

Pham 196231



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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 196231 Report

This analysis was run 12/09/24 on database version 580.

Pham number 196231 has 311 members, 24 are drafts.

Phages represented in each track:

- Track 1 : Exile_50, Soondubu_51
- Track 2 : AinMach_54
- Track 3 : Tutumahutu_56, Crewmate_61, JohnDoe_55, Kaylissa_56
- Track 4 : Adolin_58, DrManhattan_58
- Track 5 : JuneStar_58
- Track 6 : Warda_56
- Track 7 : Elezi_55, Jstan_57
- Track 8 : AEgle_52, Turab_53, Adumb2043_53
- Track 9 : Reedo_54
- Track 10 : Tbone_55, Mudpuppy_52
- Track 11 : ObiToo_61
- Track 12 : Cyan_55
- Track 13 : Community_58, Amyev_57, Tian_56
- Track 14 : AGrandiflora_57, Joemato_55, Simpson_57
- Track 15 : Yang_57
- Track 16 : DrSierra_54
- Track 17 : Eraser_56, Niobe_56, Asa16_56, London_56
- Track 18 : Ascela_58
- Track 19 : Janeemi_57
- Track 20 : Lizalica_54
- Track 21 : Tallboi_56
- Track 22 : Phives_59
- Track 23 : Cassia_55
- Track 24 : Lego_54
- Track 25 : TforTroy_57
- Track 26 : lter_58, Tuck_58
- Track 27 : Powerpuff_57, YesChef_55
- Track 28 : Pixelle_57
- Track 29 : IttyBittyPiggy_56
- Track 30 : VResidence_55
- Track 31 : Wildwest_53
- Track 32 : Pumpkins_54
- Track 33 : Berrie_56
- Track 34 : KeAlii_54
- Track 35 : Nitro_58
- Track 36 : Sue2_54
- Track 37 : MissSwiss_57

- Track 38 : MaGuCo_53
- Track 39 : Liebe_58, Maureen_58
- Track 40 : Snek_57, Tweety19_58
- Track 41 : VroomVroom_56
- Track 42 : ShakeltOph_62, MiniMommy_63, JasmineDragon_60
- Track 43 : Emotion_61
- Track 44 : Beuffert_94
- Track 45 : Francob_99, Kenrey_102
- Track 46 : Forrest_104, Gilson_101, Jada_101, Phredrick_100, Emma1919_102
- Track 47 : SparkleGoddess_99, Belfort_101, Karp_97, Moab_100, Stigma_98, Comrade_98, Patelgo_99
- Track 48 : Blueeyedbeauty_96, Annadreamy_94, Limpid_93
- Track 49 : NiceHouse_187
- Track 50 : Trina_197
- Track 51 : Francesca_175, Dorin_173
- Track 52 : Sidious_47
- Track 53 : Malibo_48
- Track 54 : Marshmallow_72, Barbarian_73, Traaww1_70, Misfit_75, Mindy_73, Dumbo_74, Flypotenuse_70, Hoonter_77, TBrady12_77, Manda_75, Daikon_76, Lilac_76, Filch_75, Easy2Say_75, ShereKhan_73, Rimmer_75, Contagion_70, OrionPax_73, Teaspoon_75, ShamWow_74, Miniwave_69, Phaux_76, Buck_75, Tomaszewski_69, Porky_73, Kostya_74, Amao_74, Highbury_73, SophKB_71, Ukulele_69, Cactus_77, NelitzaMV_72, NoSleep_75, Willez_69, Glexan_73, Czyszczonek_75, Nala_76, xkcd_77, Elph10_74, Adnama_78, Sassay_69, SirDuracell_73, AmericanBeauty_78, Myrale_74, TeardropMSU_70, RiverMonster_74, Pat3_72, BigBubba_74, Phrux_71, GoldenSpark_78, Lilizi_75, Thresher_76, IHOP_72, Asriel_73, Hopey_74, Cookies_71, GooberAzure_77, Youngblood_77, Goldilocks_77, MPhalcon_75, Harella_74, Icee_75, Terminus_77, ChotaBhai_74, Eureka_72, Murphy_74, Murica_77, Bench_77, Balomoji_74, Gator_72, Kanye_71, Command613_76, Saints25_73, Gemini_79, Stark_75, 244_75, CrystalP_73, PhatBacter_78, BugsBunny_74, FairyPath_74, Maxxinista_76, Mosby_70, Cjw1_74, DrDrey_74, JeTaime_74, Nimrod_75, Inca_71, ChosenOne_74, HufflyPuff_77, Pharsalus_71, Emmina_74, Gage_76, Goku_72, YassJohnny_71, Simpliphy_73, Kimchi_78, BadStone_71, Henry_72, BaboJay_71, Policronamos_78, ABCat_71, DoctorDiddles_73, Argent26_78, Elite2014_73, Phaja_72, Bask21_74, Petra64142_78, Bruin_71, FireRed_78, MISSy_75, Pumpkin_77, Xandras_73, Palpatine_76, HanKaySha_74, Sotrice96_75, Tuco_75, StolenFromERC_77, Rakim_75, Holt_79, Paperbeatsrock_73, Qualification_75, Moldemort_77, Toto_72, Lilpickle_73, Tarkin_73, Wiggin_76, MadamMonkfish_74, StellaBean_72, BilboSwaggins_73, Stank_77
- Track 55 : Dusk_71
- Track 56 : Percival_38, Gretchen_38
- Track 57 : Mabodamaca_35, SuMoo_35
- Track 58 : UtzChips_35, Barnstormer_35
- Track 59 : Cen1621_30
- Track 60 : Floof_38
- Track 61 : IAmGroot_38, GardenState_38
- Track 62 : Caron_38
- Track 63 : WaterT_74
- Track 64 : Lesiram_50
- Track 65 : DismalFunk_52, Findley_52, DismalStressor_52, Marcoliusprime_52, Milly_52, Strobilo_52, TM4_47, BoostSeason_52
- Track 66 : ZoeJ_51

- Track 67 : Mufasa_52
- Track 68 : Patt_52, Reptar3000_53, MissDaisy_53
- Track 69 : Y10_54, SamScheppers_53, Fionnbharth_55, Juliette_57, Cheetobro_55, JF1_55, Slarp_55, Wintermute_55, OmniCritical_54, Eponine_57, Ruthiejr_56, Malthus_56, Y2_54, Mitti_55, Chancellor_55, Kraw_56
- Track 70 : Taquito_55
- Track 71 : Aminay_54
- Track 72 : Fishburne_33, Polkaroo_33, Brusacoram_33, Atcoo_33, Techage_33, Bartholomew_32, Venti_33, KilKor_33, Phalm_33, Ksquared_33, Mangethe_33, Majeke_33, Willsammy_32, Vidya_33, Megiddo_33, Necropolis_33, Camster_33, Bunnies_33, Kari_33, FirstPlacePfu_33, Juniormint_33, Jung_32, Malithi_33, Sonah_33, Thespi_33, StressBall_33, CactusJack_33, Zilizebeth_33, Glaske_33, Phegasus_33
- Track 73 : Dynamo_33, Phineas_33
- Track 74 : Langerak_33, Arib1_33, Shipwreck_35, Pygmy_35, Bogie_35
- Track 75 : HUHilltop_33, Donovan_33
- Track 76 : GreaseLightnin_33, StevieRay_33
- Track 77 : Jebeks_34
- Track 78 : BigNuz_36, Nazo_37
- Track 79 : Phayonce_35
- Track 80 : Purky_40
- Track 81 : Gudmit_42

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

The start number called the most often in the published annotations is 40, it was called in 123 of the 287 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244_75, ABCat_71, Adnama_78, Amao_74, AmericanBeauty_78, Argent26_78, Asriel_73, BaboJay_71, BadStone_71, Balomoji_74, Barbarian_73, Bask21_74, Bench_77, BigBubba_74, BilboSwaggins_73, Bruin_71, Buck_75, BugsBunny_74, Cactus_77, ChosenOne_74, ChotaBhai_74, Cjw1_74, Command613_76, Contagion_70, Cookies_71, CrystalP_73, Czyszczonek_75, Daikon_76, DoctorDiddles_73, DrDrey_74, Dumbo_74, Dusk_71, Easy2Say_75, Elite2014_73, Elph10_74, Emmina_74, Eureka_72, FairyPath_74, Filch_75, FireRed_78, Flypotenuse_70, Gage_76, Gator_72, Gemini_79, Glexan_73, Goku_72, GoldenSpark_78, Goldilocks_77, GooberAzure_77, HanKaySha_74, Harella_74, Henry_72, Highbury_73, Holt_79, Hoonter_77, Hopey_74, HuffyPuff_77, IHOP_72, Icee_75, Inca_71, JeTaime_74, Kanye_71, Kimchi_78, Kostya_74, Lilac_76, Lilizi_75, Lilpickle_73, MISSy_75, MPhalcon_75, MadamMonkfish_74, Manda_75, Marshmallow_72, Maxxinista_76, Mindy_73, Miniwave_69, Misfit_75, Moldemort_77, Mosby_70, Murica_77, Murphy_74, Myrale_74, Nala_76, NelitzaMV_72, Nimrod_75, NoSleep_75, OrionPax_73, Palpatine_76, Paperbeatsrock_73, Pat3_72, Petra64142_78, Phaja_72, Pharsalus_71, PhatBacter_78, Phaux_76, Phrux_71, Policronamos_78, Porky_73, Pumpkin_77, Quallification_75, Rakim_75, Rimmer_75, RiverMonster_74, Saints25_73, Sassay_69, ShamWow_74, ShereKhan_73, Simpliphy_73, SirDuracell_73, SophKB_71, Sotrice96_75, Stank_77, Stark_75, StellaBean_72, StolenFromERC_77, TBrady12_77, Tarkin_73, TeardropMSU_70, Teaspoon_75, Terminus_77, Thresher_76, Tomaszewski_69, Toto_72, Traaww1_70,

Tuco_75, Ukulele_69, Wiggin_76, Willez_69, Xandras_73, YassJohnny_71, Youngblood_77, xkcd_77,

