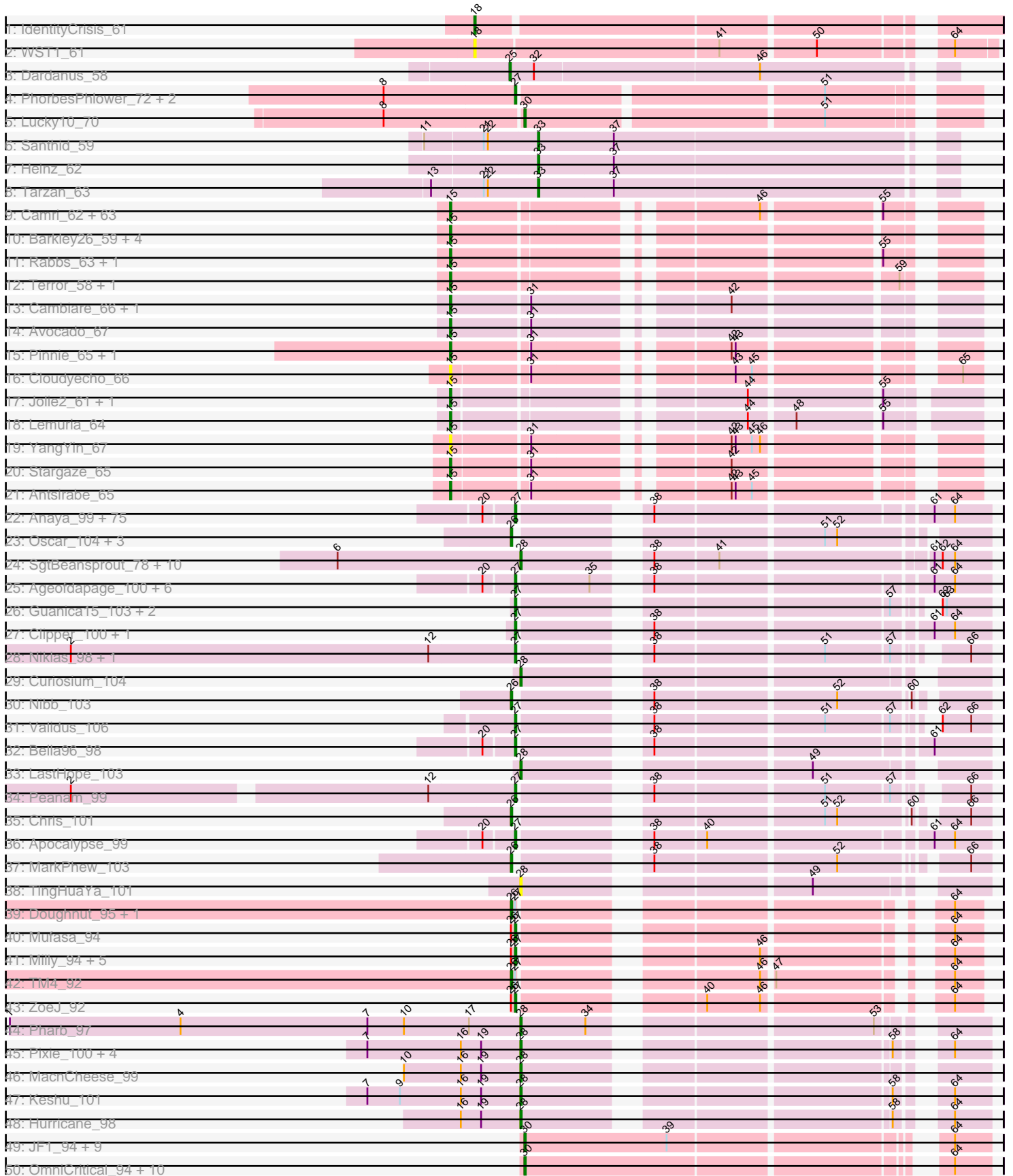


Pham 304653



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 304653 Report

This analysis was run 06/08/26 on database version 649.

Pham number 304653 has 311 members, 24 are drafts.

