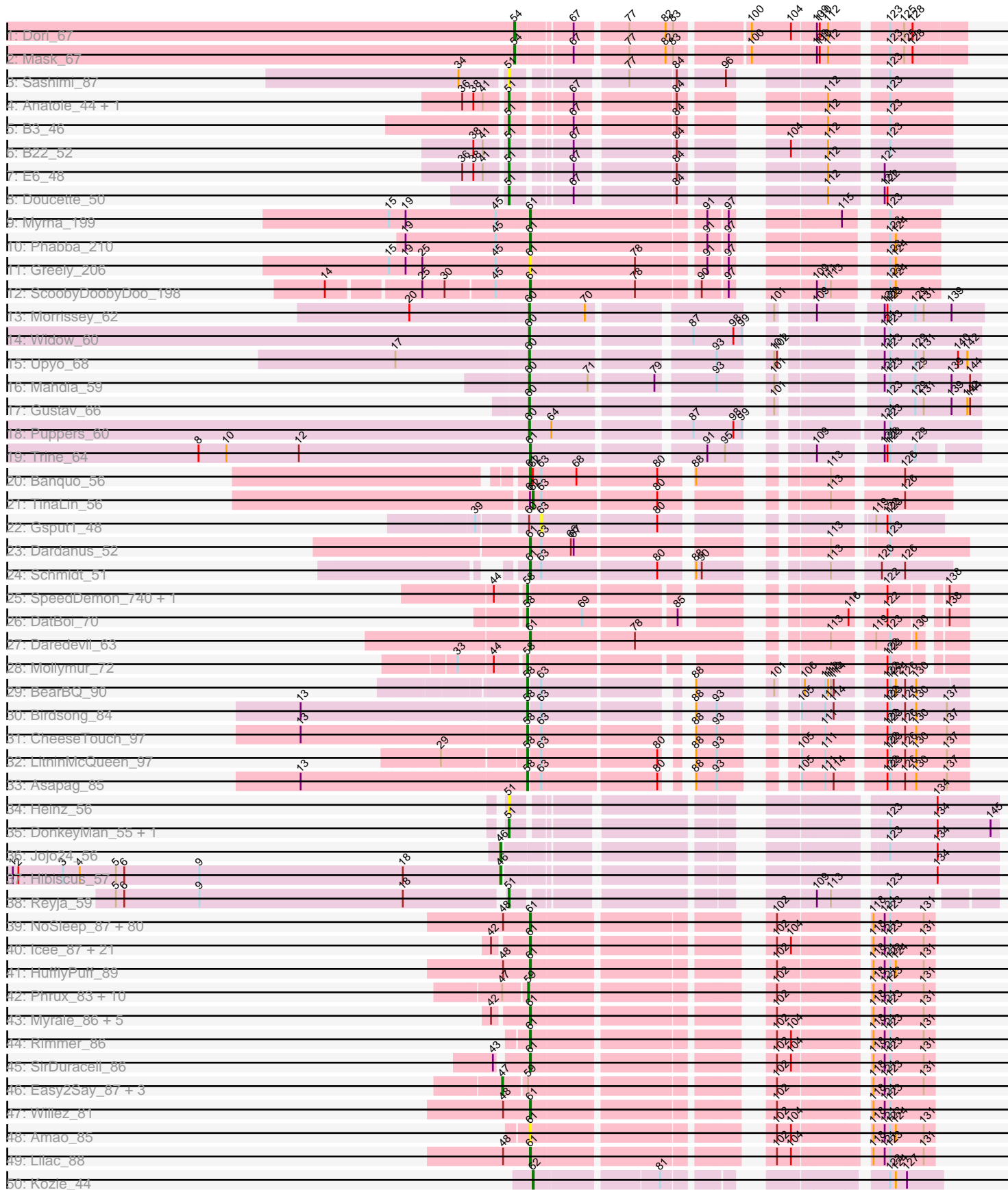


Pham 193696



Pham 193696



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 193696 Report

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

Pham number 193696 has 265 members, 20 are drafts.

Phages represented in each track:

- Track 1 : Dori_67
- Track 2 : Mask_67
- Track 3 : Sashimi_87
- Track 4 : Anatole_44, E1_44
- Track 5 : B3_46
- Track 6 : B22_52
- Track 7 : E6_48
- Track 8 : Doucette_50
- Track 9 : Myrna_199
- Track 10 : Phabba_210
- Track 11 : Greely_206
- Track 12 : ScoobyDoobyDoo_198
- Track 13 : Morrissey_62
- Track 14 : Widow_60
- Track 15 : Upyo_68
- Track 16 : Mahdia_59
- Track 17 : Gustav_66
- Track 18 : Puppies_60
- Track 19 : Trine_64
- Track 20 : Banquo_56
- Track 21 : TinaLin_56
- Track 22 : Gspu1_48
- Track 23 : Dardanus_52
- Track 24 : Schmidt_51
- Track 25 : SpeedDemon_740, Bantam_72
- Track 26 : DatBoi_70
- Track 27 : Daredevil_63
- Track 28 : Mollymur_72
- Track 29 : BearBQ_90
- Track 30 : Birdsong_84
- Track 31 : CheeseTouch_97
- Track 32 : LitninMcQueen_97
- Track 33 : Asapag_85
- Track 34 : Heinz_56
- Track 35 : DonkeyMan_55, Tarzan_57
- Track 36 : Jojo24_56
- Track 37 : Hibiscus_57

- Track 38 : Reyja_59
- Track 39 : NoSleep_87, GoldenSpark_90, MPhalcon_87, Bench_89, MISSy_87, Petra64142_90, Filch_87, Porky_85, Elite2014_85, Tarkin_85, FireRed_90, Palpatine_88, Highbury_85, Murica_89, Maxxinista_88, Czyszczone1_87, Hopey_86, Lilpickle_85, Misfit_87, Mosby_82, ABCat_83, NelitzaMV_84, Pumpkin_89, Dusk_83, Contagion_82, Pharsalus_83, Command613_88, BugsBunny_86, ChosenOne_86, AmericanBeauty_90, Thresher_88, Marshmallow_84, Phaja_84, Youngblood_89, Stark_87, Tomaszewski_81, Cjw1_86, TeardropMSU_82, Ukulele_81, Sassay_81, Nimrod_87, Kostya_86, Policronamos_90, Qualification_87, TBrady12_89, SophKB_83, Paperbeatsrock_85, Kanye_83, Argent26_90, Buck_87, Lilizi_87, Dumbo_86, Nala_88, Stank_89, Emmina_86, Holt_91, GooberAzure_89, Terminus_89, Simpliphy_85, DrDrey_86, Xandras_85, BadStone_83, MadamMonkfish_86, OrionPax_85, Murphy_86, Phaux_88, xkcd_89, Elph10_86, Gemini_91, Goku_85, PhatBacter_90, RiverMonster_86, Bruin_83, Miniwave_81, Eureka_85, HanKaySha_86, Saints25_85, JeTaime_86, Tuco_87, ShereKhan_84, IHOP_84
- Track 40 : Icee_87, Adnama_90, Gator_84, Traaww1_82, Glexan_85, Balomoji_86, DoctorDiddles_85, Sotrice96_87, Cookies_83, Bask21_86, Cactus_89, Hoonter_89, Wiggins_88, Harella_86, Asriel_85, Barbarian_85, Moldemort_89, ChotaBhai_86, Flypotenuse_82, Daikon_88, BigBubba_86, Pat3_84
- Track 41 : HufflyPuff_89
- Track 42 : Phrux_83, Teaspoon_87, CrystalP_85, 244_87, StellaBean_84, BaboJay_84, Manda_88, Henry_84, Inca_83, YassJohnny_83, ShamWow_86
- Track 43 : Myrale_86, Rakim_87, Kimchi_90, Gage_88, StolenFromERC_89, Goldilocks_89
- Track 44 : Rimmer_86
- Track 45 : SirDuracell_86
- Track 46 : Easy2Say_87, Mindy_85, Toto_84, BilboSwaggins_85
- Track 47 : Willez_81
- Track 48 : Amao_85
- Track 49 : Lilac_88
- Track 50 : Kozie_44
- Track 51 : Constance_63
- Track 52 : Judy_67
- Track 53 : Bridgette_65, Pucara_59
- Track 54 : Karkharias_62
- Track 55 : Eileen_59
- Track 56 : PeggyLeg03_63
- Track 57 : Peas_64
- Track 58 : ChuckDuck_63
- Track 59 : RootBeer_52
- Track 60 : KayMoney_62
- Track 61 : GlobiWarming_67
- Track 62 : TripleJ_65
- Track 63 : Kukla_66
- Track 64 : Psycho_65, Dadosky_67, AlleyCat_67, Larva_66
- Track 65 : Edugator_64
- Track 66 : InvictusManeo_63, Kratio_63, Agent47_65, Collard_63
- Track 67 : Bongo_71, IPhane7_71, PegLeg_70, Bricole_70, LilhomieP_71, Auspice_71
- Track 68 : SlimJimmy_71, Dulcita_72, Diminimus_72, TyDawg_71, Skinny_74, Glaske16_73
- Track 69 : Reindeer_73

- Track 70 : Aziz_78, GenevaB15_79, Estes_80
- Track 71 : MrMagoo_81, GardenSalsa_80, Rey_78
- Track 72 : Nanosmite_76
- Track 73 : Jamie19_48, ShrimpFriedEgg_54, Nенаe_54, Charlie_50, Purgamenstris_54, Raymond7_48, Panchino_47, BabeRuth_55, Redi_54, Hanako_55, Andies_47, PhancyPhin_54, SpongeBob_48, Bosection6_50, Phrann_51, Snekmaggedon_48
- Track 74 : Tapioca_51, Melville_52, Fulbright_48, Parmesanjohn_49, Gex_49, Phloss_47, Magsby_49, Schnauzer_50, Xerxes_49, Silvafighter_50, Chewbacca_51, Pipsqueaks_49, Smurph_49, Duplicity_49, Carcharodon_49
- Track 75 : Rubeelu_52, Butters_52
- Track 76 : Kevin1_51
- Track 77 : Phayonce_51, Mao1_69
- Track 78 : Cosmo_85, EniyanLRS_81, Azrael100_84, Wildcat_85, MaryV_85
- Track 79 : Kithara_61
- Track 80 : GMA4_60
- Track 81 : TinyDot_60
- Track 82 : BFK20_ORF52
- Track 83 : Kumao_67
- Track 84 : Shambre1_63
- Track 85 : EmiRose_43
- Track 86 : DS6A_86
- Track 87 : REQ3_19

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

The start number called the most often in the published annotations is 61, it was called in 118 of the 245 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABCat_83, Adnama_90, Amao_85, AmericanBeauty_90, Argent26_90, Asriel_85, BadStone_83, Balomoji_86, Banquo_56, Barbarian_85, Bask21_86, Bench_89, BigBubba_86, Bruin_83, Buck_87, BugsBunny_86, Cactus_89, ChosenOne_86, ChotaBhai_86, Cjw1_86, Command613_88, Contagion_82, Cookies_83, Czyszczonek_87, Daikon_88, Dardanus_52, Daredevil_63, DoctorDiddles_85, DrDrey_86, Dumbo_86, Dusk_83, Elite2014_85, Elph10_86, Emmina_86, Eureka_85, Filch_87, FireRed_90, Flypotenuse_82, Gage_88, Gator_84, Gemini_91, Glexan_85, Goku_85, GoldenSpark_90, Goldilocks_89, GooberAzure_89, Greely_206, HanKaySha_86, Harella_86, Highbury_85, Holt_91, Hoonter_89, Hopey_86, HufflyPuff_89, IHOP_84, Icee_87, JeTaime_86, Kanye_83, Kimchi_90, Kostya_86, Lilac_88, Lilizi_87, Lilpickle_85, MISSy_87, MPhalcon_87, MadamMonkfish_86, Marshmallow_84, Maxxinista_88, Miniwave_81, Misfit_87, Moldemort_89, Mosby_82, Murica_89, Murphy_86, Myrale_86, Myrna_199, Nala_88, NelitzaMV_84, Nimrod_87, NoSleep_87, OrionPax_85, Palpatine_88, Paperbeatsrock_85, Pat3_84, Petra64142_90, Phabba_210, Phaja_84, Pharsalus_83, PhatBacter_90, Phaux_88, Policronamos_90, Porky_85, Pumpkin_89, Quallification_87, Rakim_87, Rimmer_86, RiverMonster_86, Saints25_85, Sassay_81, Schmidt_51, ScoobyDoobyDoo_198, ShereKhan_84, Simpliphy_85, SirDuracell_86, SophKB_83, Sotrice96_87, Stank_89, Stark_87, StolenFromERC_89, TBrady12_89, Tarkin_85, TeardropMSU_82, Terminus_89,

Thresher_88, TinyDot_60, Tomaszewski_81, Traaww1_82, Trine_64, Tuco_87, Ukulele_81, Wiggin_88, Willez_81, Xandras_85, Youngblood_89, xkcd_89,

