llorens_38 Start: 30661, Stop: 31347, Start Num: 21

Candidate Starts for Llorens_38:

(Start: 21 @30661 has 160 MA's), (52, 30814), (69, 30925), (78, 31006), (94, 31129), (104, 31240), (111, 31285), (117, 31303), (118, 31312),

Gene: LordBart_15 Start: 7278, Stop: 7916, Start Num: 33

Candidate Starts for LordBart_15:

(Start: 23 @7230 has 1 MA's), (Start: 33 @7278 has 6 MA's), (70, 7500), (77, 7575), (81, 7599), (90, 7650), (113, 7863),

Gene: Lunahalos_38 Start: 30661, Stop: 31347, Start Num: 21

Candidate Starts for Lunahalos_38:

(Start: 21 @30661 has 160 MA's), (52, 30814), (69, 30925), (78, 31006), (94, 31129), (104, 31240), (111, 31285), (117, 31303), (118, 31312),

Gene: Malthus_92 Start: 55000, Stop: 55707, Start Num: 21

Candidate Starts for Malthus_92:

(Start: 21 @55000 has 160 MA's), (45, 55117), (50, 55162), (52, 55177), (59, 55213), (78, 55369), (94, 55492), (106, 55609), (110, 55636), (119, 55684),

Gene: Marcoliusprime_38 Start: 30342, Stop: 31046, Start Num: 21

Candidate Starts for Marcoliusprime_38:

(Start: 21 @30342 has 160 MA's), (47, 30480), (78, 30732), (93, 30837), (102, 30942),

Gene: MarkPhew_42 Start: 31094, Stop: 31789, Start Num: 21

Candidate Starts for MarkPhew_42:

(6, 31016), (9, 31037), (Start: 21 @31094 has 160 MA's), (52, 31256), (61, 31313), (71, 31376), (78, 31448), (94, 31571), (112, 31730), (116, 31739), (118, 31754), (119, 31757),

Gene: Marshawn_42 Start: 31382, Stop: 32077, Start Num: 21

Candidate Starts for Marshawn_42:

(1, 31115), (2, 31136), (6, 31304), (9, 31325), (Start: 21 @31382 has 160 MA's), (52, 31544), (61, 31601), (71, 31664), (78, 31736), (94, 31859), (112, 32018), (116, 32027), (118, 32042), (119, 32045),

Gene: Mdavu_34 Start: 29810, Stop: 30499, Start Num: 21

Candidate Starts for Mdavu_34:

(Start: 21 @29810 has 160 MA's), (43, 29906), (45, 29918), (52, 29975), (78, 30158), (94, 30281), (112, 30440), (116, 30449), (117, 30455), (118, 30464),

Gene: MeaningOfLife_38 Start: 30521, Stop: 31210, Start Num: 21

Candidate Starts for MeaningOfLife_38:

(Start: 21 @30521 has 160 MA's), (Start: 32 @30563 has 34 MA's), (52, 30674), (61, 30731), (78, 30866), (94, 30989), (109, 31121), (117, 31166), (118, 31175),

Gene: Megsy_39 Start: 30509, Stop: 31198, Start Num: 21

Candidate Starts for Megsy_39:

(Start: 21 @30509 has 160 MA's), (Start: 32 @30551 has 34 MA's), (52, 30662), (61, 30719), (78, 30854), (94, 30977), (109, 31109), (111, 31136), (117, 31154), (118, 31163),

Gene: Milly_38 Start: 30315, Stop: 31019, Start Num: 21

Candidate Starts for Milly_38:

(Start: 21 @30315 has 160 MA's), (47, 30453), (78, 30705), (93, 30810), (102, 30915),

Gene: Miryou_91 Start: 59258, Stop: 59944, Start Num: 21

Candidate Starts for Miryou_91:

(Start: 21 @59258 has 160 MA's), (45, 59366), (52, 59423), (62, 59474), (78, 59606), (94, 59729), (109, 59858), (116, 59897), (117, 59903), (118, 59912),

Gene: MissDaisy_85 Start: 51594, Stop: 52301, Start Num: 21

Candidate Starts for MissDaisy_85:

(Start: 21 @51594 has 160 MA's), (45, 51711), (50, 51756), (52, 51771), (59, 51807), (63, 51837), (78, 51963), (94, 52086), (106, 52203), (110, 52230), (114, 52254), (119, 52278),

Gene: Mitti_91 Start: 55093, Stop: 55800, Start Num: 21

Candidate Starts for Mitti_91:

(Start: 21 @55093 has 160 MA's), (45, 55210), (50, 55255), (52, 55270), (59, 55306), (78, 55462), (94, 55585), (106, 55702), (110, 55729), (119, 55777),