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

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

- AEgle_52, AGrandiflora_57, Adolin_58, Adumb2043_53, AinMach_54, Aminay_54, Amyev_57, Annadreamy_94, Arib1_33, Asa16_56, Ascela_58, Atcoo_33, Barnstormer_35, Bartholomew_32, Belfort_101, Berrie_56, Beuffert_94, BigNuz_36, Blueeyedbeauty_96, Bogie_35, BoostSeason_52, Brusacoram_33, Bunnies_33, CactusJack_33, Camster_33, Caron_38, Cassia_55, Cen1621_30, Chancellor_55, Cheetobro_55, Community_58, Comrade_98, Crewmate_61, Cyan_55, DismalFunk_52, DismalStressor_52, Donovan_33, Dorin_173, DrManhattan_58, DrSierra_54, Dynamo_33, Elezi_55, Emma1919_102, Emotion_61, Eponine_57, Eraser_56, Exile_50, Findley_52, Fionnbharth_55, FirstPlacePfu_33, Fishburne_33, Floof_38, Forrest_104, Francesca_175, Francob_99, GardenState_38, Gilson_101, Glaske_33, GreaseLightnin_33, Gretchen_38, Gudmit_42, HUHilltop_33, IAmGroot_38, Iter_58, IttyBittyPiggy_56, JF1_55, Jada_101, Janeemi_57, JasmineDragon_60, Jebeks_34, Joemato_55, JohnDoe_55, Jstan_57, Juliette_57, JuneStar_58, Jung_32, Juniormint_33, Kari_33, Karp_97, Kaylissa_56, KeAlii_54, Kenrey_102, KilKor_33, Kraw_56, Ksquared_33, Langerak_33, Lego_54, Lesiram_50, Liebe_58, Limpid_93, Lizalica_54, London_56, MaGuCo_53, Mabodamaca_35, Majeke_33, Malibo_48, Malithi_33, Malthus_56, Mangethe_33, Marcoliusprime_52, Maureen_58, Megiddo_33, Milly_52, MiniMommy_63, MissDaisy_53, MissSwiss_57, Mitti_55, Moab_100, Mudpuppy_52, Mufasa_52, Nazo_37, Necropolis_33, NiceHouse_187, Niobe_56, Nitro_58, ObiToo_61, OmniCritical_54, Patelgo_99, Patt_52, Percival_38, Phalm_33, Phayonce_35, Phegasus_33, Phineas_33, Phives_59, Phredrick_100, Pixelle_57, Polkaroo_33, Powerpuff_57, Pumpkins_54, Purky_40, Pygmy_35, Reedo_54, Reptar3000_53, Ruthiejr_56, SamScheppers_53, ShakeltOph_62, Shipwreck_35, Sidious_47, Simpson_57, Slarp_55, Snek_57, Sonah_33, Soondubu_51, SparkleGoddess_99, StevieRay_33, Stigma_98, StressBall_33, Strobilo_52, SuMoo_35, Sue2_54, TM4_47, Tallboi_56, Taquito_55, Tbone_55, Techage_33, TforTroy_57, Thespis_33, Tian_56, Trina_197, Tuck_58, Turab_53, Tutumahutu_56, Tweety19_58, UtzChips_35, VResidence_55, Venti_33, Vidya_33, VroomVroom_56, Warda_56, WaterT_74, Wildwest_53, Willsammy_32, Wintermute_55, Y10_54, Y2_54, Yang_57, YesChef_55, Zilizebeth_33, ZoeJ_51,

Summary by start number:

Start 20:

- Found in 4 of 311 (1.3%) of genes in pham
- Manual Annotations of this start: 3 of 287
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Liebe_58 (AZ2), MaGuCo_53 (AZ2), Maureen_58 (AZ2),

Start 21:

- Found in 1 of 311 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Wildwest_53 (AZ1),

Start 22:

- Found in 17 of 311 (5.5%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 5.9% of time when present
- Phage (with cluster) where this start called: Taquito_55 (K4),

Start 23:

- Found in 1 of 311 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: KeAlii_54 (AZ1),

Start 24:

- Found in 3 of 311 (1.0%) of genes in pham
- Manual Annotations of this start: 3 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Floop_38 (EH), Gretchen_38 (EH), Percival_38 (EH),

Start 25:

- Found in 71 of 311 (22.8%) of genes in pham
- Manual Annotations of this start: 66 of 287
- Called 98.6% of time when present
- Phage (with cluster) where this start called: Arib1_33 (P1), Atcoo_33 (P1), Barnstormer_35 (EH), Bartholomew_32 (P1), BigNuz_36 (P4), Bogie_35 (P1), Brusacoram_33 (P1), Bunnies_33 (P1), CactusJack_33 (P1), Camster_33 (P1), Caron_38 (EH), Chancellor_55 (K4), Cheetobro_55 (K4), Donovan_33 (P1), Dynamo_33 (P1), Eponine_57 (K4), Fionnbharth_55 (K4), FirstPlacePfu_33 (P1), Fishburne_33 (P1), GardenState_38 (EH), Glaske_33 (P1), GreaseLightnin_33 (P1), HUHilltop_33 (P1), IAmGroot_38 (EH), JF1_55 (K4), Jebeks_34 (P1), Juliette_57 (K4), Jung_32 (P1), Juniormint_33 (P1), Kari_33 (P1), KilKor_33 (P1), Kraw_56 (K4), Ksquared_33 (P1), Langerak_33 (P1), Majeke_33 (P1), Malithi_33 (P1), Malthus_56 (K4), Mangethe_33 (P1), Megiddo_33 (P1), MissDaisy_53 (K4), Mitti_55 (K4), Nazo_37 (P4), Necropolis_33 (P1), OmniCritical_54 (K4), Patt_52 (K4), Phalm_33 (P1), Phayonce_35 (P5), Phegasus_33 (P1), Phineas_33 (P1), Polkaroo_33 (P1), Purky_40 (P6), Pygmy_35 (P1), Reptar3000_53 (K4), Ruthiejr_56 (K4), SamScheppers_53 (K4), Shipwreck_35 (P1), Slarp_55 (K4), Sonah_33 (P1), StevieRay_33 (P1), StressBall_33 (P1), Techage_33 (P1), Thespis_33 (P1), UtzChips_35 (EH), Venti_33 (P1), Vidya_33 (P1), Willsammy_32 (P1), Wintermute_55 (K4), Y10_54 (K4), Y2_54 (K4), Zilizebeth_33 (P1),

Start 26:

- Found in 2 of 311 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mabodamaca_35 (EH), SuMoo_35 (EH),

Start 29:

- Found in 1 of 311 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Emotion_61 (AZ4),

Start 30:

- Found in 1 of 311 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sue2_54 (AZ1),

Start 31:

- Found in 1 of 311 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lesiram_50 (GF),

Start 32:

- Found in 2 of 311 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gudmit_42 (singleton), VroomVroom_56 (AZ4),

Start 33:

- Found in 10 of 311 (3.2%) of genes in pham
- Manual Annotations of this start: 10 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BoostSeason_52 (K2), DismalFunk_52 (K2), DismalStressor_52 (K2), Findley_52 (K2), Marcoliusprime_52 (K2), Milly_52 (K2), Mufasa_52 (K2), Strobilo_52 (K2), TM4_47 (K2), ZoeJ_51 (K2),

Start 34:

- Found in 25 of 311 (8.0%) of genes in pham
- Manual Annotations of this start: 20 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AEgle_52 (AZ1), AGrandiflora_57 (AZ1), Adumb2043_53 (AZ1), Ascela_58 (AZ1), Cassia_55 (AZ1), Crewmate_61 (AZ1), Cyan_55 (AZ1), IttyBittyPiggy_56 (AZ1), Joemato_55 (AZ1), JohnDoe_55 (AZ1), JuneStar_58 (AZ1), Kaylissa_56 (AZ1), Lego_54 (AZ1), Mudpuppy_52 (AZ1), ObiToo_61 (AZ1), Powerpuff_57 (AZ1), Pumpkins_54 (AZ1), Simpson_57 (AZ1), Tallboi_56 (AZ1), Tbone_55 (AZ1), TforTroy_57 (AZ1), Turab_53 (AZ1), Tutumahutu_56 (AZ1), Yang_57 (AZ1), YesChef_55 (AZ1),

Start 35:

- Found in 11 of 311 (3.5%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Cen1621_30 (EH),

Start 36:

- Found in 15 of 311 (4.8%) of genes in pham
- Manual Annotations of this start: 12 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amyev_57 (AZ1), Berrie_56 (AZ1), Community_58 (AZ1), DrSierra_54 (AZ1), Elezi_55 (AZ1), Iter_58 (AZ1), Janeemi_57

(AZ1), Jstan_57 (AZ1), Lizalica_54 (AZ1), Phives_59 (AZ1), Pixelle_57 (AZ1), Tian_56 (AZ1), Tuck_58 (AZ1), VResidence_55 (AZ1), Warda_56 (AZ1),

Start 37:

- Found in 5 of 311 (1.6%) of genes in pham
- Manual Annotations of this start: 5 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Asa16_56 (AZ1), Eraser_56 (AZ1), London_56 (AZ1), Niobe_56 (AZ1), Nitro_58 (AZ1),

Start 39:

- Found in 2 of 311 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Malibo_48 (DW), Sidious_47 (CZ7),

Start 40:

- Found in 131 of 311 (42.1%) of genes in pham
- Manual Annotations of this start: 123 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 244_75 (E), ABCat_71 (E), Adnama_78 (E), Amao_74 (E), AmericanBeauty_78 (E), Argent26_78 (E), Asriel_73 (E), BaboJay_71 (E), BadStone_71 (E), Balomoji_74 (E), Barbarian_73 (E), Bask21_74 (E), Bench_77 (E), BigBubba_74 (E), BilboSwaggins_73 (E), Bruin_71 (E), Buck_75 (E), BugsBunny_74 (E), Cactus_77 (E), ChosenOne_74 (E), ChotaBhai_74 (E), Cjw1_74 (E), Command613_76 (E), Contagion_70 (E), Cookies_71 (E), CrystalP_73 (E), Czyszczonek_75 (E), Daikon_76 (E), DoctorDiddles_73 (E), DrDrey_74 (E), Dumbo_74 (E), Dusk_71 (E), Easy2Say_75 (E), Elite2014_73 (E), Elph10_74 (E), Emmina_74 (E), Eureka_72 (E), FairyPath_74 (E), Filch_75 (E), FireRed_78 (E), Flypotenuse_70 (E), Gage_76 (E), Gator_72 (E), Gemini_79 (E), Glexan_73 (E), Goku_72 (E), GoldenSpark_78 (E), Goldilocks_77 (E), GooberAzure_77 (E), HanKaySha_74 (E), Harella_74 (E), Henry_72 (E), Highbury_73 (E), Holt_79 (E), Hoonter_77 (E), Hokey_74 (E), HufflyPuff_77 (E), IHOP_72 (E), Icee_75 (E), Inca_71 (E), JeTaime_74 (E), Kanye_71 (E), Kimchi_78 (E), Kostya_74 (E), Lilac_76 (E), Lilizi_75 (E), Lilpickle_73 (E), MISSy_75 (E), MPhalcon_75 (E), MadamMonkfish_74 (E), Manda_75 (E), Marshmallow_72 (E), Maxxinista_76 (E), Mindy_73 (E), Miniwave_69 (E), Misfit_75 (E), Moldemort_77 (E), Mosby_70 (E), Murica_77 (E), Murphy_74 (E), Myrale_74 (E), Nala_76 (E), NelitzaMV_72 (E), Nimrod_75 (E), NoSleep_75 (E), OrionPax_73 (E), Palpatine_76 (E), Paperbeatsrock_73 (E), Pat3_72 (E), Petra64142_78 (E), Phaja_72 (E), Pharsalus_71 (E), PhatBacter_78 (E), Phaux_76 (E), Phrux_71 (E), Policronamos_78 (E), Porky_73 (E), Pumpkin_77 (E), Quallification_75 (E), Rakim_75 (E), Rimmer_75 (E), RiverMonster_74 (E), Saints25_73 (E), Sassay_69 (E), ShamWow_74 (E), ShereKhan_73 (E), Simpliphy_73 (E), SirDuracell_73 (E), SophKB_71 (E), Sotrice96_75 (E), Stank_77 (E), Stark_75 (E), StellaBean_72 (E), StolenFromERC_77 (E), TBrady12_77 (E), Tarkin_73 (E), TeardropMSU_70 (E), Teaspoon_75 (E), Terminus_77 (E), Thresher_76 (E), Tomaszewski_69 (E), Toto_72 (E), Traaww1_70 (E), Tuco_75 (E), Ukulele_69 (E), Wiggin_76 (E), Willez_69 (E), Xandras_73 (E), YassJohnny_71 (E), Youngblood_77 (E), xkcd_77 (E),

Start 41:

- Found in 23 of 311 (7.4%) of genes in pham
- Manual Annotations of this start: 3 of 287

- Called 13.0% of time when present
- Phage (with cluster) where this start called: NiceHouse_187 (CE), Trina_197 (CE), WaterT_74 (GB),

Start 42:

- Found in 4 of 311 (1.3%) of genes in pham
- Manual Annotations of this start: 4 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Annadreamy_94 (BK1), Beuffert_94 (BK1), Blueeyedbeauty_96 (BK1), Limpid_93 (BK1),

Start 43:

- Found in 15 of 311 (4.8%) of genes in pham
- Manual Annotations of this start: 14 of 287
- Called 93.3% of time when present
- Phage (with cluster) where this start called: Belfort_101 (BK1), Comrade_98 (BK1), Emma1919_102 (BK1), Forrest_104 (BK1), Francob_99 (BK1), Gilson_101 (BK1), Jada_101 (BK1), Karp_97 (BK1), Kenrey_102 (BK1), Moab_100 (BK1), Patelgo_99 (BK1), Phredrick_100 (BK1), SparkleGoddess_99 (BK1), Stigma_98 (BK1),

Start 44:

- Found in 12 of 311 (3.9%) of genes in pham
- Manual Annotations of this start: 7 of 287
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Adolin_58 (AZ1), AinMach_54 (AZ), DrManhattan_58 (AZ1), JasmineDragon_60 (AZ4), MiniMommy_63 (AZ4), MissSwiss_57 (AZ1), Reedo_54 (AZ1), ShakeltOph_62 (AZ4), Sneek_57 (AZ3), Tweety19_58 (AZ3),

Start 45:

- Found in 1 of 311 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aminay_54 (K7),

Start 46:

- Found in 2 of 311 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dorin_173 (CG), Francesca_175 (CG),

Start 47:

- Found in 4 of 311 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Exile_50 (AZ), Soondubu_51 (AZ),

Summary by clusters:

There are 22 clusters represented in this pham: singleton, K4, CZ7, K2, K7, DW, P6, P1, E, EH, P4, P5, CG, CE, GF, BK1, AZ, AZ1, AZ2, AZ3, AZ4, GB,

Info for manual annotations of cluster AZ:

- Start number 47 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ1:

- Start number 21 was manually annotated 1 time for cluster AZ1.
- Start number 23 was manually annotated 1 time for cluster AZ1.
- Start number 30 was manually annotated 1 time for cluster AZ1.
- Start number 34 was manually annotated 20 times for cluster AZ1.
- Start number 36 was manually annotated 12 times for cluster AZ1.
- Start number 37 was manually annotated 5 times for cluster AZ1.
- Start number 44 was manually annotated 4 times for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 20 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster AZ3:

- Start number 44 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ4:

- Start number 29 was manually annotated 1 time for cluster AZ4.
- Start number 32 was manually annotated 1 time for cluster AZ4.
- Start number 44 was manually annotated 1 time for cluster AZ4.

Info for manual annotations of cluster BK1:

- Start number 42 was manually annotated 4 times for cluster BK1.
- Start number 43 was manually annotated 14 times for cluster BK1.

Info for manual annotations of cluster CE:

- Start number 41 was manually annotated 2 times for cluster CE.

Info for manual annotations of cluster CG:

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

Info for manual annotations of cluster CZ7:

- Start number 39 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster DW:

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

Info for manual annotations of cluster E:

- Start number 40 was manually annotated 123 times for cluster E.

Info for manual annotations of cluster EH:

- Start number 24 was manually annotated 3 times for cluster EH.
- Start number 25 was manually annotated 5 times for cluster EH.
- Start number 26 was manually annotated 2 times for cluster EH.
- Start number 35 was manually annotated 1 time for cluster EH.

Info for manual annotations of cluster GB:

- Start number 41 was manually annotated 1 time for cluster GB.

Info for manual annotations of cluster GF:

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

Info for manual annotations of cluster K2:

- Start number 33 was manually annotated 10 times for cluster K2.

Info for manual annotations of cluster K4:

- Start number 22 was manually annotated 1 time for cluster K4.
- Start number 25 was manually annotated 18 times for cluster K4.

Info for manual annotations of cluster K7:

- Start number 45 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster P1:

- Start number 25 was manually annotated 39 times for cluster P1.

Info for manual annotations of cluster P4:

- Start number 25 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 25 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster P6:

- Start number 25 was manually annotated 1 time for cluster P6.

Gene Information:

Gene: 244_75 Start: 47793, Stop: 47966, Start Num: 40

Candidate Starts for 244_75:

(Start: 40 @47793 has 123 MA's), (53, 47844),

Gene: ABCat_71 Start: 48146, Stop: 48319, Start Num: 40

Candidate Starts for ABCat_71:

(Start: 40 @48146 has 123 MA's), (53, 48197),

Gene: AEgle_52 Start: 37591, Stop: 37782, Start Num: 34

Candidate Starts for AEgle_52:

(7, 37285), (Start: 34 @37591 has 20 MA's),

Gene: AGrandiflora_57 Start: 38760, Stop: 38960, Start Num: 34

Candidate Starts for AGrandiflora_57:

(2, 38211), (Start: 34 @38760 has 20 MA's), (65, 38892),

Gene: Adnama_78 Start: 48172, Stop: 48345, Start Num: 40

Candidate Starts for Adnama_78:

(Start: 40 @48172 has 123 MA's), (53, 48223),

Gene: Adolin_58 Start: 37478, Stop: 37633, Start Num: 44

Candidate Starts for Adolin_58:

(Start: 44 @37478 has 7 MA's), (62, 37556),

Gene: Adumb2043_53 Start: 37614, Stop: 37805, Start Num: 34

Candidate Starts for Adumb2043_53:

(7, 37308), (Start: 34 @37614 has 20 MA's),

Gene: AinMach_54 Start: 37308, Stop: 37466, Start Num: 44
Candidate Starts for AinMach_54:
(Start: 44 @37308 has 7 MA's), (54, 37350), (56, 37356),

Gene: Amao_74 Start: 47566, Stop: 47739, Start Num: 40
Candidate Starts for Amao_74:
(Start: 40 @47566 has 123 MA's), (53, 47617),

Gene: AmericanBeauty_78 Start: 48315, Stop: 48488, Start Num: 40
Candidate Starts for AmericanBeauty_78:
(Start: 40 @48315 has 123 MA's), (53, 48366),

Gene: Aminay_54 Start: 38354, Stop: 38521, Start Num: 45
Candidate Starts for Aminay_54:
(Start: 45 @38354 has 1 MA's),

Gene: Amyev_57 Start: 40846, Stop: 41031, Start Num: 36
Candidate Starts for Amyev_57:
(Start: 36 @40846 has 12 MA's),

Gene: Annadreamy_94 Start: 66362, Stop: 66547, Start Num: 42
Candidate Starts for Annadreamy_94:
(Start: 42 @66362 has 4 MA's), (59, 66434),

Gene: Argent26_78 Start: 47953, Stop: 48126, Start Num: 40
Candidate Starts for Argent26_78:
(Start: 40 @47953 has 123 MA's), (53, 48004),

Gene: Arib1_33 Start: 27712, Stop: 27948, Start Num: 25
Candidate Starts for Arib1_33:
(Start: 25 @27712 has 66 MA's), (62, 27859), (64, 27871), (70, 27931),

Gene: Asa16_56 Start: 39543, Stop: 39728, Start Num: 37
Candidate Starts for Asa16_56:
(Start: 37 @39543 has 5 MA's),

Gene: Ascela_58 Start: 39002, Stop: 39196, Start Num: 34
Candidate Starts for Ascela_58:
(Start: 34 @39002 has 20 MA's),

Gene: Asriel_73 Start: 46509, Stop: 46682, Start Num: 40
Candidate Starts for Asriel_73:
(Start: 40 @46509 has 123 MA's), (53, 46560),

Gene: Atcoo_33 Start: 28193, Stop: 28429, Start Num: 25
Candidate Starts for Atcoo_33:
(Start: 25 @28193 has 66 MA's), (38, 28238), (53, 28298), (62, 28340), (64, 28352), (70, 28412),

Gene: BaboJay_71 Start: 47346, Stop: 47519, Start Num: 40
Candidate Starts for BaboJay_71:
(Start: 40 @47346 has 123 MA's), (53, 47397),

Gene: BadStone_71 Start: 47715, Stop: 47888, Start Num: 40
Candidate Starts for BadStone_71:
(Start: 40 @47715 has 123 MA's), (53, 47766),

Gene: Balomoji_74 Start: 48276, Stop: 48449, Start Num: 40
Candidate Starts for Balomoji_74:
(Start: 40 @48276 has 123 MA's), (53, 48327),

Gene: Barbarian_73 Start: 46509, Stop: 46682, Start Num: 40
Candidate Starts for Barbarian_73:
(Start: 40 @46509 has 123 MA's), (53, 46560),

Gene: Barnstormer_35 Start: 24679, Stop: 24924, Start Num: 25
Candidate Starts for Barnstormer_35:
(13, 24565), (Start: 25 @24679 has 66 MA's), (66, 24856),

Gene: Bartholomew_32 Start: 27706, Stop: 27942, Start Num: 25
Candidate Starts for Bartholomew_32:
(Start: 25 @27706 has 66 MA's), (38, 27751), (53, 27811), (62, 27853), (64, 27865), (70, 27925),

Gene: Bask21_74 Start: 47129, Stop: 47302, Start Num: 40
Candidate Starts for Bask21_74:
(Start: 40 @47129 has 123 MA's), (53, 47180),

Gene: Belfort_101 Start: 68605, Stop: 68790, Start Num: 43
Candidate Starts for Belfort_101:
(Start: 43 @68605 has 14 MA's), (59, 68677),

Gene: Bench_77 Start: 47813, Stop: 47992, Start Num: 40
Candidate Starts for Bench_77:
(Start: 40 @47813 has 123 MA's), (53, 47864),

Gene: Berrie_56 Start: 38817, Stop: 38999, Start Num: 36
Candidate Starts for Berrie_56:
(Start: 36 @38817 has 12 MA's),

Gene: Beuffert_94 Start: 66921, Stop: 67106, Start Num: 42
Candidate Starts for Beuffert_94:
(Start: 42 @66921 has 4 MA's),

Gene: BigBubba_74 Start: 47525, Stop: 47704, Start Num: 40
Candidate Starts for BigBubba_74:
(Start: 40 @47525 has 123 MA's), (53, 47576),

Gene: BigNuz_36 Start: 29834, Stop: 30067, Start Num: 25
Candidate Starts for BigNuz_36:
(Start: 25 @29834 has 66 MA's), (64, 29990),

Gene: BilboSwaggins_73 Start: 48154, Stop: 48327, Start Num: 40
Candidate Starts for BilboSwaggins_73:
(Start: 40 @48154 has 123 MA's), (53, 48205),

Gene: Blueeyedbeauty_96 Start: 66320, Stop: 66505, Start Num: 42

Candidate Starts for Blueeyedbeauty_96:
(Start: 42 @66320 has 4 MA's), (59, 66392),

Gene: Bogie_35 Start: 29489, Stop: 29725, Start Num: 25
Candidate Starts for Bogie_35:
(Start: 25 @29489 has 66 MA's), (62, 29636), (64, 29648), (70, 29708),

Gene: BoostSeason_52 Start: 38177, Stop: 38386, Start Num: 33
Candidate Starts for BoostSeason_52:
(Start: 33 @38177 has 10 MA's), (Start: 35 @38189 has 1 MA's), (50, 38240), (53, 38261), (56, 38273), (59, 38288), (62, 38303), (64, 38315),

Gene: Bruin_71 Start: 46689, Stop: 46868, Start Num: 40
Candidate Starts for Bruin_71:
(Start: 40 @46689 has 123 MA's), (53, 46740),

Gene: Brusacoram_33 Start: 27699, Stop: 27935, Start Num: 25
Candidate Starts for Brusacoram_33:
(Start: 25 @27699 has 66 MA's), (38, 27744), (53, 27804), (62, 27846), (64, 27858), (70, 27918),

Gene: Buck_75 Start: 48394, Stop: 48567, Start Num: 40
Candidate Starts for Buck_75:
(Start: 40 @48394 has 123 MA's), (53, 48445),