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

- TinaLin_56,

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

- 244_87, Agent47_65, AlleyCat_67, Anatole_44, Andies_47, Asapag_85, Auspice_71, Aziz_78, Azrael100_84, B22_52, B3_46, BFK20_ORF52, BabeRuth_55, BaboJay_84, Bantam_72, BearBQ_90, BilboSwaggins_85, Birdsong_84, Bongo_71, Bosection6_50, Bricole_70, Bridgette_65, Butters_52, Carcharodon_49, Charlie_50, CheeseTouch_97, Chewbacca_51, ChuckDuck_63, Collard_63, Constance_63, Cosmo_85, CrystalP_85, DS6A_86, Dadosky_67, DatBoi_70, Diminimus_72, DonkeyMan_55, Dori_67, Doucette_50, Dulcita_72, Duplicity_49, E1_44, E6_48, Easy2Say_87, Edugator_64, Eileen_59, EmiRose_43, EniyanLRS_81, Estes_80, Fulbright_48, GMA4_60, GardenSalsa_80, GenevaB15_79, Gex_49, Glaske16_73, GlobiWarming_67, Gsput1_48, Gustav_66, Hanako_55, Heinz_56, Henry_84, Hibiscus_57, IPhane7_71, Inca_83, InvictusManeo_63, Jamie19_48, Jojo24_56, Judy_67, Karkharias_62, KayMoney_62, Kevin1_51, Kithara_61, Kozie_44, Kratio_63, Kukla_66, Kumao_67, Larva_66, LilhomieP_71, LitninMcQueen_97, Magsby_49, Mahdia_59, Manda_88, Mao1_69, MaryV_85, Mask_67, Melville_52, Mindy_85, Mollymur_72, Morrissey_62, MrMagoo_81, Nanosmite_76, Nенаe_54, Panchino_47, Parmesanjohn_49, Peas_64, PegLeg_70, PeggyLeg03_63, PhancyPhin_54, Phayonce_51, Phloss_47, Phrann_51, Phrux_83, Pipsqueaks_49, Psycho_65, Pucara_59, Puppies_60, Purgamenstris_54, REQ3_19, Raymond7_48, Redi_54, Reindeer_73, Rey_78, Reyja_59, RootBeer_52, Rubeelu_52, Sashimi_87, Schnauzer_50, ShamWow_86, Shambre1_63, ShrimpFriedEgg_54, Silvafighter_50, Skinny_74, SlimJimmy_71, Smurph_49, Snekmaggedon_48, SpeedDemon_740, SpongeBob_48, StellaBean_84, Tapioca_51, Tarzan_57, Teaspoon_87, Toto_84, TripleJ_65, TyDawg_71, Upyo_68, Widow_60, Wildcat_85, Xerxes_49, YassJohnny_83,

Summary by start number:

Start 46:

- Found in 2 of 265 (0.8%) of genes in pham
- Manual Annotations of this start: 2 of 245
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hibiscus_57 (DY), Jojo24_56 (DY),

Start 47:

- Found in 15 of 265 (5.7%) of genes in pham
- Manual Annotations of this start: 3 of 245
- Called 26.7% of time when present
- Phage (with cluster) where this start called: BilboSwaggins_85 (E), Easy2Say_87 (E), Mindy_85 (E), Toto_84 (E),

Start 49:

- Found in 14 of 265 (5.3%) of genes in pham
- Manual Annotations of this start: 7 of 245
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Diminimus_72 (M1), Dulcita_72 (M1), Glaske16_73 (M1), Kumao_67 (singleton), Skinny_74 (M1), SlimJimmy_71 (M1),

TyDawg_71 (M1),

Start 50:

- Found in 1 of 265 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 245
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Karkharias_62 (FA),

Start 51:

- Found in 58 of 265 (21.9%) of genes in pham
- Manual Annotations of this start: 51 of 245
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anatole_44 (BV), Andies_47 (N), B22_52 (BW), B3_46 (BV), BabeRuth_55 (N), Bosection6_50 (N), Bridgette_65 (FA), Butters_52 (N), Carcharodon_49 (N), Charlie_50 (N), Chewbacca_51 (N), ChuckDuck_63 (FA), Constance_63 (FA), DonkeyMan_55 (DY), Doucette_50 (BW), Duplicity_49 (N), E1_44 (BV), E6_48 (BW), Eileen_59 (FA), Fulbright_48 (N), Gex_49 (N), GlobiWarming_67 (FA), Hanako_55 (N), Heinz_56 (DY), Jamie19_48 (N), Judy_67 (FA), KayMoney_62 (FA), Kevin1_51 (N), Kukla_66 (FJ), Magsby_49 (N), Melville_52 (N), Nenae_54 (N), Panchino_47 (N), Parmesanjohn_49 (N), Peas_64 (FA), PeggyLeg03_63 (FA), PhancyPhin_54 (N), Phloss_47 (N), Phrann_51 (N), Pipsqueaks_49 (N), Pucara_59 (FA), Purgamenstris_54 (N), Raymond7_48 (N), Redi_54 (N), Reyja_59 (DY), RootBeer_52 (FA), Rubeelu_52 (N), Sashimi_87 (AY), Schnauzer_50 (N), ShrimpFriedEgg_54 (N), Silvafighter_50 (N), Smurph_49 (N), Snekmaggedon_48 (N), SpongeBob_48 (N), Tapioca_51 (N), Tarzan_57 (DY), TripleJ_65 (FJ), Xerxes_49 (N),

Start 52:

- Found in 13 of 265 (4.9%) of genes in pham
- Manual Annotations of this start: 7 of 245
- Called 53.8% of time when present
- Phage (with cluster) where this start called: Auspice_71 (M1), Bongo_71 (M1), Bricole_70 (M1), IPhane7_71 (M1), LilhomieP_71 (M1), PegLeg_70 (M1), Reindeer_73 (M1),

Start 53:

- Found in 7 of 265 (2.6%) of genes in pham
- Manual Annotations of this start: 7 of 245
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aziz_78 (M2), Estes_80 (M2), GardenSalsa_80 (M2), GenevaB15_79 (M2), MrMagoo_81 (M2), Nanosmite_76 (M3), Rey_78 (M2),

Start 54:

- Found in 14 of 265 (5.3%) of genes in pham
- Manual Annotations of this start: 13 of 245
- Called 92.9% of time when present
- Phage (with cluster) where this start called: Agent47_65 (K5), AlleyCat_67 (K5), Collard_63 (K5), DS6A_86 (singleton), Dadosky_67 (K5), Dori_67 (AD), InvictusManeo_63 (K5), Kratio_63 (K5), Larva_66 (K5), Mao1_69 (AD), Mask_67 (AD), Phayonce_51 (P5), Psycho_65 (K5),

Start 56:

- Found in 5 of 265 (1.9%) of genes in pham
- Manual Annotations of this start: 5 of 245
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azrael100_84 (V), Cosmo_85 (V), EniyanLRS_81 (V), MaryV_85 (V), Wildcat_85 (V),

Start 57:

- Found in 1 of 265 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 245
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Shambre1_63 (singleton),

Start 58:

- Found in 11 of 265 (4.2%) of genes in pham
- Manual Annotations of this start: 9 of 245
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Asapag_85 (DN1), Bantam_72 (DL), BearBQ_90 (DN), Birdsong_84 (DN), CheeseTouch_97 (DN1), DatBoi_70 (DL), GMA4_60 (singleton), LitninMcQueen_97 (DN1), Mollymur_72 (DL), REQ3_19 (singleton), SpeedDemon_740 (DL),

Start 59:

- Found in 24 of 265 (9.1%) of genes in pham
- Manual Annotations of this start: 12 of 245
- Called 50.0% of time when present
- Phage (with cluster) where this start called: 244_87 (E), BaboJay_84 (E), CrystalP_85 (E), Edugator_64 (K5), Henry_84 (E), Inca_83 (E), Manda_88 (E), Phrux_83 (E), ShamWow_86 (E), StellaBean_84 (E), Teaspoon_87 (E), YassJohnny_83 (E),

Start 60:

- Found in 9 of 265 (3.4%) of genes in pham
- Manual Annotations of this start: 7 of 245
- Called 88.9% of time when present
- Phage (with cluster) where this start called: BFK20_ORF52 (singleton), EmiRose_43 (singleton), Gustav_66 (CD), Mahdia_59 (CD), Morrissey_62 (CD), Puppies_60 (CD), Upyo_68 (CD), Widow_60 (CD),

Start 61:

- Found in 126 of 265 (47.5%) of genes in pham
- Manual Annotations of this start: 118 of 245
- Called 99.2% of time when present
- Phage (with cluster) where this start called: ABCat_83 (E), Adnama_90 (E), Amao_85 (E), AmericanBeauty_90 (E), Argent26_90 (E), Asriel_85 (E), BadStone_83 (E), Balomoji_86 (E), Banquo_56 (CU1), Barbarian_85 (E), Bask21_86 (E), Bench_89 (E), BigBubba_86 (E), Bruin_83 (E), Buck_87 (E), BugsBunny_86 (E), Cactus_89 (E), ChosenOne_86 (E), ChotaBhai_86 (E), Cjw1_86 (E), Command613_88 (E), Contagion_82 (E), Cookies_83 (E), Czyszczonek1_87 (E), Daikon_88 (E), Dardanus_52 (CU3), Daredevil_63 (DL), DoctorDiddles_85 (E), DrDrey_86 (E), Dumbo_86 (E), Dusk_83 (E), Elite2014_85 (E), Elph10_86 (E), Emmina_86 (E), Eureka_85 (E), Filch_87 (E), FireRed_90 (E), Flypotenuse_82 (E), Gage_88 (E), Gator_84 (E), Gemini_91 (E), Glexan_85 (E), Goku_85 (E), GoldenSpark_90 (E), Goldilocks_89 (E), GooberAzure_89 (E), Greely_206 (C2),

HanKaySha_86 (E), Harella_86 (E), Highbury_85 (E), Holt_91 (E), Hoonter_89 (E), Hopey_86 (E), HufflyPuff_89 (E), IHOP_84 (E), Icee_87 (E), JeTaimé_86 (E), Kanye_83 (E), Kimchi_90 (E), Kostya_86 (E), Lilac_88 (E), Lilizi_87 (E), Lilpickle_85 (E), MISSy_87 (E), MPhalcon_87 (E), MadamMonkfish_86 (E), Marshmallow_84 (E), Maxxinista_88 (E), Miniwave_81 (E), Misfit_87 (E), Moldemort_89 (E), Mosby_82 (E), Murica_89 (E), Murphy_86 (E), Myrale_86 (E), Myrna_199 (C2), Nala_88 (E), NelitzaMV_84 (E), Nimrod_87 (E), NoSleep_87 (E), OrionPax_85 (E), Palpatine_88 (E), Paperbeatsrock_85 (E), Pat3_84 (E), Petra64142_90 (E), Phabba_210 (C2), Phaja_84 (E), Pharsalus_83 (E), PhatBacter_90 (E), Phaux_88 (E), Policronamos_90 (E), Porky_85 (E), Pumpkin_89 (E), Qualification_87 (E), Rakim_87 (E), Rimmer_86 (E), RiverMonster_86 (E), Saints25_85 (E), Sassay_81 (E), Schmidt_51 (CU4), ScoobyDoobyDoo_198 (C2), ShereKhan_84 (E), Simpliphy_85 (E), SirDuracell_86 (E), SophKB_83 (E), Sotrice96_87 (E), Stank_89 (E), Stark_87 (E), StolenFromERC_89 (E), TBrady12_89 (E), Tarkin_85 (E), TeardropMSU_82 (E), Terminus_89 (E), Thresher_88 (E), TinyDot_60 (singleton), Tomaszewski_81 (E), Traaww1_82 (E), Trine_64 (CD), Tuco_87 (E), Ukulele_81 (E), Wiggin_88 (E), Willez_81 (E), Xandras_85 (E), Youngblood_89 (E), xkcd_89 (E),

Start 62:

- Found in 3 of 265 (1.1%) of genes in pham
- Manual Annotations of this start: 2 of 245
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Kozie_44 (EI), TinaLin_56 (CU1),

Start 63:

- Found in 11 of 265 (4.2%) of genes in pham
- No Manual Annotations of this start.
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Gspu1_48 (CU2),

Start 65:

- Found in 1 of 265 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kithara_61 (singleton),

Summary by clusters:

There are 26 clusters represented in this pham: DN, singleton, M3, DY, DL, FA, BV, BW, M1, K5, M2, EI, FJ, CU4, CU3, CU2, CU1, DN1, C2, E, AD, P5, N, V, AY, CD,

Info for manual annotations of cluster AD:

- Start number 54 was manually annotated 3 times for cluster AD.

Info for manual annotations of cluster BV:

- Start number 51 was manually annotated 3 times for cluster BV.

Info for manual annotations of cluster BW:

- Start number 51 was manually annotated 3 times for cluster BW.

