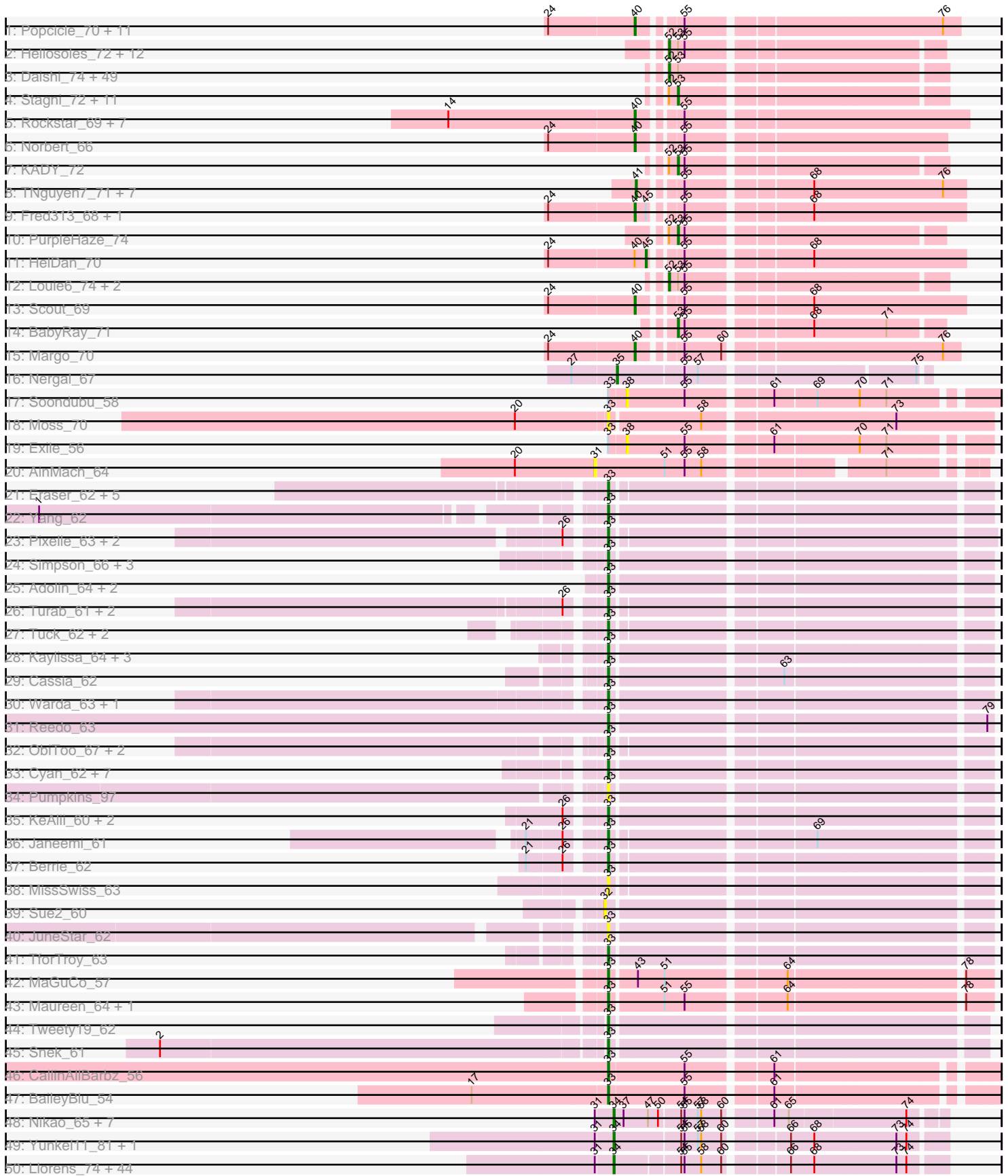
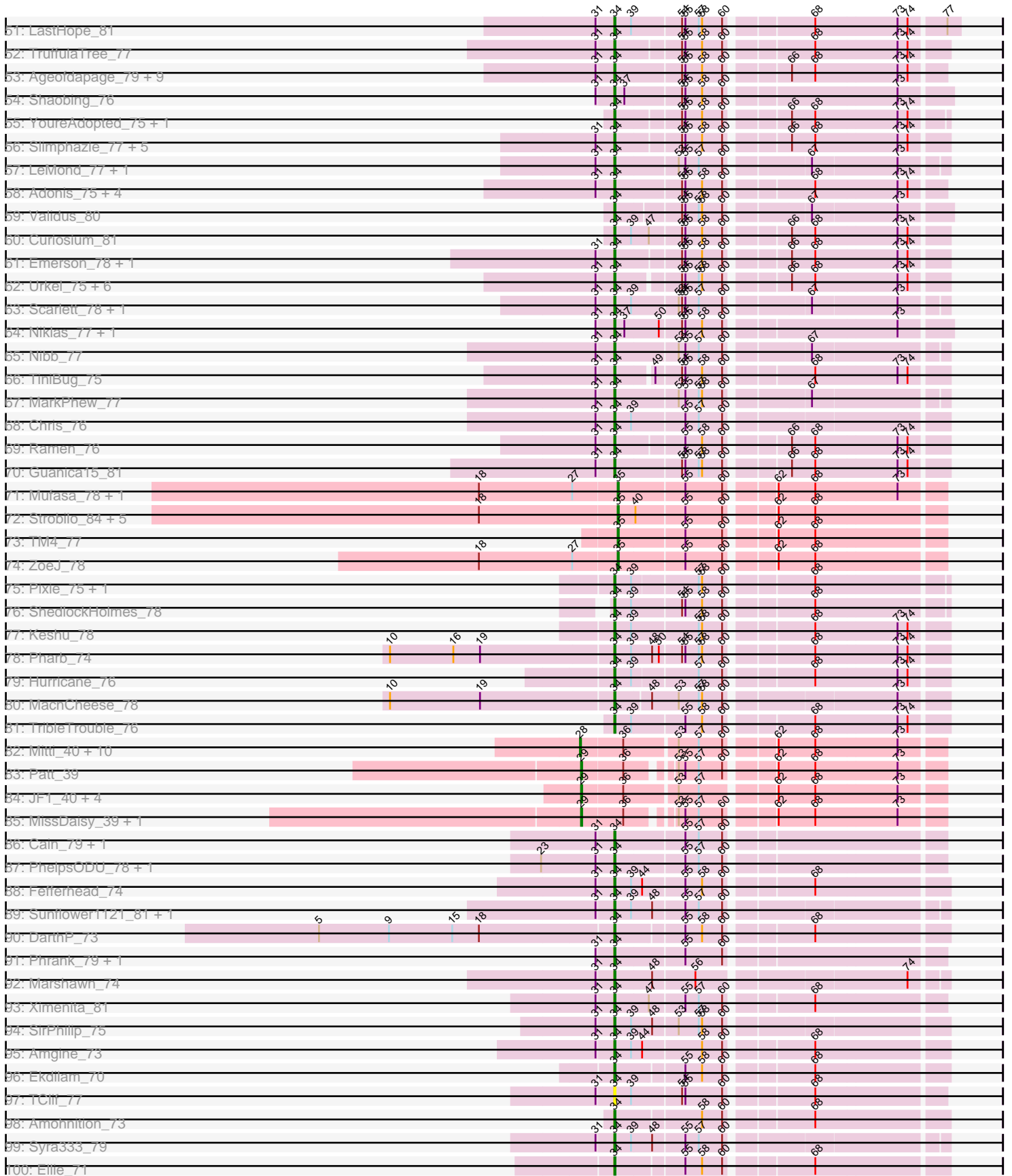


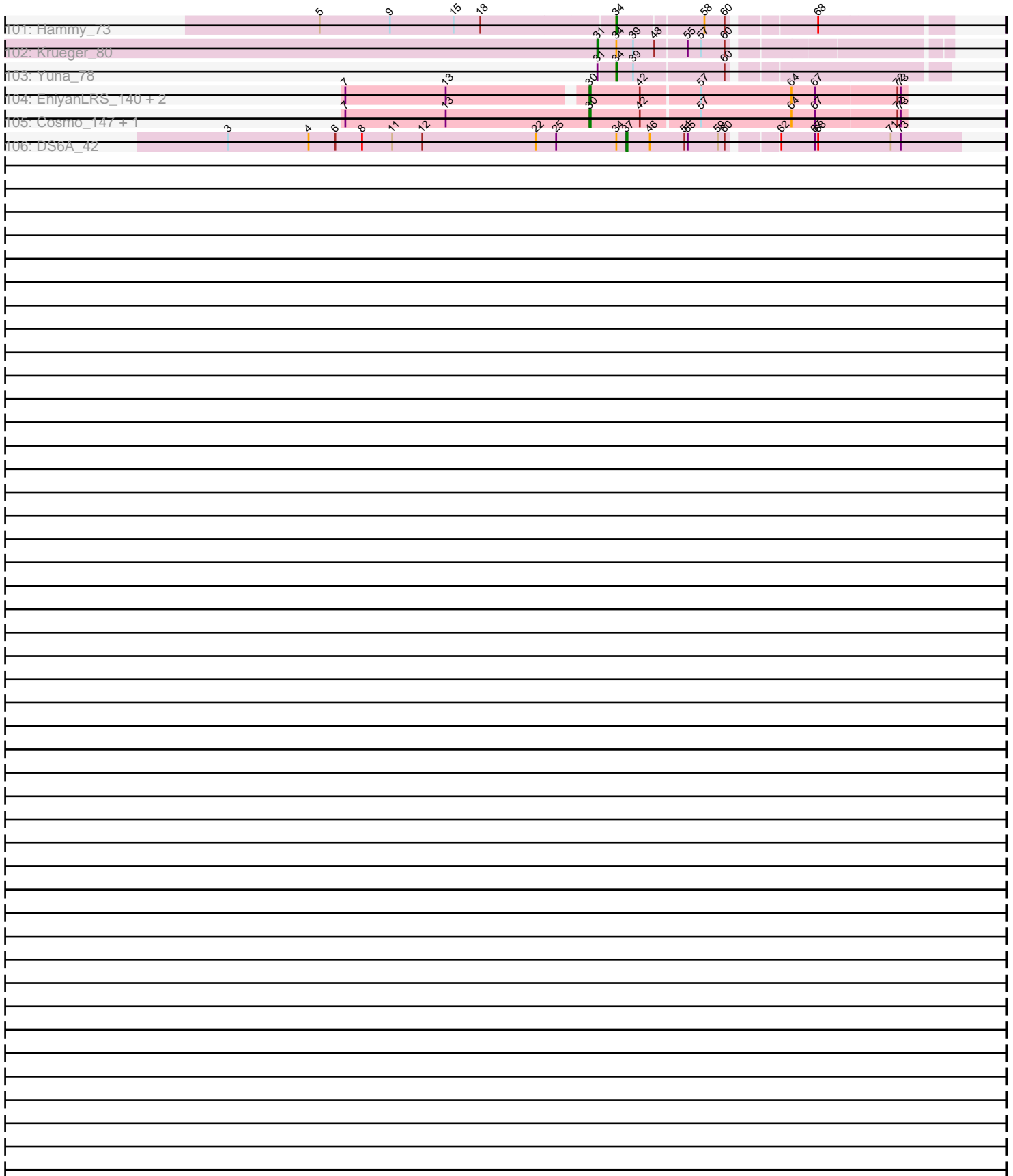
Pham 158927



Pham 158927



Pham 158927



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 158927 Report

This analysis was run 04/28/24 on database version 559.

Pham number 158927 has 348 members, 35 are drafts.

Phages represented in each track:

- Track 1 : Popcicle_70, Veracruz_67, QuinnKiro_69, Caviar_70, Panamaxus_68, Lambert1_70, Todacoro_70, Noella_70, Hookmount_70, Pocahontas_69, Texage_68, ResDef_68
- Track 2 : Heliosoles_72, Kalnoky_75, PhishRPhriends_71, Kalb97_75, ACFishhook_72, JeppNRM_75, Pawn_73, Groupthink_75, Gemma_72, Marius_75, Manu_74, HaveUMetTed_75, OlanP_73
- Track 3 : Daishi_74, Penny1_75, Grif_73, EpicPhail_76, AgronaGT15_72, Vix_71, Aglet_76, Dieselweasel_75, GingkoMaracino_75, Grum1_74, Mainiac_74, AugsMagnumOpus_78, Pembroke_75, Soshari_77, GtownJaz_75, Bxz2_70, MadMarie_73, Malinsilva_77, Wooldri_77, LBerry_76, Rummer_74, SoYo_72, Methuselah_68, Grub_73, Cullens_75, SoilDragon_74, Beauxregard13_74, Hercules11_75, Fernando_75, Sabia_73, LugYA_78, Watson_74, PGHhamlin_77, PotatoSplit_76, Lilith_73, Zetzy_72, P28Green_75, BreSam8_75, MoneyMay_74, HashRod_76, Marie_73, Ollie_75, Microwolf_71, LarryKay_75, StepMih_74, Colbster_71, MuchMore_78, Farber_75, DaHudson_74, Phoebe_76
- Track 4 : Stagni_72, MarQuardt_75, Jobu08_71, Snickers_71, Phoxy_75, Tiffany_74, Spike509_75, JenCasNa_76, Sabinator_73, Anubis_78, JHC117_71, Taurus_76
- Track 5 : Rockstar_69, MK4_70, Isca_68, B1_62, MA5_70, JF4_68, Phantastic_72, JF2_68
- Track 6 : Norbert_66
- Track 7 : KADY_72
- Track 8 : TNguyen7_71, Bugatti_70, Giroux_69, Idleandcovert_71, BlueBird_73, SaturnRing_70, Puppy_71, Pistachio_70
- Track 9 : Fred313_68, Heathen_70
- Track 10 : PurpleHaze_74
- Track 11 : HelDan_70
- Track 12 : Louie6_74, BuzzBuzz_69, Misomonster_76
- Track 13 : Scout_69
- Track 14 : BabyRay_71
- Track 15 : Margo_70
- Track 16 : Nergal_67
- Track 17 : Soondubu_58
- Track 18 : Moss_70
- Track 19 : Exile_56
- Track 20 : AinMach_64
- Track 21 : Eraser_62, Asa16_62, Jstan_63, London_62, Niobe_62, Elezi_61

- Track 22 : Yang_62
- Track 23 : Pixelle_63, Amyev_62, Tian_61
- Track 24 : Simpson_66, Joemato_66, Tallboi_65, Nitro_63
- Track 25 : Adolin_64, VResidence_62, DrManhattan_65
- Track 26 : Turab_61, Adumb2043_61, AEgle_60
- Track 27 : Tuck_62, Community_62, Phives_63
- Track 28 : Kaylissa_64, Mudpuppy_62, Lizalica_61, Lego_62
- Track 29 : Cassia_62
- Track 30 : Warda_63, Tbone_62
- Track 31 : Reedo_63
- Track 32 : ObiToo_67, IttyBittyPiggy_61, Crewmate_67
- Track 33 : Cyan_62, Powerpuff_64, Iter_63, Tutumahutu_64, Ascela_64, YesChef_62, AGrandiflora_64, JohnDoe_63
- Track 34 : Pumpkins_97
- Track 35 : KeAlii_60, DrSierra_59, Wildwest_58
- Track 36 : Janeemi_61
- Track 37 : Berrie_62
- Track 38 : MissSwiss_63
- Track 39 : Sue2_60
- Track 40 : JuneStar_62
- Track 41 : TforTroy_63
- Track 42 : MaGuCo_57
- Track 43 : Maureen_64, Liebe_64
- Track 44 : Tweety19_62
- Track 45 : Snek_61
- Track 46 : CallinAllBarbz_56
- Track 47 : BaileyBlu_54
- Track 48 : Nikao_65, Nutello_62, Mdavu_63, LilPharaoh_63, Biglebops_62, SgtBeansprout_63, Enkosi_64, Amelie_62
- Track 49 : Yunkel11_81, Efra2_82
- Track 50 : Llorens_74, CaseJules_77, Boiiii_75, Hyperbowlee_74, Apocalypse_78, Spock_75, QuincyRose_73, BEEST_75, Asayake_75, Topper_75, Dalmuri_75, Twitch_75, BarrelRoll_76, Blizzard_75, Rapunzel97_78, Homura_74, ShiaSurprise_76, Peel_75, CREW_74, Belladonna_75, Jeckyll_75, HedwigODU_75, Atiba_76, Joy99_76, Durfee_75, Deby_75, Piatt_74, Capricorn_75, Mynx_77, Tachez_75, Ganymede_75, AlishaPH_74, Zabiza_71, Jarvi_75, Rosmarinus_75, Lunahalos_75, Adephagia_74, Zavala_78, Padfoot_75, BaghaKamala_74, Jayhawk_77, Inky_75, Geraldini_79, ActinUp_76, BGIlluvia_75
- Track 51 : LastHope_81
- Track 52 : TruffulaTree_77
- Track 53 : Ageofdapage_79, TaiwanKao_77, Devera_83, Sulley_74, Anaya_79, Illumine_81, Angelica_74, Stinson_76, Megsy_77, Dole_80
- Track 54 : Shaobing_76
- Track 55 : YoureAdopted_75, Beezoo_78
- Track 56 : Slimphazie_77, Tiri_75, CheetoDust_75, JAWS_74, Veliki_76, Pokerus_76
- Track 57 : LeMond_77, Oscar_77
- Track 58 : Adonis_75, MeaningOfLife_77, Bella96_76, Murucutumbu_76, LaterM_75
- Track 59 : Validus_80
- Track 60 : Curiosium_81
- Track 61 : Emerson_78, Padpat_79