Gene: MortySmith_59 Start: 46267, Stop: 46914, Start Num: 32

Candidate Starts for MortySmith_59:

(Start: 20 @46225 has 2 MA's), (Start: 32 @46267 has 34 MA's), (55, 46405),

Gene: Mufasa_39 Start: 30236, Stop: 30940, Start Num: 21

Candidate Starts for Mufasa_39:

(Start: 21 @30236 has 160 MA's), (47, 30374), (78, 30626), (93, 30731), (102, 30836),

Gene: Murucutumbu_38 Start: 30585, Stop: 31271, Start Num: 21

Candidate Starts for Murucutumbu_38:

(Start: 21 @30585 has 160 MA's), (52, 30738), (69, 30849), (78, 30930), (94, 31053), (97, 31098), (111, 31209), (117, 31227), (118, 31236),

Gene: Myrna_9 Start: 3884, Stop: 4543, Start Num: 35

Candidate Starts for Myrna_9:

(29, 3851), (Start: 35 @3884 has 2 MA's), (62, 4070), (80, 4217), (91, 4289), (101, 4418), (110, 4472),

Gene: NarutoRun_61 Start: 47166, Stop: 47813, Start Num: 32

Candidate Starts for NarutoRun_61:

(Start: 20 @47124 has 2 MA's), (Start: 32 @47166 has 34 MA's), (55, 47304), (90, 47547),

Gene: Neighly_91 Start: 58022, Stop: 58708, Start Num: 21

Candidate Starts for Neighly_91:

(Start: 21 @58022 has 160 MA's), (45, 58130), (52, 58187), (78, 58373), (94, 58496), (109, 58625), (112, 58655), (116, 58664), (117, 58670), (118, 58679), (120, 58697),

Gene: Neptune_61 Start: 47196, Stop: 47843, Start Num: 32

Candidate Starts for Neptune_61:

(Start: 20 @47154 has 2 MA's), (Start: 32 @47196 has 34 MA's), (55, 47334), (90, 47577),

Gene: Nergal_34 Start: 28204, Stop: 28902, Start Num: 21

Candidate Starts for Nergal_34:

(13, 28165), (Start: 21 @28204 has 160 MA's), (47, 28342), (51, 28378), (57, 28417), (59, 28426), (74, 28540), (78, 28591), (94, 28714), (95, 28717),

Gene: Nibb_40 Start: 30496, Stop: 31197, Start Num: 21

Candidate Starts for Nibb_40:

(9, 30439), (Start: 21 @30496 has 160 MA's), (52, 30661), (69, 30772), (78, 30853), (94, 30976), (109, 31108), (116, 31147), (118, 31162),

Gene: Nikao_34 Start: 29822, Stop: 30511, Start Num: 21

Candidate Starts for Nikao_34:

(Start: 21 @29822 has 160 MA's), (43, 29918), (45, 29930), (52, 29987), (78, 30170), (94, 30293), (112, 30452), (116, 30461), (117, 30467), (118, 30476),

Gene: Nutello_34 Start: 29822, Stop: 30511, Start Num: 21

Candidate Starts for Nutello_34:

(Start: 21 @29822 has 160 MA's), (43, 29918), (45, 29930), (52, 29987), (78, 30170), (94, 30293), (112, 30452), (116, 30461), (117, 30467), (118, 30476),

Gene: OhDear_61 Start: 47164, Stop: 47811, Start Num: 32

Candidate Starts for OhDear_61:

(Start: 20 @47122 has 2 MA's), (Start: 32 @47164 has 34 MA's), (55, 47302), (90, 47545),

Gene: OkiRoe_89 Start: 58212, Stop: 58898, Start Num: 21

Candidate Starts for OkiRoe_89:

(Start: 21 @58212 has 160 MA's), (45, 58320), (52, 58377), (62, 58428), (78, 58560), (94, 58683), (109, 58812), (116, 58851), (117, 58857), (118, 58866),

Gene: OmniCritical_91 Start: 55173, Stop: 55880, Start Num: 21

Candidate Starts for OmniCritical_91:

(Start: 21 @55173 has 160 MA's), (45, 55290), (50, 55335), (52, 55350), (59, 55386), (78, 55542), (94, 55665), (106, 55782), (110, 55809), (119, 55857),

Gene: Oscar_42 Start: 31235, Stop: 31894, Start Num: 21

Candidate Starts for Oscar_42:

(Start: 21 @31235 has 160 MA's), (48, 31379), (52, 31400), (72, 31481), (78, 31547), (94, 31670), (97, 31715), (119, 31862),