Gene: BugsBunny_74 Start: 48221, Stop: 48400, Start Num: 40
Candidate Starts for BugsBunny_74:
(Start: 40 @48221 has 123 MA's), (53, 48272),

Gene: Bunnies_33 Start: 27720, Stop: 27956, Start Num: 25
Candidate Starts for Bunnies_33:
(Start: 25 @27720 has 66 MA's), (38, 27765), (53, 27825), (62, 27867), (64, 27879), (70, 27939),

Gene: Cactus_77 Start: 47170, Stop: 47343, Start Num: 40
Candidate Starts for Cactus_77:
(Start: 40 @47170 has 123 MA's), (53, 47221),

Gene: CactusJack_33 Start: 27963, Stop: 28199, Start Num: 25
Candidate Starts for CactusJack_33:
(Start: 25 @27963 has 66 MA's), (38, 28008), (53, 28068), (62, 28110), (64, 28122), (70, 28182),

Gene: Camster_33 Start: 27736, Stop: 27972, Start Num: 25
Candidate Starts for Camster_33:
(Start: 25 @27736 has 66 MA's), (38, 27781), (53, 27841), (62, 27883), (64, 27895), (70, 27955),

Gene: Caron_38 Start: 25164, Stop: 25409, Start Num: 25
Candidate Starts for Caron_38:
(13, 25050), (Start: 25 @25164 has 66 MA's),

Gene: Cassia_55 Start: 38504, Stop: 38698, Start Num: 34
Candidate Starts for Cassia_55:
(Start: 34 @38504 has 20 MA's),

Gene: Cen1621_30 Start: 22502, Stop: 22687, Start Num: 35

Candidate Starts for Cen1621_30:

(Start: 35 @22502 has 1 MA's),

Gene: Chancellor_55 Start: 37968, Stop: 38207, Start Num: 25

Candidate Starts for Chancellor_55:

(Start: 22 @37965 has 1 MA's), (Start: 25 @37968 has 66 MA's), (27, 37980), (Start: 41 @38037 has 3 MA's), (53, 38082), (62, 38127),

Gene: Cheetobro_55 Start: 37965, Stop: 38204, Start Num: 25

Candidate Starts for Cheetobro_55:

(Start: 22 @37962 has 1 MA's), (Start: 25 @37965 has 66 MA's), (27, 37977), (Start: 41 @38034 has 3 MA's), (53, 38079), (62, 38124),

Gene: ChosenOne_74 Start: 47170, Stop: 47343, Start Num: 40

Candidate Starts for ChosenOne_74:

(Start: 40 @47170 has 123 MA's), (53, 47221),

Gene: ChotaBhai_74 Start: 47494, Stop: 47667, Start Num: 40

Candidate Starts for ChotaBhai_74:

(Start: 40 @47494 has 123 MA's), (53, 47545),

Gene: Cjw1_74 Start: 48867, Stop: 49040, Start Num: 40

Candidate Starts for Cjw1_74:

(Start: 40 @48867 has 123 MA's), (53, 48918),

Gene: Command613_76 Start: 48209, Stop: 48382, Start Num: 40

Candidate Starts for Command613_76:

(Start: 40 @48209 has 123 MA's), (53, 48260),

Gene: Community_58 Start: 40395, Stop: 40577, Start Num: 36

Candidate Starts for Community_58:

(Start: 36 @40395 has 12 MA's),

Gene: Comrade_98 Start: 67922, Stop: 68107, Start Num: 43

Candidate Starts for Comrade_98:

(Start: 43 @67922 has 14 MA's), (59, 67994),

Gene: Contagion_70 Start: 46970, Stop: 47149, Start Num: 40

Candidate Starts for Contagion_70:

(Start: 40 @46970 has 123 MA's), (53, 47021),

Gene: Cookies_71 Start: 47351, Stop: 47524, Start Num: 40

Candidate Starts for Cookies_71:

(Start: 40 @47351 has 123 MA's), (53, 47402),

Gene: Crewmate_61 Start: 40124, Stop: 40318, Start Num: 34

Candidate Starts for Crewmate_61:

(Start: 34 @40124 has 20 MA's), (65, 40250),

Gene: CrystalP_73 Start: 48154, Stop: 48327, Start Num: 40

Candidate Starts for CrystalP_73:

(Start: 40 @48154 has 123 MA's), (53, 48205),

Gene: Cyan_55 Start: 38301, Stop: 38501, Start Num: 34
Candidate Starts for Cyan_55:
(Start: 34 @38301 has 20 MA's), (65, 38433),

Gene: Czyszczone1_75 Start: 47676, Stop: 47855, Start Num: 40
Candidate Starts for Czyszczone1_75:
(Start: 40 @47676 has 123 MA's), (53, 47727),

Gene: Daikon_76 Start: 48297, Stop: 48470, Start Num: 40
Candidate Starts for Daikon_76:
(Start: 40 @48297 has 123 MA's), (53, 48348),

Gene: DismalFunk_52 Start: 38608, Stop: 38817, Start Num: 33
Candidate Starts for DismalFunk_52:
(Start: 33 @38608 has 10 MA's), (Start: 35 @38620 has 1 MA's), (50, 38671), (53, 38692), (56, 38704), (59, 38719), (62, 38734), (64, 38746),

Gene: DismalStressor_52 Start: 38608, Stop: 38817, Start Num: 33
Candidate Starts for DismalStressor_52:
(Start: 33 @38608 has 10 MA's), (Start: 35 @38620 has 1 MA's), (50, 38671), (53, 38692), (56, 38704), (59, 38719), (62, 38734), (64, 38746),

Gene: DoctorDiddles_73 Start: 47538, Stop: 47711, Start Num: 40
Candidate Starts for DoctorDiddles_73:
(Start: 40 @47538 has 123 MA's), (53, 47589),

Gene: Donovan_33 Start: 27728, Stop: 27964, Start Num: 25
Candidate Starts for Donovan_33:
(Start: 25 @27728 has 66 MA's), (38, 27773), (62, 27875), (64, 27887),

Gene: Dorin_173 Start: 95195, Stop: 95365, Start Num: 46
Candidate Starts for Dorin_173:
(Start: 46 @95195 has 2 MA's), (57, 95243), (59, 95258), (65, 95288),

Gene: DrDrey_74 Start: 48595, Stop: 48774, Start Num: 40
Candidate Starts for DrDrey_74:
(Start: 40 @48595 has 123 MA's), (53, 48646),

Gene: DrManhattan_58 Start: 37046, Stop: 37201, Start Num: 44
Candidate Starts for DrManhattan_58:
(Start: 44 @37046 has 7 MA's), (62, 37124),

Gene: DrSierra_54 Start: 37220, Stop: 37399, Start Num: 36
Candidate Starts for DrSierra_54:
(Start: 36 @37220 has 12 MA's),

Gene: Dumbo_74 Start: 47075, Stop: 47248, Start Num: 40
Candidate Starts for Dumbo_74:
(Start: 40 @47075 has 123 MA's), (53, 47126),

Gene: Dusk_71 Start: 47375, Stop: 47548, Start Num: 40
Candidate Starts for Dusk_71:
(Start: 40 @47375 has 123 MA's),

Gene: Dynamo_33 Start: 28117, Stop: 28350, Start Num: 25
Candidate Starts for Dynamo_33:
(Start: 25 @28117 has 66 MA's), (56, 28231), (70, 28333),

Gene: Easy2Say_75 Start: 48619, Stop: 48792, Start Num: 40
Candidate Starts for Easy2Say_75:
(Start: 40 @48619 has 123 MA's), (53, 48670),

Gene: Elezi_55 Start: 39303, Stop: 39485, Start Num: 36
Candidate Starts for Elezi_55:
(11, 39096), (Start: 36 @39303 has 12 MA's),

Gene: Elite2014_73 Start: 47169, Stop: 47342, Start Num: 40
Candidate Starts for Elite2014_73:
(Start: 40 @47169 has 123 MA's), (53, 47220),

Gene: Elph10_74 Start: 47174, Stop: 47353, Start Num: 40
Candidate Starts for Elph10_74:
(Start: 40 @47174 has 123 MA's), (53, 47225),

Gene: Emma1919_102 Start: 67382, Stop: 67567, Start Num: 43
Candidate Starts for Emma1919_102:
(Start: 43 @67382 has 14 MA's),

Gene: Emmina_74 Start: 47076, Stop: 47249, Start Num: 40
Candidate Starts for Emmina_74:
(Start: 40 @47076 has 123 MA's), (53, 47127),

Gene: Emotion_61 Start: 40785, Stop: 40988, Start Num: 29
Candidate Starts for Emotion_61:
(17, 40701), (Start: 29 @40785 has 1 MA's), (Start: 44 @40836 has 7 MA's),

Gene: Eponine_57 Start: 38805, Stop: 39044, Start Num: 25
Candidate Starts for Eponine_57:
(Start: 22 @38802 has 1 MA's), (Start: 25 @38805 has 66 MA's), (27, 38817), (Start: 41 @38874 has 3 MA's), (53, 38919), (62, 38964),

Gene: Eraser_56 Start: 39550, Stop: 39735, Start Num: 37
Candidate Starts for Eraser_56:
(Start: 37 @39550 has 5 MA's),

Gene: Eureka_72 Start: 47640, Stop: 47813, Start Num: 40
Candidate Starts for Eureka_72:
(Start: 40 @47640 has 123 MA's), (53, 47691),

Gene: Exile_50 Start: 40505, Stop: 40657, Start Num: 47
Candidate Starts for Exile_50:
(Start: 47 @40505 has 1 MA's), (57, 40547), (69, 40637),

Gene: FairyPath_74 Start: 48288, Stop: 48461, Start Num: 40
Candidate Starts for FairyPath_74:
(Start: 40 @48288 has 123 MA's), (53, 48339),

Gene: Filch_75 Start: 47101, Stop: 47280, Start Num: 40

Candidate Starts for Filch_75:

(Start: 40 @47101 has 123 MA's), (53, 47152),

Gene: Findley_52 Start: 38601, Stop: 38810, Start Num: 33

Candidate Starts for Findley_52:

(Start: 33 @38601 has 10 MA's), (Start: 35 @38613 has 1 MA's), (50, 38664), (53, 38685), (56, 38697), (59, 38712), (62, 38727), (64, 38739),

Gene: Fionnbharth_55 Start: 38203, Stop: 38442, Start Num: 25

Candidate Starts for Fionnbharth_55:

(Start: 22 @38200 has 1 MA's), (Start: 25 @38203 has 66 MA's), (27, 38215), (Start: 41 @38272 has 3 MA's), (53, 38317), (62, 38362),

Gene: FireRed_78 Start: 48663, Stop: 48836, Start Num: 40

Candidate Starts for FireRed_78:

(Start: 40 @48663 has 123 MA's), (53, 48714),

Gene: FirstPlacePfu_33 Start: 27738, Stop: 27974, Start Num: 25

Candidate Starts for FirstPlacePfu_33:

(Start: 25 @27738 has 66 MA's), (38, 27783), (53, 27843), (62, 27885), (64, 27897), (70, 27957),

Gene: Fishburne_33 Start: 27706, Stop: 27942, Start Num: 25

Candidate Starts for Fishburne_33:

(Start: 25 @27706 has 66 MA's), (38, 27751), (53, 27811), (62, 27853), (64, 27865), (70, 27925),

Gene: Floof_38 Start: 25665, Stop: 25910, Start Num: 24

Candidate Starts for Floof_38:

(15, 25593), (Start: 24 @25665 has 3 MA's), (57, 25791), (58, 25803), (71, 25899),

Gene: Flypotenuse_70 Start: 47160, Stop: 47333, Start Num: 40

Candidate Starts for Flypotenuse_70:

(Start: 40 @47160 has 123 MA's), (53, 47211),

Gene: Forrest_104 Start: 69125, Stop: 69310, Start Num: 43

Candidate Starts for Forrest_104:

(Start: 43 @69125 has 14 MA's),

Gene: Francesca_175 Start: 96114, Stop: 96284, Start Num: 46

Candidate Starts for Francesca_175:

(Start: 46 @96114 has 2 MA's), (57, 96162), (59, 96177), (65, 96207),

Gene: Francob_99 Start: 67565, Stop: 67750, Start Num: 43

Candidate Starts for Francob_99:

(Start: 43 @67565 has 14 MA's), (59, 67637),

Gene: Gage_76 Start: 47953, Stop: 48126, Start Num: 40

Candidate Starts for Gage_76:

(Start: 40 @47953 has 123 MA's), (53, 48004),

Gene: GardenState_38 Start: 25346, Stop: 25567, Start Num: 25

Candidate Starts for GardenState_38:

(Start: 25 @25346 has 66 MA's),

Gene: Gator_72 Start: 48006, Stop: 48185, Start Num: 40

Candidate Starts for Gator_72:

(Start: 40 @48006 has 123 MA's), (53, 48057),

Gene: Gemini_79 Start: 48470, Stop: 48643, Start Num: 40

Candidate Starts for Gemini_79:

(Start: 40 @48470 has 123 MA's), (53, 48521),

Gene: Gilson_101 Start: 67344, Stop: 67529, Start Num: 43

Candidate Starts for Gilson_101:

(Start: 43 @67344 has 14 MA's),

Gene: Glaske_33 Start: 27963, Stop: 28199, Start Num: 25

Candidate Starts for Glaske_33:

(Start: 25 @27963 has 66 MA's), (38, 28008), (53, 28068), (62, 28110), (64, 28122), (70, 28182),

Gene: Glexan_73 Start: 48290, Stop: 48463, Start Num: 40

Candidate Starts for Glexan_73:

(Start: 40 @48290 has 123 MA's), (53, 48341),

Gene: Goku_72 Start: 47369, Stop: 47542, Start Num: 40

Candidate Starts for Goku_72:

(Start: 40 @47369 has 123 MA's), (53, 47420),

Gene: GoldenSpark_78 Start: 47953, Stop: 48126, Start Num: 40

Candidate Starts for GoldenSpark_78:

(Start: 40 @47953 has 123 MA's), (53, 48004),

Gene: Goldilocks_77 Start: 47451, Stop: 47624, Start Num: 40

Candidate Starts for Goldilocks_77:

(Start: 40 @47451 has 123 MA's), (53, 47502),

Gene: GooberAzure_77 Start: 47953, Stop: 48126, Start Num: 40

Candidate Starts for GooberAzure_77:

(Start: 40 @47953 has 123 MA's), (53, 48004),

Gene: GreaseLightnin_33 Start: 27955, Stop: 28182, Start Num: 25

Candidate Starts for GreaseLightnin_33:

(Start: 25 @27955 has 66 MA's), (62, 28093),

Gene: Gretchen_38 Start: 26776, Stop: 27021, Start Num: 24

Candidate Starts for Gretchen_38:

(Start: 24 @26776 has 3 MA's),

Gene: Gudmit_42 Start: 28762, Stop: 28971, Start Num: 32

Candidate Starts for Gudmit_42:

(14, 28654), (16, 28663), (Start: 32 @28762 has 2 MA's), (64, 28894),

Gene: HUHilltop_33 Start: 27739, Stop: 27975, Start Num: 25

Candidate Starts for HUHilltop_33:

(Start: 25 @27739 has 66 MA's), (38, 27784), (62, 27886), (64, 27898),

Gene: HanKaySha_74 Start: 47254, Stop: 47433, Start Num: 40
Candidate Starts for HanKaySha_74:
(Start: 40 @47254 has 123 MA's), (53, 47305),

Gene: Harella_74 Start: 48806, Stop: 48979, Start Num: 40
Candidate Starts for Harella_74:
(Start: 40 @48806 has 123 MA's), (53, 48857),

Gene: Henry_72 Start: 47594, Stop: 47767, Start Num: 40
Candidate Starts for Henry_72:
(Start: 40 @47594 has 123 MA's), (53, 47645),

Gene: Highbury_73 Start: 47242, Stop: 47415, Start Num: 40
Candidate Starts for Highbury_73:
(Start: 40 @47242 has 123 MA's), (53, 47293),

Gene: Holt_79 Start: 48367, Stop: 48540, Start Num: 40
Candidate Starts for Holt_79:
(Start: 40 @48367 has 123 MA's), (53, 48418),

Gene: Hoonter_77 Start: 47953, Stop: 48126, Start Num: 40
Candidate Starts for Hoonter_77:
(Start: 40 @47953 has 123 MA's), (53, 48004),

Gene: Hopecy_74 Start: 47786, Stop: 47965, Start Num: 40
Candidate Starts for Hopecy_74:
(Start: 40 @47786 has 123 MA's), (53, 47837),

Gene: HufflyPuff_77 Start: 48619, Stop: 48792, Start Num: 40
Candidate Starts for HufflyPuff_77:
(Start: 40 @48619 has 123 MA's), (53, 48670),

Gene: IAmGroot_38 Start: 26011, Stop: 26232, Start Num: 25
Candidate Starts for IAmGroot_38:
(Start: 25 @26011 has 66 MA's),

Gene: IHOP_72 Start: 47718, Stop: 47891, Start Num: 40
Candidate Starts for IHOP_72:
(Start: 40 @47718 has 123 MA's), (53, 47769),

Gene: Icee_75 Start: 47617, Stop: 47790, Start Num: 40
Candidate Starts for Icee_75:
(Start: 40 @47617 has 123 MA's), (53, 47668),

Gene: Inca_71 Start: 46243, Stop: 46416, Start Num: 40
Candidate Starts for Inca_71:
(Start: 40 @46243 has 123 MA's), (53, 46294),

Gene: Iter_58 Start: 38994, Stop: 39182, Start Num: 36
Candidate Starts for Iter_58:
(Start: 36 @38994 has 12 MA's),

Gene: IttyBittyPiggy_56 Start: 38132, Stop: 38326, Start Num: 34
Candidate Starts for IttyBittyPiggy_56:
(Start: 34 @38132 has 20 MA's), (69, 38306),

Gene: JF1_55 Start: 38120, Stop: 38359, Start Num: 25
Candidate Starts for JF1_55:
(Start: 22 @38117 has 1 MA's), (Start: 25 @38120 has 66 MA's), (27, 38132), (Start: 41 @38189 has 3 MA's), (53, 38234), (62, 38279),

Gene: Jada_101 Start: 67857, Stop: 68042, Start Num: 43
Candidate Starts for Jada_101:
(Start: 43 @67857 has 14 MA's),

Gene: Janeemi_57 Start: 39872, Stop: 40054, Start Num: 36
Candidate Starts for Janeemi_57:
(Start: 36 @39872 has 12 MA's), (63, 39989),

Gene: JasmineDragon_60 Start: 40141, Stop: 40287, Start Num: 44
Candidate Starts for JasmineDragon_60:
(Start: 44 @40141 has 7 MA's), (62, 40219),

Gene: JeTaime_74 Start: 48435, Stop: 48608, Start Num: 40
Candidate Starts for JeTaime_74:
(Start: 40 @48435 has 123 MA's), (53, 48486),

Gene: Jebeks_34 Start: 27691, Stop: 27927, Start Num: 25
Candidate Starts for Jebeks_34:
(Start: 25 @27691 has 66 MA's), (38, 27736), (56, 27808), (62, 27838), (70, 27910),

Gene: Joemato_55 Start: 38382, Stop: 38582, Start Num: 34
Candidate Starts for Joemato_55:
(2, 37833), (Start: 34 @38382 has 20 MA's), (65, 38514),

Gene: JohnDoe_55 Start: 38368, Stop: 38562, Start Num: 34
Candidate Starts for JohnDoe_55:
(Start: 34 @38368 has 20 MA's), (65, 38494),

Gene: Jstan_57 Start: 39307, Stop: 39489, Start Num: 36
Candidate Starts for Jstan_57:
(11, 39100), (Start: 36 @39307 has 12 MA's),

Gene: Juliette_57 Start: 38273, Stop: 38512, Start Num: 25
Candidate Starts for Juliette_57:
(Start: 22 @38270 has 1 MA's), (Start: 25 @38273 has 66 MA's), (27, 38285), (Start: 41 @38342 has 3 MA's), (53, 38387), (62, 38432),

Gene: JuneStar_58 Start: 41416, Stop: 41610, Start Num: 34
Candidate Starts for JuneStar_58:
(12, 41221), (Start: 34 @41416 has 20 MA's),

Gene: Jung_32 Start: 27670, Stop: 27906, Start Num: 25
Candidate Starts for Jung_32:
(Start: 25 @27670 has 66 MA's), (38, 27715), (53, 27775), (62, 27817), (64, 27829), (70, 27889),

Gene: Juniormint_33 Start: 27742, Stop: 27978, Start Num: 25

Candidate Starts for Juniormint_33:

(Start: 25 @27742 has 66 MA's), (38, 27787), (53, 27847), (62, 27889), (64, 27901), (70, 27961),

Gene: Kanye_71 Start: 47299, Stop: 47472, Start Num: 40

Candidate Starts for Kanye_71:

(Start: 40 @47299 has 123 MA's), (53, 47350),

Gene: Kari_33 Start: 27703, Stop: 27939, Start Num: 25

Candidate Starts for Kari_33:

(Start: 25 @27703 has 66 MA's), (38, 27748), (53, 27808), (62, 27850), (64, 27862), (70, 27922),

Gene: Karp_97 Start: 67879, Stop: 68064, Start Num: 43

Candidate Starts for Karp_97:

(Start: 43 @67879 has 14 MA's), (59, 67951),

Gene: Kaylissa_56 Start: 38763, Stop: 38960, Start Num: 34

Candidate Starts for Kaylissa_56:

(Start: 34 @38763 has 20 MA's), (65, 38892),

Gene: KeAlii_54 Start: 38009, Stop: 38218, Start Num: 23

Candidate Starts for KeAlii_54:

(Start: 23 @38009 has 1 MA's),

Gene: Kenrey_102 Start: 67572, Stop: 67757, Start Num: 43

Candidate Starts for Kenrey_102:

(Start: 43 @67572 has 14 MA's), (59, 67644),

Gene: KilKor_33 Start: 27963, Stop: 28199, Start Num: 25

Candidate Starts for KilKor_33:

(Start: 25 @27963 has 66 MA's), (38, 28008), (53, 28068), (62, 28110), (64, 28122), (70, 28182),

Gene: Kimchi_78 Start: 47956, Stop: 48129, Start Num: 40

Candidate Starts for Kimchi_78:

(Start: 40 @47956 has 123 MA's), (53, 48007),

Gene: Kostya_74 Start: 47817, Stop: 47990, Start Num: 40

Candidate Starts for Kostya_74:

(Start: 40 @47817 has 123 MA's), (53, 47868),

Gene: Kraw_56 Start: 37961, Stop: 38200, Start Num: 25

Candidate Starts for Kraw_56:

(Start: 22 @37958 has 1 MA's), (Start: 25 @37961 has 66 MA's), (27, 37973), (Start: 41 @38030 has 3 MA's), (53, 38075), (62, 38120),

Gene: Ksquared_33 Start: 27720, Stop: 27956, Start Num: 25

Candidate Starts for Ksquared_33:

(Start: 25 @27720 has 66 MA's), (38, 27765), (53, 27825), (62, 27867), (64, 27879), (70, 27939),

Gene: Langerak_33 Start: 27722, Stop: 27958, Start Num: 25

Candidate Starts for Langerak_33:

(Start: 25 @27722 has 66 MA's), (62, 27869), (64, 27881), (70, 27941),

Gene: Lego_54 Start: 38079, Stop: 38279, Start Num: 34

Candidate Starts for Lego_54:

(1, 37506), (4, 37554), (8, 37797), (Start: 34 @38079 has 20 MA's), (65, 38211),

Gene: Lesiram_50 Start: 28642, Stop: 28860, Start Num: 31

Candidate Starts for Lesiram_50:

(Start: 31 @28642 has 1 MA's), (48, 28705), (61, 28774),

Gene: Liebe_58 Start: 41412, Stop: 41675, Start Num: 20

Candidate Starts for Liebe_58:

(Start: 20 @41412 has 3 MA's), (28, 41445), (49, 41514), (55, 41544), (57, 41550), (65, 41595), (69, 41643), (72, 41667),

Gene: Lilac_76 Start: 47571, Stop: 47750, Start Num: 40

Candidate Starts for Lilac_76:

(Start: 40 @47571 has 123 MA's), (53, 47622),

Gene: Lilizi_75 Start: 47284, Stop: 47463, Start Num: 40

Candidate Starts for Lilizi_75:

(Start: 40 @47284 has 123 MA's), (53, 47335),

Gene: Lilpickle_73 Start: 47169, Stop: 47342, Start Num: 40

Candidate Starts for Lilpickle_73:

(Start: 40 @47169 has 123 MA's), (53, 47220),

Gene: Limpid_93 Start: 66361, Stop: 66546, Start Num: 42

Candidate Starts for Limpid_93:

(Start: 42 @66361 has 4 MA's), (59, 66433),

Gene: Lizalica_54 Start: 37826, Stop: 38008, Start Num: 36

Candidate Starts for Lizalica_54:

(Start: 36 @37826 has 12 MA's),

Gene: London_56 Start: 39541, Stop: 39726, Start Num: 37

Candidate Starts for London_56:

(Start: 37 @39541 has 5 MA's),

Gene: MISSy_75 Start: 47675, Stop: 47854, Start Num: 40

Candidate Starts for MISSy_75:

(Start: 40 @47675 has 123 MA's), (53, 47726),

Gene: MPhalcon_75 Start: 47668, Stop: 47847, Start Num: 40

Candidate Starts for MPhalcon_75:

(Start: 40 @47668 has 123 MA's), (53, 47719),

Gene: MaGuCo_53 Start: 39882, Stop: 40133, Start Num: 20

Candidate Starts for MaGuCo_53:

(Start: 20 @39882 has 3 MA's), (28, 39915), (49, 39984), (53, 40005), (57, 40020), (63, 40059), (65, 40065), (69, 40113),

Gene: Mabodamaca_35 Start: 25059, Stop: 25295, Start Num: 26

Candidate Starts for Mabodamaca_35:

(Start: 26 @25059 has 2 MA's),

Gene: MadamMonkfish_74 Start: 46893, Stop: 47066, Start Num: 40

Candidate Starts for MadamMonkfish_74:

(Start: 40 @46893 has 123 MA's), (53, 46944),

Gene: Majeke_33 Start: 27744, Stop: 27980, Start Num: 25

Candidate Starts for Majeke_33:

(Start: 25 @27744 has 66 MA's), (38, 27789), (53, 27849), (62, 27891), (64, 27903), (70, 27963),

Gene: Malibo_48 Start: 36272, Stop: 36448, Start Num: 39

Candidate Starts for Malibo_48:

(18, 36155), (Start: 39 @36272 has 2 MA's),

Gene: Malithi_33 Start: 27629, Stop: 27865, Start Num: 25

Candidate Starts for Malithi_33:

(Start: 25 @27629 has 66 MA's), (38, 27674), (53, 27734), (62, 27776), (64, 27788), (70, 27848),

Gene: Malthus_56 Start: 37961, Stop: 38200, Start Num: 25

Candidate Starts for Malthus_56:

(Start: 22 @37958 has 1 MA's), (Start: 25 @37961 has 66 MA's), (27, 37973), (Start: 41 @38030 has 3 MA's), (53, 38075), (62, 38120),

Gene: Manda_75 Start: 48755, Stop: 48928, Start Num: 40

Candidate Starts for Manda_75:

(Start: 40 @48755 has 123 MA's), (53, 48806),

Gene: Mangethe_33 Start: 27744, Stop: 27980, Start Num: 25

Candidate Starts for Mangethe_33:

(Start: 25 @27744 has 66 MA's), (38, 27789), (53, 27849), (62, 27891), (64, 27903), (70, 27963),

Gene: Marcoliusprime_52 Start: 38608, Stop: 38817, Start Num: 33

Candidate Starts for Marcoliusprime_52:

(Start: 33 @38608 has 10 MA's), (Start: 35 @38620 has 1 MA's), (50, 38671), (53, 38692), (56, 38704), (59, 38719), (62, 38734), (64, 38746),

Gene: Marshmallow_72 Start: 48448, Stop: 48621, Start Num: 40

Candidate Starts for Marshmallow_72:

(Start: 40 @48448 has 123 MA's), (53, 48499),

Gene: Maureen_58 Start: 41411, Stop: 41674, Start Num: 20

Candidate Starts for Maureen_58:

(Start: 20 @41411 has 3 MA's), (28, 41444), (49, 41513), (55, 41543), (57, 41549), (65, 41594), (69, 41642), (72, 41666),

Gene: Maxxinista_76 Start: 47544, Stop: 47723, Start Num: 40

Candidate Starts for Maxxinista_76:

(Start: 40 @47544 has 123 MA's), (53, 47595),

Gene: Megiddo_33 Start: 27963, Stop: 28199, Start Num: 25

Candidate Starts for Megiddo_33:

(Start: 25 @27963 has 66 MA's), (38, 28008), (53, 28068), (62, 28110), (64, 28122), (70, 28182),

Gene: Milly_52 Start: 38581, Stop: 38790, Start Num: 33
Candidate Starts for Milly_52:
(Start: 33 @38581 has 10 MA's), (Start: 35 @38593 has 1 MA's), (50, 38644), (53, 38665), (56, 38677), (59, 38692), (62, 38707), (64, 38719),

Gene: Mindy_73 Start: 46760, Stop: 46933, Start Num: 40
Candidate Starts for Mindy_73:
(Start: 40 @46760 has 123 MA's), (53, 46811),

Gene: MiniMommy_63 Start: 40144, Stop: 40290, Start Num: 44
Candidate Starts for MiniMommy_63:
(Start: 44 @40144 has 7 MA's), (62, 40222),

Gene: Miniwave_69 Start: 47213, Stop: 47386, Start Num: 40
Candidate Starts for Miniwave_69:
(Start: 40 @47213 has 123 MA's), (53, 47264),

Gene: Misfit_75 Start: 48687, Stop: 48866, Start Num: 40
Candidate Starts for Misfit_75:
(Start: 40 @48687 has 123 MA's), (53, 48738),

Gene: MissDaisy_53 Start: 37493, Stop: 37732, Start Num: 25
Candidate Starts for MissDaisy_53:
(Start: 25 @37493 has 66 MA's), (Start: 41 @37562 has 3 MA's),

Gene: MissSwiss_57 Start: 37199, Stop: 37351, Start Num: 44
Candidate Starts for MissSwiss_57:
(Start: 44 @37199 has 7 MA's),

Gene: Mitti_55 Start: 38140, Stop: 38379, Start Num: 25
Candidate Starts for Mitti_55:
(Start: 22 @38137 has 1 MA's), (Start: 25 @38140 has 66 MA's), (27, 38152), (Start: 41 @38209 has 3 MA's), (53, 38254), (62, 38299),

Gene: Moab_100 Start: 69731, Stop: 69916, Start Num: 43
Candidate Starts for Moab_100:
(Start: 43 @69731 has 14 MA's), (59, 69803),

Gene: Moldemort_77 Start: 47772, Stop: 47945, Start Num: 40
Candidate Starts for Moldemort_77:
(Start: 40 @47772 has 123 MA's), (53, 47823),

Gene: Mosby_70 Start: 46970, Stop: 47149, Start Num: 40
Candidate Starts for Mosby_70:
(Start: 40 @46970 has 123 MA's), (53, 47021),

Gene: Mudpuppy_52 Start: 38242, Stop: 38436, Start Num: 34
Candidate Starts for Mudpuppy_52:
(Start: 34 @38242 has 20 MA's), (65, 38368),

Gene: Mufasa_52 Start: 38162, Stop: 38371, Start Num: 33
Candidate Starts for Mufasa_52:

(Start: 33 @38162 has 10 MA's), (Start: 35 @38174 has 1 MA's), (50, 38225), (53, 38246), (56, 38258), (59, 38273), (62, 38288), (64, 38300),

Gene: Murica_77 Start: 48619, Stop: 48792, Start Num: 40
Candidate Starts for Murica_77:
(Start: 40 @48619 has 123 MA's), (53, 48670),

Gene: Murphy_74 Start: 48056, Stop: 48235, Start Num: 40
Candidate Starts for Murphy_74:
(Start: 40 @48056 has 123 MA's), (53, 48107),

Gene: Myrale_74 Start: 48313, Stop: 48486, Start Num: 40
Candidate Starts for Myrale_74:
(Start: 40 @48313 has 123 MA's), (53, 48364),

Gene: Nala_76 Start: 48177, Stop: 48350, Start Num: 40
Candidate Starts for Nala_76:
(Start: 40 @48177 has 123 MA's), (53, 48228),

Gene: Nazo_37 Start: 29836, Stop: 30069, Start Num: 25
Candidate Starts for Nazo_37:
(Start: 25 @29836 has 66 MA's), (64, 29992),

Gene: Necropolis_33 Start: 27703, Stop: 27939, Start Num: 25
Candidate Starts for Necropolis_33:
(Start: 25 @27703 has 66 MA's), (38, 27748), (53, 27808), (62, 27850), (64, 27862), (70, 27922),

Gene: NelitzaMV_72 Start: 47259, Stop: 47432, Start Num: 40
Candidate Starts for NelitzaMV_72:
(Start: 40 @47259 has 123 MA's), (53, 47310),

Gene: NiceHouse_187 Start: 105087, Stop: 105269, Start Num: 41
Candidate Starts for NiceHouse_187:
(Start: 41 @105087 has 3 MA's), (Start: 47 @105102 has 1 MA's), (54, 105138), (57, 105147), (59, 105162),

Gene: Nimrod_75 Start: 48880, Stop: 49053, Start Num: 40
Candidate Starts for Nimrod_75:
(Start: 40 @48880 has 123 MA's), (53, 48931),

Gene: Niobe_56 Start: 39544, Stop: 39729, Start Num: 37
Candidate Starts for Niobe_56:
(Start: 37 @39544 has 5 MA's),

Gene: Nitro_58 Start: 40465, Stop: 40653, Start Num: 37
Candidate Starts for Nitro_58:
(Start: 37 @40465 has 5 MA's),

Gene: NoSleep_75 Start: 47514, Stop: 47687, Start Num: 40
Candidate Starts for NoSleep_75:
(Start: 40 @47514 has 123 MA's), (53, 47565),

Gene: ObiToo_61 Start: 39721, Stop: 39915, Start Num: 34

Candidate Starts for ObiToo_61:
(Start: 34 @39721 has 20 MA's), (65, 39847), (68, 39874),

Gene: OmniCritical_54 Start: 37949, Stop: 38188, Start Num: 25
Candidate Starts for OmniCritical_54:
(Start: 22 @37946 has 1 MA's), (Start: 25 @37949 has 66 MA's), (27, 37961), (Start: 41 @38018 has 3 MA's), (53, 38063), (62, 38108),