Phages represented in each track:

- Track 1 : IdentityCrisis_61
- Track 2 : WST1_61
- Track 3 : Dardanus_58
- Track 4 : PhorbesPhlower_72, InLimbo_72, Morkie_74
- Track 5 : Lucky10_70
- Track 6 : Santhid_59
- Track 7 : Heinz_62
- Track 8 : Tarzan_63
- Track 9 : Camri_62, Gideon_62, Aroostook_62, ShaboiShabazz_61, LouisV14_64, Cedasite_62, AizenPogi_63, Jonghyun_60, Marmie_62, Kasen3_63, Sizemore_63, PinkYoshi_62, ECartman_60, Gomashi_61, Grizzly_61, Halo_63, CassieYates_62, JorRay_63, BQuat_61, Angel_60, Frosty24_62, GoldenAsh_60, Phreak_62, Hotshotbaby7_62, Mowgli_62, Chance64_62, Remy19_62, CLED96_61, Avrafan_61, ZoMa_61, DingDing_61, Jolene_62, AzulaCat_63, TinaBug_63, Sweets_62, Schiebel_60, Crespo_61, Darionha_62, Coleslaw_61, Jeilious_62, BruceB_62, Wendigo_62, Ruriko_62, Neoh_60, BPs_62, Olga_63, Plagueis_62, Renaissance_61, Jane_63, Cherrybomb426_61, Zombie_62, Peeb_61, Maliketh_62, Kareem_63, MZKinsey_61, Annihilator_61, Hope_62, DNAlll_0059, Phloodle_61, Phish_61, TomBrady_62, OctaviousRex_61, Richarlison_63, DMoney_61
- Track 10 : Barkley26_59, Periodt_62, Liefie_59, Rattrick_62, Paito_63
- Track 11 : Rabbs_63, Sneeze_62
- Track 12 : Terror_58, Taheera_58
- Track 13 : Cambiare_66, FlagStaff_64
- Track 14 : Avocado_67
- Track 15 : Pinnie_65, MOOREtheMARYer_66
- Track 16 : Cloudyecho_66
- Track 17 : Jolie2_61, Mercurio_63
- Track 18 : Lemuria_64
- Track 19 : YangYin_67
- Track 20 : Stargaze_65
- Track 21 : Antsirabe_65
- Track 22 : Anaya_99, SamuelLPlaqson_98, Blizzard_97, CallaLilly_96, Belladonna_97, Emerson_101, Adonis_96, DartGoblin_97, TreyKay_98, Veliki_97, Capricorn_97, CheetoDust_96, HedwigODU_96, Ganymede_96, ShiaSurprise_99, Mynx_97, Topper_96, Homura_95, Beezoo_100, YoureAdopted_95, Angelica_95, Adephegia_95, CrimD_96, Twitch_97, MeaningOfLife_98, Megsy_102, Padpat_101, Spock_96, Durfee_97, DrHayes_98, BGlluviae_96, Deby_96, Rosmarinus_97,

JAWS_95, Ramen_97, Geraldini_97, BEEST_96, Sulley_95, Jayhawk_100, Pisa1_97, BarrelRoll_96, AlishaPH_89, QuincyRose_94, Llorens_96, Padfoot_96, Piatt_95, TruffulaTree_98, BaghaKamala_96, Pisa4_91, Peel_96, CaseJules_100, TiniBug_95, Prithvi_98, Jeckyll_97, Dalmuri_97, Tachez_97, Atiba_97, Tiri_97, Jarvi_96, CREW_95, Asayake_97, Zabiza_92, Urkel_98, Bern_97, Inky_96, Lunahalos_96, Hyperbowlee_95, Rapunzel97_99, ActinUp_97, Pokerus_96, Boiiii_97, Joy99_98, Zavala_98, Slimphazie_99, LindNT_94, TaiwanKao_98