Gene: OverHedge_60 Start: 47062, Stop: 47709, Start Num: 32

Candidate Starts for OverHedge_60:

(Start: 20 @47020 has 2 MA's), (Start: 32 @47062 has 34 MA's), (55, 47200), (90, 47443),

Gene: Pace1224_61 Start: 41491, Stop: 42243, Start Num: 11

Candidate Starts for Pace1224_61:

(Start: 11 @41491 has 1 MA's), (28, 41548), (54, 41725), (106, 42145),

Gene: Padfoot_38 Start: 30576, Stop: 31265, Start Num: 21

Candidate Starts for Padfoot_38:

(Start: 21 @30576 has 160 MA's), (Start: 32 @30618 has 34 MA's), (52, 30729), (61, 30786), (78, 30921), (94, 31044), (109, 31176), (117, 31221), (118, 31230),

Gene: Padpat_39 Start: 30536, Stop: 31222, Start Num: 21

Candidate Starts for Padpat_39:

(Start: 21 @30536 has 160 MA's), (52, 30689), (69, 30800), (78, 30881), (94, 31004), (104, 31115), (111, 31160), (117, 31178), (118, 31187),

Gene: Patt_84 Start: 51741, Stop: 52448, Start Num: 21

Candidate Starts for Patt_84:

(Start: 21 @51741 has 160 MA's), (45, 51858), (50, 51903), (52, 51918), (59, 51954), (78, 52110), (94, 52233), (106, 52350), (110, 52377), (114, 52401), (119, 52425),

Gene: Peel_38 Start: 30663, Stop: 31349, Start Num: 21

Candidate Starts for Peel_38:

(Start: 21 @30663 has 160 MA's), (52, 30816), (69, 30927), (78, 31008), (94, 31131), (104, 31242), (111, 31287), (117, 31305), (118, 31314),

Gene: Phabba_9 Start: 3508, Stop: 4167, Start Num: 35

Candidate Starts for Phabba_9:

(29, 3472), (Start: 35 @3508 has 2 MA's), (62, 3694), (80, 3841), (91, 3913),

Gene: Pharb_91 Start: 56993, Stop: 57817, Start Num: 4

Candidate Starts for Pharb_91:

(Start: 4 @56993 has 5 MA's), (17, 57116), (Start: 21 @57128 has 160 MA's), (52, 57281), (58, 57314), (61, 57338), (71, 57401), (78, 57473), (94, 57596), (109, 57728), (111, 57755), (115, 57764), (117, 57773), (118, 57782),

Gene: Pharpay_60 Start: 47211, Stop: 47858, Start Num: 32

Candidate Starts for Pharpay_60:

(Start: 20 @47169 has 2 MA's), (Start: 32 @47211 has 34 MA's), (55, 47349), (90, 47592),

Gene: PhelpsODU_39 Start: 30435, Stop: 31121, Start Num: 21

Candidate Starts for PhelpsODU_39:

(Start: 21 @30435 has 160 MA's), (39, 30513), (52, 30588), (71, 30708), (94, 30903), (112, 31062), (118, 31086), (119, 31089),

Gene: Phrank_40 Start: 30386, Stop: 31072, Start Num: 21

Candidate Starts for Phrank_40:

(Start: 21 @30386 has 160 MA's), (Start: 35 @30440 has 2 MA's), (39, 30464), (52, 30539), (71, 30659), (78, 30731), (94, 30854), (112, 31013), (118, 31037), (119, 31040),

Gene: PhunaPhoke_61 Start: 47181, Stop: 47828, Start Num: 32

Candidate Starts for PhunaPhoke_61:

(Start: 20 @47139 has 2 MA's), (Start: 32 @47181 has 34 MA's), (55, 47319), (90, 47562),

Gene: Piatt_38 Start: 30576, Stop: 31265, Start Num: 21

Candidate Starts for Piatt_38:

(Start: 21 @30576 has 160 MA's), (Start: 32 @30618 has 34 MA's), (52, 30729), (61, 30786), (78, 30921), (94, 31044), (109, 31176), (117, 31221), (118, 31230),

Gene: Pisa1_37 Start: 30592, Stop: 31275, Start Num: 19

Candidate Starts for Pisa1_37:

(Start: 19 @30592 has 2 MA's), (39, 30670), (52, 30745), (58, 30778), (71, 30865), (78, 30937), (94, 31060), (95, 31063), (111, 31213), (115, 31222), (117, 31231), (118, 31240),

Gene: Pisa4_37 Start: 30592, Stop: 31275, Start Num: 19

Candidate Starts for Pisa4_37:

(Start: 19 @30592 has 2 MA's), (39, 30670), (52, 30745), (58, 30778), (71, 30865), (78, 30937), (94, 31060), (95, 31063), (111, 31213), (115, 31222), (117, 31231), (118, 31240),

Gene: Pixie_93 Start: 57420, Stop: 58109, Start Num: 24

Candidate Starts for Pixie_93:

(Start: 24 @57420 has 3 MA's), (52, 57573), (64, 57648), (69, 57684), (78, 57765), (94, 57888), (106, 58005), (110, 58032), (114, 58056), (119, 58080),

Gene: Pokerus_37 Start: 30576, Stop: 31265, Start Num: 21

Candidate Starts for Pokerus_37:

(Start: 21 @30576 has 160 MA's), (Start: 32 @30618 has 34 MA's), (52, 30729), (61, 30786), (78, 30921), (94, 31044), (109, 31176), (117, 31221), (118, 31230),

Gene: Potty_60 Start: 47111, Stop: 47758, Start Num: 32

Candidate Starts for Potty_60:

(Start: 20 @47069 has 2 MA's), (Start: 32 @47111 has 34 MA's), (55, 47249), (90, 47492),

Gene: Poultruss_60 Start: 47408, Stop: 48055, Start Num: 32

Candidate Starts for Poultruss_60:

(Start: 20 @47366 has 2 MA's), (Start: 32 @47408 has 34 MA's), (55, 47546), (67, 47630), (90, 47789), (116, 48008),

Gene: Psycho_89 Start: 57148, Stop: 57834, Start Num: 21

Candidate Starts for Psycho_89:

(Start: 21 @57148 has 160 MA's), (45, 57256), (52, 57313), (78, 57499), (94, 57622), (109, 57751), (112, 57781), (116, 57790), (117, 57796), (118, 57805), (120, 57823),

Gene: Qhanda_91 Start: 54451, Stop: 55158, Start Num: 21

Candidate Starts for Qhanda_91:

(Start: 21 @54451 has 160 MA's), (45, 54568), (50, 54613), (52, 54628), (59, 54664), (78, 54820), (94, 54943), (106, 55060), (110, 55087), (119, 55135),

Gene: QuincyRose_37 Start: 30565, Stop: 31254, Start Num: 21

Candidate Starts for QuincyRose_37:

(Start: 21 @30565 has 160 MA's), (Start: 32 @30607 has 34 MA's), (52, 30718), (61, 30775), (78, 30910), (94, 31033), (109, 31165), (117, 31210), (118, 31219),

Gene: Rachella_61 Start: 47192, Stop: 47839, Start Num: 32

Candidate Starts for Rachella_61:

(Start: 20 @47150 has 2 MA's), (Start: 32 @47192 has 34 MA's), (55, 47330), (90, 47573),

Gene: Ramen_38 Start: 30541, Stop: 31230, Start Num: 21

Candidate Starts for Ramen_38:

(Start: 21 @30541 has 160 MA's), (Start: 32 @30583 has 34 MA's), (52, 30694), (61, 30751), (78, 30886), (94, 31009), (109, 31141), (117, 31186), (118, 31195),

Gene: Rapunzel97_38 Start: 30543, Stop: 31229, Start Num: 21

Candidate Starts for Rapunzel97_38:

(Start: 21 @30543 has 160 MA's), (52, 30696), (69, 30807), (78, 30888), (94, 31011), (104, 31122), (111, 31167), (117, 31185), (118, 31194),

Gene: Reptar3000_85 Start: 51731, Stop: 52438, Start Num: 21

Candidate Starts for Reptar3000_85:

(Start: 21 @51731 has 160 MA's), (45, 51848), (50, 51893), (52, 51908), (59, 51944), (78, 52100), (94, 52223), (106, 52340), (110, 52367), (114, 52391), (119, 52415),

Gene: Rie18_61 Start: 46994, Stop: 47638, Start Num: 32

Candidate Starts for Rie18_61:

(Start: 20 @46952 has 2 MA's), (Start: 32 @46994 has 34 MA's), (60, 47150),

Gene: RikSengupta_15 Start: 7375, Stop: 7995, Start Num: 33

Candidate Starts for RikSengupta_15:

(Start: 23 @7327 has 1 MA's), (Start: 33 @7375 has 6 MA's), (77, 7675), (81, 7699), (90, 7750), (119, 7972),

Gene: Rosmarinus_38 Start: 30649, Stop: 31335, Start Num: 21

Candidate Starts for Rosmarinus_38:

(Start: 21 @30649 has 160 MA's), (52, 30802), (69, 30913), (78, 30994), (94, 31117), (104, 31228), (111, 31273), (117, 31291), (118, 31300),