Gene: OrionPax_73 Start: 47265, Stop: 47438, Start Num: 40
Candidate Starts for OrionPax_73:
(Start: 40 @47265 has 123 MA's), (53, 47316),

Gene: Palpatine_76 Start: 48646, Stop: 48825, Start Num: 40
Candidate Starts for Palpatine_76:
(Start: 40 @48646 has 123 MA's), (53, 48697),

Gene: Paperbeatsrock_73 Start: 47891, Stop: 48064, Start Num: 40
Candidate Starts for Paperbeatsrock_73:
(Start: 40 @47891 has 123 MA's), (53, 47942),

Gene: Pat3_72 Start: 46423, Stop: 46596, Start Num: 40
Candidate Starts for Pat3_72:
(Start: 40 @46423 has 123 MA's), (53, 46474),

Gene: Patelgo_99 Start: 68817, Stop: 69002, Start Num: 43
Candidate Starts for Patelgo_99:
(Start: 43 @68817 has 14 MA's), (59, 68889),

Gene: Patt_52 Start: 37217, Stop: 37456, Start Num: 25
Candidate Starts for Patt_52:
(Start: 25 @37217 has 66 MA's), (Start: 41 @37286 has 3 MA's),

Gene: Percival_38 Start: 26610, Stop: 26855, Start Num: 24
Candidate Starts for Percival_38:
(Start: 24 @26610 has 3 MA's),

Gene: Petra64142_78 Start: 49110, Stop: 49283, Start Num: 40
Candidate Starts for Petra64142_78:
(Start: 40 @49110 has 123 MA's), (53, 49161),

Gene: Phaja_72 Start: 47717, Stop: 47890, Start Num: 40
Candidate Starts for Phaja_72:
(Start: 40 @47717 has 123 MA's), (53, 47768),

Gene: Phalm_33 Start: 27963, Stop: 28199, Start Num: 25
Candidate Starts for Phalm_33:
(Start: 25 @27963 has 66 MA's), (38, 28008), (53, 28068), (62, 28110), (64, 28122), (70, 28182),

Gene: Pharsalus_71 Start: 47691, Stop: 47864, Start Num: 40
Candidate Starts for Pharsalus_71:
(Start: 40 @47691 has 123 MA's), (53, 47742),

Gene: PhatBacter_78 Start: 48663, Stop: 48842, Start Num: 40

Candidate Starts for PhatBacter_78:
(Start: 40 @48663 has 123 MA's), (53, 48714),

Gene: Phaux_76 Start: 48658, Stop: 48837, Start Num: 40
Candidate Starts for Phaux_76:
(Start: 40 @48658 has 123 MA's), (53, 48709),

Gene: Phayonce_35 Start: 29732, Stop: 29965, Start Num: 25
Candidate Starts for Phayonce_35:
(Start: 25 @29732 has 66 MA's), (64, 29888), (68, 29918),

Gene: Phegasus_33 Start: 27711, Stop: 27947, Start Num: 25
Candidate Starts for Phegasus_33:
(Start: 25 @27711 has 66 MA's), (38, 27756), (53, 27816), (62, 27858), (64, 27870), (70, 27930),

Gene: Phineas_33 Start: 28077, Stop: 28310, Start Num: 25
Candidate Starts for Phineas_33:
(Start: 25 @28077 has 66 MA's), (56, 28191), (70, 28293),

Gene: Phives_59 Start: 40511, Stop: 40693, Start Num: 36
Candidate Starts for Phives_59:
(5, 40142), (Start: 36 @40511 has 12 MA's),

Gene: Phredrick_100 Start: 66672, Stop: 66857, Start Num: 43
Candidate Starts for Phredrick_100:
(Start: 43 @66672 has 14 MA's),

Gene: Phrux_71 Start: 47254, Stop: 47433, Start Num: 40
Candidate Starts for Phrux_71:
(Start: 40 @47254 has 123 MA's), (53, 47305),

Gene: Pixelle_57 Start: 40947, Stop: 41132, Start Num: 36
Candidate Starts for Pixelle_57:
(6, 40599), (Start: 36 @40947 has 12 MA's),

Gene: Policronamos_78 Start: 48658, Stop: 48837, Start Num: 40
Candidate Starts for Policronamos_78:
(Start: 40 @48658 has 123 MA's), (53, 48709),

Gene: Polkaroo_33 Start: 27720, Stop: 27956, Start Num: 25
Candidate Starts for Polkaroo_33:
(Start: 25 @27720 has 66 MA's), (38, 27765), (53, 27825), (62, 27867), (64, 27879), (70, 27939),

Gene: Porky_73 Start: 47084, Stop: 47257, Start Num: 40
Candidate Starts for Porky_73:
(Start: 40 @47084 has 123 MA's), (53, 47135),

Gene: Powerpuff_57 Start: 39483, Stop: 39683, Start Num: 34
Candidate Starts for Powerpuff_57:
(Start: 34 @39483 has 20 MA's), (65, 39615),

Gene: Pumpkin_77 Start: 48312, Stop: 48491, Start Num: 40
Candidate Starts for Pumpkin_77:

(Start: 40 @48312 has 123 MA's), (53, 48363),

Gene: Pumpkins_54 Start: 39127, Stop: 39321, Start Num: 34

Candidate Starts for Pumpkins_54:

(Start: 34 @39127 has 20 MA's),

Gene: Purky_40 Start: 30459, Stop: 30692, Start Num: 25

Candidate Starts for Purky_40:

(Start: 25 @30459 has 66 MA's),

Gene: Pygmy_35 Start: 29545, Stop: 29781, Start Num: 25

Candidate Starts for Pygmy_35:

(Start: 25 @29545 has 66 MA's), (62, 29692), (64, 29704), (70, 29764),

Gene: Quallification_75 Start: 48299, Stop: 48472, Start Num: 40

Candidate Starts for Quallification_75:

(Start: 40 @48299 has 123 MA's), (53, 48350),

Gene: Rakim_75 Start: 47768, Stop: 47947, Start Num: 40

Candidate Starts for Rakim_75:

(Start: 40 @47768 has 123 MA's), (53, 47819),

Gene: Reedo_54 Start: 36267, Stop: 36416, Start Num: 44

Candidate Starts for Reedo_54:

(Start: 44 @36267 has 7 MA's), (62, 36342),

Gene: Reptar3000_53 Start: 37205, Stop: 37444, Start Num: 25

Candidate Starts for Reptar3000_53:

(Start: 25 @37205 has 66 MA's), (Start: 41 @37274 has 3 MA's),

Gene: Rimmer_75 Start: 48004, Stop: 48177, Start Num: 40

Candidate Starts for Rimmer_75:

(Start: 40 @48004 has 123 MA's), (53, 48055),

Gene: RiverMonster_74 Start: 47832, Stop: 48011, Start Num: 40

Candidate Starts for RiverMonster_74:

(Start: 40 @47832 has 123 MA's), (53, 47883),

Gene: Ruthiejr_56 Start: 38011, Stop: 38250, Start Num: 25

Candidate Starts for Ruthiejr_56:

(Start: 22 @38008 has 1 MA's), (Start: 25 @38011 has 66 MA's), (27, 38023), (Start: 41 @38080 has 3 MA's), (53, 38125), (62, 38170),

Gene: Saints25_73 Start: 47242, Stop: 47415, Start Num: 40

Candidate Starts for Saints25_73:

(Start: 40 @47242 has 123 MA's), (53, 47293),

Gene: SamScheppers_53 Start: 38440, Stop: 38679, Start Num: 25

Candidate Starts for SamScheppers_53:

(Start: 22 @38437 has 1 MA's), (Start: 25 @38440 has 66 MA's), (27, 38452), (Start: 41 @38509 has 3 MA's), (53, 38554), (62, 38599),

Gene: Sassay_69 Start: 45932, Stop: 46111, Start Num: 40

Candidate Starts for Sassay_69:
(Start: 40 @45932 has 123 MA's), (53, 45983),

Gene: ShakeltOph_62 Start: 40141, Stop: 40287, Start Num: 44
Candidate Starts for ShakeltOph_62:
(Start: 44 @40141 has 7 MA's), (62, 40219),

Gene: ShamWow_74 Start: 48154, Stop: 48327, Start Num: 40
Candidate Starts for ShamWow_74:
(Start: 40 @48154 has 123 MA's), (53, 48205),

Gene: ShereKhan_73 Start: 48223, Stop: 48396, Start Num: 40
Candidate Starts for ShereKhan_73:
(Start: 40 @48223 has 123 MA's), (53, 48274),

Gene: Shipwreck_35 Start: 29520, Stop: 29756, Start Num: 25
Candidate Starts for Shipwreck_35:
(Start: 25 @29520 has 66 MA's), (62, 29667), (64, 29679), (70, 29739),

Gene: Sidious_47 Start: 36440, Stop: 36616, Start Num: 39
Candidate Starts for Sidious_47:
(Start: 39 @36440 has 2 MA's), (60, 36527),

Gene: Simpliphy_73 Start: 47232, Stop: 47405, Start Num: 40
Candidate Starts for Simpliphy_73:
(Start: 40 @47232 has 123 MA's), (53, 47283),

Gene: Simpson_57 Start: 38386, Stop: 38586, Start Num: 34
Candidate Starts for Simpson_57:
(2, 37837), (Start: 34 @38386 has 20 MA's), (65, 38518),

Gene: SirDuracell_73 Start: 46518, Stop: 46691, Start Num: 40
Candidate Starts for SirDuracell_73:
(Start: 40 @46518 has 123 MA's), (53, 46569),

Gene: Slarp_55 Start: 37968, Stop: 38207, Start Num: 25
Candidate Starts for Slarp_55:
(Start: 22 @37965 has 1 MA's), (Start: 25 @37968 has 66 MA's), (27, 37980), (Start: 41 @38037 has 3 MA's), (53, 38082), (62, 38127),

Gene: Snek_57 Start: 37403, Stop: 37558, Start Num: 44
Candidate Starts for Snek_57:
(Start: 44 @37403 has 7 MA's), (69, 37541),

Gene: Sonah_33 Start: 27692, Stop: 27928, Start Num: 25
Candidate Starts for Sonah_33:
(Start: 25 @27692 has 66 MA's), (38, 27737), (53, 27797), (62, 27839), (64, 27851), (70, 27911),

Gene: Soondubu_51 Start: 41018, Stop: 41170, Start Num: 47
Candidate Starts for Soondubu_51:
(Start: 47 @41018 has 1 MA's), (57, 41060), (69, 41150),

Gene: SophKB_71 Start: 46910, Stop: 47083, Start Num: 40

Candidate Starts for SophKB_71:
(Start: 40 @46910 has 123 MA's), (53, 46961),

Gene: Sotrice96_75 Start: 47913, Stop: 48086, Start Num: 40
Candidate Starts for Sotrice96_75:
(Start: 40 @47913 has 123 MA's), (53, 47964),

Gene: SparkleGoddess_99 Start: 68222, Stop: 68407, Start Num: 43
Candidate Starts for SparkleGoddess_99:
(Start: 43 @68222 has 14 MA's), (59, 68294),

Gene: Stank_77 Start: 48171, Stop: 48344, Start Num: 40
Candidate Starts for Stank_77:
(Start: 40 @48171 has 123 MA's), (53, 48222),

Gene: Stark_75 Start: 47715, Stop: 47894, Start Num: 40
Candidate Starts for Stark_75:
(Start: 40 @47715 has 123 MA's), (53, 47766),

Gene: StellaBean_72 Start: 47478, Stop: 47651, Start Num: 40
Candidate Starts for StellaBean_72:
(Start: 40 @47478 has 123 MA's), (53, 47529),

Gene: StevieRay_33 Start: 27671, Stop: 27898, Start Num: 25
Candidate Starts for StevieRay_33:
(Start: 25 @27671 has 66 MA's), (62, 27809),