Info for manual annotations of cluster C2:

- Start number 61 was manually annotated 3 times for cluster C2.

Info for manual annotations of cluster CD:

- Start number 60 was manually annotated 6 times for cluster CD.
- Start number 61 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster CU1:

- Start number 61 was manually annotated 1 time for cluster CU1.
- Start number 62 was manually annotated 1 time for cluster CU1.

Info for manual annotations of cluster CU3:

- Start number 61 was manually annotated 1 time for cluster CU3.

Info for manual annotations of cluster CU4:

- Start number 61 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster DL:

- Start number 58 was manually annotated 4 times for cluster DL.
- Start number 61 was manually annotated 1 time for cluster DL.

Info for manual annotations of cluster DN:

- Start number 58 was manually annotated 2 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 58 was manually annotated 3 times for cluster DN1.

Info for manual annotations of cluster DY:

- Start number 46 was manually annotated 2 times for cluster DY.
- Start number 51 was manually annotated 2 times for cluster DY.

Info for manual annotations of cluster E:

- Start number 47 was manually annotated 3 times for cluster E.
- Start number 59 was manually annotated 11 times for cluster E.
- Start number 61 was manually annotated 109 times for cluster E.

Info for manual annotations of cluster EI:

- Start number 62 was manually annotated 1 time for cluster EI.

Info for manual annotations of cluster FA:

- Start number 50 was manually annotated 1 time for cluster FA.
- Start number 51 was manually annotated 9 times for cluster FA.

Info for manual annotations of cluster FJ:

- Start number 51 was manually annotated 2 times for cluster FJ.

Info for manual annotations of cluster K5:

- Start number 54 was manually annotated 8 times for cluster K5.
- Start number 59 was manually annotated 1 time for cluster K5.

Info for manual annotations of cluster M1:

- Start number 49 was manually annotated 6 times for cluster M1.
- Start number 52 was manually annotated 7 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 53 was manually annotated 6 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 53 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster N:

- Start number 51 was manually annotated 32 times for cluster N.

Info for manual annotations of cluster P5:

- Start number 54 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster V:

- Start number 56 was manually annotated 5 times for cluster V.

Gene Information:

Gene: 244_87 Start: 52340, Stop: 52702, Start Num: 59

Candidate Starts for 244_87:

(Start: 47 @52319 has 3 MA's), (Start: 59 @52340 has 12 MA's), (102, 52553), (118, 52637), (121, 52649), (123, 52655), (131, 52691),

Gene: ABCat_83 Start: 52732, Stop: 53094, Start Num: 61

Candidate Starts for ABCat_83:

(48, 52705), (Start: 61 @52732 has 118 MA's), (102, 52945), (118, 53029), (121, 53041), (123, 53047), (131, 53083),

Gene: Adnama_90 Start: 52618, Stop: 52980, Start Num: 61

Candidate Starts for Adnama_90:

(42, 52585), (Start: 61 @52618 has 118 MA's), (102, 52831), (104, 52846), (118, 52915), (121, 52927), (123, 52933), (131, 52969),

Gene: Agent47_65 Start: 45856, Stop: 46221, Start Num: 54

Candidate Starts for Agent47_65:

(32, 45793), (Start: 54 @45856 has 13 MA's), (Start: 59 @45868 has 12 MA's), (77, 45958), (82, 45997), (89, 46021), (97, 46048), (112, 46117), (113, 46120), (121, 46162), (123, 46168), (124, 46174), (127, 46186), (132, 46204),

Gene: AlleyCat_67 Start: 46184, Stop: 46549, Start Num: 54

Candidate Starts for AlleyCat_67:

(40, 46148), (Start: 54 @46184 has 13 MA's), (Start: 59 @46196 has 12 MA's), (77, 46286), (82, 46325), (89, 46349), (97, 46376), (111, 46442), (112, 46445), (113, 46448), (121, 46490), (123, 46496), (124, 46502), (127, 46514), (132, 46532), (133, 46538),

Gene: Amao_85 Start: 51813, Stop: 52175, Start Num: 61

Candidate Starts for Amao_85:

(Start: 61 @51813 has 118 MA's), (102, 52026), (104, 52041), (118, 52110), (121, 52122), (123, 52128), (124, 52134), (131, 52164),

Gene: AmericanBeauty_90 Start: 52901, Stop: 53263, Start Num: 61

Candidate Starts for AmericanBeauty_90:

(48, 52874), (Start: 61 @52901 has 118 MA's), (102, 53114), (118, 53198), (121, 53210), (123, 53216), (131, 53252),

Gene: Anatole_44 Start: 29853, Stop: 30233, Start Num: 51

Candidate Starts for Anatole_44:

(36, 29811), (38, 29823), (41, 29832), (Start: 51 @29853 has 51 MA's), (67, 29907), (84, 30003), (112, 30117), (123, 30168),

Gene: Andies_47 Start: 34063, Stop: 34455, Start Num: 51

Candidate Starts for Andies_47:

(16, 33940), (21, 33961), (28, 33988), (Start: 51 @34063 has 51 MA's), (123, 34384),

Gene: Argent26_90 Start: 52539, Stop: 52901, Start Num: 61

Candidate Starts for Argent26_90:

(48, 52512), (Start: 61 @52539 has 118 MA's), (102, 52752), (118, 52836), (121, 52848), (123, 52854), (131, 52890),

Gene: Asapag_85 Start: 49353, Stop: 49730, Start Num: 58

Candidate Starts for Asapag_85:

(13, 49113), (Start: 58 @49353 has 9 MA's), (63, 49365), (80, 49482), (88, 49494), (93, 49515), (105, 49566), (111, 49590), (114, 49599), (122, 49644), (123, 49647), (126, 49662), (130, 49674), (137, 49707),

Gene: Asriel_85 Start: 50955, Stop: 51317, Start Num: 61

Candidate Starts for Asriel_85:

(42, 50922), (Start: 61 @50955 has 118 MA's), (102, 51168), (104, 51183), (118, 51252), (121, 51264), (123, 51270), (131, 51306),

Gene: Auspice_71 Start: 46676, Stop: 47095, Start Num: 52

Candidate Starts for Auspice_71:

(Start: 49 @46667 has 7 MA's), (Start: 52 @46676 has 7 MA's), (74, 46754), (88, 46841), (97, 46871), (105, 46913), (118, 46973), (135, 47048),

Gene: Aziz_78 Start: 48719, Stop: 49120, Start Num: 53

Candidate Starts for Aziz_78:

(Start: 53 @48719 has 7 MA's), (70, 48785), (82, 48863), (105, 48956), (118, 49016), (131, 49070),

Gene: Azrael100_84 Start: 52399, Stop: 52803, Start Num: 56

Candidate Starts for Azrael100_84:

(31, 52318), (Start: 56 @52399 has 5 MA's), (76, 52486), (80, 52534), (86, 52558), (91, 52579), (92, 52585), (94, 52594), (110, 52696), (113, 52708), (123, 52756), (124, 52762), (128, 52780),

Gene: B22_52 Start: 33281, Stop: 33661, Start Num: 51

Candidate Starts for B22_52:

(38, 33251), (41, 33260), (Start: 51 @33281 has 51 MA's), (67, 33335), (84, 33431), (104, 33509), (112, 33545), (123, 33596),

Gene: B3_46 Start: 30516, Stop: 30896, Start Num: 51

Candidate Starts for B3_46:

(Start: 51 @30516 has 51 MA's), (67, 30570), (84, 30666), (112, 30780), (123, 30831),

Gene: BFK20_ORF52 Start: 41172, Stop: 41558, Start Num: 60

Candidate Starts for BFK20_ORF52:

(Start: 60 @41172 has 7 MA's), (73, 41238), (102, 41385), (103, 41391), (107, 41415), (108, 41421), (127, 41505),

Gene: BabeRuth_55 Start: 35784, Stop: 36176, Start Num: 51

Candidate Starts for BabeRuth_55:

(16, 35661), (21, 35682), (28, 35709), (Start: 51 @35784 has 51 MA's), (123, 36105),

Gene: BaboJay_84 Start: 52341, Stop: 52703, Start Num: 59

Candidate Starts for BaboJay_84:

(Start: 47 @52320 has 3 MA's), (Start: 59 @52341 has 12 MA's), (102, 52554), (118, 52638), (121, 52650), (123, 52656), (131, 52692),

Gene: BadStone_83 Start: 52301, Stop: 52663, Start Num: 61

Candidate Starts for BadStone_83:

(48, 52274), (Start: 61 @52301 has 118 MA's), (102, 52514), (118, 52598), (121, 52610), (123, 52616), (131, 52652),

Gene: Balomoji_86 Start: 52725, Stop: 53087, Start Num: 61

Candidate Starts for Balomoji_86:

(42, 52692), (Start: 61 @52725 has 118 MA's), (102, 52938), (104, 52953), (118, 53022), (121, 53034), (123, 53040), (131, 53076),

Gene: Banquo_56 Start: 37048, Stop: 37422, Start Num: 61

Candidate Starts for Banquo_56:

(Start: 61 @37048 has 118 MA's), (Start: 62 @37051 has 2 MA's), (63, 37060), (68, 37096), (80, 37177), (88, 37204), (113, 37306), (126, 37372),

Gene: Bantam_72 Start: 52490, Stop: 52125, Start Num: 58

Candidate Starts for Bantam_72:

(44, 52520), (Start: 58 @52490 has 9 MA's), (122, 52193), (138, 52145),

Gene: Barbarian_85 Start: 50955, Stop: 51317, Start Num: 61

Candidate Starts for Barbarian_85:

(42, 50922), (Start: 61 @50955 has 118 MA's), (102, 51168), (104, 51183), (118, 51252), (121, 51264), (123, 51270), (131, 51306),

Gene: Bask21_86 Start: 51578, Stop: 51940, Start Num: 61

Candidate Starts for Bask21_86:

(42, 51545), (Start: 61 @51578 has 118 MA's), (102, 51791), (104, 51806), (118, 51875), (121, 51887), (123, 51893), (131, 51929),

Gene: BearBQ_90 Start: 50811, Stop: 51185, Start Num: 58

Candidate Starts for BearBQ_90:

(Start: 58 @50811 has 9 MA's), (63, 50823), (88, 50952), (101, 51009), (106, 51027), (111, 51048), (112, 51051), (113, 51054), (114, 51057), (122, 51102), (123, 51105), (124, 51111), (126, 51120), (130, 51132),

Gene: Bench_89 Start: 52396, Stop: 52758, Start Num: 61

Candidate Starts for Bench_89:

(48, 52369), (Start: 61 @52396 has 118 MA's), (102, 52609), (118, 52693), (121, 52705), (123, 52711), (131, 52747),

Gene: BigBubba_86 Start: 51971, Stop: 52333, Start Num: 61

Candidate Starts for BigBubba_86:

(42, 51938), (Start: 61 @51971 has 118 MA's), (102, 52184), (104, 52199), (118, 52268), (121, 52280), (123, 52286), (131, 52322),

Gene: BilboSwaggins_85 Start: 52677, Stop: 53060, Start Num: 47

Candidate Starts for BilboSwaggins_85:

(Start: 47 @52677 has 3 MA's), (Start: 59 @52698 has 12 MA's), (102, 52911), (118, 52995), (121, 53007), (123, 53013), (131, 53049),

Gene: Birdsong_84 Start: 49089, Stop: 49466, Start Num: 58

Candidate Starts for Birdsong_84:

(13, 48849), (Start: 58 @49089 has 9 MA's), (63, 49101), (88, 49230), (93, 49251), (105, 49302), (111, 49326), (114, 49335), (122, 49380), (123, 49383), (126, 49398), (130, 49410), (137, 49443),

Gene: Bongo_71 Start: 46680, Stop: 47099, Start Num: 52

Candidate Starts for Bongo_71:

(Start: 49 @46671 has 7 MA's), (Start: 52 @46680 has 7 MA's), (74, 46758), (88, 46845), (97, 46875), (105, 46917), (118, 46977), (135, 47052),

Gene: Bosection6_50 Start: 33529, Stop: 33921, Start Num: 51

Candidate Starts for Bosection6_50:

(16, 33406), (21, 33427), (28, 33454), (Start: 51 @33529 has 51 MA's), (123, 33850),

Gene: Bricole_70 Start: 46403, Stop: 46822, Start Num: 52

Candidate Starts for Bricole_70:

(Start: 49 @46394 has 7 MA's), (Start: 52 @46403 has 7 MA's), (74, 46481), (88, 46568), (97, 46598), (105, 46640), (118, 46700), (135, 46775),

Gene: Bridgette_65 Start: 40727, Stop: 41116, Start Num: 51

Candidate Starts for Bridgette_65:

(Start: 51 @40727 has 51 MA's), (84, 40877),

Gene: Bruin_83 Start: 51275, Stop: 51637, Start Num: 61

Candidate Starts for Bruin_83:

(48, 51248), (Start: 61 @51275 has 118 MA's), (102, 51488), (118, 51572), (121, 51584), (123, 51590), (131, 51626),

Gene: Buck_87 Start: 52980, Stop: 53342, Start Num: 61

Candidate Starts for Buck_87:

(48, 52953), (Start: 61 @52980 has 118 MA's), (102, 53193), (118, 53277), (121, 53289), (123, 53295), (131, 53331),

Gene: BugsBunny_86 Start: 52804, Stop: 53166, Start Num: 61

Candidate Starts for BugsBunny_86:

(48, 52777), (Start: 61 @52804 has 118 MA's), (102, 53017), (118, 53101), (121, 53113), (123, 53119), (131, 53155),

Gene: Butters_52 Start: 35124, Stop: 35516, Start Num: 51

Candidate Starts for Butters_52:

(19, 35016), (Start: 51 @35124 has 51 MA's), (123, 35445),

Gene: Cactus_89 Start: 51619, Stop: 51981, Start Num: 61

Candidate Starts for Cactus_89:

(42, 51586), (Start: 61 @51619 has 118 MA's), (102, 51832), (104, 51847), (118, 51916), (121, 51928), (123, 51934), (131, 51970),

Gene: Carcharodon_49 Start: 34516, Stop: 34908, Start Num: 51
Candidate Starts for Carcharodon_49:
(Start: 51 @34516 has 51 MA's), (123, 34837),

Gene: Charlie_50 Start: 33268, Stop: 33660, Start Num: 51
Candidate Starts for Charlie_50:
(16, 33145), (21, 33166), (28, 33193), (Start: 51 @33268 has 51 MA's), (123, 33589),

Gene: CheeseTouch_97 Start: 48676, Stop: 49053, Start Num: 58
Candidate Starts for CheeseTouch_97:
(13, 48436), (Start: 58 @48676 has 9 MA's), (63, 48688), (88, 48817), (93, 48838), (111, 48913), (122, 48967), (123, 48970), (126, 48985), (130, 48997), (137, 49030),

Gene: Chewbacca_51 Start: 34516, Stop: 34908, Start Num: 51
Candidate Starts for Chewbacca_51:
(Start: 51 @34516 has 51 MA's), (123, 34837),

Gene: ChosenOne_86 Start: 51756, Stop: 52118, Start Num: 61
Candidate Starts for ChosenOne_86:
(48, 51729), (Start: 61 @51756 has 118 MA's), (102, 51969), (118, 52053), (121, 52065), (123, 52071), (131, 52107),

Gene: ChotaBhai_86 Start: 51943, Stop: 52305, Start Num: 61
Candidate Starts for ChotaBhai_86:
(42, 51910), (Start: 61 @51943 has 118 MA's), (102, 52156), (104, 52171), (118, 52240), (121, 52252), (123, 52258), (131, 52294),

Gene: ChuckDuck_63 Start: 40338, Stop: 40727, Start Num: 51
Candidate Starts for ChuckDuck_63:
(35, 40302), (Start: 51 @40338 has 51 MA's), (84, 40488),

Gene: Cjw1_86 Start: 53450, Stop: 53812, Start Num: 61
Candidate Starts for Cjw1_86:
(48, 53423), (Start: 61 @53450 has 118 MA's), (102, 53663), (118, 53747), (121, 53759), (123, 53765), (131, 53801),

Gene: Collard_63 Start: 45817, Stop: 46182, Start Num: 54
Candidate Starts for Collard_63:
(32, 45754), (Start: 54 @45817 has 13 MA's), (Start: 59 @45829 has 12 MA's), (77, 45919), (82, 45958), (89, 45982), (97, 46009), (112, 46078), (113, 46081), (121, 46123), (123, 46129), (124, 46135), (127, 46147), (132, 46165),

Gene: Command613_88 Start: 52795, Stop: 53157, Start Num: 61
Candidate Starts for Command613_88:
(48, 52768), (Start: 61 @52795 has 118 MA's), (102, 53008), (118, 53092), (121, 53104), (123, 53110), (131, 53146),

Gene: Constance_63 Start: 40957, Stop: 41358, Start Num: 51
Candidate Starts for Constance_63:
(23, 40867), (24, 40870), (Start: 51 @40957 has 51 MA's), (84, 41107),

Gene: Contagion_82 Start: 51556, Stop: 51918, Start Num: 61

Candidate Starts for Contagion_82:

(48, 51529), (Start: 61 @51556 has 118 MA's), (102, 51769), (118, 51853), (121, 51865), (123, 51871), (131, 51907),

Gene: Cookies_83 Start: 51800, Stop: 52162, Start Num: 61

Candidate Starts for Cookies_83:

(42, 51767), (Start: 61 @51800 has 118 MA's), (102, 52013), (104, 52028), (118, 52097), (121, 52109), (123, 52115), (131, 52151),

Gene: Cosmo_85 Start: 52400, Stop: 52804, Start Num: 56

Candidate Starts for Cosmo_85:

(31, 52319), (Start: 56 @52400 has 5 MA's), (76, 52487), (80, 52535), (86, 52559), (91, 52580), (92, 52586), (94, 52595), (110, 52697), (113, 52709), (123, 52757), (124, 52763), (128, 52781),

Gene: CrystalP_85 Start: 52698, Stop: 53060, Start Num: 59

Candidate Starts for CrystalP_85:

(Start: 47 @52677 has 3 MA's), (Start: 59 @52698 has 12 MA's), (102, 52911), (118, 52995), (121, 53007), (123, 53013), (131, 53049),

Gene: Czyszczone1_87 Start: 52259, Stop: 52621, Start Num: 61

Candidate Starts for Czyszczone1_87:

(48, 52232), (Start: 61 @52259 has 118 MA's), (102, 52472), (118, 52556), (121, 52568), (123, 52574), (131, 52610),

Gene: DS6A_86 Start: 55827, Stop: 56213, Start Num: 54

Candidate Starts for DS6A_86:

(Start: 54 @55827 has 13 MA's), (111, 56088), (112, 56091), (116, 56112), (123, 56142), (129, 56169), (136, 56202),

Gene: Dadosky_67 Start: 46186, Stop: 46551, Start Num: 54

Candidate Starts for Dadosky_67:

(40, 46150), (Start: 54 @46186 has 13 MA's), (Start: 59 @46198 has 12 MA's), (77, 46288), (82, 46327), (89, 46351), (97, 46378), (111, 46444), (112, 46447), (113, 46450), (121, 46492), (123, 46498), (124, 46504), (127, 46516), (132, 46534), (133, 46540),

Gene: Daikon_88 Start: 52746, Stop: 53108, Start Num: 61

Candidate Starts for Daikon_88:

(42, 52713), (Start: 61 @52746 has 118 MA's), (102, 52959), (104, 52974), (118, 53043), (121, 53055), (123, 53061), (131, 53097),

Gene: Dardanus_52 Start: 35477, Stop: 35866, Start Num: 61

Candidate Starts for Dardanus_52:

(Start: 61 @35477 has 118 MA's), (63, 35489), (66, 35519), (67, 35522), (113, 35735), (123, 35783),

Gene: Daredevil_63 Start: 48481, Stop: 48092, Start Num: 61

Candidate Starts for Daredevil_63:

(Start: 61 @48481 has 118 MA's), (78, 48376), (113, 48208), (119, 48172), (123, 48157), (130, 48133),

Gene: DatBoi_70 Start: 52480, Stop: 52115, Start Num: 58

Candidate Starts for DatBoi_70:

(Start: 58 @52480 has 9 MA's), (69, 52426), (85, 52336), (116, 52213), (122, 52183), (138, 52135),

Gene: Diminimus_72 Start: 46666, Stop: 47094, Start Num: 49

Candidate Starts for Diminimus_72:

(Start: 49 @46666 has 7 MA's), (Start: 52 @46675 has 7 MA's), (74, 46753), (88, 46840), (97, 46870), (105, 46912), (118, 46972), (135, 47047),

Gene: DoctorDiddles_85 Start: 51987, Stop: 52349, Start Num: 61

Candidate Starts for DoctorDiddles_85:

(42, 51954), (Start: 61 @51987 has 118 MA's), (102, 52200), (104, 52215), (118, 52284), (121, 52296), (123, 52302), (131, 52338),

Gene: DonkeyMan_55 Start: 37973, Stop: 38404, Start Num: 51

Candidate Starts for DonkeyMan_55:

(Start: 51 @37973 has 51 MA's), (123, 38288), (134, 38339), (145, 38396),

Gene: Dori_67 Start: 52520, Stop: 52948, Start Num: 54

Candidate Starts for Dori_67:

(Start: 54 @52520 has 13 MA's), (67, 52574), (77, 52625), (82, 52664), (83, 52670), (100, 52739), (104, 52781), (109, 52805), (110, 52808), (112, 52817), (123, 52868), (125, 52883), (128, 52892),

Gene: Doucette_50 Start: 32710, Stop: 33090, Start Num: 51

Candidate Starts for Doucette_50:

(Start: 51 @32710 has 51 MA's), (67, 32764), (84, 32860), (112, 32974), (121, 33019), (122, 33022),

Gene: DrDrey_86 Start: 53178, Stop: 53540, Start Num: 61

Candidate Starts for DrDrey_86:

(48, 53151), (Start: 61 @53178 has 118 MA's), (102, 53391), (118, 53475), (121, 53487), (123, 53493), (131, 53529),

Gene: Dulcita_72 Start: 46667, Stop: 47095, Start Num: 49

Candidate Starts for Dulcita_72:

(Start: 49 @46667 has 7 MA's), (Start: 52 @46676 has 7 MA's), (74, 46754), (88, 46841), (97, 46871), (105, 46913), (118, 46973), (135, 47048),

Gene: Dumbo_86 Start: 51661, Stop: 52023, Start Num: 61

Candidate Starts for Dumbo_86:

(48, 51634), (Start: 61 @51661 has 118 MA's), (102, 51874), (118, 51958), (121, 51970), (123, 51976), (131, 52012),

Gene: Duplicity_49 Start: 34525, Stop: 34917, Start Num: 51

Candidate Starts for Duplicity_49:

(Start: 51 @34525 has 51 MA's), (123, 34846),

Gene: Dusk_83 Start: 51961, Stop: 52323, Start Num: 61

Candidate Starts for Dusk_83:

(48, 51934), (Start: 61 @51961 has 118 MA's), (102, 52174), (118, 52258), (121, 52270), (123, 52276), (131, 52312),

Gene: E1_44 Start: 29853, Stop: 30233, Start Num: 51

Candidate Starts for E1_44:

(36, 29811), (38, 29823), (41, 29832), (Start: 51 @29853 has 51 MA's), (67, 29907), (84, 30003), (112, 30117), (123, 30168),

Gene: E6_48 Start: 32434, Stop: 32817, Start Num: 51

Candidate Starts for E6_48:

(36, 32392), (38, 32404), (41, 32413), (Start: 51 @32434 has 51 MA's), (67, 32488), (84, 32584), (112, 32698), (121, 32743),

Gene: Easy2Say_87 Start: 53142, Stop: 53525, Start Num: 47

Candidate Starts for Easy2Say_87:

(Start: 47 @53142 has 3 MA's), (Start: 59 @53163 has 12 MA's), (102, 53376), (118, 53460), (121, 53472), (123, 53478), (131, 53514),

Gene: Edugator_64 Start: 47616, Stop: 47969, Start Num: 59

Candidate Starts for Edugator_64:

(40, 47568), (Start: 54 @47604 has 13 MA's), (Start: 59 @47616 has 12 MA's), (77, 47706), (82, 47745), (89, 47769), (97, 47796), (111, 47862), (112, 47865), (113, 47868), (121, 47910), (123, 47916), (124, 47922), (127, 47934), (132, 47952), (133, 47958),

Gene: Eileen_59 Start: 38213, Stop: 38605, Start Num: 51

Candidate Starts for Eileen_59:

(27, 38147), (36, 38177), (37, 38183), (Start: 51 @38213 has 51 MA's), (84, 38363),

Gene: Elite2014_85 Start: 51755, Stop: 52117, Start Num: 61

Candidate Starts for Elite2014_85:

(48, 51728), (Start: 61 @51755 has 118 MA's), (102, 51968), (118, 52052), (121, 52064), (123, 52070), (131, 52106),

Gene: Elph10_86 Start: 51757, Stop: 52119, Start Num: 61

Candidate Starts for Elph10_86:

(48, 51730), (Start: 61 @51757 has 118 MA's), (102, 51970), (118, 52054), (121, 52066), (123, 52072), (131, 52108),

Gene: EmiRose_43 Start: 35914, Stop: 36360, Start Num: 60

Candidate Starts for EmiRose_43:

(Start: 60 @35914 has 7 MA's), (67, 35959), (91, 36082), (108, 36166), (122, 36229), (128, 36256), (143, 36313),

Gene: Emmina_86 Start: 51659, Stop: 52021, Start Num: 61

Candidate Starts for Emmina_86:

(48, 51632), (Start: 61 @51659 has 118 MA's), (102, 51872), (118, 51956), (121, 51968), (123, 51974), (131, 52010),

Gene: EniyanLRS_81 Start: 52139, Stop: 52543, Start Num: 56

Candidate Starts for EniyanLRS_81:

(31, 52058), (Start: 56 @52139 has 5 MA's), (76, 52226), (80, 52274), (86, 52298), (91, 52319), (92, 52325), (94, 52334), (110, 52436), (113, 52448), (123, 52496), (124, 52502), (128, 52520),

Gene: Estes_80 Start: 49066, Stop: 49467, Start Num: 53

Candidate Starts for Estes_80:

(Start: 53 @49066 has 7 MA's), (70, 49132), (82, 49210), (105, 49303), (118, 49363), (131, 49417),

Gene: Eureka_85 Start: 52671, Stop: 53033, Start Num: 61

Candidate Starts for Eureka_85:

(48, 52644), (Start: 61 @52671 has 118 MA's), (102, 52884), (118, 52968), (121, 52980), (123, 52986), (131, 53022),

Gene: Filch_87 Start: 51684, Stop: 52046, Start Num: 61

Candidate Starts for Filch_87:

(48, 51657), (Start: 61 @51684 has 118 MA's), (102, 51897), (118, 51981), (121, 51993), (123, 51999), (131, 52035),

Gene: FireRed_90 Start: 53249, Stop: 53611, Start Num: 61

Candidate Starts for FireRed_90:

(48, 53222), (Start: 61 @53249 has 118 MA's), (102, 53462), (118, 53546), (121, 53558), (123, 53564), (131, 53600),

Gene: Flypotenuse_82 Start: 51609, Stop: 51971, Start Num: 61

Candidate Starts for Flypotenuse_82:

(42, 51576), (Start: 61 @51609 has 118 MA's), (102, 51822), (104, 51837), (118, 51906), (121, 51918), (123, 51924), (131, 51960),

Gene: Fulbright_48 Start: 33605, Stop: 33997, Start Num: 51

Candidate Starts for Fulbright_48:

(Start: 51 @33605 has 51 MA's), (123, 33926),

Gene: GMA4_60 Start: 40216, Stop: 40572, Start Num: 58

Candidate Starts for GMA4_60:

(22, 40105), (Start: 58 @40216 has 9 MA's), (123, 40510),

Gene: Gage_88 Start: 52402, Stop: 52764, Start Num: 61

Candidate Starts for Gage_88:

(42, 52369), (Start: 61 @52402 has 118 MA's), (102, 52615), (118, 52699), (121, 52711), (123, 52717), (131, 52753),

Gene: GardenSalsa_80 Start: 49270, Stop: 49671, Start Num: 53

Candidate Starts for GardenSalsa_80:

(Start: 53 @49270 has 7 MA's), (82, 49414), (105, 49507), (118, 49567), (131, 49621),

Gene: Gator_84 Start: 52452, Stop: 52814, Start Num: 61

Candidate Starts for Gator_84:

(42, 52419), (Start: 61 @52452 has 118 MA's), (102, 52665), (104, 52680), (118, 52749), (121, 52761), (123, 52767), (131, 52803),

Gene: Gemini_91 Start: 53056, Stop: 53418, Start Num: 61

Candidate Starts for Gemini_91:

(48, 53029), (Start: 61 @53056 has 118 MA's), (102, 53269), (118, 53353), (121, 53365), (123, 53371), (131, 53407),

Gene: GenevaB15_79 Start: 48719, Stop: 49120, Start Num: 53

Candidate Starts for GenevaB15_79:

(Start: 53 @48719 has 7 MA's), (70, 48785), (82, 48863), (105, 48956), (118, 49016), (131, 49070),

Gene: Gex_49 Start: 34532, Stop: 34924, Start Num: 51

Candidate Starts for Gex_49:

(Start: 51 @34532 has 51 MA's), (123, 34853),

Gene: Glaske16_73 Start: 47145, Stop: 47573, Start Num: 49

Candidate Starts for Glaske16_73:

(Start: 49 @47145 has 7 MA's), (Start: 52 @47154 has 7 MA's), (74, 47232), (88, 47319), (97, 47349), (105, 47391), (118, 47451), (135, 47526),

Gene: Glexan_85 Start: 52739, Stop: 53101, Start Num: 61

Candidate Starts for Glexan_85:

(42, 52706), (Start: 61 @52739 has 118 MA's), (102, 52952), (104, 52967), (118, 53036), (121, 53048), (123, 53054), (131, 53090),

Gene: GlobiWarming_67 Start: 40113, Stop: 40502, Start Num: 51

Candidate Starts for GlobiWarming_67:

(Start: 51 @40113 has 51 MA's), (84, 40263),

Gene: Goku_85 Start: 52400, Stop: 52762, Start Num: 61

Candidate Starts for Goku_85:

(48, 52373), (Start: 61 @52400 has 118 MA's), (102, 52613), (118, 52697), (121, 52709), (123, 52715), (131, 52751),

Gene: GoldenSpark_90 Start: 52539, Stop: 52901, Start Num: 61

Candidate Starts for GoldenSpark_90:

(48, 52512), (Start: 61 @52539 has 118 MA's), (102, 52752), (118, 52836), (121, 52848), (123, 52854), (131, 52890),

Gene: Goldilocks_89 Start: 51897, Stop: 52259, Start Num: 61

Candidate Starts for Goldilocks_89:

(42, 51864), (Start: 61 @51897 has 118 MA's), (102, 52110), (118, 52194), (121, 52206), (123, 52212), (131, 52248),

Gene: GooberAzure_89 Start: 52539, Stop: 52901, Start Num: 61

Candidate Starts for GooberAzure_89:

(48, 52512), (Start: 61 @52539 has 118 MA's), (102, 52752), (118, 52836), (121, 52848), (123, 52854), (131, 52890),

Gene: Greely_206 Start: 116895, Stop: 117263, Start Num: 61

Candidate Starts for Greely_206:

(15, 116745), (19, 116763), (25, 116781), (45, 116859), (Start: 61 @116895 has 118 MA's), (78, 117006), (91, 117072), (97, 117090), (123, 117210), (124, 117216),

Gene: Gspu1_48 Start: 35124, Stop: 35474, Start Num: 63

Candidate Starts for Gspu1_48:

(39, 35067), (Start: 60 @35112 has 7 MA's), (63, 35124), (80, 35241), (119, 35403), (122, 35415), (123, 35418),

Gene: Gustav_66 Start: 43170, Stop: 43571, Start Num: 60

Candidate Starts for Gustav_66:

(Start: 60 @43170 has 7 MA's), (101, 43383), (123, 43476), (129, 43503), (131, 43512), (139, 43542), (142, 43557), (144, 43560),

Gene: HanKaySha_86 Start: 51837, Stop: 52199, Start Num: 61

Candidate Starts for HanKaySha_86:

(48, 51810), (Start: 61 @51837 has 118 MA's), (102, 52050), (118, 52134), (121, 52146), (123, 52152), (131, 52188),

Gene: Hanako_55 Start: 35784, Stop: 36176, Start Num: 51

Candidate Starts for Hanako_55:

(16, 35661), (21, 35682), (28, 35709), (Start: 51 @35784 has 51 MA's), (123, 36105),

Gene: Harella_86 Start: 53255, Stop: 53617, Start Num: 61

Candidate Starts for Harella_86:

(42, 53222), (Start: 61 @53255 has 118 MA's), (102, 53468), (104, 53483), (118, 53552), (121, 53564), (123, 53570), (131, 53606),

Gene: Heinz_56 Start: 36903, Stop: 37334, Start Num: 51

Candidate Starts for Heinz_56:

(Start: 51 @36903 has 51 MA's), (134, 37269),

Gene: Henry_84 Start: 52138, Stop: 52500, Start Num: 59

Candidate Starts for Henry_84:

(Start: 47 @52117 has 3 MA's), (Start: 59 @52138 has 12 MA's), (102, 52351), (118, 52435), (121, 52447), (123, 52453), (131, 52489),

Gene: Hibiscus_57 Start: 36872, Stop: 37315, Start Num: 46

Candidate Starts for Hibiscus_57:

(1, 36347), (2, 36353), (3, 36401), (4, 36419), (5, 36458), (6, 36467), (9, 36548), (18, 36767), (Start: 46 @36872 has 2 MA's), (134, 37250),

Gene: Highbury_85 Start: 51828, Stop: 52190, Start Num: 61

Candidate Starts for Highbury_85:

(48, 51801), (Start: 61 @51828 has 118 MA's), (102, 52041), (118, 52125), (121, 52137), (123, 52143), (131, 52179),

Gene: Holt_91 Start: 52953, Stop: 53315, Start Num: 61

Candidate Starts for Holt_91:

(48, 52926), (Start: 61 @52953 has 118 MA's), (102, 53166), (118, 53250), (121, 53262), (123, 53268), (131, 53304),

Gene: Hoonter_89 Start: 52399, Stop: 52761, Start Num: 61

Candidate Starts for Hoonter_89:

(42, 52366), (Start: 61 @52399 has 118 MA's), (102, 52612), (104, 52627), (118, 52696), (121, 52708), (123, 52714), (131, 52750),

Gene: Hokey_86 Start: 52369, Stop: 52731, Start Num: 61

Candidate Starts for Hokey_86:

(48, 52342), (Start: 61 @52369 has 118 MA's), (102, 52582), (118, 52666), (121, 52678), (123, 52684), (131, 52720),

Gene: HufflyPuff_89 Start: 53202, Stop: 53564, Start Num: 61

Candidate Starts for HufflyPuff_89:

(48, 53175), (Start: 61 @53202 has 118 MA's), (102, 53415), (118, 53499), (121, 53511), (123, 53517), (124, 53523), (131, 53553),

Gene: IHOP_84 Start: 52301, Stop: 52663, Start Num: 61

Candidate Starts for IHOP_84:

(48, 52274), (Start: 61 @52301 has 118 MA's), (102, 52514), (118, 52598), (121, 52610), (123, 52616), (131, 52652),

Gene: IPhane7_71 Start: 46680, Stop: 47099, Start Num: 52

Candidate Starts for IPhane7_71:

(Start: 49 @46671 has 7 MA's), (Start: 52 @46680 has 7 MA's), (74, 46758), (88, 46845), (97, 46875), (105, 46917), (118, 46977), (135, 47052),

Gene: Icee_87 Start: 52066, Stop: 52428, Start Num: 61

Candidate Starts for Icee_87:

(42, 52033), (Start: 61 @52066 has 118 MA's), (102, 52279), (104, 52294), (118, 52363), (121, 52375), (123, 52381), (131, 52417),

Gene: Inca_83 Start: 50790, Stop: 51152, Start Num: 59

Candidate Starts for Inca_83:

(Start: 47 @50769 has 3 MA's), (Start: 59 @50790 has 12 MA's), (102, 51003), (118, 51087), (121, 51099), (123, 51105), (131, 51141),

Gene: InvictusManeo_63 Start: 45860, Stop: 46225, Start Num: 54

Candidate Starts for InvictusManeo_63:

(32, 45797), (Start: 54 @45860 has 13 MA's), (Start: 59 @45872 has 12 MA's), (77, 45962), (82, 46001), (89, 46025), (97, 46052), (112, 46121), (113, 46124), (121, 46166), (123, 46172), (124, 46178), (127, 46190), (132, 46208),

Gene: Jamie19_48 Start: 34075, Stop: 34467, Start Num: 51

Candidate Starts for Jamie19_48:

(16, 33952), (21, 33973), (28, 34000), (Start: 51 @34075 has 51 MA's), (123, 34396),

Gene: JeTaime_86 Start: 53018, Stop: 53380, Start Num: 61

Candidate Starts for JeTaime_86:

(48, 52991), (Start: 61 @53018 has 118 MA's), (102, 53231), (118, 53315), (121, 53327), (123, 53333), (131, 53369),

Gene: Jojo24_56 Start: 37218, Stop: 37661, Start Num: 46

Candidate Starts for Jojo24_56:

(Start: 46 @37218 has 2 MA's), (123, 37545), (134, 37596),

Gene: Judy_67 Start: 41178, Stop: 41567, Start Num: 51

Candidate Starts for Judy_67:

(Start: 51 @41178 has 51 MA's), (84, 41328), (104, 41403), (124, 41496),

Gene: Kanye_83 Start: 51885, Stop: 52247, Start Num: 61

Candidate Starts for Kanye_83:

(48, 51858), (Start: 61 @51885 has 118 MA's), (102, 52098), (118, 52182), (121, 52194), (123, 52200), (131, 52236),

Gene: Karkharias_62 Start: 39837, Stop: 40226, Start Num: 50

Candidate Starts for Karkharias_62:

(Start: 50 @39837 has 1 MA's), (84, 39987), (115, 40113),

Gene: KayMoney_62 Start: 40303, Stop: 40695, Start Num: 51

Candidate Starts for KayMoney_62:

(23, 40213), (24, 40216), (Start: 51 @40303 has 51 MA's), (84, 40453),

Gene: Kevin1_51 Start: 34560, Stop: 34952, Start Num: 51

Candidate Starts for Kevin1_51:

(19, 34452), (Start: 51 @34560 has 51 MA's), (123, 34881), (124, 34887), (125, 34896),

Gene: Kimchi_90 Start: 52405, Stop: 52767, Start Num: 61

Candidate Starts for Kimchi_90:

(42, 52372), (Start: 61 @52405 has 118 MA's), (102, 52618), (118, 52702), (121, 52714), (123, 52720), (131, 52756),

Gene: Kithara_61 Start: 44883, Stop: 44470, Start Num: 65

Candidate Starts for Kithara_61:

(26, 45027), (55, 44925), (65, 44883), (117, 44625), (123, 44595),

Gene: Kostya_86 Start: 52403, Stop: 52765, Start Num: 61

Candidate Starts for Kostya_86:

(48, 52376), (Start: 61 @52403 has 118 MA's), (102, 52616), (118, 52700), (121, 52712), (123, 52718), (131, 52754),

Gene: Kozie_44 Start: 32286, Stop: 32642, Start Num: 62

Candidate Starts for Kozie_44:

(Start: 62 @32286 has 2 MA's), (81, 32409), (123, 32586), (124, 32592), (127, 32604),

Gene: Kratio_63 Start: 45599, Stop: 45964, Start Num: 54

Candidate Starts for Kratio_63:

(32, 45536), (Start: 54 @45599 has 13 MA's), (Start: 59 @45611 has 12 MA's), (77, 45701), (82, 45740), (89, 45764), (97, 45791), (112, 45860), (113, 45863), (121, 45905), (123, 45911), (124, 45917), (127, 45929), (132, 45947),

Gene: Kukla_66 Start: 40006, Stop: 40383, Start Num: 51

Candidate Starts for Kukla_66:

(Start: 51 @40006 has 51 MA's), (67, 40060), (77, 40108), (89, 40171), (90, 40174), (104, 40231), (113, 40270), (121, 40312), (128, 40342), (129, 40345), (135, 40375),

Gene: Kumao_67 Start: 47222, Stop: 47653, Start Num: 49

Candidate Starts for Kumao_67:

(Start: 49 @47222 has 7 MA's), (104, 47462), (112, 47498), (124, 47555), (127, 47567), (134, 47600),

Gene: Larva_66 Start: 47058, Stop: 47423, Start Num: 54

Candidate Starts for Larva_66:

(40, 47022), (Start: 54 @47058 has 13 MA's), (Start: 59 @47070 has 12 MA's), (77, 47160), (82, 47199), (89, 47223), (97, 47250), (111, 47316), (112, 47319), (113, 47322), (121, 47364), (123, 47370), (124, 47376), (127, 47388), (132, 47406), (133, 47412),

Gene: Lilac_88 Start: 52154, Stop: 52516, Start Num: 61

Candidate Starts for Lilac_88:

(48, 52127), (Start: 61 @52154 has 118 MA's), (102, 52367), (104, 52382), (118, 52451), (121, 52463), (123, 52469), (131, 52505),

Gene: LilhomieP_71 Start: 47159, Stop: 47578, Start Num: 52

Candidate Starts for LilhomieP_71:

(Start: 49 @47150 has 7 MA's), (Start: 52 @47159 has 7 MA's), (74, 47237), (88, 47324), (97, 47354), (105, 47396), (118, 47456), (135, 47531),

Gene: Lilizi_87 Start: 51867, Stop: 52229, Start Num: 61

Candidate Starts for Lilizi_87:

(48, 51840), (Start: 61 @51867 has 118 MA's), (102, 52080), (118, 52164), (121, 52176), (123, 52182), (131, 52218),

Gene: Lilpickle_85 Start: 51755, Stop: 52117, Start Num: 61

Candidate Starts for Lilpickle_85:

(48, 51728), (Start: 61 @51755 has 118 MA's), (102, 51968), (118, 52052), (121, 52064), (123, 52070), (131, 52106),

Gene: LitninMcQueen_97 Start: 51856, Stop: 52233, Start Num: 58

Candidate Starts for LitninMcQueen_97:

(29, 51772), (Start: 58 @51856 has 9 MA's), (63, 51868), (80, 51985), (88, 51997), (93, 52018), (105, 52069), (111, 52093), (122, 52147), (123, 52150), (126, 52165), (130, 52177), (137, 52210),

Gene: MISSy_87 Start: 52261, Stop: 52623, Start Num: 61

Candidate Starts for MISSy_87:

(48, 52234), (Start: 61 @52261 has 118 MA's), (102, 52474), (118, 52558), (121, 52570), (123, 52576), (131, 52612),

Gene: MPhalcon_87 Start: 52254, Stop: 52616, Start Num: 61

Candidate Starts for MPhalcon_87:

(48, 52227), (Start: 61 @52254 has 118 MA's), (102, 52467), (118, 52551), (121, 52563), (123, 52569), (131, 52605),

Gene: MadamMonkfish_86 Start: 51482, Stop: 51844, Start Num: 61

Candidate Starts for MadamMonkfish_86:

(48, 51455), (Start: 61 @51482 has 118 MA's), (102, 51695), (118, 51779), (121, 51791), (123, 51797), (131, 51833),

Gene: Magsby_49 Start: 34533, Stop: 34925, Start Num: 51

Candidate Starts for Magsby_49:

(Start: 51 @34533 has 51 MA's), (123, 34854),

Gene: Mahdia_59 Start: 41385, Stop: 41786, Start Num: 60

Candidate Starts for Mahdia_59:

(Start: 60 @41385 has 7 MA's), (71, 41445), (79, 41508), (93, 41562), (101, 41598), (121, 41685), (123, 41691), (129, 41718), (139, 41757), (144, 41775),

Gene: Manda_88 Start: 53750, Stop: 54112, Start Num: 59

Candidate Starts for Manda_88:

(Start: 47 @53729 has 3 MA's), (Start: 59 @53750 has 12 MA's), (102, 53963), (118, 54047), (121, 54059), (123, 54065), (131, 54101),

Gene: Mao1_69 Start: 50980, Stop: 51408, Start Num: 54

Candidate Starts for Mao1_69:

(Start: 54 @50980 has 13 MA's), (67, 51034), (77, 51085), (82, 51124), (83, 51130), (100, 51199), (104, 51241), (109, 51265), (111, 51274), (112, 51277), (123, 51328), (125, 51343), (128, 51352),

Gene: Marshmallow_84 Start: 53031, Stop: 53393, Start Num: 61

Candidate Starts for Marshmallow_84:

(48, 53004), (Start: 61 @53031 has 118 MA's), (102, 53244), (118, 53328), (121, 53340), (123, 53346), (131, 53382),

Gene: MaryV_85 Start: 52221, Stop: 52625, Start Num: 56

Candidate Starts for MaryV_85:

(31, 52140), (Start: 56 @52221 has 5 MA's), (76, 52308), (80, 52356), (86, 52380), (91, 52401), (92, 52407), (94, 52416), (110, 52518), (113, 52530), (123, 52578), (124, 52584), (128, 52602),

Gene: Mask_67 Start: 53263, Stop: 53691, Start Num: 54

Candidate Starts for Mask_67:

(Start: 54 @53263 has 13 MA's), (67, 53317), (77, 53368), (82, 53407), (83, 53413), (100, 53482), (109, 53548), (110, 53551), (112, 53560), (123, 53611), (125, 53626), (128, 53635),

Gene: Maxxinista_88 Start: 52127, Stop: 52489, Start Num: 61

Candidate Starts for Maxxinista_88:

(48, 52100), (Start: 61 @52127 has 118 MA's), (102, 52340), (118, 52424), (121, 52436), (123, 52442), (131, 52478),

Gene: Melville_52 Start: 34517, Stop: 34909, Start Num: 51

Candidate Starts for Melville_52:

(Start: 51 @34517 has 51 MA's), (123, 34838),

Gene: Mindy_85 Start: 51283, Stop: 51666, Start Num: 47

Candidate Starts for Mindy_85:

(Start: 47 @51283 has 3 MA's), (Start: 59 @51304 has 12 MA's), (102, 51517), (118, 51601), (121, 51613), (123, 51619), (131, 51655),

Gene: Miniwave_81 Start: 51799, Stop: 52161, Start Num: 61

Candidate Starts for Miniwave_81:

(48, 51772), (Start: 61 @51799 has 118 MA's), (102, 52012), (118, 52096), (121, 52108), (123, 52114), (131, 52150),

Gene: Misfit_87 Start: 53273, Stop: 53635, Start Num: 61

Candidate Starts for Misfit_87:

(48, 53246), (Start: 61 @53273 has 118 MA's), (102, 53486), (118, 53570), (121, 53582), (123, 53588), (131, 53624),

Gene: Moldemort_89 Start: 52218, Stop: 52580, Start Num: 61

Candidate Starts for Moldemort_89:

(42, 52185), (Start: 61 @52218 has 118 MA's), (102, 52431), (104, 52446), (118, 52515), (121, 52527), (123, 52533), (131, 52569),

Gene: Mollymur_72 Start: 52998, Stop: 52633, Start Num: 58

Candidate Starts for Mollymur_72:

(33, 53064), (44, 53028), (Start: 58 @52998 has 9 MA's), (122, 52701), (123, 52698),

Gene: Morrissey_62 Start: 43281, Stop: 43685, Start Num: 60

Candidate Starts for Morrissey_62:

(20, 43155), (Start: 60 @43281 has 7 MA's), (70, 43338), (101, 43494), (109, 43524), (121, 43581), (122, 43584), (123, 43587), (129, 43614), (131, 43623), (139, 43653),

Gene: Mosby_82 Start: 51556, Stop: 51918, Start Num: 61

Candidate Starts for Mosby_82:

(48, 51529), (Start: 61 @51556 has 118 MA's), (102, 51769), (118, 51853), (121, 51865), (123, 51871), (131, 51907),

Gene: MrMagoo_81 Start: 49270, Stop: 49671, Start Num: 53

Candidate Starts for MrMagoo_81:

(Start: 53 @49270 has 7 MA's), (82, 49414), (105, 49507), (118, 49567), (131, 49621),

Gene: Murica_89 Start: 53202, Stop: 53564, Start Num: 61

Candidate Starts for Murica_89:

(48, 53175), (Start: 61 @53202 has 118 MA's), (102, 53415), (118, 53499), (121, 53511), (123, 53517), (131, 53553),

Gene: Murphy_86 Start: 52639, Stop: 53001, Start Num: 61

Candidate Starts for Murphy_86:

(48, 52612), (Start: 61 @52639 has 118 MA's), (102, 52852), (118, 52936), (121, 52948), (123, 52954), (131, 52990),

Gene: Myrale_86 Start: 52762, Stop: 53124, Start Num: 61

Candidate Starts for Myrale_86:

(42, 52729), (Start: 61 @52762 has 118 MA's), (102, 52975), (118, 53059), (121, 53071), (123, 53077), (131, 53113),

Gene: Myrna_199 Start: 116281, Stop: 116649, Start Num: 61

Candidate Starts for Myrna_199:

(15, 116131), (19, 116149), (45, 116245), (Start: 61 @116281 has 118 MA's), (91, 116458), (97, 116476), (115, 116560), (123, 116596),

Gene: Nala_88 Start: 52763, Stop: 53125, Start Num: 61

Candidate Starts for Nala_88:

(48, 52736), (Start: 61 @52763 has 118 MA's), (102, 52976), (118, 53060), (121, 53072), (123, 53078), (131, 53114),

Gene: Nanosmite_76 Start: 48317, Stop: 48718, Start Num: 53

Candidate Starts for Nanosmite_76:

(Start: 53 @48317 has 7 MA's), (88, 48482), (105, 48554), (118, 48614), (125, 48647), (131, 48668),

Gene: NelitzaMV_84 Start: 51845, Stop: 52207, Start Num: 61

Candidate Starts for NelitzaMV_84:

(48, 51818), (Start: 61 @51845 has 118 MA's), (102, 52058), (118, 52142), (121, 52154), (123, 52160), (131, 52196),

Gene: Nenae_54 Start: 35786, Stop: 36178, Start Num: 51

Candidate Starts for Nenae_54:

(16, 35663), (21, 35684), (28, 35711), (Start: 51 @35786 has 51 MA's), (123, 36107),

Gene: Nimrod_87 Start: 53466, Stop: 53828, Start Num: 61

Candidate Starts for Nimrod_87:

(48, 53439), (Start: 61 @53466 has 118 MA's), (102, 53679), (118, 53763), (121, 53775), (123, 53781), (131, 53817),

Gene: NoSleep_87 Start: 52100, Stop: 52462, Start Num: 61

Candidate Starts for NoSleep_87:

(48, 52073), (Start: 61 @52100 has 118 MA's), (102, 52313), (118, 52397), (121, 52409), (123, 52415), (131, 52451),

Gene: OrionPax_85 Start: 51851, Stop: 52213, Start Num: 61

Candidate Starts for OrionPax_85:

(48, 51824), (Start: 61 @51851 has 118 MA's), (102, 52064), (118, 52148), (121, 52160), (123, 52166), (131, 52202),

Gene: Palpatine_88 Start: 53229, Stop: 53591, Start Num: 61

Candidate Starts for Palpatine_88:

(48, 53202), (Start: 61 @53229 has 118 MA's), (102, 53442), (118, 53526), (121, 53538), (123, 53544), (131, 53580),

Gene: Panchino_47 Start: 35421, Stop: 35813, Start Num: 51

Candidate Starts for Panchino_47:

(16, 35298), (21, 35319), (28, 35346), (Start: 51 @35421 has 51 MA's), (123, 35742),

Gene: Paperbeatsrock_85 Start: 52477, Stop: 52839, Start Num: 61

Candidate Starts for Paperbeatsrock_85:

(48, 52450), (Start: 61 @52477 has 118 MA's), (102, 52690), (118, 52774), (121, 52786), (123, 52792), (131, 52828),

Gene: Parmesanjohn_49 Start: 34536, Stop: 34928, Start Num: 51

Candidate Starts for Parmesanjohn_49:

(Start: 51 @34536 has 51 MA's), (123, 34857),

Gene: Pat3_84 Start: 50872, Stop: 51234, Start Num: 61

Candidate Starts for Pat3_84:

(42, 50839), (Start: 61 @50872 has 118 MA's), (102, 51085), (104, 51100), (118, 51169), (121, 51181), (123, 51187), (131, 51223),

Gene: Peas_64 Start: 41595, Stop: 41996, Start Num: 51

Candidate Starts for Peas_64:

(Start: 51 @41595 has 51 MA's), (84, 41745),

Gene: PegLeg_70 Start: 46420, Stop: 46839, Start Num: 52

Candidate Starts for PegLeg_70:

(Start: 49 @46411 has 7 MA's), (Start: 52 @46420 has 7 MA's), (74, 46498), (88, 46585), (97, 46615), (105, 46657), (118, 46717), (135, 46792),

Gene: PeggyLeg03_63 Start: 40587, Stop: 40976, Start Num: 51

Candidate Starts for PeggyLeg03_63:

(Start: 51 @40587 has 51 MA's), (84, 40737),

Gene: Petra64142_90 Start: 53696, Stop: 54058, Start Num: 61

Candidate Starts for Petra64142_90:

(48, 53669), (Start: 61 @53696 has 118 MA's), (102, 53909), (118, 53993), (121, 54005), (123, 54011), (131, 54047),

Gene: Phabba_210 Start: 116249, Stop: 116617, Start Num: 61

Candidate Starts for Phabba_210:

(19, 116117), (45, 116213), (Start: 61 @116249 has 118 MA's), (91, 116426), (97, 116444), (123, 116564), (124, 116570),

Gene: Phaja_84 Start: 52303, Stop: 52665, Start Num: 61

Candidate Starts for Phaja_84:

(48, 52276), (Start: 61 @52303 has 118 MA's), (102, 52516), (118, 52600), (121, 52612), (123, 52618), (131, 52654),

Gene: PhancyPhin_54 Start: 35780, Stop: 36172, Start Num: 51

Candidate Starts for PhancyPhin_54:

(16, 35657), (21, 35678), (28, 35705), (Start: 51 @35780 has 51 MA's), (123, 36101),

Gene: Pharsalus_83 Start: 52277, Stop: 52639, Start Num: 61

Candidate Starts for Pharsalus_83:

(48, 52250), (Start: 61 @52277 has 118 MA's), (102, 52490), (118, 52574), (121, 52586), (123, 52592), (131, 52628),

Gene: PhatBacter_90 Start: 53249, Stop: 53611, Start Num: 61

Candidate Starts for PhatBacter_90:

(48, 53222), (Start: 61 @53249 has 118 MA's), (102, 53462), (118, 53546), (121, 53558), (123, 53564), (131, 53600),

Gene: Phaux_88 Start: 53244, Stop: 53606, Start Num: 61

Candidate Starts for Phaux_88:

(48, 53217), (Start: 61 @53244 has 118 MA's), (102, 53457), (118, 53541), (121, 53553), (123, 53559), (131, 53595),

Gene: Phayonce_51 Start: 37143, Stop: 37571, Start Num: 54

Candidate Starts for Phayonce_51:

(Start: 54 @37143 has 13 MA's), (67, 37197), (77, 37248), (82, 37287), (83, 37293), (100, 37362), (104, 37404), (109, 37428), (111, 37437), (112, 37440), (123, 37491), (125, 37506), (128, 37515),

Gene: Phloss_47 Start: 33943, Stop: 34335, Start Num: 51

Candidate Starts for Phloss_47:

(Start: 51 @33943 has 51 MA's), (123, 34264),

Gene: Phrann_51 Start: 36063, Stop: 36455, Start Num: 51

Candidate Starts for Phrann_51:

(16, 35940), (21, 35961), (28, 35988), (Start: 51 @36063 has 51 MA's), (123, 36384),

Gene: Phrux_83 Start: 51798, Stop: 52160, Start Num: 59

Candidate Starts for Phrux_83:

(Start: 47 @51777 has 3 MA's), (Start: 59 @51798 has 12 MA's), (102, 52011), (118, 52095), (121, 52107), (123, 52113), (131, 52149),

Gene: Pipsqueaks_49 Start: 34513, Stop: 34905, Start Num: 51

Candidate Starts for Pipsqueaks_49:

(Start: 51 @34513 has 51 MA's), (123, 34834),

Gene: Policronamos_90 Start: 53244, Stop: 53606, Start Num: 61

Candidate Starts for Policronamos_90:

(48, 53217), (Start: 61 @53244 has 118 MA's), (102, 53457), (118, 53541), (121, 53553), (123, 53559), (131, 53595),

Gene: Porky_85 Start: 51667, Stop: 52029, Start Num: 61

Candidate Starts for Porky_85:

(48, 51640), (Start: 61 @51667 has 118 MA's), (102, 51880), (118, 51964), (121, 51976), (123, 51982), (131, 52018),

Gene: Psycho_65 Start: 46183, Stop: 46548, Start Num: 54

Candidate Starts for Psycho_65:

(40, 46147), (Start: 54 @46183 has 13 MA's), (Start: 59 @46195 has 12 MA's), (77, 46285), (82, 46324), (89, 46348), (97, 46375), (111, 46441), (112, 46444), (113, 46447), (121, 46489), (123, 46495), (124, 46501), (127, 46513), (132, 46531), (133, 46537),

Gene: Pucara_59 Start: 40031, Stop: 40420, Start Num: 51

Candidate Starts for Pucara_59:

(Start: 51 @40031 has 51 MA's), (84, 40181),

Gene: Pumpkin_89 Start: 52895, Stop: 53257, Start Num: 61

Candidate Starts for Pumpkin_89:

(48, 52868), (Start: 61 @52895 has 118 MA's), (102, 53108), (118, 53192), (121, 53204), (123, 53210), (131, 53246),

Gene: Puppies_60 Start: 41273, Stop: 41683, Start Num: 60

Candidate Starts for Puppies_60:

(Start: 60 @41273 has 7 MA's), (64, 41294), (87, 41426), (98, 41468), (99, 41477), (121, 41582), (123, 41588),

Gene: Purgamenstris_54 Start: 35784, Stop: 36176, Start Num: 51

Candidate Starts for Purgamenstris_54:

(16, 35661), (21, 35682), (28, 35709), (Start: 51 @35784 has 51 MA's), (123, 36105),

Gene: Quallification_87 Start: 52885, Stop: 53247, Start Num: 61

Candidate Starts for Quallification_87:

(48, 52858), (Start: 61 @52885 has 118 MA's), (102, 53098), (118, 53182), (121, 53194), (123, 53200), (131, 53236),

Gene: REQ3_19 Start: 8920, Stop: 9282, Start Num: 58

Candidate Starts for REQ3_19:

(Start: 58 @8920 has 9 MA's), (67, 8965), (88, 9061), (90, 9067), (91, 9073), (111, 9157), (123, 9211), (137, 9262), (141, 9274),

Gene: Rakim_87 Start: 52214, Stop: 52576, Start Num: 61

Candidate Starts for Rakim_87:

(42, 52181), (Start: 61 @52214 has 118 MA's), (102, 52427), (118, 52511), (121, 52523), (123, 52529), (131, 52565),

Gene: Raymond7_48 Start: 35572, Stop: 35964, Start Num: 51

Candidate Starts for Raymond7_48:

(16, 35449), (21, 35470), (28, 35497), (Start: 51 @35572 has 51 MA's), (123, 35893),

Gene: Redi_54 Start: 35783, Stop: 36175, Start Num: 51

Candidate Starts for Redi_54:

(16, 35660), (21, 35681), (28, 35708), (Start: 51 @35783 has 51 MA's), (123, 36104),

Gene: Reindeer_73 Start: 47812, Stop: 48231, Start Num: 52

Candidate Starts for Reindeer_73:

(Start: 49 @47803 has 7 MA's), (Start: 52 @47812 has 7 MA's), (81, 47950), (102, 48025), (105, 48049), (118, 48109), (135, 48184),

Gene: Rey_78 Start: 48943, Stop: 49344, Start Num: 53
Candidate Starts for Rey_78:
(Start: 53 @48943 has 7 MA's), (82, 49087), (105, 49180), (118, 49240), (131, 49294),

Gene: Reyja_59 Start: 38515, Stop: 38931, Start Num: 51
Candidate Starts for Reyja_59:
(5, 38104), (6, 38113), (9, 38194), (18, 38413), (Start: 51 @38515 has 51 MA's), (109, 38767), (113, 38782), (123, 38830),

Gene: Rimmer_86 Start: 52254, Stop: 52616, Start Num: 61
Candidate Starts for Rimmer_86:
(Start: 61 @52254 has 118 MA's), (102, 52467), (104, 52482), (118, 52551), (121, 52563), (123, 52569), (131, 52605),

Gene: RiverMonster_86 Start: 52415, Stop: 52777, Start Num: 61
Candidate Starts for RiverMonster_86:
(48, 52388), (Start: 61 @52415 has 118 MA's), (102, 52628), (118, 52712), (121, 52724), (123, 52730), (131, 52766),

Gene: RootBeer_52 Start: 36912, Stop: 37301, Start Num: 51
Candidate Starts for RootBeer_52:
(Start: 51 @36912 has 51 MA's), (84, 37062),

Gene: Rubeelu_52 Start: 35124, Stop: 35516, Start Num: 51
Candidate Starts for Rubeelu_52:
(19, 35016), (Start: 51 @35124 has 51 MA's), (123, 35445),

Gene: Saints25_85 Start: 51828, Stop: 52190, Start Num: 61
Candidate Starts for Saints25_85:
(48, 51801), (Start: 61 @51828 has 118 MA's), (102, 52041), (118, 52125), (121, 52137), (123, 52143), (131, 52179),

Gene: Sashimi_87 Start: 47693, Stop: 48073, Start Num: 51
Candidate Starts for Sashimi_87:
(34, 47648), (Start: 51 @47693 has 51 MA's), (77, 47795), (84, 47843), (96, 47885), (123, 48008),

Gene: Sassay_81 Start: 50518, Stop: 50880, Start Num: 61
Candidate Starts for Sassay_81:
(48, 50491), (Start: 61 @50518 has 118 MA's), (102, 50731), (118, 50815), (121, 50827), (123, 50833), (131, 50869),

Gene: Schmidt_51 Start: 34772, Stop: 35146, Start Num: 61
Candidate Starts for Schmidt_51:
(Start: 61 @34772 has 118 MA's), (63, 34784), (80, 34901), (88, 34928), (90, 34934), (113, 35030), (120, 35072), (126, 35096),

Gene: Schnauzer_50 Start: 34536, Stop: 34928, Start Num: 51
Candidate Starts for Schnauzer_50:
(Start: 51 @34536 has 51 MA's), (123, 34857),

Gene: ScoobyDoobyDoo_198 Start: 114464, Stop: 114832, Start Num: 61
Candidate Starts for ScoobyDoobyDoo_198:

(14, 114260), (25, 114353), (30, 114377), (45, 114428), (Start: 61 @114464 has 118 MA's), (78, 114575), (90, 114635), (97, 114659), (109, 114716), (111, 114725), (113, 114731), (123, 114779), (124, 114785),

Gene: ShamWow_86 Start: 52698, Stop: 53060, Start Num: 59

Candidate Starts for ShamWow_86:

(Start: 47 @52677 has 3 MA's), (Start: 59 @52698 has 12 MA's), (102, 52911), (118, 52995), (121, 53007), (123, 53013), (131, 53049),