Gene: Ruthiejr_93 Start: 55066, Stop: 55773, Start Num: 21

Candidate Starts for Ruthiejr_93:

(Start: 21 @55066 has 160 MA's), (45, 55183), (50, 55228), (52, 55243), (59, 55279), (78, 55435), (94, 55558), (106, 55675), (110, 55702), (119, 55750),

Gene: SamScheppers_90 Start: 55551, Stop: 56258, Start Num: 21

Candidate Starts for SamScheppers_90:

(Start: 21 @55551 has 160 MA's), (45, 55668), (50, 55713), (52, 55728), (59, 55764), (78, 55920), (94, 56043), (106, 56160), (110, 56187), (119, 56235),

Gene: SamuelLPlaqson_38 Start: 30614, Stop: 31297, Start Num: 21

Candidate Starts for SamuelLPlaqson_38:

(7, 30542), (8, 30545), (12, 30575), (Start: 21 @30614 has 160 MA's), (39, 30692), (45, 30722), (52, 30767), (58, 30800), (61, 30824), (71, 30887), (94, 31082), (111, 31235), (115, 31244), (118, 31262),

Gene: Scarlett_42 Start: 31226, Stop: 31885, Start Num: 21

Candidate Starts for Scarlett_42:

(Start: 21 @31226 has 160 MA's), (48, 31370), (52, 31391), (72, 31472), (78, 31538), (94, 31661), (97, 31706), (119, 31853),

Gene: SgtBeansprout_34 Start: 29822, Stop: 30511, Start Num: 21

Candidate Starts for SgtBeansprout_34:

(Start: 21 @29822 has 160 MA's), (43, 29918), (45, 29930), (52, 29987), (78, 30170), (94, 30293), (112, 30452), (116, 30461), (117, 30467), (118, 30476),

Gene: Shadow1_41 Start: 30489, Stop: 31178, Start Num: 21

Candidate Starts for Shadow1_41:

(Start: 21 @30489 has 160 MA's), (52, 30645), (69, 30756), (78, 30837), (94, 30960), (104, 31071), (111, 31116), (117, 31134), (118, 31143),

Gene: ShedlockHolmes_94 Start: 57204, Stop: 58043, Start Num: 4

Candidate Starts for ShedlockHolmes_94:

(Start: 4 @57204 has 5 MA's), (8, 57270), (17, 57327), (18, 57336), (52, 57507), (64, 57582), (69, 57618), (78, 57699), (94, 57822), (110, 57966), (119, 58014),

Gene: ShiaSurprise_39 Start: 30576, Stop: 31265, Start Num: 21

Candidate Starts for ShiaSurprise_39:

(Start: 21 @30576 has 160 MA's), (Start: 32 @30618 has 34 MA's), (52, 30729), (61, 30786), (78, 30921), (94, 31044), (109, 31176), (117, 31221), (118, 31230),

Gene: SilentWarrior_62 Start: 46627, Stop: 47274, Start Num: 32

Candidate Starts for SilentWarrior_62:

(Start: 20 @46585 has 2 MA's), (Start: 32 @46627 has 34 MA's), (55, 46765),

Gene: SirPhilip_39 Start: 29794, Stop: 30471, Start Num: 21

Candidate Starts for SirPhilip_39:

(Start: 21 @29794 has 160 MA's), (45, 29902), (52, 29947), (61, 30004), (71, 30067), (72, 30073), (78, 30139), (94, 30262), (112, 30421), (118, 30445), (119, 30448),

Gene: Slarp_89 Start: 54454, Stop: 55161, Start Num: 21

Candidate Starts for Slarp_89:

(Start: 21 @54454 has 160 MA's), (45, 54571), (50, 54616), (52, 54631), (59, 54667), (78, 54823), (94, 54946), (106, 55063), (110, 55090), (119, 55138),

Gene: Slimphazie_38 Start: 30543, Stop: 31229, Start Num: 21

Candidate Starts for Slimphazie_38:

(Start: 21 @30543 has 160 MA's), (52, 30696), (69, 30807), (78, 30888), (94, 31011), (104, 31122), (111, 31167), (117, 31185), (118, 31194),

Gene: Snakehole_62 Start: 46608, Stop: 47255, Start Num: 32

Candidate Starts for Snakehole_62:

(Start: 20 @46566 has 2 MA's), (Start: 32 @46608 has 34 MA's), (55, 46746),

Gene: SoSeph_90 Start: 58017, Stop: 58703, Start Num: 21

Candidate Starts for SoSeph_90:

(Start: 21 @58017 has 160 MA's), (45, 58125), (52, 58182), (62, 58233), (78, 58365), (94, 58488), (109, 58617), (116, 58656), (117, 58662), (118, 58671),

Gene: Sparcetus_15 Start: 7254, Stop: 7874, Start Num: 33

Candidate Starts for Sparcetus_15:

(Start: 23 @7206 has 1 MA's), (Start: 33 @7254 has 6 MA's), (77, 7554), (81, 7578), (90, 7629), (119, 7851),

Gene: Spock_38 Start: 30661, Stop: 31347, Start Num: 21

Candidate Starts for Spock_38:

(Start: 21 @30661 has 160 MA's), (52, 30814), (69, 30925), (78, 31006), (94, 31129), (104, 31240), (111, 31285), (117, 31303), (118, 31312),

Gene: Stinson_39 Start: 30779, Stop: 31465, Start Num: 21

Candidate Starts for Stinson_39:

(Start: 21 @30779 has 160 MA's), (52, 30932), (69, 31043), (78, 31124), (94, 31247), (97, 31292), (111, 31403), (117, 31421), (118, 31430),

Gene: Strobilo_38 Start: 30316, Stop: 31020, Start Num: 21

Candidate Starts for Strobilo_38:

(Start: 21 @30316 has 160 MA's), (47, 30454), (78, 30706), (90, 30784), (93, 30811), (102, 30916),

Gene: Sulley_38 Start: 30509, Stop: 31198, Start Num: 21

Candidate Starts for Sulley_38:

(Start: 21 @30509 has 160 MA's), (Start: 32 @30551 has 34 MA's), (52, 30662), (61, 30719), (78, 30854), (94, 30977), (109, 31109), (117, 31154), (118, 31163),

Gene: Sunflower1121_41 Start: 30582, Stop: 31271, Start Num: 21

Candidate Starts for Sunflower1121_41:

(Start: 21 @30582 has 160 MA's), (52, 30738), (69, 30849), (78, 30930), (94, 31053), (104, 31164), (111, 31209), (117, 31227), (118, 31236),

Gene: Syra333_42 Start: 30508, Stop: 31197, Start Num: 21

Candidate Starts for Syra333_42:

(Start: 21 @30508 has 160 MA's), (52, 30664), (69, 30775), (78, 30856), (94, 30979), (104, 31090), (111, 31135), (117, 31153), (118, 31162),

Gene: TBond007_90 Start: 57419, Stop: 58108, Start Num: 24

Candidate Starts for TBond007_90:

(Start: 24 @57419 has 3 MA's), (52, 57572), (64, 57647), (69, 57683), (78, 57764), (94, 57887), (106, 58004), (110, 58031), (114, 58055), (119, 58079),

Gene: TM4_40 Start: 29985, Stop: 30689, Start Num: 21

Candidate Starts for TM4_40:

(Start: 21 @29985 has 160 MA's), (47, 30123), (78, 30375), (85, 30432), (87, 30438), (93, 30480), (102, 30585),

Gene: Tachez_38 Start: 30505, Stop: 31191, Start Num: 21

Candidate Starts for Tachez_38:

(Start: 21 @30505 has 160 MA's), (52, 30658), (69, 30769), (78, 30850), (94, 30973), (104, 31084), (111, 31129), (117, 31147), (118, 31156),

Gene: TaiwanKao_40 Start: 30506, Stop: 31195, Start Num: 21

Candidate Starts for TaiwanKao_40:

(Start: 21 @30506 has 160 MA's), (Start: 32 @30548 has 34 MA's), (52, 30659), (61, 30716), (78, 30851), (94, 30974), (109, 31106), (111, 31133), (117, 31151), (118, 31160),

Gene: Taquito_91 Start: 55520, Stop: 56227, Start Num: 21

Candidate Starts for Taquito_91:

(Start: 21 @55520 has 160 MA's), (45, 55637), (50, 55682), (52, 55697), (59, 55733), (63, 55763), (78, 55889), (94, 56012), (106, 56129), (110, 56156), (114, 56180), (119, 56204),

Gene: Tedro_61 Start: 46648, Stop: 47295, Start Num: 32

Candidate Starts for Tedro_61:

(Start: 20 @46606 has 2 MA's), (Start: 32 @46648 has 34 MA's), (55, 46786),

Gene: Teejan_34 Start: 29822, Stop: 30511, Start Num: 21

Candidate Starts for Teejan_34:

(Start: 21 @29822 has 160 MA's), (43, 29918), (45, 29930), (52, 29987), (78, 30170), (94, 30293), (112, 30452), (116, 30461), (117, 30467), (118, 30476),