- Track 62 : Urkel_75, DrHayes_75, CrimD_77, Prithvi_78, SamuelLPlaqson_75, LindNT_74, TreyKay_78
- Track 63 : Scarlett_78, KiSi_78
- Track 64 : Niklas_77, Peanam_77
- Track 65 : Nibb_77
- Track 66 : TiniBug_75
- Track 67 : MarkPheW_77
- Track 68 : Chris_76
- Track 69 : Ramen_76
- Track 70 : Guanica15_81
- Track 71 : Mufasa_78, BoostSeason_78
- Track 72 : Strobilo_84, Marcoliusprime_78, DismalStressor_79, Findley_79, Milly_79, DismalFunk_79
- Track 73 : TM4_77
- Track 74 : ZoeJ_78
- Track 75 : Pixie_75, TBond007_72
- Track 76 : ShedlockHolmes_78
- Track 77 : Keshu_78
- Track 78 : Pharb_74
- Track 79 : Hurricane_76
- Track 80 : MacnCheese_78
- Track 81 : TribbleTrouble_76
- Track 82 : Mitti_40, Wintermute_40, Cheetobro_40, Malthus_41, Eponine_42, Slarp_40, OmniCritical_39, Taquito_40, SamScheppers_39, Fionnbharth_40, Chancellor_40
- Track 83 : Patt_39
- Track 84 : JF1_40, Y2_39, Y10_39, Juliette_42, Ruthiejr_41
- Track 85 : MissDaisy_39, Reptar3000_40
- Track 86 : Cain_79, Bryler_79
- Track 87 : PhelpsODU_78, Unicorn_78
- Track 88 : Fefferhead_74
- Track 89 : Sunflower1121_81, Shadow1_80
- Track 90 : DARTH_P_73
- Track 91 : Phrank_79, Tierra_79
- Track 92 : Marshawn_74
- Track 93 : Ximenita_81
- Track 94 : SirPhilip_75
- Track 95 : Amgine_73
- Track 96 : Ekdilam_70
- Track 97 : TClif_77
- Track 98 : Amohnition_73
- Track 99 : Syra333_79
- Track 100 : Ellie_71
- Track 101 : Hammy_73
- Track 102 : Krueger_80
- Track 103 : Yuna_78
- Track 104 : EniyanLRS_140, Wildcat_147, MaryV_133
- Track 105 : Cosmo_147, Azrael100_140
- Track 106 : DS6A_42

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

The start number called the most often in the published annotations is 34, it was called in 127 of the 313 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp_76, Adephagia_74, Adonis_75, Ageofdapage_79, AlishaPH_74, Amelie_62, Amgine_73, Amohnition_73, Anaya_79, Angelica_74, Apocalypse_78, Asayake_75, Atiba_76, BEEST_75, BGlluviae_75, BaghaKamala_74, BarrelRoll_76, Beezoo_78, Bella96_76, Belladonna_75, Binglebops_62, Blizzard_75, Boiiii_75, Bryler_79, CREW_74, Cain_79, Capricorn_75, CaseJules_77, CheetoDust_75, Chris_76, CrimD_77, Curiosium_81, Dalmuri_75, DarthP_73, Deby_75, Devera_83, Dole_80, DrHayes_75, Durfee_75, Efra2_82, Ekdilam_70, Ellie_71, Emerson_78, Enkosi_64, Fefferhead_74, Ganymede_75, Geraldini_79, Guanica15_81, Hammy_73, HedwigODU_75, Homura_74, Hurricane_76, Hyperbowlee_74, Illumine_81, Inky_75, JAWS_74, Jarvi_75, Jayhawk_77, Jeckyll_75, Joy99_76, Keshu_78, KiSi_78, LastHope_81, LaterM_75, LeMond_77, LilPharaoh_63, LindNT_74, Llorens_74, Lunahalos_75, MacnCheese_78, MarkPheW_77, Marshawn_74, Mdavu_63, MeaningOfLife_77, Megsy_77, Murucutumbu_76, Mynx_77, Nibb_77, Nikao_65, Niklas_77, Nutello_62, Oscar_77, Padfoot_75, Padpat_79, Peanam_77, Peel_75, Pharb_74, PhelpsODU_78, Phrank_79, Piatt_74, Pixie_75, Pokerus_76, Prithvi_78, QuincyRose_73, Ramen_76, Rapunzel97_78, Rosmarinus_75, SamuelLPlaqson_75, Scarlett_78, SgtBeansprout_63, Shadow1_80, Shaobing_76, ShedlockHolmes_78, ShiaSurprise_76, SirPhilip_75, Slimphazie_77, Spock_75, Stinson_76, Sulley_74, Sunflower1121_81, Syra333_79, TBond007_72, TClif_77, Tachez_75, TaiwanKao_77, Tierra_79, TiniBug_75, Tiri_75, Topper_75, TreyKay_78, TripleTrouble_76, TruffulaTree_77, Twitch_75, Unicorn_78, Urkel_75, Validus_80, Veliki_76, Ximenita_81, YoureAdopted_75, Yuna_78, Yunkel11_81, Zabiza_71, Zavala_78,

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

- DS6A_42, Krueger_80,

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

- ACFishhook_72, AEgle_60, AGrandiflora_64, Adolin_64, Adumb2043_61, Aglet_76, AgronaGT15_72, AinMach_64, Amyev_62, Anubis_78, Asa16_62, Ascela_64, AugsMagnumOpus_78, Azrael100_140, B1_62, BabyRay_71, BaileyBlu_54, Beauxregard13_74, Berrie_62, BlueBird_73, BoostSeason_78, BreSam8_75, Bugatti_70, BuzzBuzz_69, Bxz2_70, CallinAllBarbz_56, Cassia_62, Caviar_70, Chancellor_40, Cheetobro_40, Colbster_71, Community_62, Cosmo_147, Crewmate_67, Cullens_75, Cyan_62, DaHudson_74, Daishi_74, Dieselweasel_75, DismalFunk_79, DismalStressor_79, DrManhattan_65, DrSierra_59, Elezi_61, EniyanLRS_140, EpicPhail_76, Eponine_42, Eraser_62, Exile_56, Farber_75, Fernando_75, Findley_79, Fionnbharth_40, Fred313_68, Gemma_72, GingkoMaracino_75, Giroux_69, Grif_73, Groupthink_75, Grub_73, Grum1_74, GtownJaz_75, HashRod_76, HaveUMetTed_75, Heathen_70, HelDan_70, Heliosoles_72, Hercules11_75, Hookmount_70, Idleandcovert_71, Isca_68, Iter_63, IttyBittyPiggy_61, JF1_40, JF2_68, JF4_68, JHC117_71, Janeemi_61, JenCasNa_76, JeppNRM_75, Jobu08_71, Joemato_66, JohnDoe_63, Jstan_63, Juliette_42, JuneStar_62, KADY_72, Kalb97_75, Kalnoky_75, Kaylissa_64, KeAlii_60, LBerry_76, Lambert1_70, LarryKay_75, Lego_62, Liebe_64, Lilith_73, Lizalica_61, London_62, Louie6_74, LugYA_78, MA5_70, MK4_70, MaGuCo_57, MadMarie_73, Mainiac_74, Malinsilva_77, Malthus_41, Manu_74, MarQuardt_75, Marcoliusprime_78, Margo_70, Marie_73, Marius_75, MaryV_133, Maureen_64,

Methuselah_68, Microwolf_71, Milly_79, Misomonster_76, MissDaisy_39, MissSwiss_63, Mitti_40, MoneyMay_74, Moss_70, MuchMore_78, Mudpuppy_62, Mufasa_78, Nergal_67, Niobe_62, Nitro_63, Noella_70, Norbert_66, ObiToo_67, OlanP_73, Ollie_75, OmniCritical_39, P28Green_75, PGHhamlin_77, Panamaxus_68, Patt_39, Pawn_73, Pembroke_75, Penny1_75, Phantastic_72, PhishRPhriends_71, Phives_63, Phoebe_76, Phoxy_75, Pistachio_70, Pixelle_63, Pocahontas_69, Popcicle_70, PotatoSplit_76, Powerpuff_64, Pumpkins_97, Puppy_71, PurpleHaze_74, QuinnKiro_69, Reedo_63, Reptar3000_40, ResDef_68, Rockstar_69, Rummer_74, Ruthiejr_41, Sabia_73, Sabinator_73, SamScheppers_39, SaturnRing_70, Scout_69, Simpson_66, Slarp_40, Snek_61, Snickers_71, SoYo_72, SoilDragon_74, Soondubu_58, Soshari_77, Spike509_75, Stagni_72, StepMih_74, Strobilo_84, Sue2_60, TM4_77, TNguyen7_71, Tallboi_65, Taquito_40, Taurus_76, Tbone_62, Texage_68, TforTroy_63, Tian_61, Tiffany_74, Todacoro_70, Tuck_62, Turab_61, Tutumahutu_64, Tweety19_62, VResidence_62, Veracruz_67, Vix_71, Warda_63, Watson_74, Wildcat_147, Wildwest_58, Wintermute_40, Wooldri_77, Y10_39, Y2_39, Yang_62, YesChef_62, Zetzy_72, ZoeJ_78,

Summary by start number:

Start 28:

- Found in 11 of 348 (3.2%) of genes in pham
- Manual Annotations of this start: 11 of 313
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chancellor_40 (K4), Cheetobro_40 (K4), Eponine_42 (K4), Fionnbharth_40 (K4), Malthus_41 (K4), Mitti_40 (K4), OmniCritical_39 (K4), SamScheppers_39 (K4), Slarp_40 (K4), Taquito_40 (K4), Wintermute_40 (K4),

Start 29:

- Found in 8 of 348 (2.3%) of genes in pham
- Manual Annotations of this start: 8 of 313
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JF1_40 (K4), Juliette_42 (K4), MissDaisy_39 (K4), Patt_39 (K4), Reptar3000_40 (K4), Ruthiejr_41 (K4), Y10_39 (K4), Y2_39 (K4),

Start 30:

- Found in 5 of 348 (1.4%) of genes in pham
- Manual Annotations of this start: 5 of 313
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azrael100_140 (V), Cosmo_147 (V), EniyanLRS_140 (V), MaryV_133 (V), Wildcat_147 (V),

Start 31:

- Found in 118 of 348 (33.9%) of genes in pham
- Manual Annotations of this start: 1 of 313
- Called 1.7% of time when present
- Phage (with cluster) where this start called: AinMach_64 (AZ), Krueger_80 (K6),

Start 32:

- Found in 1 of 348 (0.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Sue2_60 (AZ1),

Start 33:

- Found in 61 of 348 (17.5%) of genes in pham
- Manual Annotations of this start: 41 of 313
- Called 96.7% of time when present
- Phage (with cluster) where this start called: AEgle_60 (AZ1), AGrandiflora_64 (AZ1), Adolin_64 (AZ1), Adumb2043_61 (AZ1), Amyev_62 (AZ1), Asa16_62 (AZ1), Ascela_64 (AZ1), BaileyBlu_54 (FP), Berrie_62 (AZ1), CallinAllBarbz_56 (FP), Cassia_62 (AZ1), Community_62 (AZ1), Crewmate_67 (AZ1), Cyan_62 (AZ1), DrManhattan_65 (AZ1), DrSierra_59 (AZ1), Elezi_61 (AZ1), Eraser_62 (AZ1), Iter_63 (AZ1), IttyBittyPiggy_61 (AZ1), Janeemi_61 (AZ1), Joemato_66 (AZ1), JohnDoe_63 (AZ1), Jstan_63 (AZ1), JuneStar_62 (AZ1), Kaylissa_64 (AZ1), KeAlii_60 (AZ1), Lego_62 (AZ1), Liebe_64 (AZ2), Lizalica_61 (AZ1), London_62 (AZ1), MaGuCo_57 (AZ2), Maureen_64 (AZ2), MissSwiss_63 (AZ1), Moss_70 (AZ), Mudpuppy_62 (AZ1), Niobe_62 (AZ1), Nitro_63 (AZ1), ObiToo_67 (AZ1), Phives_63 (AZ1), Pixelle_63 (AZ1), Powerpuff_64 (AZ1), Pumpkins_97 (AZ1), Reedo_63 (AZ1), Simpson_66 (AZ1), Snek_61 (AZ3), Tallboi_65 (AZ1), Tbone_62 (AZ1), TforTroy_63 (AZ1), Tian_61 (AZ1), Tuck_62 (AZ1), Turab_61 (AZ1), Tutumahutu_64 (AZ1), Tweety19_62 (AZ3), VResidence_62 (AZ1), Warda_63 (AZ1), Wildwest_58 (AZ1), Yang_62 (AZ1), YesChef_62 (AZ1),

Start 34:

- Found in 135 of 348 (38.8%) of genes in pham
- Manual Annotations of this start: 127 of 313
- Called 98.5% of time when present
- Phage (with cluster) where this start called: ActinUp_76 (K1), Adephagia_74 (K1), Adonis_75 (K1), Ageofdapage_79 (K1), AlishaPH_74 (K1), Amelie_62 (K1), Amgine_73 (K6), Amohnition_73 (K6), Anaya_79 (K1), Angelica_74 (K1), Apocalypse_78 (K1), Asayake_75 (K1), Atiba_76 (K1), BEEST_75 (K1), BGIlluviae_75 (K1), BaghaKamala_74 (K1), BarrelRoll_76 (K1), Beezoo_78 (K1), Bella96_76 (K1), Belladonna_75 (K1), Binglebops_62 (K1), Blizzard_75 (K1), Boiii_75 (K1), Bryler_79 (K6), CREW_74 (K1), Cain_79 (K6), Capricorn_75 (K1), CaseJules_77 (K1), CheetoDust_75 (K1), Chris_76 (K1), CrimD_77 (K1), Curiosium_81 (K1), Dalmuri_75 (K1), DARTH_P_73 (K6), Deby_75 (K1), Devera_83 (K1), Dole_80 (K1), DrHayes_75 (K1), Durfee_75 (K1), Efra2_82 (K1), Ekdilam_70 (K6), Ellie_71 (K6), Emerson_78 (K1), Enkosi_64 (K1), Fefferhead_74 (K6), Ganymede_75 (K1), Geraldini_79 (K1), Guanica15_81 (K1), Hammy_73 (K6), HedwigODU_75 (K1), Homura_74 (K1), Hurricane_76 (K3), Hyperbowlee_74 (K1), Illumine_81 (K1), Inky_75 (K1), JAWS_74 (K1), Jarvi_75 (K1), Jayhawk_77 (K1), Jeckyll_75 (K1), Joy99_76 (K1), Keshu_78 (K3), KiSi_78 (K1), LastHope_81 (K1), LaterM_75 (K1), LeMond_77 (K1), LilPharaoh_63 (K1), LindNT_74 (K1), Llorens_74 (K1), Lunahalos_75 (K1), MacnCheese_78 (K3), MarkPhew_77 (K1), Marshawn_74 (K6), Mdavu_63 (K1), MeaningOfLife_77 (K1), Megsy_77 (K1), Murucutumbu_76 (K1), Mynx_77 (K1), Nibb_77 (K1), Nikao_65 (K1), Niklas_77 (K1), Nutello_62 (K1), Oscar_77 (K1), Padfoot_75 (K1), Padpat_79 (K1), Peanam_77 (K1), Peel_75 (K1), Pharb_74 (K3), PhelpsODU_78 (K6), Phrank_79 (K6), Piatt_74 (K1), Pixie_75 (K3), Pokerus_76 (K1), Prithvi_78 (K1), QuincyRose_73 (K1), Ramen_76 (K1), Rapunzel97_78 (K1), Rosmarinus_75 (K1), SamuelLPlaqson_75 (K1), Scarlett_78 (K1), SgtBeansprout_63 (K1), Shadow1_80 (K6), Shaobing_76 (K1), ShedlockHolmes_78 (K3), ShiaSurprise_76 (K1), SirPhilip_75 (K6), Slimphazie_77 (K1), Spock_75 (K1), Stinson_76 (K1), Sulley_74 (K1), Sunflower1121_81 (K6), Syra333_79 (K6), TBond007_72 (K3), TClif_77 (K6), Tachez_75 (K1), TaiwanKao_77

(K1), Tierra_79 (K6), TiniBug_75 (K1), Tiri_75 (K1), Topper_75 (K1), TreyKay_78 (K1), TribbleTrouble_76 (K3), TruffleTree_77 (K1), Twitch_75 (K1), Unicorn_78 (K6), Urkel_75 (K1), Validus_80 (K1), Veliki_76 (K1), Ximenita_81 (K6), YoureAdopted_75 (K1), Yuna_78 (K6), Yunkel11_81 (K1), Zabiza_71 (K1), Zavala_78 (K1),