Gene: Shambre1_63 Start: 40417, Stop: 40782, Start Num: 57

Candidate Starts for Shambre1_63:

(Start: 57 @40417 has 1 MA's), (97, 40609), (123, 40729),

Gene: ShereKhan_84 Start: 52810, Stop: 53172, Start Num: 61

Candidate Starts for ShereKhan_84:

(48, 52783), (Start: 61 @52810 has 118 MA's), (102, 53023), (118, 53107), (121, 53119), (123, 53125), (131, 53161),

Gene: ShrimpFriedEgg_54 Start: 35783, Stop: 36175, Start Num: 51

Candidate Starts for ShrimpFriedEgg_54:

(16, 35660), (21, 35681), (28, 35708), (Start: 51 @35783 has 51 MA's), (123, 36104),

Gene: Silvafighter_50 Start: 34509, Stop: 34901, Start Num: 51

Candidate Starts for Silvafighter_50:

(Start: 51 @34509 has 51 MA's), (123, 34830),

Gene: Simpliphy_85 Start: 51818, Stop: 52180, Start Num: 61

Candidate Starts for Simpliphy_85:

(48, 51791), (Start: 61 @51818 has 118 MA's), (102, 52031), (118, 52115), (121, 52127), (123, 52133), (131, 52169),

Gene: SirDuracell_86 Start: 51469, Stop: 51831, Start Num: 61

Candidate Starts for SirDuracell_86:

(43, 51442), (Start: 61 @51469 has 118 MA's), (102, 51682), (104, 51697), (118, 51766), (121, 51778), (123, 51784), (131, 51820),

Gene: Skinny_74 Start: 47579, Stop: 48007, Start Num: 49

Candidate Starts for Skinny_74:

(Start: 49 @47579 has 7 MA's), (Start: 52 @47588 has 7 MA's), (74, 47666), (88, 47753), (97, 47783), (105, 47825), (118, 47885), (135, 47960),

Gene: SlimJimmy_71 Start: 47135, Stop: 47563, Start Num: 49

Candidate Starts for SlimJimmy_71:

(Start: 49 @47135 has 7 MA's), (Start: 52 @47144 has 7 MA's), (74, 47222), (88, 47309), (97, 47339), (105, 47381), (118, 47441), (135, 47516),

Gene: Smurph_49 Start: 34536, Stop: 34928, Start Num: 51

Candidate Starts for Smurph_49:

(Start: 51 @34536 has 51 MA's), (123, 34857),

Gene: Snekmaggedon_48 Start: 34075, Stop: 34467, Start Num: 51

Candidate Starts for Snekmaggedon_48:

(16, 33952), (21, 33973), (28, 34000), (Start: 51 @34075 has 51 MA's), (123, 34396),

Gene: SophKB_83 Start: 51496, Stop: 51858, Start Num: 61

Candidate Starts for SophKB_83:

(48, 51469), (Start: 61 @51496 has 118 MA's), (102, 51709), (118, 51793), (121, 51805), (123, 51811), (131, 51847),

Gene: Sotrice96_87 Start: 52362, Stop: 52724, Start Num: 61

Candidate Starts for Sotrice96_87:

(42, 52329), (Start: 61 @52362 has 118 MA's), (102, 52575), (104, 52590), (118, 52659), (121, 52671), (123, 52677), (131, 52713),

Gene: SpeedDemon_740 Start: 54721, Stop: 54356, Start Num: 58

Candidate Starts for SpeedDemon_740:

(44, 54751), (Start: 58 @54721 has 9 MA's), (122, 54424), (138, 54376),

Gene: SpongeBob_48 Start: 34075, Stop: 34467, Start Num: 51

Candidate Starts for SpongeBob_48:

(16, 33952), (21, 33973), (28, 34000), (Start: 51 @34075 has 51 MA's), (123, 34396),

Gene: Stank_89 Start: 52757, Stop: 53119, Start Num: 61

Candidate Starts for Stank_89:

(48, 52730), (Start: 61 @52757 has 118 MA's), (102, 52970), (118, 53054), (121, 53066), (123, 53072), (131, 53108),

Gene: Stark_87 Start: 52298, Stop: 52660, Start Num: 61

Candidate Starts for Stark_87:

(48, 52271), (Start: 61 @52298 has 118 MA's), (102, 52511), (118, 52595), (121, 52607), (123, 52613), (131, 52649),

Gene: StellaBean_84 Start: 52022, Stop: 52384, Start Num: 59

Candidate Starts for StellaBean_84:

(Start: 47 @52001 has 3 MA's), (Start: 59 @52022 has 12 MA's), (102, 52235), (118, 52319), (121, 52331), (123, 52337), (131, 52373),

Gene: StolenFromERC_89 Start: 52402, Stop: 52764, Start Num: 61

Candidate Starts for StolenFromERC_89:

(42, 52369), (Start: 61 @52402 has 118 MA's), (102, 52615), (118, 52699), (121, 52711), (123, 52717), (131, 52753),

Gene: TBrady12_89 Start: 52238, Stop: 52600, Start Num: 61

Candidate Starts for TBrady12_89:

(48, 52211), (Start: 61 @52238 has 118 MA's), (102, 52451), (118, 52535), (121, 52547), (123, 52553), (131, 52589),

Gene: Tapioca_51 Start: 34502, Stop: 34894, Start Num: 51

Candidate Starts for Tapioca_51:

(Start: 51 @34502 has 51 MA's), (123, 34823),

Gene: Tarkin_85 Start: 52486, Stop: 52848, Start Num: 61

Candidate Starts for Tarkin_85:

(48, 52459), (Start: 61 @52486 has 118 MA's), (102, 52699), (118, 52783), (121, 52795), (123, 52801), (131, 52837),

Gene: Tarzan_57 Start: 37228, Stop: 37659, Start Num: 51
Candidate Starts for Tarzan_57:
(Start: 51 @37228 has 51 MA's), (123, 37543), (134, 37594), (145, 37651),

Gene: TeardropMSU_82 Start: 51486, Stop: 51848, Start Num: 61
Candidate Starts for TeardropMSU_82:
(48, 51459), (Start: 61 @51486 has 118 MA's), (102, 51699), (118, 51783), (121, 51795), (123, 51801), (131, 51837),

Gene: Teaspoon_87 Start: 52341, Stop: 52703, Start Num: 59
Candidate Starts for Teaspoon_87:
(Start: 47 @52320 has 3 MA's), (Start: 59 @52341 has 12 MA's), (102, 52554), (118, 52638), (121, 52650), (123, 52656), (131, 52692),

Gene: Terminus_89 Start: 53273, Stop: 53635, Start Num: 61
Candidate Starts for Terminus_89:
(48, 53246), (Start: 61 @53273 has 118 MA's), (102, 53486), (118, 53570), (121, 53582), (123, 53588), (131, 53624),

Gene: Thresher_88 Start: 53357, Stop: 53719, Start Num: 61
Candidate Starts for Thresher_88:
(48, 53330), (Start: 61 @53357 has 118 MA's), (102, 53570), (118, 53654), (121, 53666), (123, 53672), (131, 53708),

Gene: TinaLin_56 Start: 36975, Stop: 37346, Start Num: 62
Candidate Starts for TinaLin_56:
(Start: 61 @36972 has 118 MA's), (Start: 62 @36975 has 2 MA's), (63, 36984), (80, 37101), (113, 37230), (126, 37296),

Gene: TinyDot_60 Start: 38014, Stop: 38394, Start Num: 61
Candidate Starts for TinyDot_60:
(7, 37603), (11, 37699), (Start: 61 @38014 has 118 MA's), (63, 38026), (72, 38077), (78, 38119), (128, 38338), (129, 38341), (138, 38374),

Gene: Tomaszewski_81 Start: 51649, Stop: 52011, Start Num: 61
Candidate Starts for Tomaszewski_81:
(48, 51622), (Start: 61 @51649 has 118 MA's), (102, 51862), (118, 51946), (121, 51958), (123, 51964), (131, 52000),

Gene: Toto_84 Start: 52677, Stop: 53060, Start Num: 47
Candidate Starts for Toto_84:
(Start: 47 @52677 has 3 MA's), (Start: 59 @52698 has 12 MA's), (102, 52911), (118, 52995), (121, 53007), (123, 53013), (131, 53049),

Gene: Traaww1_82 Start: 51784, Stop: 52146, Start Num: 61
Candidate Starts for Traaww1_82:
(42, 51751), (Start: 61 @51784 has 118 MA's), (102, 51997), (104, 52012), (118, 52081), (121, 52093), (123, 52099), (131, 52135),

Gene: Trine_64 Start: 42629, Stop: 43021, Start Num: 61
Candidate Starts for Trine_64:
(8, 42272), (10, 42302), (12, 42380), (Start: 61 @42629 has 118 MA's), (91, 42797), (95, 42815), (109, 42872), (121, 42929), (122, 42932), (123, 42935), (129, 42962),

Gene: TripleJ_65 Start: 39433, Stop: 39810, Start Num: 51

Candidate Starts for TripleJ_65:

(Start: 51 @39433 has 51 MA's), (67, 39487), (75, 39511), (77, 39535), (89, 39598), (90, 39601), (113, 39697), (121, 39739), (128, 39769), (129, 39772), (135, 39802),

Gene: Tuco_87 Start: 53245, Stop: 53607, Start Num: 61

Candidate Starts for Tuco_87:

(48, 53218), (Start: 61 @53245 has 118 MA's), (102, 53458), (118, 53542), (121, 53554), (123, 53560), (131, 53596),

Gene: TyDawg_71 Start: 46671, Stop: 47099, Start Num: 49

Candidate Starts for TyDawg_71:

(Start: 49 @46671 has 7 MA's), (Start: 52 @46680 has 7 MA's), (74, 46758), (88, 46845), (97, 46875), (105, 46917), (118, 46977), (135, 47052),

Gene: Ukulele_81 Start: 51631, Stop: 51993, Start Num: 61

Candidate Starts for Ukulele_81:

(48, 51604), (Start: 61 @51631 has 118 MA's), (102, 51844), (118, 51928), (121, 51940), (123, 51946), (131, 51982),

Gene: Upyo_68 Start: 44581, Stop: 44982, Start Num: 60

Candidate Starts for Upyo_68:

(17, 44440), (Start: 60 @44581 has 7 MA's), (93, 44758), (101, 44794), (102, 44797), (121, 44881), (123, 44887), (129, 44914), (131, 44923), (140, 44959), (142, 44968),

Gene: Widow_60 Start: 41819, Stop: 42229, Start Num: 60

Candidate Starts for Widow_60:

(Start: 60 @41819 has 7 MA's), (87, 41972), (98, 42014), (99, 42023), (121, 42128), (123, 42134),

Gene: Wiggin_88 Start: 52185, Stop: 52547, Start Num: 61

Candidate Starts for Wiggin_88:

(42, 52152), (Start: 61 @52185 has 118 MA's), (102, 52398), (104, 52413), (118, 52482), (121, 52494), (123, 52500), (131, 52536),

Gene: Wildcat_85 Start: 52231, Stop: 52635, Start Num: 56

Candidate Starts for Wildcat_85:

(31, 52150), (Start: 56 @52231 has 5 MA's), (76, 52318), (80, 52366), (86, 52390), (91, 52411), (92, 52417), (94, 52426), (110, 52528), (113, 52540), (123, 52588), (124, 52594), (128, 52612),

Gene: Willez_81 Start: 50518, Stop: 50880, Start Num: 61

Candidate Starts for Willez_81:

(48, 50491), (Start: 61 @50518 has 118 MA's), (102, 50731), (118, 50815), (121, 50827), (123, 50833),

Gene: Xandras_85 Start: 51730, Stop: 52092, Start Num: 61

Candidate Starts for Xandras_85:

(48, 51703), (Start: 61 @51730 has 118 MA's), (102, 51943), (118, 52027), (121, 52039), (123, 52045), (131, 52081),

Gene: Xerxes_49 Start: 34533, Stop: 34925, Start Num: 51

Candidate Starts for Xerxes_49:

(Start: 51 @34533 has 51 MA's), (123, 34854),

Gene: YassJohnny_83 Start: 51649, Stop: 52011, Start Num: 59

Candidate Starts for YassJohnny_83:

(Start: 47 @51628 has 3 MA's), (Start: 59 @51649 has 12 MA's), (102, 51862), (118, 51946), (121, 51958), (123, 51964), (131, 52000),

Gene: Youngblood_89 Start: 53200, Stop: 53562, Start Num: 61

Candidate Starts for Youngblood_89:

(48, 53173), (Start: 61 @53200 has 118 MA's), (102, 53413), (118, 53497), (121, 53509), (123, 53515), (131, 53551),

Gene: xkcd_89 Start: 53387, Stop: 53749, Start Num: 61

Candidate Starts for xkcd_89:

(48, 53360), (Start: 61 @53387 has 118 MA's), (102, 53600), (118, 53684), (121, 53696), (123, 53702), (131, 53738),