Gene: Tierra_40 Start: 31106, Stop: 31792, Start Num: 21

Candidate Starts for Tierra_40:

(Start: 21 @31106 has 160 MA's), (39, 31184), (52, 31259), (71, 31379), (78, 31451), (94, 31574), (118, 31757), (119, 31760),

Gene: Tiggy93_60 Start: 47210, Stop: 47857, Start Num: 32

Candidate Starts for Tiggy93_60:

(Start: 20 @47168 has 2 MA's), (Start: 32 @47210 has 34 MA's), (55, 47348), (90, 47591),

Gene: Tigress9_42 Start: 30580, Stop: 31269, Start Num: 21

Candidate Starts for Tigress9_42:

(Start: 21 @30580 has 160 MA's), (52, 30736), (69, 30847), (78, 30928), (94, 31051), (104, 31162), (111, 31207), (117, 31225), (118, 31234),

Gene: TiniBug_38 Start: 30610, Stop: 31293, Start Num: 21

Candidate Starts for TiniBug_38:

(7, 30538), (8, 30541), (12, 30571), (Start: 21 @30610 has 160 MA's), (39, 30688), (45, 30718), (52, 30763), (58, 30796), (61, 30820), (71, 30883), (94, 31078), (111, 31231), (115, 31240), (118, 31258),

Gene: TinyMiny_15 Start: 7204, Stop: 7893, Start Num: 23

Candidate Starts for TinyMiny_15:

(Start: 23 @7204 has 1 MA's), (Start: 33 @7252 has 6 MA's), (77, 7552), (81, 7576), (86, 7609), (90, 7627), (113, 7840),

Gene: Tiri_39 Start: 30557, Stop: 31243, Start Num: 21

Candidate Starts for Tiri_39:

(Start: 21 @30557 has 160 MA's), (52, 30710), (69, 30821), (78, 30902), (94, 31025), (104, 31136), (111, 31181), (117, 31199), (118, 31208),

Gene: Tongui_61 Start: 46861, Stop: 47508, Start Num: 32

Candidate Starts for Tongui_61:

(Start: 20 @46819 has 2 MA's), (Start: 32 @46861 has 34 MA's),

Gene: Topper_38 Start: 30661, Stop: 31347, Start Num: 21

Candidate Starts for Topper_38:

(Start: 21 @30661 has 160 MA's), (52, 30814), (69, 30925), (78, 31006), (94, 31129), (104, 31240), (111, 31285), (117, 31303), (118, 31312),

Gene: Torres_34 Start: 29822, Stop: 30511, Start Num: 21

Candidate Starts for Torres_34:

(Start: 21 @29822 has 160 MA's), (43, 29918), (45, 29930), (52, 29987), (78, 30170), (94, 30293), (112, 30452), (116, 30461), (117, 30467), (118, 30476),

Gene: TribelTrouble_93 Start: 58789, Stop: 59472, Start Num: 21

Candidate Starts for TribelTrouble_93:

(18, 58786), (Start: 21 @58789 has 160 MA's), (45, 58897), (52, 58945), (61, 59002), (69, 59056), (78, 59137), (94, 59260), (104, 59371), (111, 59416), (115, 59425), (117, 59434), (118, 59443),

Gene: Trice_34 Start: 29822, Stop: 30511, Start Num: 21

Candidate Starts for Trice_34:

(Start: 21 @29822 has 160 MA's), (43, 29918), (45, 29930), (52, 29987), (78, 30170), (94, 30293), (112, 30452), (116, 30461), (117, 30467), (118, 30476),

Gene: TruffulaTree_38 Start: 30539, Stop: 31225, Start Num: 21

Candidate Starts for TruffulaTree_38:

(Start: 21 @30539 has 160 MA's), (52, 30692), (69, 30803), (78, 30884), (94, 31007), (104, 31118), (111, 31163), (117, 31181), (118, 31190),

Gene: Twitch_38 Start: 30663, Stop: 31349, Start Num: 21

Candidate Starts for Twitch_38:

(Start: 21 @30663 has 160 MA's), (52, 30816), (69, 30927), (78, 31008), (94, 31131), (104, 31242), (111, 31287), (117, 31305), (118, 31314),

Gene: Unicorn_39 Start: 30435, Stop: 31121, Start Num: 21

Candidate Starts for Unicorn_39:

(Start: 21 @30435 has 160 MA's), (39, 30513), (52, 30588), (71, 30708), (94, 30903), (112, 31062), (118, 31086), (119, 31089),

Gene: Urkel_38 Start: 30614, Stop: 31297, Start Num: 21

Candidate Starts for Urkel_38:

(7, 30542), (8, 30545), (12, 30575), (Start: 21 @30614 has 160 MA's), (39, 30692), (45, 30722), (52, 30767), (58, 30800), (61, 30824), (71, 30887), (94, 31082), (111, 31235), (115, 31244), (118, 31262),

Gene: Validus_41 Start: 30418, Stop: 31113, Start Num: 21

Candidate Starts for Validus_41:

(Start: 21 @30418 has 160 MA's), (38, 30493), (52, 30589), (66, 30670), (69, 30691), (75, 30724), (78, 30772), (94, 30895), (97, 30940), (109, 31024), (116, 31063), (117, 31069),

Gene: Veliki_38 Start: 30579, Stop: 31265, Start Num: 21

Candidate Starts for Veliki_38:

(Start: 21 @30579 has 160 MA's), (52, 30732), (69, 30843), (78, 30924), (94, 31047), (104, 31158), (111, 31203), (117, 31221), (118, 31230),

Gene: ViviJ_95 Start: 58203, Stop: 58889, Start Num: 21

Candidate Starts for ViviJ_95:

(Start: 21 @58203 has 160 MA's), (45, 58311), (52, 58368), (78, 58554), (94, 58677), (116, 58845), (117, 58851), (118, 58860), (120, 58878),

Gene: Waterfoul_88 Start: 56866, Stop: 57552, Start Num: 21

Candidate Starts for Waterfoul_88:

(Start: 21 @56866 has 160 MA's), (45, 56974), (52, 57031), (62, 57082), (78, 57214), (94, 57337), (109, 57466), (116, 57505), (117, 57511), (118, 57520),

Gene: Wintermute_91 Start: 55255, Stop: 55962, Start Num: 21

Candidate Starts for Wintermute_91:

(Start: 21 @55255 has 160 MA's), (45, 55372), (50, 55417), (52, 55432), (59, 55468), (78, 55624), (94, 55747), (106, 55864), (110, 55891), (119, 55939),

Gene: Ximenita_43 Start: 30693, Stop: 31382, Start Num: 21

Candidate Starts for Ximenita_43:

(Start: 21 @30693 has 160 MA's), (52, 30849), (69, 30960), (78, 31041), (94, 31164), (104, 31275), (111, 31320), (117, 31338), (118, 31347),

Gene: Y10_87 Start: 55199, Stop: 55906, Start Num: 21

Candidate Starts for Y10_87:

(Start: 21 @55199 has 160 MA's), (45, 55316), (50, 55361), (52, 55376), (59, 55412), (78, 55568), (94, 55691), (106, 55808), (110, 55835), (119, 55883),

Gene: Y2_87 Start: 55199, Stop: 55906, Start Num: 21

Candidate Starts for Y2_87:

(Start: 21 @55199 has 160 MA's), (45, 55316), (50, 55361), (52, 55376), (59, 55412), (78, 55568), (94, 55691), (106, 55808), (110, 55835), (119, 55883),

Gene: YasnayaPolyana_90 Start: 55179, Stop: 55886, Start Num: 21

Candidate Starts for YasnayaPolyana_90:

(Start: 21 @55179 has 160 MA's), (45, 55296), (50, 55341), (52, 55356), (59, 55392), (78, 55548), (94, 55671), (106, 55788), (110, 55815), (119, 55863),

Gene: Yuna_42 Start: 31344, Stop: 32000, Start Num: 21

Candidate Starts for Yuna_42:

(Start: 21 @31344 has 160 MA's), (36, 31410), (45, 31452), (47, 31476), (52, 31509), (78, 31656), (84, 31704), (94, 31779), (97, 31824), (110, 31923), (114, 31947), (119, 31971),

Gene: Yunkel11_41 Start: 30309, Stop: 30995, Start Num: 21

Candidate Starts for Yunkel11_41:

(15, 30279), (Start: 21 @30309 has 160 MA's), (52, 30462), (64, 30537), (65, 30549), (69, 30573), (78, 30654), (94, 30777), (104, 30888), (111, 30933), (117, 30951), (118, 30960), (119, 30963),

Gene: Zeta1847_60 Start: 41648, Stop: 42310, Start Num: 27

Candidate Starts for Zeta1847_60:

(Start: 27 @41648 has 1 MA's), (30, 41663), (Start: 31 @41678 has 1 MA's),

Gene: ZoeJ_38 Start: 30003, Stop: 30707, Start Num: 21

Candidate Starts for ZoeJ_38:

(Start: 21 @30003 has 160 MA's), (47, 30141), (78, 30393), (85, 30450), (87, 30456), (93, 30498), (102, 30603),