Start 35:

- Found in 11 of 348 (3.2%) of genes in pham
- Manual Annotations of this start: 10 of 313
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BoostSeason_78 (K2), DismalFunk_79 (K2), DismalStressor_79 (K2), Findley_79 (K2), Marcoliusprime_78 (K2), Milly_79 (K2), Mufasa_78 (K2), Nergal_67 (AG), Strobilo_84 (K2), TM4_77 (K2), ZoeJ_78 (K2),

Start 37:

- Found in 12 of 348 (3.4%) of genes in pham
- Manual Annotations of this start: 1 of 313
- Called 8.3% of time when present
- Phage (with cluster) where this start called: DS6A_42 (singleton),

Start 38:

- Found in 2 of 348 (0.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Exile_56 (AZ), Soondubu_58 (AZ),

Start 40:

- Found in 32 of 348 (9.2%) of genes in pham
- Manual Annotations of this start: 24 of 313
- Called 78.1% of time when present
- Phage (with cluster) where this start called: B1_62 (A3), Caviar_70 (A3), Fred313_68 (A3), Heathen_70 (A3), Hookmount_70 (A3), Isca_68 (A3), JF2_68 (A3), JF4_68 (A3), Lambert1_70 (A3), MA5_70 (A3), MK4_70 (A3), Margo_70 (A3), Noella_70 (A3), Norbert_66 (A3), Panamaxus_68 (A3), Phantastic_72 (A3), Pocahontas_69 (A3), Popcicle_70 (A3), QuinnKiro_69 (A3), ResDef_68 (A3), Rockstar_69 (A3), Scout_69 (A3), Texage_68 (A3), Todacoro_70 (A3), Veracruz_67 (A3),

Start 41:

- Found in 8 of 348 (2.3%) of genes in pham
- Manual Annotations of this start: 5 of 313
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlueBird_73 (A3), Bugatti_70 (A3), Giroux_69 (A3), Idleandcovert_71 (A3), Pistachio_70 (A3), Puppy_71 (A3), SaturnRing_70 (A3), TNguyen7_71 (A3),

Start 45:

- Found in 3 of 348 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 313
- Called 33.3% of time when present
- Phage (with cluster) where this start called: HelDan_70 (A3),

Start 52:

- Found in 80 of 348 (23.0%) of genes in pham
- Manual Annotations of this start: 65 of 313
- Called 82.5% of time when present
- Phage (with cluster) where this start called: ACFishhook_72 (A3), Aglet_76 (A3), AgronaGT15_72 (A3), AugsMagnumOpus_78 (A3), Beauxregard13_74 (A3), BreSam8_75 (A3), BuzzBuzz_69 (A3), Bxz2_70 (A3), Colbster_71 (A3), Cullens_75 (A3), DaHudson_74 (A3), Daishi_74 (A3), Dieselweasel_75 (A3), EpicPhail_76 (A3), Farber_75 (A3), Fernando_75 (A3), Gemma_72 (A3), GingkoMaracino_75 (A3), Grif_73 (A3), Groupthink_75 (A3), Grub_73 (A3), Grum1_74 (A3), GtownJaz_75 (A3), HashRod_76 (A3), HaveUMetTed_75 (A3), Heliosoles_72 (A3), Hercules11_75 (A3), JeppNRM_75 (A3), Kalb97_75 (A3), Kalnoky_75 (A3), LBerry_76 (A3), LarryKay_75 (A3), Lilith_73 (A3), Louie6_74 (A3), LugYA_78 (A3), MadMarie_73 (A3), Mainiac_74 (A3), Malinsilva_77 (A3), Manu_74 (A3), Marie_73 (A3), Marius_75 (A3), Methuselah_68 (A3), Microwolf_71 (A3), Misomonster_76 (A3), MoneyMay_74 (A3), MuchMore_78 (A3), OlanP_73 (A3), Ollie_75 (A3), P28Green_75 (A3), PGHhamlin_77 (A3), Pawn_73 (A3), Pembroke_75 (A3), Penny1_75 (A3), PhishRPhriends_71 (A3), Phoebe_76 (A3), PotatoSplit_76 (A3), Rummer_74 (A3), Sabia_73 (A3), SoYo_72 (A3), SoilDragon_74 (A3), Soshari_77 (A3), StepMih_74 (A3), Vix_71 (A3), Watson_74 (A3), Wooldri_77 (A3), Zetzy_72 (A3),

Start 53:

- Found in 108 of 348 (31.0%) of genes in pham
- Manual Annotations of this start: 14 of 313
- Called 13.9% of time when present
- Phage (with cluster) where this start called: Anubis_78 (A3), BabyRay_71 (A3), JHC117_71 (A3), JenCasNa_76 (A3), Jobu08_71 (A3), KADY_72 (A3), MarQuardt_75 (A3), Phoxy_75 (A3), PurpleHaze_74 (A3), Sabinator_73 (A3), Snickers_71 (A3), Spike509_75 (A3), Stagni_72 (A3), Taurus_76 (A3), Tiffany_74 (A3),

Summary by clusters:

There are 14 clusters represented in this pham: FP, singleton, AZ3, AG, V, A3, K3, K2, K1, K6, K4, AZ1, AZ2, AZ,

Info for manual annotations of cluster A3:

- Start number 40 was manually annotated 24 times for cluster A3.
- Start number 41 was manually annotated 5 times for cluster A3.
- Start number 45 was manually annotated 1 time for cluster A3.
- Start number 52 was manually annotated 65 times for cluster A3.
- Start number 53 was manually annotated 14 times for cluster A3.

Info for manual annotations of cluster AG:

- Start number 35 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster AZ1:

- Start number 33 was manually annotated 34 times for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 33 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster AZ3:

- Start number 33 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster FP:

- Start number 33 was manually annotated 2 times for cluster FP.

Info for manual annotations of cluster K1:

- Start number 34 was manually annotated 99 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 35 was manually annotated 9 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 34 was manually annotated 8 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 28 was manually annotated 11 times for cluster K4.
- Start number 29 was manually annotated 8 times for cluster K4.

Info for manual annotations of cluster K6:

- Start number 31 was manually annotated 1 time for cluster K6.
- Start number 34 was manually annotated 20 times for cluster K6.

Info for manual annotations of cluster V:

- Start number 30 was manually annotated 5 times for cluster V.

Gene Information:

Gene: ACFishhook_72 Start: 42957, Stop: 42733, Start Num: 52

Candidate Starts for ACFishhook_72:

(Start: 52 @42957 has 65 MA's), (Start: 53 @42951 has 14 MA's), (55, 42945),

Gene: AEgle_60 Start: 40834, Stop: 41145, Start Num: 33

Candidate Starts for AEgle_60:

(26, 40807), (Start: 33 @40834 has 41 MA's),

Gene: AGrandiflora_64 Start: 41727, Stop: 42041, Start Num: 33

Candidate Starts for AGrandiflora_64:

(Start: 33 @41727 has 41 MA's),

Gene: ActinUp_76 Start: 50161, Stop: 50433, Start Num: 34

Candidate Starts for ActinUp_76:

(Start: 31 @50146 has 1 MA's), (Start: 34 @50161 has 127 MA's), (54, 50215), (55, 50218), (58, 50233), (60, 50251), (66, 50299), (68, 50320), (73, 50392), (74, 50401),

Gene: Adephagia_74 Start: 49998, Stop: 50270, Start Num: 34

Candidate Starts for Adephagia_74:

(Start: 31 @49983 has 1 MA's), (Start: 34 @49998 has 127 MA's), (54, 50052), (55, 50055), (58, 50070), (60, 50088), (66, 50136), (68, 50157), (73, 50229), (74, 50238),

Gene: Adolin_64 Start: 40621, Stop: 40935, Start Num: 33

Candidate Starts for Adolin_64:

(Start: 33 @40621 has 41 MA's),

Gene: Adonis_75 Start: 50433, Stop: 50705, Start Num: 34

Candidate Starts for Adonis_75:

(Start: 31 @50418 has 1 MA's), (Start: 34 @50433 has 127 MA's), (54, 50490), (55, 50493), (58, 50508), (60, 50526), (68, 50595), (73, 50667), (74, 50676),

Gene: Adumb2043_61 Start: 40858, Stop: 41169, Start Num: 33

Candidate Starts for Adumb2043_61:

(26, 40831), (Start: 33 @40858 has 41 MA's),

Gene: Ageofdapage_79 Start: 51358, Stop: 51630, Start Num: 34

Candidate Starts for Ageofdapage_79:

(Start: 31 @51343 has 1 MA's), (Start: 34 @51358 has 127 MA's), (54, 51415), (55, 51418), (58, 51433), (60, 51451), (66, 51499), (68, 51520), (73, 51592), (74, 51601),

Gene: Aglet_76 Start: 43069, Stop: 42842, Start Num: 52

Candidate Starts for Aglet_76:

(Start: 52 @43069 has 65 MA's), (Start: 53 @43063 has 14 MA's),

Gene: AgronaGT15_72 Start: 42917, Stop: 42690, Start Num: 52

Candidate Starts for AgronaGT15_72:

(Start: 52 @42917 has 65 MA's), (Start: 53 @42911 has 14 MA's),

Gene: AinMach_64 Start: 40671, Stop: 40973, Start Num: 31

Candidate Starts for AinMach_64:

(20, 40599), (Start: 31 @40671 has 1 MA's), (51, 40731), (55, 40749), (58, 40764), (71, 40902),

Gene: AlishaPH_74 Start: 50259, Stop: 50531, Start Num: 34

Candidate Starts for AlishaPH_74:

(Start: 31 @50244 has 1 MA's), (Start: 34 @50259 has 127 MA's), (54, 50313), (55, 50316), (58, 50331), (60, 50349), (66, 50397), (68, 50418), (73, 50490), (74, 50499),

Gene: Amelie_62 Start: 47156, Stop: 47428, Start Num: 34

Candidate Starts for Amelie_62:

(Start: 31 @47141 has 1 MA's), (Start: 34 @47156 has 127 MA's), (Start: 37 @47165 has 1 MA's), (47, 47186), (50, 47195), (54, 47213), (55, 47216), (57, 47228), (58, 47231), (60, 47249), (61, 47285), (65, 47297), (74, 47399),

Gene: Amgine_73 Start: 50668, Stop: 50943, Start Num: 34

Candidate Starts for Amgine_73:

(Start: 31 @50653 has 1 MA's), (Start: 34 @50668 has 127 MA's), (39, 50683), (44, 50692), (58, 50743), (60, 50761), (68, 50830),

Gene: Amohnition_73 Start: 50538, Stop: 50810, Start Num: 34

Candidate Starts for Amohnition_73:

(Start: 34 @50538 has 127 MA's), (58, 50610), (60, 50628), (68, 50697),

Gene: Amyev_62 Start: 42418, Stop: 42732, Start Num: 33

Candidate Starts for Amyev_62:

(26, 42391), (Start: 33 @42418 has 41 MA's),

Gene: Anaya_79 Start: 51056, Stop: 51328, Start Num: 34

Candidate Starts for Anaya_79:

(Start: 31 @51041 has 1 MA's), (Start: 34 @51056 has 127 MA's), (54, 51110), (55, 51113), (58, 51128), (60, 51146), (66, 51194), (68, 51215), (73, 51287), (74, 51296),

Gene: Angelica_74 Start: 50118, Stop: 50390, Start Num: 34

Candidate Starts for Angelica_74:

(Start: 31 @50103 has 1 MA's), (Start: 34 @50118 has 127 MA's), (54, 50175), (55, 50178), (58, 50193), (60, 50211), (66, 50259), (68, 50280), (73, 50352), (74, 50361),

Gene: Anubis_78 Start: 42949, Stop: 42728, Start Num: 53

Candidate Starts for Anubis_78:

(Start: 52 @42955 has 65 MA's), (Start: 53 @42949 has 14 MA's),

Gene: Apocalypse_78 Start: 50800, Stop: 51072, Start Num: 34

Candidate Starts for Apocalypse_78:

(Start: 31 @50785 has 1 MA's), (Start: 34 @50800 has 127 MA's), (54, 50854), (55, 50857), (58, 50872), (60, 50890), (66, 50938), (68, 50959), (73, 51031), (74, 51040),

Gene: Asa16_62 Start: 41419, Stop: 41730, Start Num: 33

Candidate Starts for Asa16_62:

(Start: 33 @41419 has 41 MA's),

Gene: Asayake_75 Start: 50313, Stop: 50585, Start Num: 34

Candidate Starts for Asayake_75:

(Start: 31 @50298 has 1 MA's), (Start: 34 @50313 has 127 MA's), (54, 50367), (55, 50370), (58, 50385), (60, 50403), (66, 50451), (68, 50472), (73, 50544), (74, 50553),

Gene: Ascela_64 Start: 41907, Stop: 42221, Start Num: 33

Candidate Starts for Ascela_64:

(Start: 33 @41907 has 41 MA's),

Gene: Atiba_76 Start: 49961, Stop: 50233, Start Num: 34

Candidate Starts for Atiba_76:

(Start: 31 @49946 has 1 MA's), (Start: 34 @49961 has 127 MA's), (54, 50015), (55, 50018), (58, 50033), (60, 50051), (66, 50099), (68, 50120), (73, 50192), (74, 50201),

Gene: AugsMagnumOpus_78 Start: 43060, Stop: 42833, Start Num: 52

Candidate Starts for AugsMagnumOpus_78:

(Start: 52 @43060 has 65 MA's), (Start: 53 @43054 has 14 MA's),

Gene: Azrael100_140 Start: 68576, Stop: 68298, Start Num: 30

Candidate Starts for Azrael100_140:

(7, 68795), (13, 68705), (Start: 30 @68576 has 5 MA's), (42, 68531), (57, 68480), (64, 68399), (67, 68378), (72, 68306), (73, 68303),

Gene: B1_62 Start: 41030, Stop: 40761, Start Num: 40

Candidate Starts for B1_62:

(14, 41195), (Start: 40 @41030 has 24 MA's), (55, 41000),

Gene: BEEST_75 Start: 50313, Stop: 50585, Start Num: 34

Candidate Starts for BEEST_75:

(Start: 31 @50298 has 1 MA's), (Start: 34 @50313 has 127 MA's), (54, 50367), (55, 50370), (58, 50385), (60, 50403), (66, 50451), (68, 50472), (73, 50544), (74, 50553),

Gene: BGlluviae_75 Start: 50116, Stop: 50388, Start Num: 34

Candidate Starts for BGlluviae_75:

(Start: 31 @50101 has 1 MA's), (Start: 34 @50116 has 127 MA's), (54, 50170), (55, 50173), (58, 50188), (60, 50206), (66, 50254), (68, 50275), (73, 50347), (74, 50356),

Gene: BabyRay_71 Start: 42787, Stop: 42569, Start Num: 53

Candidate Starts for BabyRay_71:

(Start: 53 @42787 has 14 MA's), (55, 42781), (68, 42679), (71, 42616),

Gene: BaghaKamala_74 Start: 49547, Stop: 49819, Start Num: 34

Candidate Starts for BaghaKamala_74:

(Start: 31 @49532 has 1 MA's), (Start: 34 @49547 has 127 MA's), (54, 49601), (55, 49604), (58, 49619), (60, 49637), (66, 49685), (68, 49706), (73, 49778), (74, 49787),

Gene: BaileyBlu_54 Start: 37900, Stop: 38214, Start Num: 33

Candidate Starts for BaileyBlu_54:

(17, 37780), (Start: 33 @37900 has 41 MA's), (55, 37966), (61, 38035),

Gene: BarrelRoll_76 Start: 50518, Stop: 50790, Start Num: 34

Candidate Starts for BarrelRoll_76:

(Start: 31 @50503 has 1 MA's), (Start: 34 @50518 has 127 MA's), (54, 50572), (55, 50575), (58, 50590), (60, 50608), (66, 50656), (68, 50677), (73, 50749), (74, 50758),

Gene: Beauxregard13_74 Start: 43072, Stop: 42845, Start Num: 52

Candidate Starts for Beauxregard13_74:

(Start: 52 @43072 has 65 MA's), (Start: 53 @43066 has 14 MA's),

Gene: Beezoo_78 Start: 51095, Stop: 51364, Start Num: 34

Candidate Starts for Beezoo_78:

(Start: 34 @51095 has 127 MA's), (54, 51149), (55, 51152), (58, 51167), (60, 51185), (66, 51233), (68, 51254), (73, 51326), (74, 51335),

Gene: Bella96_76 Start: 50379, Stop: 50648, Start Num: 34

Candidate Starts for Bella96_76:

(Start: 31 @50364 has 1 MA's), (Start: 34 @50379 has 127 MA's), (54, 50430), (55, 50433), (58, 50448), (60, 50466), (68, 50535), (73, 50607), (74, 50616),

Gene: Belladonna_75 Start: 50116, Stop: 50388, Start Num: 34

Candidate Starts for Belladonna_75:

(Start: 31 @50101 has 1 MA's), (Start: 34 @50116 has 127 MA's), (54, 50170), (55, 50173), (58, 50188), (60, 50206), (66, 50254), (68, 50275), (73, 50347), (74, 50356),

Gene: Berrie_62 Start: 41517, Stop: 41828, Start Num: 33

Candidate Starts for Berrie_62:

(21, 41463), (26, 41490), (Start: 33 @41517 has 41 MA's),

Gene: Biglebops_62 Start: 47171, Stop: 47443, Start Num: 34

Candidate Starts for Biglebops_62:

(Start: 31 @47156 has 1 MA's), (Start: 34 @47171 has 127 MA's), (Start: 37 @47180 has 1 MA's), (47, 47201), (50, 47210), (54, 47228), (55, 47231), (57, 47243), (58, 47246), (60, 47264), (61, 47300), (65, 47312), (74, 47414),

Gene: Blizzard_75 Start: 50313, Stop: 50585, Start Num: 34

Candidate Starts for Blizzard_75:

(Start: 31 @50298 has 1 MA's), (Start: 34 @50313 has 127 MA's), (54, 50367), (55, 50370), (58, 50385), (60, 50403), (66, 50451), (68, 50472), (73, 50544), (74, 50553),

Gene: BlueBird_73 Start: 42858, Stop: 42592, Start Num: 41

Candidate Starts for BlueBird_73:

(Start: 41 @42858 has 5 MA's), (55, 42828), (68, 42726), (76, 42612),

Gene: Boiiii_75 Start: 50315, Stop: 50587, Start Num: 34

Candidate Starts for Boiiii_75:

(Start: 31 @50300 has 1 MA's), (Start: 34 @50315 has 127 MA's), (54, 50369), (55, 50372), (58, 50387), (60, 50405), (66, 50453), (68, 50474), (73, 50546), (74, 50555),

Gene: BoostSeason_78 Start: 51944, Stop: 52213, Start Num: 35

Candidate Starts for BoostSeason_78:

(18, 51821), (27, 51905), (Start: 35 @51944 has 10 MA's), (55, 52001), (60, 52034), (62, 52070), (68, 52103), (73, 52175),

Gene: BreSam8_75 Start: 43062, Stop: 42835, Start Num: 52

Candidate Starts for BreSam8_75:

(Start: 52 @43062 has 65 MA's), (Start: 53 @43056 has 14 MA's),

Gene: Bryler_79 Start: 49944, Stop: 50216, Start Num: 34

Candidate Starts for Bryler_79:

(Start: 31 @49929 has 1 MA's), (Start: 34 @49944 has 127 MA's), (55, 50004), (57, 50016), (60, 50037),

Gene: Bugatti_70 Start: 42858, Stop: 42592, Start Num: 41

Candidate Starts for Bugatti_70:

(Start: 41 @42858 has 5 MA's), (55, 42828), (68, 42726), (76, 42612),

Gene: BuzzBuzz_69 Start: 43096, Stop: 42869, Start Num: 52

Candidate Starts for BuzzBuzz_69:

(Start: 52 @43096 has 65 MA's), (Start: 53 @43090 has 14 MA's), (55, 43084),

Gene: Bxz2_70 Start: 43103, Stop: 42876, Start Num: 52

Candidate Starts for Bxz2_70:

(Start: 52 @43103 has 65 MA's), (Start: 53 @43097 has 14 MA's),

Gene: CREW_74 Start: 50116, Stop: 50388, Start Num: 34

Candidate Starts for CREW_74:

(Start: 31 @50101 has 1 MA's), (Start: 34 @50116 has 127 MA's), (54, 50170), (55, 50173), (58, 50188), (60, 50206), (66, 50254), (68, 50275), (73, 50347), (74, 50356),

Gene: Cain_79 Start: 49932, Stop: 50204, Start Num: 34

Candidate Starts for Cain_79:

(Start: 31 @49917 has 1 MA's), (Start: 34 @49932 has 127 MA's), (55, 49992), (57, 50004), (60, 50025),

Gene: CallinAllBarbz_56 Start: 38887, Stop: 39201, Start Num: 33

Candidate Starts for CallinAllBarbz_56:

(Start: 33 @38887 has 41 MA's), (55, 38953), (61, 39022),

Gene: Capricorn_75 Start: 50116, Stop: 50388, Start Num: 34

Candidate Starts for Capricorn_75:

(Start: 31 @50101 has 1 MA's), (Start: 34 @50116 has 127 MA's), (54, 50170), (55, 50173), (58, 50188), (60, 50206), (66, 50254), (68, 50275), (73, 50347), (74, 50356),

Gene: CaseJules_77 Start: 50313, Stop: 50585, Start Num: 34

Candidate Starts for CaseJules_77:

(Start: 31 @50298 has 1 MA's), (Start: 34 @50313 has 127 MA's), (54, 50367), (55, 50370), (58, 50385), (60, 50403), (66, 50451), (68, 50472), (73, 50544), (74, 50553),

Gene: Cassia_62 Start: 41532, Stop: 41846, Start Num: 33

Candidate Starts for Cassia_62:

(Start: 33 @41532 has 41 MA's), (63, 41673),

Gene: Caviar_70 Start: 42817, Stop: 42557, Start Num: 40

Candidate Starts for Caviar_70:

(24, 42892), (Start: 40 @42817 has 24 MA's), (55, 42787), (76, 42571),

Gene: Chancellor_40 Start: 31427, Stop: 31726, Start Num: 28

Candidate Starts for Chancellor_40:

(Start: 28 @31427 has 11 MA's), (36, 31463), (Start: 53 @31508 has 14 MA's), (57, 31526), (60, 31547), (62, 31583), (68, 31616), (73, 31688),

Gene: CheetoDust_75 Start: 49713, Stop: 49985, Start Num: 34

Candidate Starts for CheetoDust_75:

(Start: 31 @49698 has 1 MA's), (Start: 34 @49713 has 127 MA's), (54, 49767), (55, 49770), (58, 49785), (60, 49803), (66, 49851), (68, 49872), (73, 49944), (74, 49953),

Gene: Cheetobro_40 Start: 31424, Stop: 31723, Start Num: 28

Candidate Starts for Cheetobro_40:

(Start: 28 @31424 has 11 MA's), (36, 31460), (Start: 53 @31505 has 14 MA's), (57, 31523), (60, 31544), (62, 31580), (68, 31613), (73, 31685),

Gene: Chris_76 Start: 50718, Stop: 50993, Start Num: 34

Candidate Starts for Chris_76:

(Start: 31 @50703 has 1 MA's), (Start: 34 @50718 has 127 MA's), (39, 50733), (55, 50778), (57, 50790), (60, 50811),

Gene: Colbster_71 Start: 43072, Stop: 42845, Start Num: 52

Candidate Starts for Colbster_71:

(Start: 52 @43072 has 65 MA's), (Start: 53 @43066 has 14 MA's),

Gene: Community_62 Start: 41790, Stop: 42101, Start Num: 33

Candidate Starts for Community_62:

(Start: 33 @41790 has 41 MA's),

Gene: Cosmo_147 Start: 68740, Stop: 68462, Start Num: 30

Candidate Starts for Cosmo_147:

(7, 68959), (13, 68869), (Start: 30 @68740 has 5 MA's), (42, 68695), (57, 68644), (64, 68563), (67, 68542), (72, 68470), (73, 68467),

Gene: Crewmate_67 Start: 42141, Stop: 42452, Start Num: 33

Candidate Starts for Crewmate_67:

(Start: 33 @42141 has 41 MA's),

Gene: CrimD_77 Start: 51114, Stop: 51386, Start Num: 34

Candidate Starts for CrimD_77:

(Start: 31 @51099 has 1 MA's), (Start: 34 @51114 has 127 MA's), (54, 51171), (55, 51174), (57, 51186), (58, 51189), (60, 51207), (66, 51255), (68, 51276), (73, 51348), (74, 51357),

Gene: Cullens_75 Start: 43068, Stop: 42841, Start Num: 52

Candidate Starts for Cullens_75:

(Start: 52 @43068 has 65 MA's), (Start: 53 @43062 has 14 MA's),

Gene: Curiosium_81 Start: 50080, Stop: 50355, Start Num: 34

Candidate Starts for Curiosium_81:

(Start: 34 @50080 has 127 MA's), (39, 50095), (47, 50110), (54, 50137), (55, 50140), (58, 50155), (60, 50173), (66, 50221), (68, 50242), (73, 50314), (74, 50323),

Gene: Cyan_62 Start: 41471, Stop: 41785, Start Num: 33

Candidate Starts for Cyan_62:

(Start: 33 @41471 has 41 MA's),

Gene: DS6A_42 Start: 32699, Stop: 32980, Start Num: 37

Candidate Starts for DS6A_42:

(3, 32342), (4, 32414), (6, 32438), (8, 32462), (11, 32489), (12, 32516), (22, 32618), (25, 32636), (Start: 34 @32690 has 127 MA's), (Start: 37 @32699 has 1 MA's), (46, 32720), (54, 32750), (55, 32753), (59, 32780), (60, 32786), (62, 32822), (67, 32852), (68, 32855), (71, 32918), (73, 32927),

Gene: DaHudson_74 Start: 43061, Stop: 42834, Start Num: 52

Candidate Starts for DaHudson_74:

(Start: 52 @43061 has 65 MA's), (Start: 53 @43055 has 14 MA's),

Gene: Daishi_74 Start: 41936, Stop: 41709, Start Num: 52

Candidate Starts for Daishi_74:

(Start: 52 @41936 has 65 MA's), (Start: 53 @41930 has 14 MA's),

Gene: Dalmuri_75 Start: 50116, Stop: 50388, Start Num: 34

Candidate Starts for Dalmuri_75:

(Start: 31 @50101 has 1 MA's), (Start: 34 @50116 has 127 MA's), (54, 50170), (55, 50173), (58, 50188), (60, 50206), (66, 50254), (68, 50275), (73, 50347), (74, 50356),

Gene: DarthP_73 Start: 50395, Stop: 50667, Start Num: 34

Candidate Starts for DarthP_73:

(5, 50134), (9, 50197), (15, 50254), (18, 50278), (Start: 34 @50395 has 127 MA's), (55, 50452), (58, 50467), (60, 50485), (68, 50554),

Gene: Deby_75 Start: 50485, Stop: 50757, Start Num: 34

Candidate Starts for Deby_75:

(Start: 31 @50470 has 1 MA's), (Start: 34 @50485 has 127 MA's), (54, 50539), (55, 50542), (58, 50557), (60, 50575), (66, 50623), (68, 50644), (73, 50716), (74, 50725),

Gene: Devera_83 Start: 51910, Stop: 52182, Start Num: 34

Candidate Starts for Devera_83:

(Start: 31 @51895 has 1 MA's), (Start: 34 @51910 has 127 MA's), (54, 51967), (55, 51970), (58, 51985), (60, 52003), (66, 52051), (68, 52072), (73, 52144), (74, 52153),

Gene: Dieselweasel_75 Start: 43070, Stop: 42843, Start Num: 52

Candidate Starts for Dieselweasel_75:

(Start: 52 @43070 has 65 MA's), (Start: 53 @43064 has 14 MA's),

Gene: DismalFunk_79 Start: 52473, Stop: 52742, Start Num: 35

Candidate Starts for DismalFunk_79:

(18, 52350), (Start: 35 @52473 has 10 MA's), (Start: 40 @52488 has 24 MA's), (55, 52530), (60, 52563), (62, 52599), (68, 52632),

Gene: DismalStressor_79 Start: 52473, Stop: 52742, Start Num: 35

Candidate Starts for DismalStressor_79:

(18, 52350), (Start: 35 @52473 has 10 MA's), (Start: 40 @52488 has 24 MA's), (55, 52530), (60, 52563), (62, 52599), (68, 52632),

Gene: Dole_80 Start: 51913, Stop: 52185, Start Num: 34

Candidate Starts for Dole_80:

(Start: 31 @51898 has 1 MA's), (Start: 34 @51913 has 127 MA's), (54, 51970), (55, 51973), (58, 51988), (60, 52006), (66, 52054), (68, 52075), (73, 52147), (74, 52156),

Gene: DrHayes_75 Start: 50512, Stop: 50781, Start Num: 34

Candidate Starts for DrHayes_75:

(Start: 31 @50497 has 1 MA's), (Start: 34 @50512 has 127 MA's), (54, 50563), (55, 50566), (57, 50578), (58, 50581), (60, 50599), (66, 50647), (68, 50668), (73, 50740), (74, 50749),

Gene: DrManhattan_65 Start: 40175, Stop: 40489, Start Num: 33

Candidate Starts for DrManhattan_65:

(Start: 33 @40175 has 41 MA's),

Gene: DrSierra_59 Start: 40307, Stop: 40618, Start Num: 33

Candidate Starts for DrSierra_59:

(26, 40280), (Start: 33 @40307 has 41 MA's),

Gene: Durfee_75 Start: 50313, Stop: 50585, Start Num: 34

Candidate Starts for Durfee_75:

(Start: 31 @50298 has 1 MA's), (Start: 34 @50313 has 127 MA's), (54, 50367), (55, 50370), (58, 50385), (60, 50403), (66, 50451), (68, 50472), (73, 50544), (74, 50553),

Gene: Efra2_82 Start: 50946, Stop: 51221, Start Num: 34

Candidate Starts for Efra2_82:

(Start: 31 @50931 has 1 MA's), (Start: 34 @50946 has 127 MA's), (54, 51003), (55, 51006), (57, 51018), (58, 51021), (60, 51039), (66, 51087), (68, 51108), (73, 51180), (74, 51189),

Gene: Ekdilam_70 Start: 50603, Stop: 50875, Start Num: 34

Candidate Starts for Ekdilam_70:

(Start: 34 @50603 has 127 MA's), (55, 50660), (58, 50675), (60, 50693), (68, 50762),

Gene: Elezi_61 Start: 41176, Stop: 41487, Start Num: 33

Candidate Starts for Elezi_61:

(Start: 33 @41176 has 41 MA's),

Gene: Ellie_71 Start: 49839, Stop: 50111, Start Num: 34

Candidate Starts for Ellie_71:

(Start: 34 @49839 has 127 MA's), (55, 49896), (58, 49911), (60, 49929), (68, 49998),

Gene: Emerson_78 Start: 50552, Stop: 50824, Start Num: 34

Candidate Starts for Emerson_78:

(Start: 31 @50537 has 1 MA's), (Start: 34 @50552 has 127 MA's), (54, 50606), (55, 50609), (58, 50624), (60, 50642), (66, 50690), (68, 50711), (73, 50783), (74, 50792),

Gene: EniyanLRS_140 Start: 69081, Stop: 68803, Start Num: 30

Candidate Starts for EniyanLRS_140:

(7, 69288), (13, 69198), (Start: 30 @69081 has 5 MA's), (42, 69036), (57, 68985), (64, 68904), (67, 68883), (72, 68811), (73, 68808),

Gene: Enkosi_64 Start: 49769, Stop: 50041, Start Num: 34

Candidate Starts for Enkosi_64:

(Start: 31 @49754 has 1 MA's), (Start: 34 @49769 has 127 MA's), (Start: 37 @49778 has 1 MA's), (47, 49799), (50, 49808), (54, 49826), (55, 49829), (57, 49841), (58, 49844), (60, 49862), (61, 49898), (65, 49910), (74, 50012),

Gene: EpicPhail_76 Start: 43072, Stop: 42845, Start Num: 52

Candidate Starts for EpicPhail_76:

(Start: 52 @43072 has 65 MA's), (Start: 53 @43066 has 14 MA's),

Gene: Eponine_42 Start: 32180, Stop: 32479, Start Num: 28

Candidate Starts for Eponine_42:

(Start: 28 @32180 has 11 MA's), (36, 32216), (Start: 53 @32261 has 14 MA's), (57, 32279), (60, 32300), (62, 32336), (68, 32369), (73, 32441),

Gene: Eraser_62 Start: 41426, Stop: 41737, Start Num: 33

Candidate Starts for Eraser_62:

(Start: 33 @41426 has 41 MA's),

Gene: Exile_56 Start: 42346, Stop: 42639, Start Num: 38

Candidate Starts for Exile_56:

(Start: 33 @42331 has 41 MA's), (38, 42346), (55, 42397), (61, 42466), (70, 42538), (71, 42562),

Gene: Farber_75 Start: 43058, Stop: 42831, Start Num: 52

Candidate Starts for Farber_75:

(Start: 52 @43058 has 65 MA's), (Start: 53 @43052 has 14 MA's),

Gene: Fefferhead_74 Start: 49897, Stop: 50172, Start Num: 34

Candidate Starts for Fefferhead_74:

(Start: 31 @49882 has 1 MA's), (Start: 34 @49897 has 127 MA's), (39, 49912), (44, 49921), (55, 49957), (58, 49972), (60, 49990), (68, 50059),

Gene: Fernando_75 Start: 43068, Stop: 42841, Start Num: 52

Candidate Starts for Fernando_75:

(Start: 52 @43068 has 65 MA's), (Start: 53 @43062 has 14 MA's),

Gene: Findley_79 Start: 52491, Stop: 52760, Start Num: 35

Candidate Starts for Findley_79:

(18, 52368), (Start: 35 @52491 has 10 MA's), (Start: 40 @52506 has 24 MA's), (55, 52548), (60, 52581), (62, 52617), (68, 52650),

Gene: Fionnbharth_40 Start: 31415, Stop: 31714, Start Num: 28

Candidate Starts for Fionnbharth_40:

(Start: 28 @31415 has 11 MA's), (36, 31451), (Start: 53 @31496 has 14 MA's), (57, 31514), (60, 31535), (62, 31571), (68, 31604), (73, 31676),

Gene: Fred313_68 Start: 42472, Stop: 42206, Start Num: 40

Candidate Starts for Fred313_68:

(24, 42547), (Start: 40 @42472 has 24 MA's), (Start: 45 @42463 has 1 MA's), (55, 42442), (68, 42340),

Gene: Ganymede_75 Start: 50523, Stop: 50792, Start Num: 34

Candidate Starts for Ganymede_75:

(Start: 31 @50508 has 1 MA's), (Start: 34 @50523 has 127 MA's), (54, 50577), (55, 50580), (58, 50595), (60, 50613), (66, 50661), (68, 50682), (73, 50754), (74, 50763),

Gene: Gemma_72 Start: 42881, Stop: 42657, Start Num: 52

Candidate Starts for Gemma_72:

(Start: 52 @42881 has 65 MA's), (Start: 53 @42875 has 14 MA's), (55, 42869),

Gene: Geraldini_79 Start: 51113, Stop: 51382, Start Num: 34

Candidate Starts for Geraldini_79:

(Start: 31 @51098 has 1 MA's), (Start: 34 @51113 has 127 MA's), (54, 51167), (55, 51170), (58, 51185), (60, 51203), (66, 51251), (68, 51272), (73, 51344), (74, 51353),

Gene: GingkoMaracino_75 Start: 42954, Stop: 42727, Start Num: 52

Candidate Starts for GingkoMaracino_75:

(Start: 52 @42954 has 65 MA's), (Start: 53 @42948 has 14 MA's),

Gene: Giroux_69 Start: 42857, Stop: 42591, Start Num: 41

Candidate Starts for Giroux_69:

(Start: 41 @42857 has 5 MA's), (55, 42827), (68, 42725), (76, 42611),

Gene: Grif_73 Start: 43142, Stop: 42915, Start Num: 52

Candidate Starts for Grif_73:

(Start: 52 @43142 has 65 MA's), (Start: 53 @43136 has 14 MA's),

Gene: Groupthink_75 Start: 42885, Stop: 42661, Start Num: 52

Candidate Starts for Groupthink_75:

(Start: 52 @42885 has 65 MA's), (Start: 53 @42879 has 14 MA's), (55, 42873),

Gene: Grub_73 Start: 43060, Stop: 42833, Start Num: 52

Candidate Starts for Grub_73:

(Start: 52 @43060 has 65 MA's), (Start: 53 @43054 has 14 MA's),

Gene: Grum1_74 Start: 43068, Stop: 42841, Start Num: 52

Candidate Starts for Grum1_74:

(Start: 52 @43068 has 65 MA's), (Start: 53 @43062 has 14 MA's),

Gene: GtownJaz_75 Start: 43069, Stop: 42842, Start Num: 52

Candidate Starts for GtownJaz_75:

(Start: 52 @43069 has 65 MA's), (Start: 53 @43063 has 14 MA's),

Gene: Guanica15_81 Start: 50692, Stop: 50967, Start Num: 34

Candidate Starts for Guanica15_81:

(Start: 31 @50677 has 1 MA's), (Start: 34 @50692 has 127 MA's), (54, 50749), (55, 50752), (57, 50764), (58, 50767), (60, 50785), (66, 50833), (68, 50854), (73, 50926), (74, 50935),

Gene: Hammy_73 Start: 50380, Stop: 50652, Start Num: 34

Candidate Starts for Hammy_73:

(5, 50119), (9, 50182), (15, 50239), (18, 50263), (Start: 34 @50380 has 127 MA's), (58, 50452), (60, 50470), (68, 50539),

Gene: HashRod_76 Start: 43096, Stop: 42869, Start Num: 52

Candidate Starts for HashRod_76:

(Start: 52 @43096 has 65 MA's), (Start: 53 @43090 has 14 MA's),

Gene: HaveUMetTed_75 Start: 42870, Stop: 42646, Start Num: 52

Candidate Starts for HaveUMetTed_75:

(Start: 52 @42870 has 65 MA's), (Start: 53 @42864 has 14 MA's), (55, 42858),

Gene: Heathen_70 Start: 42567, Stop: 42301, Start Num: 40

Candidate Starts for Heathen_70:

(24, 42642), (Start: 40 @42567 has 24 MA's), (Start: 45 @42558 has 1 MA's), (55, 42537), (68, 42435),

Gene: HedwigODU_75 Start: 50161, Stop: 50433, Start Num: 34

Candidate Starts for HedwigODU_75:

(Start: 31 @50146 has 1 MA's), (Start: 34 @50161 has 127 MA's), (54, 50215), (55, 50218), (58, 50233), (60, 50251), (66, 50299), (68, 50320), (73, 50392), (74, 50401),

Gene: HelDan_70 Start: 42774, Stop: 42517, Start Num: 45

Candidate Starts for HelDan_70:

(24, 42858), (Start: 40 @42783 has 24 MA's), (Start: 45 @42774 has 1 MA's), (55, 42753), (68, 42651),

Gene: Heliosoles_72 Start: 42888, Stop: 42664, Start Num: 52

Candidate Starts for Heliosoles_72:

(Start: 52 @42888 has 65 MA's), (Start: 53 @42882 has 14 MA's), (55, 42876),

Gene: Hercules11_75 Start: 43077, Stop: 42850, Start Num: 52

Candidate Starts for Hercules11_75:

(Start: 52 @43077 has 65 MA's), (Start: 53 @43071 has 14 MA's),

Gene: Homura_74 Start: 50116, Stop: 50388, Start Num: 34

Candidate Starts for Homura_74:

(Start: 31 @50101 has 1 MA's), (Start: 34 @50116 has 127 MA's), (54, 50170), (55, 50173), (58, 50188), (60, 50206), (66, 50254), (68, 50275), (73, 50347), (74, 50356),

Gene: Hookmount_70 Start: 42818, Stop: 42558, Start Num: 40

Candidate Starts for Hookmount_70:

(24, 42893), (Start: 40 @42818 has 24 MA's), (55, 42788), (76, 42572),

Gene: Hurricane_76 Start: 50335, Stop: 50607, Start Num: 34

Candidate Starts for Hurricane_76:

(Start: 34 @50335 has 127 MA's), (39, 50350), (57, 50404), (60, 50425), (68, 50494), (73, 50566), (74, 50575),

Gene: Hyperbowlee_74 Start: 50313, Stop: 50585, Start Num: 34

Candidate Starts for Hyperbowlee_74:

(Start: 31 @50298 has 1 MA's), (Start: 34 @50313 has 127 MA's), (54, 50367), (55, 50370), (58, 50385), (60, 50403), (66, 50451), (68, 50472), (73, 50544), (74, 50553),

Gene: Idleandcovert_71 Start: 42858, Stop: 42592, Start Num: 41

Candidate Starts for Idleandcovert_71:

(Start: 41 @42858 has 5 MA's), (55, 42828), (68, 42726), (76, 42612),

Gene: Illumine_81 Start: 51912, Stop: 52184, Start Num: 34

Candidate Starts for Illumine_81:

(Start: 31 @51897 has 1 MA's), (Start: 34 @51912 has 127 MA's), (54, 51969), (55, 51972), (58, 51987), (60, 52005), (66, 52053), (68, 52074), (73, 52146), (74, 52155),

Gene: Inky_75 Start: 50116, Stop: 50388, Start Num: 34

Candidate Starts for Inky_75:

(Start: 31 @50101 has 1 MA's), (Start: 34 @50116 has 127 MA's), (54, 50170), (55, 50173), (58, 50188), (60, 50206), (66, 50254), (68, 50275), (73, 50347), (74, 50356),

Gene: Isca_68 Start: 42335, Stop: 42066, Start Num: 40

Candidate Starts for Isca_68:

(14, 42500), (Start: 40 @42335 has 24 MA's), (55, 42305),

Gene: Iter_63 Start: 41678, Stop: 41992, Start Num: 33

Candidate Starts for Iter_63:

(Start: 33 @41678 has 41 MA's),

Gene: IttyBittyPiggy_61 Start: 39776, Stop: 40090, Start Num: 33

Candidate Starts for IttyBittyPiggy_61:

(Start: 33 @39776 has 41 MA's),

Gene: JAWS_74 Start: 50078, Stop: 50350, Start Num: 34

Candidate Starts for JAWS_74:

(Start: 31 @50063 has 1 MA's), (Start: 34 @50078 has 127 MA's), (54, 50132), (55, 50135), (58, 50150), (60, 50168), (66, 50216), (68, 50237), (73, 50309), (74, 50318),

Gene: JF1_40 Start: 31413, Stop: 31712, Start Num: 29

Candidate Starts for JF1_40:

(Start: 29 @31413 has 8 MA's), (36, 31449), (Start: 53 @31494 has 14 MA's), (57, 31512), (62, 31569), (68, 31602), (73, 31674),

Gene: JF2_68 Start: 41030, Stop: 40761, Start Num: 40

Candidate Starts for JF2_68:

(14, 41195), (Start: 40 @41030 has 24 MA's), (55, 41000),

Gene: JF4_68 Start: 41030, Stop: 40761, Start Num: 40

Candidate Starts for JF4_68:

(14, 41195), (Start: 40 @41030 has 24 MA's), (55, 41000),

Gene: JHC117_71 Start: 43060, Stop: 42839, Start Num: 53
Candidate Starts for JHC117_71:
(Start: 52 @43066 has 65 MA's), (Start: 53 @43060 has 14 MA's),

Gene: Janeemi_61 Start: 41291, Stop: 41602, Start Num: 33
Candidate Starts for Janeemi_61:
(21, 41237), (26, 41264), (Start: 33 @41291 has 41 MA's), (69, 41456),

Gene: Jarvi_75 Start: 50116, Stop: 50388, Start Num: 34
Candidate Starts for Jarvi_75:
(Start: 31 @50101 has 1 MA's), (Start: 34 @50116 has 127 MA's), (54, 50170), (55, 50173), (58, 50188), (60, 50206), (66, 50254), (68, 50275), (73, 50347), (74, 50356),

Gene: Jayhawk_77 Start: 50578, Stop: 50850, Start Num: 34
Candidate Starts for Jayhawk_77:
(Start: 31 @50563 has 1 MA's), (Start: 34 @50578 has 127 MA's), (54, 50632), (55, 50635), (58, 50650), (60, 50668), (66, 50716), (68, 50737), (73, 50809), (74, 50818),

Gene: Jeckyll_75 Start: 50116, Stop: 50388, Start Num: 34
Candidate Starts for Jeckyll_75:
(Start: 31 @50101 has 1 MA's), (Start: 34 @50116 has 127 MA's), (54, 50170), (55, 50173), (58, 50188), (60, 50206), (66, 50254), (68, 50275), (73, 50347), (74, 50356),

Gene: JenCasNa_76 Start: 43062, Stop: 42841, Start Num: 53
Candidate Starts for JenCasNa_76:
(Start: 52 @43068 has 65 MA's), (Start: 53 @43062 has 14 MA's),

Gene: JeppNRM_75 Start: 42886, Stop: 42662, Start Num: 52
Candidate Starts for JeppNRM_75:
(Start: 52 @42886 has 65 MA's), (Start: 53 @42880 has 14 MA's), (55, 42874),

Gene: Jobu08_71 Start: 42894, Stop: 42673, Start Num: 53
Candidate Starts for Jobu08_71:
(Start: 52 @42900 has 65 MA's), (Start: 53 @42894 has 14 MA's),

Gene: Joemato_66 Start: 41527, Stop: 41841, Start Num: 33
Candidate Starts for Joemato_66:
(Start: 33 @41527 has 41 MA's),

Gene: JohnDoe_63 Start: 41565, Stop: 41879, Start Num: 33
Candidate Starts for JohnDoe_63:
(Start: 33 @41565 has 41 MA's),

Gene: Joy99_76 Start: 50245, Stop: 50517, Start Num: 34
Candidate Starts for Joy99_76:
(Start: 31 @50230 has 1 MA's), (Start: 34 @50245 has 127 MA's), (54, 50299), (55, 50302), (58, 50317), (60, 50335), (66, 50383), (68, 50404), (73, 50476), (74, 50485),

Gene: Jstan_63 Start: 41180, Stop: 41491, Start Num: 33
Candidate Starts for Jstan_63:
(Start: 33 @41180 has 41 MA's),

Gene: Juliette_42 Start: 31572, Stop: 31871, Start Num: 29

Candidate Starts for Juliette_42:
(Start: 29 @31572 has 8 MA's), (36, 31608), (Start: 53 @31653 has 14 MA's), (57, 31671), (62, 31728), (68, 31761), (73, 31833),

Gene: JuneStar_62 Start: 42627, Stop: 42941, Start Num: 33
Candidate Starts for JuneStar_62:
(Start: 33 @42627 has 41 MA's),

Gene: KADY_72 Start: 43090, Stop: 42869, Start Num: 53
Candidate Starts for KADY_72:
(Start: 52 @43096 has 65 MA's), (Start: 53 @43090 has 14 MA's), (55, 43084),

Gene: Kalb97_75 Start: 42884, Stop: 42660, Start Num: 52
Candidate Starts for Kalb97_75:
(Start: 52 @42884 has 65 MA's), (Start: 53 @42878 has 14 MA's), (55, 42872),

Gene: Kalnoky_75 Start: 42882, Stop: 42658, Start Num: 52
Candidate Starts for Kalnoky_75:
(Start: 52 @42882 has 65 MA's), (Start: 53 @42876 has 14 MA's), (55, 42870),

Gene: Kaylissa_64 Start: 41927, Stop: 42241, Start Num: 33
Candidate Starts for Kaylissa_64:
(Start: 33 @41927 has 41 MA's),

Gene: KeAlii_60 Start: 39873, Stop: 40187, Start Num: 33
Candidate Starts for KeAlii_60:
(26, 39846), (Start: 33 @39873 has 41 MA's),

Gene: Keshu_78 Start: 50490, Stop: 50765, Start Num: 34
Candidate Starts for Keshu_78:
(Start: 34 @50490 has 127 MA's), (39, 50505), (57, 50562), (58, 50565), (60, 50583), (68, 50652), (73, 50724), (74, 50733),

Gene: KiSi_78 Start: 50706, Stop: 50978, Start Num: 34
Candidate Starts for KiSi_78:
(Start: 31 @50691 has 1 MA's), (Start: 34 @50706 has 127 MA's), (39, 50721), (Start: 53 @50760 has 14 MA's), (54, 50763), (55, 50766), (57, 50778), (60, 50799), (67, 50865), (73, 50940),

Gene: Krueger_80 Start: 50443, Stop: 50730, Start Num: 31
Candidate Starts for Krueger_80:
(Start: 31 @50443 has 1 MA's), (Start: 34 @50458 has 127 MA's), (39, 50473), (48, 50491), (55, 50518), (57, 50530), (60, 50551),

Gene: LBerry_76 Start: 43072, Stop: 42845, Start Num: 52
Candidate Starts for LBerry_76:
(Start: 52 @43072 has 65 MA's), (Start: 53 @43066 has 14 MA's),

Gene: Lambert1_70 Start: 42817, Stop: 42557, Start Num: 40
Candidate Starts for Lambert1_70:
(24, 42892), (Start: 40 @42817 has 24 MA's), (55, 42787), (76, 42571),

Gene: LarryKay_75 Start: 43097, Stop: 42870, Start Num: 52
Candidate Starts for LarryKay_75:

(Start: 52 @43097 has 65 MA's), (Start: 53 @43091 has 14 MA's),

Gene: LastHope_81 Start: 49802, Stop: 50086, Start Num: 34

Candidate Starts for LastHope_81:

(Start: 31 @49787 has 1 MA's), (Start: 34 @49802 has 127 MA's), (39, 49817), (54, 49859), (55, 49862), (57, 49874), (58, 49877), (60, 49895), (68, 49964), (73, 50036), (74, 50045), (77, 50075),

Gene: LaterM_75 Start: 50776, Stop: 51048, Start Num: 34

Candidate Starts for LaterM_75:

(Start: 31 @50761 has 1 MA's), (Start: 34 @50776 has 127 MA's), (54, 50833), (55, 50836), (58, 50851), (60, 50869), (68, 50938), (73, 51010), (74, 51019),

Gene: LeMond_77 Start: 50310, Stop: 50582, Start Num: 34

Candidate Starts for LeMond_77:

(Start: 31 @50295 has 1 MA's), (Start: 34 @50310 has 127 MA's), (Start: 53 @50364 has 14 MA's), (55, 50370), (57, 50382), (60, 50403), (67, 50469), (73, 50544),

Gene: Lego_62 Start: 41246, Stop: 41560, Start Num: 33

Candidate Starts for Lego_62:

(Start: 33 @41246 has 41 MA's),

Gene: Liebe_64 Start: 43443, Stop: 43757, Start Num: 33

Candidate Starts for Liebe_64:

(Start: 33 @43443 has 41 MA's), (51, 43488), (55, 43506), (64, 43587), (78, 43734),

Gene: LilPharaoh_63 Start: 46884, Stop: 47156, Start Num: 34

Candidate Starts for LilPharaoh_63:

(Start: 31 @46869 has 1 MA's), (Start: 34 @46884 has 127 MA's), (Start: 37 @46893 has 1 MA's), (47, 46914), (50, 46923), (54, 46941), (55, 46944), (57, 46956), (58, 46959), (60, 46977), (61, 47013), (65, 47025), (74, 47127),

Gene: Lilith_73 Start: 43061, Stop: 42834, Start Num: 52

Candidate Starts for Lilith_73:

(Start: 52 @43061 has 65 MA's), (Start: 53 @43055 has 14 MA's),

Gene: LindNT_74 Start: 50578, Stop: 50853, Start Num: 34

Candidate Starts for LindNT_74:

(Start: 31 @50563 has 1 MA's), (Start: 34 @50578 has 127 MA's), (54, 50635), (55, 50638), (57, 50650), (58, 50653), (60, 50671), (66, 50719), (68, 50740), (73, 50812), (74, 50821),

Gene: Lizalica_61 Start: 40721, Stop: 41032, Start Num: 33

Candidate Starts for Lizalica_61:

(Start: 33 @40721 has 41 MA's),

Gene: Llorens_74 Start: 50116, Stop: 50388, Start Num: 34

Candidate Starts for Llorens_74:

(Start: 31 @50101 has 1 MA's), (Start: 34 @50116 has 127 MA's), (54, 50170), (55, 50173), (58, 50188), (60, 50206), (66, 50254), (68, 50275), (73, 50347), (74, 50356),

Gene: London_62 Start: 41417, Stop: 41728, Start Num: 33

Candidate Starts for London_62:

(Start: 33 @41417 has 41 MA's),

Gene: Louie6_74 Start: 43098, Stop: 42871, Start Num: 52
Candidate Starts for Louie6_74:
(Start: 52 @43098 has 65 MA's), (Start: 53 @43092 has 14 MA's), (55, 43086),

Gene: LugYA_78 Start: 43069, Stop: 42842, Start Num: 52
Candidate Starts for LugYA_78:
(Start: 52 @43069 has 65 MA's), (Start: 53 @43063 has 14 MA's),

Gene: Lunahalos_75 Start: 50116, Stop: 50388, Start Num: 34
Candidate Starts for Lunahalos_75:
(Start: 31 @50101 has 1 MA's), (Start: 34 @50116 has 127 MA's), (54, 50170), (55, 50173), (58, 50188), (60, 50206), (66, 50254), (68, 50275), (73, 50347), (74, 50356),

Gene: MA5_70 Start: 42239, Stop: 41970, Start Num: 40
Candidate Starts for MA5_70:
(14, 42404), (Start: 40 @42239 has 24 MA's), (55, 42209),

Gene: MK4_70 Start: 42314, Stop: 42045, Start Num: 40
Candidate Starts for MK4_70:
(14, 42479), (Start: 40 @42314 has 24 MA's), (55, 42284),

Gene: MaGuCo_57 Start: 41443, Stop: 41757, Start Num: 33
Candidate Starts for MaGuCo_57:
(Start: 33 @41443 has 41 MA's), (43, 41464), (51, 41488), (64, 41587), (78, 41734),

Gene: MacnCheese_78 Start: 50941, Stop: 51216, Start Num: 34
Candidate Starts for MacnCheese_78:
(10, 50743), (19, 50824), (Start: 34 @50941 has 127 MA's), (48, 50971), (Start: 53 @50995 has 14 MA's), (57, 51013), (58, 51016), (60, 51034), (73, 51175),

Gene: MadMarie_73 Start: 43069, Stop: 42842, Start Num: 52
Candidate Starts for MadMarie_73:
(Start: 52 @43069 has 65 MA's), (Start: 53 @43063 has 14 MA's),

Gene: Mainiac_74 Start: 43061, Stop: 42834, Start Num: 52
Candidate Starts for Mainiac_74:
(Start: 52 @43061 has 65 MA's), (Start: 53 @43055 has 14 MA's),

Gene: Malinsilva_77 Start: 43060, Stop: 42833, Start Num: 52
Candidate Starts for Malinsilva_77:
(Start: 52 @43060 has 65 MA's), (Start: 53 @43054 has 14 MA's),

Gene: Malthus_41 Start: 31339, Stop: 31638, Start Num: 28
Candidate Starts for Malthus_41:
(Start: 28 @31339 has 11 MA's), (36, 31375), (Start: 53 @31420 has 14 MA's), (57, 31438), (60, 31459), (62, 31495), (68, 31528), (73, 31600),

Gene: Manu_74 Start: 42885, Stop: 42661, Start Num: 52
Candidate Starts for Manu_74:
(Start: 52 @42885 has 65 MA's), (Start: 53 @42879 has 14 MA's), (55, 42873),

Gene: MarQuardt_75 Start: 43064, Stop: 42843, Start Num: 53
Candidate Starts for MarQuardt_75:

(Start: 52 @43070 has 65 MA's), (Start: 53 @43064 has 14 MA's),

Gene: Marcoliusprime_78 Start: 52473, Stop: 52742, Start Num: 35

Candidate Starts for Marcoliusprime_78:

(18, 52350), (Start: 35 @52473 has 10 MA's), (Start: 40 @52488 has 24 MA's), (55, 52530), (60, 52563), (62, 52599), (68, 52632),

Gene: Margo_70 Start: 42843, Stop: 42583, Start Num: 40

Candidate Starts for Margo_70:

(24, 42918), (Start: 40 @42843 has 24 MA's), (55, 42813), (60, 42780), (76, 42597),

Gene: Marie_73 Start: 43068, Stop: 42841, Start Num: 52

Candidate Starts for Marie_73:

(Start: 52 @43068 has 65 MA's), (Start: 53 @43062 has 14 MA's),

Gene: Marius_75 Start: 42882, Stop: 42658, Start Num: 52

Candidate Starts for Marius_75:

(Start: 52 @42882 has 65 MA's), (Start: 53 @42876 has 14 MA's), (55, 42870),

Gene: MarkPhew_77 Start: 50195, Stop: 50467, Start Num: 34

Candidate Starts for MarkPhew_77:

(Start: 31 @50180 has 1 MA's), (Start: 34 @50195 has 127 MA's), (Start: 53 @50249 has 14 MA's), (55, 50255), (57, 50267), (58, 50270), (60, 50288), (67, 50354),

Gene: Marshawn_74 Start: 50588, Stop: 50860, Start Num: 34

Candidate Starts for Marshawn_74:

(Start: 31 @50573 has 1 MA's), (Start: 34 @50588 has 127 MA's), (48, 50621), (56, 50657), (74, 50831),

Gene: MaryV_133 Start: 66927, Stop: 66649, Start Num: 30

Candidate Starts for MaryV_133:

(7, 67134), (13, 67044), (Start: 30 @66927 has 5 MA's), (42, 66882), (57, 66831), (64, 66750), (67, 66729), (72, 66657), (73, 66654),

Gene: Maureen_64 Start: 43442, Stop: 43756, Start Num: 33

Candidate Starts for Maureen_64:

(Start: 33 @43442 has 41 MA's), (51, 43487), (55, 43505), (64, 43586), (78, 43733),

Gene: Mdavu_63 Start: 47160, Stop: 47432, Start Num: 34

Candidate Starts for Mdavu_63:

(Start: 31 @47145 has 1 MA's), (Start: 34 @47160 has 127 MA's), (Start: 37 @47169 has 1 MA's), (47, 47190), (50, 47199), (54, 47217), (55, 47220), (57, 47232), (58, 47235), (60, 47253), (61, 47289), (65, 47301), (74, 47403),

Gene: MeaningOfLife_77 Start: 51068, Stop: 51340, Start Num: 34

Candidate Starts for MeaningOfLife_77:

(Start: 31 @51053 has 1 MA's), (Start: 34 @51068 has 127 MA's), (54, 51125), (55, 51128), (58, 51143), (60, 51161), (68, 51230), (73, 51302), (74, 51311),

Gene: Megsy_77 Start: 50206, Stop: 50481, Start Num: 34

Candidate Starts for Megsy_77:

(Start: 31 @50191 has 1 MA's), (Start: 34 @50206 has 127 MA's), (54, 50263), (55, 50266), (58, 50281), (60, 50299), (66, 50347), (68, 50368), (73, 50440), (74, 50449),

Gene: Methuselah_68 Start: 43092, Stop: 42865, Start Num: 52
Candidate Starts for Methuselah_68:
(Start: 52 @43092 has 65 MA's), (Start: 53 @43086 has 14 MA's),

Gene: Microwolf_71 Start: 43084, Stop: 42857, Start Num: 52
Candidate Starts for Microwolf_71:
(Start: 52 @43084 has 65 MA's), (Start: 53 @43078 has 14 MA's),

Gene: Milly_79 Start: 52464, Stop: 52733, Start Num: 35
Candidate Starts for Milly_79:
(18, 52341), (Start: 35 @52464 has 10 MA's), (Start: 40 @52479 has 24 MA's), (55, 52521), (60, 52554), (62, 52590), (68, 52623),

Gene: Misomonster_76 Start: 43095, Stop: 42868, Start Num: 52
Candidate Starts for Misomonster_76:
(Start: 52 @43095 has 65 MA's), (Start: 53 @43089 has 14 MA's), (55, 43083),

Gene: MissDaisy_39 Start: 31179, Stop: 31466, Start Num: 29
Candidate Starts for MissDaisy_39:
(Start: 29 @31179 has 8 MA's), (36, 31215), (Start: 53 @31248 has 14 MA's), (55, 31254), (57, 31266), (60, 31287), (62, 31323), (68, 31356), (73, 31428),

Gene: MissSwiss_63 Start: 40182, Stop: 40493, Start Num: 33
Candidate Starts for MissSwiss_63:
(Start: 33 @40182 has 41 MA's),

Gene: Mitti_40 Start: 31340, Stop: 31639, Start Num: 28
Candidate Starts for Mitti_40:
(Start: 28 @31340 has 11 MA's), (36, 31376), (Start: 53 @31421 has 14 MA's), (57, 31439), (60, 31460), (62, 31496), (68, 31529), (73, 31601),

Gene: MoneyMay_74 Start: 43068, Stop: 42841, Start Num: 52
Candidate Starts for MoneyMay_74:
(Start: 52 @43068 has 65 MA's), (Start: 53 @43062 has 14 MA's),

Gene: Moss_70 Start: 38016, Stop: 38342, Start Num: 33
Candidate Starts for Moss_70:
(20, 37938), (Start: 33 @38016 has 41 MA's), (58, 38094), (73, 38256),

Gene: MuchMore_78 Start: 43060, Stop: 42833, Start Num: 52
Candidate Starts for MuchMore_78:
(Start: 52 @43060 has 65 MA's), (Start: 53 @43054 has 14 MA's),

Gene: Mudpuppy_62 Start: 41493, Stop: 41807, Start Num: 33
Candidate Starts for Mudpuppy_62:
(Start: 33 @41493 has 41 MA's),

Gene: Mufasa_78 Start: 51931, Stop: 52200, Start Num: 35
Candidate Starts for Mufasa_78:
(18, 51808), (27, 51892), (Start: 35 @51931 has 10 MA's), (55, 51988), (60, 52021), (62, 52057), (68, 52090), (73, 52162),

Gene: Murucutumbu_76 Start: 51352, Stop: 51627, Start Num: 34

Candidate Starts for Murucutumbu_76:

(Start: 31 @51337 has 1 MA's), (Start: 34 @51352 has 127 MA's), (54, 51409), (55, 51412), (58, 51427), (60, 51445), (68, 51514), (73, 51586), (74, 51595),

Gene: Mynx_77 Start: 50847, Stop: 51119, Start Num: 34

Candidate Starts for Mynx_77:

(Start: 31 @50832 has 1 MA's), (Start: 34 @50847 has 127 MA's), (54, 50901), (55, 50904), (58, 50919), (60, 50937), (66, 50985), (68, 51006), (73, 51078), (74, 51087),

Gene: Nergal_67 Start: 46690, Stop: 46941, Start Num: 35

Candidate Starts for Nergal_67:

(27, 46651), (Start: 35 @46690 has 10 MA's), (55, 46747), (57, 46759), (75, 46933),

Gene: Nibb_77 Start: 50011, Stop: 50283, Start Num: 34

Candidate Starts for Nibb_77:

(Start: 31 @49996 has 1 MA's), (Start: 34 @50011 has 127 MA's), (Start: 53 @50065 has 14 MA's), (55, 50071), (57, 50083), (60, 50104), (67, 50170),

Gene: Nikao_65 Start: 49769, Stop: 50041, Start Num: 34

Candidate Starts for Nikao_65:

(Start: 31 @49754 has 1 MA's), (Start: 34 @49769 has 127 MA's), (Start: 37 @49778 has 1 MA's), (47, 49799), (50, 49808), (54, 49826), (55, 49829), (57, 49841), (58, 49844), (60, 49862), (61, 49898), (65, 49910), (74, 50012),

Gene: Niklas_77 Start: 50348, Stop: 50626, Start Num: 34

Candidate Starts for Niklas_77:

(Start: 31 @50333 has 1 MA's), (Start: 34 @50348 has 127 MA's), (Start: 37 @50357 has 1 MA's), (50, 50387), (54, 50405), (55, 50408), (58, 50423), (60, 50441), (73, 50582),

Gene: Niobe_62 Start: 41420, Stop: 41731, Start Num: 33

Candidate Starts for Niobe_62:

(Start: 33 @41420 has 41 MA's),

Gene: Nitro_63 Start: 42114, Stop: 42428, Start Num: 33

Candidate Starts for Nitro_63:

(Start: 33 @42114 has 41 MA's),

Gene: Noella_70 Start: 42818, Stop: 42558, Start Num: 40

Candidate Starts for Noella_70:

(24, 42893), (Start: 40 @42818 has 24 MA's), (55, 42788), (76, 42572),

Gene: Norbert_66 Start: 42816, Stop: 42568, Start Num: 40

Candidate Starts for Norbert_66:

(24, 42891), (Start: 40 @42816 has 24 MA's), (55, 42786),

Gene: Nutello_62 Start: 47156, Stop: 47428, Start Num: 34

Candidate Starts for Nutello_62:

(Start: 31 @47141 has 1 MA's), (Start: 34 @47156 has 127 MA's), (Start: 37 @47165 has 1 MA's), (47, 47186), (50, 47195), (54, 47213), (55, 47216), (57, 47228), (58, 47231), (60, 47249), (61, 47285), (65, 47297), (74, 47399),

Gene: ObiToo_67 Start: 41757, Stop: 42068, Start Num: 33

Candidate Starts for ObiToo_67:
(Start: 33 @41757 has 41 MA's),

Gene: OlanP_73 Start: 43058, Stop: 42834, Start Num: 52
Candidate Starts for OlanP_73:
(Start: 52 @43058 has 65 MA's), (Start: 53 @43052 has 14 MA's), (55, 43046),

Gene: Ollie_75 Start: 42939, Stop: 42712, Start Num: 52
Candidate Starts for Ollie_75:
(Start: 52 @42939 has 65 MA's), (Start: 53 @42933 has 14 MA's),

Gene: OmniCritical_39 Start: 31324, Stop: 31623, Start Num: 28
Candidate Starts for OmniCritical_39:
(Start: 28 @31324 has 11 MA's), (36, 31360), (Start: 53 @31405 has 14 MA's), (57, 31423), (60, 31444), (62, 31480), (68, 31513), (73, 31585),

Gene: Oscar_77 Start: 50230, Stop: 50502, Start Num: 34
Candidate Starts for Oscar_77:
(Start: 31 @50215 has 1 MA's), (Start: 34 @50230 has 127 MA's), (Start: 53 @50284 has 14 MA's), (55, 50290), (57, 50302), (60, 50323), (67, 50389), (73, 50464),

Gene: P28Green_75 Start: 43071, Stop: 42844, Start Num: 52
Candidate Starts for P28Green_75:
(Start: 52 @43071 has 65 MA's), (Start: 53 @43065 has 14 MA's),

Gene: PGHhamlin_77 Start: 43060, Stop: 42833, Start Num: 52
Candidate Starts for PGHhamlin_77:
(Start: 52 @43060 has 65 MA's), (Start: 53 @43054 has 14 MA's),