- Track 23 : Oscar_104, Scarlett_103, LeMond_103, KiSi_104
- Track 24 : SgtBeansprout_78, Torres_80, LilPharaoh_78, Nutello_77, Teejan_79, Trice_77, Mdavu_78, Enkosi_79, Amelie_77, Binglebops_77, Nikao_80
- Track 25 : Ageofdapage_100, Dole_99, Stinson_97, Devera_103, Illumine_100, LaterM_96, Murucutumbu_96
- Track 26 : Guanica15_103, Efra2_104, Yunkel11_101
- Track 27 : Clipper_100, MacKat_92
- Track 28 : Niklas_98, Shaobing_96
- Track 29 : Curiosium_104
- Track 30 : Nibb_103
- Track 31 : Validus_106
- Track 32 : Bella96_98
- Track 33 : LastHope_103
- Track 34 : Peanam_99
- Track 35 : Chris_101
- Track 36 : Apocalypse_99
- Track 37 : MarkPhew_103
- Track 38 : TingHuaYa_101
- Track 39 : Doughnut_95, BoostSeason_94
- Track 40 : Mufasa_94
- Track 41 : Milly_94, Strobilo_95, Marcoliusprime_92, DismalFunk_94, DismalStressor_94, Findley_94
- Track 42 : TM4_92
- Track 43 : ZoeJ_92
- Track 44 : Pharb_97
- Track 45 : Pixie_100, Lea83_98, TBond007_97, ShedlockHolmes_100, TribbleTrouble_97
- Track 46 : MacnCheese_99
- Track 47 : Keshu_101
- Track 48 : Hurricane_98
- Track 49 : JF1_94, Eponine_96, Wintermute_94, Fionnbharth_94, Juliette_96, Y2_90, Ruthiejr_96, Malthus_95, Y10_90, Kraw_94
- Track 50 : OmniCritical_94, Taquito_94, SamScheppers_93, Mitti_94, Qhanda_94, Chancellor_94, Lebo14_93, Cheetobro_92, Slarp_92, DanSyl44_97, YasnayaPolyana_93
- Track 51 : Reptar3000_88, MissDaisy_88, Bobquesha_91, Patt_87
- Track 52 : Collard_95, InvictusManeo_97, ViviJ_105, LiIDirt_99, Kratio_100, DoubleChamp_96, Agent47_97, BananenDer11_99
- Track 53 : OkiRoe_97, SoSeph_96, Feyre_98, Miryou_98, Leston_95, Gengar_96, Guillsminger_96, Heftyboy_96, Paola_93, Thyatira_97, Waterfoul_95
- Track 54 : AlleyCat_100, Dadosky_100, Neighly_100, Larva_98, Psycho_98
- Track 55 : Omnicron_96, Rando14_92
- Track 56 : Edugator_92
- Track 57 : Sunflower1121_100, Bryler_94, Cain_102, Shadow1_100, Phrank_103
- Track 58 : Yuna_100
- Track 59 : Amgine_97, Applecrisp_95, Lavahound_96, Fefferhead_98, Ellie_96

- Track 60 : PhelpsODU_92, Tierra_102, Ximenita_103, Syra333_99
- Track 61 : Amohnition_95, DarthP_95, Hammy_95
- Track 62 : Marshawn_96
- Track 63 : Tigress9_100, Krueger_101
- Track 64 : SirPhilip_98
- Track 65 : Ekdilam_92
- Track 66 : November_94
- Track 67 : TClif_100
- Track 68 : Aminay_104
- Track 69 : Boilgate_83
- Track 70 : P3MA_62
- Track 71 : LilSpotty_85

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

The start number called the most often in the published annotations is 27, it was called in 112 of the 287 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp_97, Adephegia_95, Adonis_96, Ageofdapage_100, AlishaPH_89, Amgine_97, Amohnition_95, Anaya_99, Angelica_95, Apocalypse_99, Applecrisp_95, Asayake_97, Atiba_97, BEEST_96, BGlluviae_96, BaghaKamala_96, BarrelRoll_96, Beezoo_100, Bella96_98, Belladonna_97, Bern_97, Blizzard_97, Boiiii_97, CREW_95, CallaLilly_96, Capricorn_97, CaseJules_100, CheetoDust_96, Clipper_100, CrimD_96, Dalmuri_97, DartGoblin_97, DarthP_95, Deby_96, Devera_103, DismalFunk_94, DismalStressor_94, Dole_99, DrHayes_98, Durfee_97, Efra2_104, Ekdilam_92, Ellie_96, Emerson_101, Fefferhead_98, Findley_94, Ganymede_96, Geraldini_97, Guanica15_103, Hammy_95, HedwigODU_96, Homura_95, Hyperbowlee_95, Illumine_100, InLimbo_72, Inky_96, JAWS_95, Jarvi_96, Jayhawk_100, Jeckyll_97, Joy99_98, LaterM_96, Lavahound_96, LindNT_94, Llorens_96, Lunahalos_96, MacKat_92, Marcoliusprime_92, Marshawn_96, MeaningOfLife_98, Megsy_102, Milly_94, Morkie_74, Mufasa_94, Murucutumbu_96, Mynx_97, Niklas_98, November_94, Padfoot_96, Padpat_101, Peanam_99, Peel_96, PhorbessPhlower_72, Piatt_95, Pisa1_97, Pisa4_91, Pokerus_96, Prithvi_98, QuincyRose_94, Ramen_97, Rapunzel97_99, Rosmarinus_97, SamuelLPlaqson_98, Shaobing_96, ShiaSurprise_99, Slimphazie_99, Spock_96, Stinson_97, Strobilo_95, Sulley_95, Tachez_97, TaiwanKao_98, TiniBug_95, Tiri_97, Topper_96, TreyKay_98, TruffulaTree_98, Twitch_97, Urkel_98, Validus_106, Veliki_97, YoureAdopted_95, Yunkel11_101, Zabiza_92, Zavala_98, ZoeJ_92,