Gene: Stigma_98 Start: 68230, Stop: 68415, Start Num: 43
Candidate Starts for Stigma_98:
(Start: 43 @68230 has 14 MA's), (59, 68302),

Gene: StolenFromERC_77 Start: 47953, Stop: 48126, Start Num: 40
Candidate Starts for StolenFromERC_77:
(Start: 40 @47953 has 123 MA's), (53, 48004),

Gene: StressBall_33 Start: 27963, Stop: 28199, Start Num: 25
Candidate Starts for StressBall_33:
(Start: 25 @27963 has 66 MA's), (38, 28008), (53, 28068), (62, 28110), (64, 28122), (70, 28182),

Gene: Strobilo_52 Start: 38583, Stop: 38792, Start Num: 33
Candidate Starts for Strobilo_52:
(Start: 33 @38583 has 10 MA's), (Start: 35 @38595 has 1 MA's), (50, 38646), (53, 38667), (56, 38679), (59, 38694), (62, 38709), (64, 38721),

Gene: SuMoo_35 Start: 24005, Stop: 24241, Start Num: 26
Candidate Starts for SuMoo_35:
(Start: 26 @24005 has 2 MA's),

Gene: Sue2_54 Start: 38086, Stop: 38286, Start Num: 30
Candidate Starts for Sue2_54:
(10, 37828), (Start: 30 @38086 has 1 MA's), (Start: 43 @38131 has 14 MA's), (Start: 47 @38143 has 1 MA's),

Gene: TBrady12_77 Start: 47652, Stop: 47825, Start Num: 40
Candidate Starts for TBrady12_77:
(Start: 40 @47652 has 123 MA's), (53, 47703),

Gene: TM4_47 Start: 32969, Stop: 33172, Start Num: 33
Candidate Starts for TM4_47:
(Start: 33 @32969 has 10 MA's), (Start: 35 @32981 has 1 MA's), (50, 33026), (53, 33047), (56, 33059), (59, 33074), (62, 33089), (64, 33101),

Gene: Tallboi_56 Start: 39686, Stop: 39874, Start Num: 34
Candidate Starts for Tallboi_56:
(Start: 34 @39686 has 20 MA's),

Gene: Taquito_55 Start: 38293, Stop: 38535, Start Num: 22
Candidate Starts for Taquito_55:
(Start: 22 @38293 has 1 MA's), (Start: 25 @38296 has 66 MA's), (27, 38308), (Start: 41 @38365 has 3 MA's), (53, 38410), (62, 38455),

Gene: Tarkin_73 Start: 47900, Stop: 48073, Start Num: 40
Candidate Starts for Tarkin_73:
(Start: 40 @47900 has 123 MA's), (53, 47951),

Gene: Tbone_55 Start: 38934, Stop: 39128, Start Num: 34
Candidate Starts for Tbone_55:
(Start: 34 @38934 has 20 MA's), (65, 39060),

Gene: TeardropMSU_70 Start: 46900, Stop: 47073, Start Num: 40
Candidate Starts for TeardropMSU_70:
(Start: 40 @46900 has 123 MA's), (53, 46951),

Gene: Teaspoon_75 Start: 47794, Stop: 47967, Start Num: 40
Candidate Starts for Teaspoon_75:
(Start: 40 @47794 has 123 MA's), (53, 47845),

Gene: Techage_33 Start: 27729, Stop: 27965, Start Num: 25
Candidate Starts for Techage_33:
(Start: 25 @27729 has 66 MA's), (38, 27774), (53, 27834), (62, 27876), (64, 27888), (70, 27948),

Gene: Terminus_77 Start: 48687, Stop: 48866, Start Num: 40
Candidate Starts for Terminus_77:
(Start: 40 @48687 has 123 MA's), (53, 48738),

Gene: TforTroy_57 Start: 39052, Stop: 39246, Start Num: 34
Candidate Starts for TforTroy_57:
(12, 38854), (Start: 34 @39052 has 20 MA's), (65, 39178),

Gene: Thespis_33 Start: 27699, Stop: 27935, Start Num: 25
Candidate Starts for Thespis_33:
(Start: 25 @27699 has 66 MA's), (38, 27744), (53, 27804), (62, 27846), (64, 27858), (70, 27918),

Gene: Thresher_76 Start: 48774, Stop: 48953, Start Num: 40
Candidate Starts for Thresher_76:
(Start: 40 @48774 has 123 MA's), (53, 48825),

Gene: Tian_56 Start: 40845, Stop: 41030, Start Num: 36
Candidate Starts for Tian_56:
(Start: 36 @40845 has 12 MA's),

Gene: Tomaszewski_69 Start: 47063, Stop: 47236, Start Num: 40
Candidate Starts for Tomaszewski_69:
(Start: 40 @47063 has 123 MA's), (53, 47114),

Gene: Toto_72 Start: 48154, Stop: 48327, Start Num: 40
Candidate Starts for Toto_72:
(Start: 40 @48154 has 123 MA's), (53, 48205),

Gene: Traaww1_70 Start: 47338, Stop: 47511, Start Num: 40
Candidate Starts for Traaww1_70:
(Start: 40 @47338 has 123 MA's), (53, 47389),

Gene: Trina_197 Start: 106567, Stop: 106749, Start Num: 41
Candidate Starts for Trina_197:
(Start: 41 @106567 has 3 MA's), (50, 106591), (57, 106627), (59, 106642), (69, 106720),

Gene: Tuck_58 Start: 40300, Stop: 40482, Start Num: 36
Candidate Starts for Tuck_58:
(Start: 36 @40300 has 12 MA's),

Gene: Tuco_75 Start: 48662, Stop: 48835, Start Num: 40
Candidate Starts for Tuco_75:
(Start: 40 @48662 has 123 MA's), (53, 48713),

Gene: Turab_53 Start: 37635, Stop: 37826, Start Num: 34
Candidate Starts for Turab_53:
(7, 37329), (Start: 34 @37635 has 20 MA's),

Gene: Tutumahutu_56 Start: 38356, Stop: 38553, Start Num: 34
Candidate Starts for Tutumahutu_56:
(Start: 34 @38356 has 20 MA's), (65, 38485),

Gene: Tweety19_58 Start: 37403, Stop: 37558, Start Num: 44
Candidate Starts for Tweety19_58:
(Start: 44 @37403 has 7 MA's), (69, 37541),

Gene: Ukulele_69 Start: 47045, Stop: 47218, Start Num: 40
Candidate Starts for Ukulele_69:
(Start: 40 @47045 has 123 MA's), (53, 47096),

Gene: UtzChips_35 Start: 24664, Stop: 24909, Start Num: 25
Candidate Starts for UtzChips_35:
(13, 24550), (Start: 25 @24664 has 66 MA's), (66, 24841),

Gene: VResidence_55 Start: 37492, Stop: 37677, Start Num: 36
Candidate Starts for VResidence_55:
(Start: 36 @37492 has 12 MA's),

Gene: Venti_33 Start: 27706, Stop: 27942, Start Num: 25
Candidate Starts for Venti_33:
(Start: 25 @27706 has 66 MA's), (38, 27751), (53, 27811), (62, 27853), (64, 27865), (70, 27925),

Gene: Vidya_33 Start: 27739, Stop: 27975, Start Num: 25
Candidate Starts for Vidya_33:
(Start: 25 @27739 has 66 MA's), (38, 27784), (53, 27844), (62, 27886), (64, 27898), (70, 27958),

Gene: VroomVroom_56 Start: 39271, Stop: 39462, Start Num: 32
Candidate Starts for VroomVroom_56:
(3, 38755), (9, 39007), (19, 39190), (Start: 32 @39271 has 2 MA's), (Start: 44 @39316 has 7 MA's),
(62, 39394), (67, 39427),

Gene: Warda_56 Start: 38671, Stop: 38853, Start Num: 36
Candidate Starts for Warda_56:
(Start: 36 @38671 has 12 MA's),

Gene: WaterT_74 Start: 43421, Stop: 43254, Start Num: 41
Candidate Starts for WaterT_74:
(Start: 20 @43508 has 3 MA's), (Start: 41 @43421 has 3 MA's), (51, 43391), (52, 43382), (64, 43319),
(68, 43289), (69, 43268),

Gene: Wiggin_76 Start: 47739, Stop: 47912, Start Num: 40
Candidate Starts for Wiggin_76:
(Start: 40 @47739 has 123 MA's), (53, 47790),

Gene: Wildwest_53 Start: 38260, Stop: 38493, Start Num: 21
Candidate Starts for Wildwest_53:
(Start: 21 @38260 has 1 MA's),

Gene: Willez_69 Start: 45932, Stop: 46111, Start Num: 40
Candidate Starts for Willez_69:
(Start: 40 @45932 has 123 MA's), (53, 45983),

Gene: Willsammy_32 Start: 27446, Stop: 27682, Start Num: 25
Candidate Starts for Willsammy_32:
(Start: 25 @27446 has 66 MA's), (38, 27491), (53, 27551), (62, 27593), (64, 27605), (70, 27665),

Gene: Wintermute_55 Start: 38198, Stop: 38437, Start Num: 25
Candidate Starts for Wintermute_55:
(Start: 22 @38195 has 1 MA's), (Start: 25 @38198 has 66 MA's), (27, 38210), (Start: 41 @38267 has
3 MA's), (53, 38312), (62, 38357),

Gene: Xandras_73 Start: 47147, Stop: 47326, Start Num: 40
Candidate Starts for Xandras_73:
(Start: 40 @47147 has 123 MA's), (53, 47198),

Gene: Y10_54 Start: 38120, Stop: 38359, Start Num: 25
Candidate Starts for Y10_54:
(Start: 22 @38117 has 1 MA's), (Start: 25 @38120 has 66 MA's), (27, 38132), (Start: 41 @38189 has
3 MA's), (53, 38234), (62, 38279),

Gene: Y2_54 Start: 38120, Stop: 38359, Start Num: 25

Candidate Starts for Y2_54:

(Start: 22 @38117 has 1 MA's), (Start: 25 @38120 has 66 MA's), (27, 38132), (Start: 41 @38189 has 3 MA's), (53, 38234), (62, 38279),

Gene: Yang_57 Start: 39052, Stop: 39246, Start Num: 34

Candidate Starts for Yang_57:

(Start: 34 @39052 has 20 MA's), (69, 39226),

Gene: YassJohnny_71 Start: 47102, Stop: 47275, Start Num: 40

Candidate Starts for YassJohnny_71:

(Start: 40 @47102 has 123 MA's), (53, 47153),

Gene: YesChef_55 Start: 38342, Stop: 38542, Start Num: 34

Candidate Starts for YesChef_55:

(Start: 34 @38342 has 20 MA's), (65, 38474),

Gene: Youngblood_77 Start: 48614, Stop: 48793, Start Num: 40

Candidate Starts for Youngblood_77:

(Start: 40 @48614 has 123 MA's), (53, 48665),

Gene: Zilizebeth_33 Start: 27738, Stop: 27974, Start Num: 25

Candidate Starts for Zilizebeth_33:

(Start: 25 @27738 has 66 MA's), (38, 27783), (53, 27843), (62, 27885), (64, 27897), (70, 27957),

Gene: ZoeJ_51 Start: 38060, Stop: 38263, Start Num: 33

Candidate Starts for ZoeJ_51:

(Start: 33 @38060 has 10 MA's), (Start: 35 @38072 has 1 MA's), (50, 38117), (53, 38138), (56, 38150), (59, 38165), (62, 38180),

Gene: xkcd_77 Start: 48804, Stop: 48977, Start Num: 40

Candidate Starts for xkcd_77:

(Start: 40 @48804 has 123 MA's), (53, 48855),