Gene: Padfoot_75 Start: 50313, Stop: 50585, Start Num: 34
Candidate Starts for Padfoot_75:
(Start: 31 @50298 has 1 MA's), (Start: 34 @50313 has 127 MA's), (54, 50367), (55, 50370), (58, 50385), (60, 50403), (66, 50451), (68, 50472), (73, 50544), (74, 50553),

Gene: Padpat_79 Start: 50552, Stop: 50824, Start Num: 34
Candidate Starts for Padpat_79:
(Start: 31 @50537 has 1 MA's), (Start: 34 @50552 has 127 MA's), (54, 50606), (55, 50609), (58, 50624), (60, 50642), (66, 50690), (68, 50711), (73, 50783), (74, 50792),

Gene: Panamaxus_68 Start: 42817, Stop: 42557, Start Num: 40
Candidate Starts for Panamaxus_68:
(24, 42892), (Start: 40 @42817 has 24 MA's), (55, 42787), (76, 42571),

Gene: Patt_39 Start: 31155, Stop: 31442, Start Num: 29
Candidate Starts for Patt_39:
(Start: 29 @31155 has 8 MA's), (36, 31191), (Start: 53 @31224 has 14 MA's), (55, 31230), (57, 31242), (60, 31263), (62, 31299), (68, 31332), (73, 31404),

Gene: Pawn_73 Start: 42889, Stop: 42665, Start Num: 52
Candidate Starts for Pawn_73:
(Start: 52 @42889 has 65 MA's), (Start: 53 @42883 has 14 MA's), (55, 42877),

Gene: Peanam_77 Start: 50306, Stop: 50584, Start Num: 34

Candidate Starts for Peanam_77:

(Start: 31 @50291 has 1 MA's), (Start: 34 @50306 has 127 MA's), (Start: 37 @50315 has 1 MA's), (50, 50345), (54, 50363), (55, 50366), (58, 50381), (60, 50399), (73, 50540),

Gene: Peel_75 Start: 50118, Stop: 50390, Start Num: 34

Candidate Starts for Peel_75:

(Start: 31 @50103 has 1 MA's), (Start: 34 @50118 has 127 MA's), (54, 50172), (55, 50175), (58, 50190), (60, 50208), (66, 50256), (68, 50277), (73, 50349), (74, 50358),

Gene: Pembroke_75 Start: 43069, Stop: 42842, Start Num: 52

Candidate Starts for Pembroke_75:

(Start: 52 @43069 has 65 MA's), (Start: 53 @43063 has 14 MA's),

Gene: Penny1_75 Start: 43072, Stop: 42845, Start Num: 52

Candidate Starts for Penny1_75:

(Start: 52 @43072 has 65 MA's), (Start: 53 @43066 has 14 MA's),

Gene: Phantastic_72 Start: 42500, Stop: 42231, Start Num: 40

Candidate Starts for Phantastic_72:

(14, 42665), (Start: 40 @42500 has 24 MA's), (55, 42470),

Gene: Pharb_74 Start: 49614, Stop: 49889, Start Num: 34

Candidate Starts for Pharb_74:

(10, 49416), (16, 49473), (19, 49497), (Start: 34 @49614 has 127 MA's), (39, 49629), (48, 49647), (50, 49653), (54, 49671), (55, 49674), (57, 49686), (58, 49689), (60, 49707), (68, 49776), (73, 49848), (74, 49857),

Gene: PhelpsODU_78 Start: 50059, Stop: 50331, Start Num: 34

Candidate Starts for PhelpsODU_78:

(23, 49996), (Start: 31 @50044 has 1 MA's), (Start: 34 @50059 has 127 MA's), (55, 50119), (57, 50131), (60, 50152),

Gene: PhishRPhriends_71 Start: 42066, Stop: 41842, Start Num: 52

Candidate Starts for PhishRPhriends_71:

(Start: 52 @42066 has 65 MA's), (Start: 53 @42060 has 14 MA's), (55, 42054),

Gene: Phives_63 Start: 41905, Stop: 42216, Start Num: 33

Candidate Starts for Phives_63:

(Start: 33 @41905 has 41 MA's),

Gene: Phoebe_76 Start: 43061, Stop: 42834, Start Num: 52

Candidate Starts for Phoebe_76:

(Start: 52 @43061 has 65 MA's), (Start: 53 @43055 has 14 MA's),

Gene: Phoxy_75 Start: 43087, Stop: 42866, Start Num: 53

Candidate Starts for Phoxy_75:

(Start: 52 @43093 has 65 MA's), (Start: 53 @43087 has 14 MA's),

Gene: Phrank_79 Start: 49919, Stop: 50191, Start Num: 34

Candidate Starts for Phrank_79:

(Start: 31 @49904 has 1 MA's), (Start: 34 @49919 has 127 MA's), (55, 49979), (60, 50012),

Gene: Piatt_74 Start: 50313, Stop: 50585, Start Num: 34

Candidate Starts for Piatt_74:

(Start: 31 @50298 has 1 MA's), (Start: 34 @50313 has 127 MA's), (54, 50367), (55, 50370), (58, 50385), (60, 50403), (66, 50451), (68, 50472), (73, 50544), (74, 50553),

Gene: Pistachio_70 Start: 42405, Stop: 42139, Start Num: 41

Candidate Starts for Pistachio_70:

(Start: 41 @42405 has 5 MA's), (55, 42375), (68, 42273), (76, 42159),

Gene: Pixelle_63 Start: 42519, Stop: 42833, Start Num: 33

Candidate Starts for Pixelle_63:

(26, 42492), (Start: 33 @42519 has 41 MA's),

Gene: Pixie_75 Start: 49917, Stop: 50186, Start Num: 34

Candidate Starts for Pixie_75:

(Start: 34 @49917 has 127 MA's), (39, 49932), (57, 49986), (58, 49989), (60, 50007), (68, 50076),

Gene: Pocahontas_69 Start: 42814, Stop: 42554, Start Num: 40

Candidate Starts for Pocahontas_69:

(24, 42889), (Start: 40 @42814 has 24 MA's), (55, 42784), (76, 42568),

Gene: Pokerus_76 Start: 50561, Stop: 50833, Start Num: 34

Candidate Starts for Pokerus_76:

(Start: 31 @50546 has 1 MA's), (Start: 34 @50561 has 127 MA's), (54, 50615), (55, 50618), (58, 50633), (60, 50651), (66, 50699), (68, 50720), (73, 50792), (74, 50801),

Gene: Popcicle_70 Start: 42814, Stop: 42554, Start Num: 40

Candidate Starts for Popcicle_70:

(24, 42889), (Start: 40 @42814 has 24 MA's), (55, 42784), (76, 42568),

Gene: PotatoSplit_76 Start: 43072, Stop: 42845, Start Num: 52

Candidate Starts for PotatoSplit_76:

(Start: 52 @43072 has 65 MA's), (Start: 53 @43066 has 14 MA's),

Gene: Powerpuff_64 Start: 42450, Stop: 42764, Start Num: 33

Candidate Starts for Powerpuff_64:

(Start: 33 @42450 has 41 MA's),

Gene: Prithvi_78 Start: 50578, Stop: 50853, Start Num: 34

Candidate Starts for Prithvi_78:

(Start: 31 @50563 has 1 MA's), (Start: 34 @50578 has 127 MA's), (54, 50635), (55, 50638), (57, 50650), (58, 50653), (60, 50671), (66, 50719), (68, 50740), (73, 50812), (74, 50821),

Gene: Pumpkins_97 Start: 42050, Stop: 42364, Start Num: 33

Candidate Starts for Pumpkins_97:

(Start: 33 @42050 has 41 MA's),

Gene: Puppy_71 Start: 42477, Stop: 42211, Start Num: 41

Candidate Starts for Puppy_71:

(Start: 41 @42477 has 5 MA's), (55, 42447), (68, 42345), (76, 42231),

Gene: PurpleHaze_74 Start: 42878, Stop: 42660, Start Num: 53

Candidate Starts for PurpleHaze_74:

(Start: 52 @42884 has 65 MA's), (Start: 53 @42878 has 14 MA's), (55, 42872),

Gene: QuincyRose_73 Start: 50523, Stop: 50792, Start Num: 34
Candidate Starts for QuincyRose_73:
(Start: 31 @50508 has 1 MA's), (Start: 34 @50523 has 127 MA's), (54, 50577), (55, 50580), (58, 50595), (60, 50613), (66, 50661), (68, 50682), (73, 50754), (74, 50763),

Gene: QuinnKiro_69 Start: 42817, Stop: 42557, Start Num: 40
Candidate Starts for QuinnKiro_69:
(24, 42892), (Start: 40 @42817 has 24 MA's), (55, 42787), (76, 42571),

Gene: Ramen_76 Start: 49882, Stop: 50154, Start Num: 34
Candidate Starts for Ramen_76:
(Start: 31 @49867 has 1 MA's), (Start: 34 @49882 has 127 MA's), (55, 49939), (58, 49954), (60, 49972), (66, 50020), (68, 50041), (73, 50113), (74, 50122),

Gene: Rapunzel97_78 Start: 50533, Stop: 50805, Start Num: 34
Candidate Starts for Rapunzel97_78:
(Start: 31 @50518 has 1 MA's), (Start: 34 @50533 has 127 MA's), (54, 50587), (55, 50590), (58, 50605), (60, 50623), (66, 50671), (68, 50692), (73, 50764), (74, 50773),

Gene: Reedo_63 Start: 40030, Stop: 40344, Start Num: 33
Candidate Starts for Reedo_63:
(Start: 33 @40030 has 41 MA's), (79, 40339),

Gene: Reptar3000_40 Start: 31146, Stop: 31433, Start Num: 29
Candidate Starts for Reptar3000_40:
(Start: 29 @31146 has 8 MA's), (36, 31182), (Start: 53 @31215 has 14 MA's), (55, 31221), (57, 31233), (60, 31254), (62, 31290), (68, 31323), (73, 31395),

Gene: ResDef_68 Start: 42817, Stop: 42557, Start Num: 40
Candidate Starts for ResDef_68:
(24, 42892), (Start: 40 @42817 has 24 MA's), (55, 42787), (76, 42571),

Gene: Rockstar_69 Start: 42323, Stop: 42054, Start Num: 40
Candidate Starts for Rockstar_69:
(14, 42488), (Start: 40 @42323 has 24 MA's), (55, 42293),

Gene: Rosmarinus_75 Start: 50104, Stop: 50376, Start Num: 34
Candidate Starts for Rosmarinus_75:
(Start: 31 @50089 has 1 MA's), (Start: 34 @50104 has 127 MA's), (54, 50158), (55, 50161), (58, 50176), (60, 50194), (66, 50242), (68, 50263), (73, 50335), (74, 50344),

Gene: Rummer_74 Start: 43096, Stop: 42869, Start Num: 52
Candidate Starts for Rummer_74:
(Start: 52 @43096 has 65 MA's), (Start: 53 @43090 has 14 MA's),

Gene: Ruthiejr_41 Start: 31304, Stop: 31603, Start Num: 29
Candidate Starts for Ruthiejr_41:
(Start: 29 @31304 has 8 MA's), (36, 31340), (Start: 53 @31385 has 14 MA's), (57, 31403), (62, 31460), (68, 31493), (73, 31565),

Gene: Sabia_73 Start: 43076, Stop: 42849, Start Num: 52
Candidate Starts for Sabia_73:

(Start: 52 @43076 has 65 MA's), (Start: 53 @43070 has 14 MA's),

Gene: Sabinator_73 Start: 43061, Stop: 42840, Start Num: 53

Candidate Starts for Sabinator_73:

(Start: 52 @43067 has 65 MA's), (Start: 53 @43061 has 14 MA's),

Gene: SamScheppers_39 Start: 31818, Stop: 32117, Start Num: 28

Candidate Starts for SamScheppers_39:

(Start: 28 @31818 has 11 MA's), (36, 31854), (Start: 53 @31899 has 14 MA's), (57, 31917), (60, 31938), (62, 31974), (68, 32007), (73, 32079),

Gene: SamuelLPlaqson_75 Start: 50512, Stop: 50781, Start Num: 34

Candidate Starts for SamuelLPlaqson_75:

(Start: 31 @50497 has 1 MA's), (Start: 34 @50512 has 127 MA's), (54, 50563), (55, 50566), (57, 50578), (58, 50581), (60, 50599), (66, 50647), (68, 50668), (73, 50740), (74, 50749),

Gene: SaturnRing_70 Start: 42858, Stop: 42592, Start Num: 41

Candidate Starts for SaturnRing_70:

(Start: 41 @42858 has 5 MA's), (55, 42828), (68, 42726), (76, 42612),

Gene: Scarlett_78 Start: 50566, Stop: 50838, Start Num: 34

Candidate Starts for Scarlett_78:

(Start: 31 @50551 has 1 MA's), (Start: 34 @50566 has 127 MA's), (39, 50581), (Start: 53 @50620 has 14 MA's), (54, 50623), (55, 50626), (57, 50638), (60, 50659), (67, 50725), (73, 50800),

Gene: Scout_69 Start: 42030, Stop: 41764, Start Num: 40

Candidate Starts for Scout_69:

(24, 42105), (Start: 40 @42030 has 24 MA's), (55, 42000), (68, 41898),

Gene: SgtBeansprout_63 Start: 47156, Stop: 47428, Start Num: 34

Candidate Starts for SgtBeansprout_63:

(Start: 31 @47141 has 1 MA's), (Start: 34 @47156 has 127 MA's), (Start: 37 @47165 has 1 MA's), (47, 47186), (50, 47195), (54, 47213), (55, 47216), (57, 47228), (58, 47231), (60, 47249), (61, 47285), (65, 47297), (74, 47399),

Gene: Shadow1_80 Start: 50598, Stop: 50870, Start Num: 34

Candidate Starts for Shadow1_80:

(Start: 31 @50583 has 1 MA's), (Start: 34 @50598 has 127 MA's), (39, 50613), (48, 50631), (55, 50658), (57, 50670), (60, 50691),

Gene: Shaobing_76 Start: 50323, Stop: 50601, Start Num: 34

Candidate Starts for Shaobing_76:

(Start: 31 @50308 has 1 MA's), (Start: 34 @50323 has 127 MA's), (Start: 37 @50332 has 1 MA's), (54, 50380), (55, 50383), (58, 50398), (60, 50416), (73, 50557),

Gene: ShedlockHolmes_78 Start: 50418, Stop: 50690, Start Num: 34

Candidate Starts for ShedlockHolmes_78:

(Start: 34 @50418 has 127 MA's), (39, 50433), (54, 50475), (55, 50478), (58, 50493), (60, 50511), (68, 50580),

Gene: ShiaSurprise_76 Start: 50313, Stop: 50585, Start Num: 34

Candidate Starts for ShiaSurprise_76:

(Start: 31 @50298 has 1 MA's), (Start: 34 @50313 has 127 MA's), (54, 50367), (55, 50370), (58, 50385), (60, 50403), (66, 50451), (68, 50472), (73, 50544), (74, 50553),

Gene: Simpson_66 Start: 41531, Stop: 41845, Start Num: 33

Candidate Starts for Simpson_66:

(Start: 33 @41531 has 41 MA's),

Gene: SirPhilip_75 Start: 50824, Stop: 51099, Start Num: 34

Candidate Starts for SirPhilip_75:

(Start: 31 @50809 has 1 MA's), (Start: 34 @50824 has 127 MA's), (39, 50839), (48, 50857), (Start: 53 @50878 has 14 MA's), (57, 50896), (58, 50899), (60, 50917),

Gene: Slarp_40 Start: 31427, Stop: 31726, Start Num: 28

Candidate Starts for Slarp_40:

(Start: 28 @31427 has 11 MA's), (36, 31463), (Start: 53 @31508 has 14 MA's), (57, 31526), (60, 31547), (62, 31583), (68, 31616), (73, 31688),

Gene: Slimphazie_77 Start: 50533, Stop: 50805, Start Num: 34

Candidate Starts for Slimphazie_77:

(Start: 31 @50518 has 1 MA's), (Start: 34 @50533 has 127 MA's), (54, 50587), (55, 50590), (58, 50605), (60, 50623), (66, 50671), (68, 50692), (73, 50764), (74, 50773),

Gene: Snek_61 Start: 38593, Stop: 38904, Start Num: 33

Candidate Starts for Snek_61:

(2, 38203), (Start: 33 @38593 has 41 MA's),

Gene: Snickers_71 Start: 43035, Stop: 42814, Start Num: 53

Candidate Starts for Snickers_71:

(Start: 52 @43041 has 65 MA's), (Start: 53 @43035 has 14 MA's),

Gene: SoYo_72 Start: 42980, Stop: 42753, Start Num: 52

Candidate Starts for SoYo_72:

(Start: 52 @42980 has 65 MA's), (Start: 53 @42974 has 14 MA's),

Gene: SoilDragon_74 Start: 42516, Stop: 42289, Start Num: 52

Candidate Starts for SoilDragon_74:

(Start: 52 @42516 has 65 MA's), (Start: 53 @42510 has 14 MA's),

Gene: Soondubu_58 Start: 43006, Stop: 43305, Start Num: 38

Candidate Starts for Soondubu_58:

(Start: 33 @42991 has 41 MA's), (38, 43006), (55, 43057), (61, 43126), (69, 43162), (70, 43198), (71, 43222),

Gene: Soshari_77 Start: 43092, Stop: 42865, Start Num: 52

Candidate Starts for Soshari_77:

(Start: 52 @43092 has 65 MA's), (Start: 53 @43086 has 14 MA's),

Gene: Spike509_75 Start: 43087, Stop: 42866, Start Num: 53

Candidate Starts for Spike509_75:

(Start: 52 @43093 has 65 MA's), (Start: 53 @43087 has 14 MA's),

Gene: Spock_75 Start: 50117, Stop: 50389, Start Num: 34

Candidate Starts for Spock_75:

(Start: 31 @50102 has 1 MA's), (Start: 34 @50117 has 127 MA's), (54, 50171), (55, 50174), (58, 50189), (60, 50207), (66, 50255), (68, 50276), (73, 50348), (74, 50357),

Gene: Stagni_72 Start: 43065, Stop: 42844, Start Num: 53
Candidate Starts for Stagni_72:
(Start: 52 @43071 has 65 MA's), (Start: 53 @43065 has 14 MA's),

Gene: StepMih_74 Start: 43062, Stop: 42835, Start Num: 52
Candidate Starts for StepMih_74:
(Start: 52 @43062 has 65 MA's), (Start: 53 @43056 has 14 MA's),

Gene: Stinson_76 Start: 50711, Stop: 50983, Start Num: 34
Candidate Starts for Stinson_76:
(Start: 31 @50696 has 1 MA's), (Start: 34 @50711 has 127 MA's), (54, 50768), (55, 50771), (58, 50786), (60, 50804), (66, 50852), (68, 50873), (73, 50945), (74, 50954),

Gene: Strobilo_84 Start: 52470, Stop: 52739, Start Num: 35
Candidate Starts for Strobilo_84:
(18, 52347), (Start: 35 @52470 has 10 MA's), (Start: 40 @52485 has 24 MA's), (55, 52527), (60, 52560), (62, 52596), (68, 52629),

Gene: Sue2_60 Start: 39873, Stop: 40190, Start Num: 32
Candidate Starts for Sue2_60:
(32, 39873),

Gene: Sulley_74 Start: 50144, Stop: 50416, Start Num: 34
Candidate Starts for Sulley_74:
(Start: 31 @50129 has 1 MA's), (Start: 34 @50144 has 127 MA's), (54, 50201), (55, 50204), (58, 50219), (60, 50237), (66, 50285), (68, 50306), (73, 50378), (74, 50387),

Gene: Sunflower1121_81 Start: 50744, Stop: 51016, Start Num: 34
Candidate Starts for Sunflower1121_81:
(Start: 31 @50729 has 1 MA's), (Start: 34 @50744 has 127 MA's), (39, 50759), (48, 50777), (55, 50804), (57, 50816), (60, 50837),

Gene: Syra333_79 Start: 50472, Stop: 50744, Start Num: 34
Candidate Starts for Syra333_79:
(Start: 31 @50457 has 1 MA's), (Start: 34 @50472 has 127 MA's), (39, 50487), (48, 50505), (55, 50532), (57, 50544), (60, 50565),

Gene: TBond007_72 Start: 49916, Stop: 50185, Start Num: 34
Candidate Starts for TBond007_72:
(Start: 34 @49916 has 127 MA's), (39, 49931), (57, 49985), (58, 49988), (60, 50006), (68, 50075),

Gene: TClif_77 Start: 50210, Stop: 50482, Start Num: 34
Candidate Starts for TClif_77:
(Start: 31 @50195 has 1 MA's), (Start: 34 @50210 has 127 MA's), (39, 50225), (54, 50267), (55, 50270), (60, 50303), (68, 50372),

Gene: TM4_77 Start: 46904, Stop: 47173, Start Num: 35
Candidate Starts for TM4_77:
(Start: 35 @46904 has 10 MA's), (55, 46961), (60, 46994), (62, 47030), (68, 47063),

Gene: TNguyen7_71 Start: 42818, Stop: 42552, Start Num: 41
Candidate Starts for TNguyen7_71:
(Start: 41 @42818 has 5 MA's), (55, 42788), (68, 42686), (76, 42572),

Gene: Tachez_75 Start: 49961, Stop: 50233, Start Num: 34
Candidate Starts for Tachez_75:
(Start: 31 @49946 has 1 MA's), (Start: 34 @49961 has 127 MA's), (54, 50015), (55, 50018), (58, 50033), (60, 50051), (66, 50099), (68, 50120), (73, 50192), (74, 50201),

Gene: TaiwanKao_77 Start: 50636, Stop: 50908, Start Num: 34
Candidate Starts for TaiwanKao_77:
(Start: 31 @50621 has 1 MA's), (Start: 34 @50636 has 127 MA's), (54, 50693), (55, 50696), (58, 50711), (60, 50729), (66, 50777), (68, 50798), (73, 50870), (74, 50879),

Gene: Tallboi_65 Start: 41422, Stop: 41733, Start Num: 33
Candidate Starts for Tallboi_65:
(Start: 33 @41422 has 41 MA's),

Gene: Taquito_40 Start: 31813, Stop: 32112, Start Num: 28
Candidate Starts for Taquito_40:
(Start: 28 @31813 has 11 MA's), (36, 31849), (Start: 53 @31894 has 14 MA's), (57, 31912), (60, 31933), (62, 31969), (68, 32002), (73, 32074),

Gene: Taurus_76 Start: 43062, Stop: 42841, Start Num: 53
Candidate Starts for Taurus_76:
(Start: 52 @43068 has 65 MA's), (Start: 53 @43062 has 14 MA's),

Gene: Tbone_62 Start: 41901, Stop: 42215, Start Num: 33
Candidate Starts for Tbone_62:
(Start: 33 @41901 has 41 MA's),

Gene: Texage_68 Start: 42818, Stop: 42558, Start Num: 40
Candidate Starts for Texage_68:
(24, 42893), (Start: 40 @42818 has 24 MA's), (55, 42788), (76, 42572),

Gene: TforTroy_63 Start: 41704, Stop: 42018, Start Num: 33
Candidate Starts for TforTroy_63:
(Start: 33 @41704 has 41 MA's),

Gene: Tian_61 Start: 42417, Stop: 42731, Start Num: 33
Candidate Starts for Tian_61:
(26, 42390), (Start: 33 @42417 has 41 MA's),

Gene: Tierra_79 Start: 50730, Stop: 51002, Start Num: 34
Candidate Starts for Tierra_79:
(Start: 31 @50715 has 1 MA's), (Start: 34 @50730 has 127 MA's), (55, 50790), (60, 50823),

Gene: Tiffany_74 Start: 42947, Stop: 42726, Start Num: 53
Candidate Starts for Tiffany_74:
(Start: 52 @42953 has 65 MA's), (Start: 53 @42947 has 14 MA's),

Gene: TiniBug_75 Start: 50512, Stop: 50781, Start Num: 34
Candidate Starts for TiniBug_75:

(Start: 31 @50497 has 1 MA's), (Start: 34 @50512 has 127 MA's), (49, 50542), (54, 50563), (55, 50566), (58, 50581), (60, 50599), (68, 50668), (73, 50740), (74, 50749),

Gene: Tiri_75 Start: 50017, Stop: 50286, Start Num: 34

Candidate Starts for Tiri_75:

(Start: 31 @50002 has 1 MA's), (Start: 34 @50017 has 127 MA's), (54, 50071), (55, 50074), (58, 50089), (60, 50107), (66, 50155), (68, 50176), (73, 50248), (74, 50257),

Gene: Todacoro_70 Start: 42817, Stop: 42557, Start Num: 40

Candidate Starts for Todacoro_70:

(24, 42892), (Start: 40 @42817 has 24 MA's), (55, 42787), (76, 42571),

Gene: Topper_75 Start: 50116, Stop: 50388, Start Num: 34

Candidate Starts for Topper_75:

(Start: 31 @50101 has 1 MA's), (Start: 34 @50116 has 127 MA's), (54, 50170), (55, 50173), (58, 50188), (60, 50206), (66, 50254), (68, 50275), (73, 50347), (74, 50356),

Gene: TreyKay_78 Start: 50578, Stop: 50853, Start Num: 34

Candidate Starts for TreyKay_78:

(Start: 31 @50563 has 1 MA's), (Start: 34 @50578 has 127 MA's), (54, 50635), (55, 50638), (57, 50650), (58, 50653), (60, 50671), (66, 50719), (68, 50740), (73, 50812), (74, 50821),

Gene: TribelTrouble_76 Start: 50522, Stop: 50797, Start Num: 34

Candidate Starts for TribelTrouble_76:

(Start: 34 @50522 has 127 MA's), (39, 50537), (55, 50582), (58, 50597), (60, 50615), (68, 50684), (73, 50756), (74, 50765),

Gene: TruffulaTree_77 Start: 50529, Stop: 50801, Start Num: 34

Candidate Starts for TruffulaTree_77:

(Start: 31 @50514 has 1 MA's), (Start: 34 @50529 has 127 MA's), (54, 50583), (55, 50586), (58, 50601), (60, 50619), (68, 50688), (73, 50760), (74, 50769),

Gene: Tuck_62 Start: 41693, Stop: 42004, Start Num: 33

Candidate Starts for Tuck_62:

(Start: 33 @41693 has 41 MA's),

Gene: Turab_61 Start: 40878, Stop: 41189, Start Num: 33

Candidate Starts for Turab_61:

(26, 40851), (Start: 33 @40878 has 41 MA's),

Gene: Tutumahutu_64 Start: 41493, Stop: 41807, Start Num: 33

Candidate Starts for Tutumahutu_64:

(Start: 33 @41493 has 41 MA's),

Gene: Tweety19_62 Start: 38594, Stop: 38905, Start Num: 33

Candidate Starts for Tweety19_62:

(Start: 33 @38594 has 41 MA's),

Gene: Twitch_75 Start: 50118, Stop: 50390, Start Num: 34

Candidate Starts for Twitch_75:

(Start: 31 @50103 has 1 MA's), (Start: 34 @50118 has 127 MA's), (54, 50172), (55, 50175), (58, 50190), (60, 50208), (66, 50256), (68, 50277), (73, 50349), (74, 50358),

Gene: Unicorn_78 Start: 50059, Stop: 50331, Start Num: 34

Candidate Starts for Unicorn_78:

(23, 49996), (Start: 31 @50044 has 1 MA's), (Start: 34 @50059 has 127 MA's), (55, 50119), (57, 50131), (60, 50152),

Gene: Urkel_75 Start: 50512, Stop: 50781, Start Num: 34

Candidate Starts for Urkel_75:

(Start: 31 @50497 has 1 MA's), (Start: 34 @50512 has 127 MA's), (54, 50563), (55, 50566), (57, 50578), (58, 50581), (60, 50599), (66, 50647), (68, 50668), (73, 50740), (74, 50749),

Gene: VResidence_62 Start: 39424, Stop: 39738, Start Num: 33

Candidate Starts for VResidence_62:

(Start: 33 @39424 has 41 MA's),

Gene: Validus_80 Start: 50873, Stop: 51148, Start Num: 34

Candidate Starts for Validus_80:

(Start: 34 @50873 has 127 MA's), (54, 50927), (55, 50930), (57, 50942), (58, 50945), (60, 50963), (67, 51029), (73, 51104),

Gene: Veliki_76 Start: 50069, Stop: 50341, Start Num: 34

Candidate Starts for Veliki_76:

(Start: 31 @50054 has 1 MA's), (Start: 34 @50069 has 127 MA's), (54, 50123), (55, 50126), (58, 50141), (60, 50159), (66, 50207), (68, 50228), (73, 50300), (74, 50309),

Gene: Veracruz_67 Start: 42817, Stop: 42557, Start Num: 40

Candidate Starts for Veracruz_67:

(24, 42892), (Start: 40 @42817 has 24 MA's), (55, 42787), (76, 42571),

Gene: Vix_71 Start: 43151, Stop: 42924, Start Num: 52

Candidate Starts for Vix_71:

(Start: 52 @43151 has 65 MA's), (Start: 53 @43145 has 14 MA's),

Gene: Warda_63 Start: 41627, Stop: 41941, Start Num: 33

Candidate Starts for Warda_63:

(Start: 33 @41627 has 41 MA's),

Gene: Watson_74 Start: 43060, Stop: 42833, Start Num: 52

Candidate Starts for Watson_74:

(Start: 52 @43060 has 65 MA's), (Start: 53 @43054 has 14 MA's),

Gene: Wildcat_147 Start: 68820, Stop: 68542, Start Num: 30

Candidate Starts for Wildcat_147:

(7, 69027), (13, 68937), (Start: 30 @68820 has 5 MA's), (42, 68775), (57, 68724), (64, 68643), (67, 68622), (72, 68550), (73, 68547),

Gene: Wildwest_58 Start: 41296, Stop: 41607, Start Num: 33

Candidate Starts for Wildwest_58:

(26, 41269), (Start: 33 @41296 has 41 MA's),

Gene: Wintermute_40 Start: 31413, Stop: 31712, Start Num: 28

Candidate Starts for Wintermute_40:

(Start: 28 @31413 has 11 MA's), (36, 31449), (Start: 53 @31494 has 14 MA's), (57, 31512), (60, 31533), (62, 31569), (68, 31602), (73, 31674),

Gene: Wooldri_77 Start: 42980, Stop: 42753, Start Num: 52
Candidate Starts for Wooldri_77:
(Start: 52 @42980 has 65 MA's), (Start: 53 @42974 has 14 MA's),

Gene: Ximenita_81 Start: 50796, Stop: 51068, Start Num: 34
Candidate Starts for Ximenita_81:
(Start: 31 @50781 has 1 MA's), (Start: 34 @50796 has 127 MA's), (47, 50826), (55, 50856), (57, 50868), (60, 50889), (68, 50958),

Gene: Y10_39 Start: 31413, Stop: 31712, Start Num: 29
Candidate Starts for Y10_39:
(Start: 29 @31413 has 8 MA's), (36, 31449), (Start: 53 @31494 has 14 MA's), (57, 31512), (62, 31569), (68, 31602), (73, 31674),

Gene: Y2_39 Start: 31413, Stop: 31712, Start Num: 29
Candidate Starts for Y2_39:
(Start: 29 @31413 has 8 MA's), (36, 31449), (Start: 53 @31494 has 14 MA's), (57, 31512), (62, 31569), (68, 31602), (73, 31674),

Gene: Yang_62 Start: 41347, Stop: 41661, Start Num: 33
Candidate Starts for Yang_62:
(1, 40882), (Start: 33 @41347 has 41 MA's),

Gene: YesChef_62 Start: 41309, Stop: 41623, Start Num: 33
Candidate Starts for YesChef_62:
(Start: 33 @41309 has 41 MA's),

Gene: YoureAdopted_75 Start: 50480, Stop: 50749, Start Num: 34
Candidate Starts for YoureAdopted_75:
(Start: 34 @50480 has 127 MA's), (54, 50534), (55, 50537), (58, 50552), (60, 50570), (66, 50618), (68, 50639), (73, 50711), (74, 50720),

Gene: Yuna_78 Start: 51558, Stop: 51830, Start Num: 34
Candidate Starts for Yuna_78:
(Start: 31 @51543 has 1 MA's), (Start: 34 @51558 has 127 MA's), (39, 51573), (60, 51651),

Gene: Yunkel11_81 Start: 50697, Stop: 50972, Start Num: 34
Candidate Starts for Yunkel11_81:
(Start: 31 @50682 has 1 MA's), (Start: 34 @50697 has 127 MA's), (54, 50754), (55, 50757), (57, 50769), (58, 50772), (60, 50790), (66, 50838), (68, 50859), (73, 50931), (74, 50940),

Gene: Zabiza_71 Start: 46466, Stop: 46738, Start Num: 34
Candidate Starts for Zabiza_71:
(Start: 31 @46451 has 1 MA's), (Start: 34 @46466 has 127 MA's), (54, 46520), (55, 46523), (58, 46538), (60, 46556), (66, 46604), (68, 46625), (73, 46697), (74, 46706),

Gene: Zavala_78 Start: 50607, Stop: 50879, Start Num: 34
Candidate Starts for Zavala_78:
(Start: 31 @50592 has 1 MA's), (Start: 34 @50607 has 127 MA's), (54, 50661), (55, 50664), (58, 50679), (60, 50697), (66, 50745), (68, 50766), (73, 50838), (74, 50847),

Gene: Zetzy_72 Start: 42631, Stop: 42404, Start Num: 52

Candidate Starts for Zetzy_72:

(Start: 52 @42631 has 65 MA's), (Start: 53 @42625 has 14 MA's),

Gene: ZoeJ_78 Start: 51905, Stop: 52174, Start Num: 35

Candidate Starts for ZoeJ_78:

(18, 51782), (27, 51866), (Start: 35 @51905 has 10 MA's), (55, 51962), (60, 51995), (62, 52031), (68, 52064),