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

- BoostSeason_94, Doughnut_95, TM4_92,

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

- Agent47_97, AizenPogi_63, AlleyCat_100, Amelie_77, Aminay_104, Angel_60, Annihilator_61, Antsirabe_65, Aroostook_62, Avocado_67, Avrafan_61, AzulaCat_63, BPs_62, BQuat_61, BananenDer11_99, Barkley26_59, Biglebops_77, Bobquesha_91, Boilgate_83, BruceB_62, Bryler_94, CLED96_61, Cain_102, Cambiare_66, Camri_62, CassieYates_62, Cedasite_62, Chance64_62,

Chancellor_94, Cheetobro_92, Cherrybomb426_61, Chris_101, Cloudyecho_66, Coleslaw_61, Collard_95, Crespo_61, Curiosium_104, DMoney_61, DNAIII_0059, Dadosky_100, DanSyl44_97, Dardanus_58, Darionha_62, DingDing_61, DoubleChamp_96, ECartman_60, Edugator_92, Enkosi_79, Eponine_96, Feyre_98, Fionnbharth_94, FlagStaff_64, Frosty24_62, Gengar_96, Gideon_62, GoldenAsh_60, Gomashi_61, Grizzly_61, Guillsminger_96, Halo_63, Heftyboy_96, Heinz_62, Hope_62, Hotshotbaby7_62, Hurricane_98, IdentityCrisis_61, InvictusManeo_97, JF1_94, Jane_63, Jeilious_62, Jolene_62, Jolie2_61, Jonghyun_60, JorRay_63, Juliette_96, Kareem_63, Kasen3_63, Keshu_101, KiSi_104, Kratio_100, Kraw_94, Krueger_101, Larva_98, LastHope_103, LeMond_103, Lea83_98, Lebo14_93, Lemuria_64, Leston_95, Liefie_59, LilDirt_99, LilPharaoh_78, LilSpotty_85, LouisV14_64, Lucky10_70, MOOREtheMARYer_66, MZKinsey_61, MacnCheese_99, Maliketh_62, Malthus_95, MarkPhew_103, Marmie_62, Mdavu_78, Mercurio_63, Miryou_98, MissDaisy_88, Mitti_94, Mowgli_62, Neighly_100, Neoh_60, Nibb_103, Nikao_80, Nutello_77, OctaviousRex_61, OkiRoe_97, Olga_63, OmniCritical_94, Omnicron_96, Oscar_104, P3MA_62, Paito_63, Paola_93, Patt_87, Peeb_61, Periodt_62, Pharb_97, PhelpsODU_92, Phish_61, Phloodle_61, Phrank_103, Phreak_62, PinkYoshi_62, Pinnie_65, Pixie_100, Plagueis_62, Psycho_98, Qhanda_94, Rabbs_63, Rando14_92, Rattrick_62, Remy19_62, Renaissance_61, Reptar3000_88, Richarlison_63, Ruriko_62, Ruthiejr_96, SamScheppers_93, Santhid_59, Scarlett_103, Schiebel_60, SgtBeansprout_78, ShaboShabazz_61, Shadow1_100, ShedlockHolmes_100, SirPhilip_98, Sizemore_63, Slarp_92, Sneeze_62, SoSeph_96, Stargaze_65, Sunflower1121_100, Sweets_62, Syra333_99, TBond007_97, TClif_100, Taheera_58, Taquito_94, Tarzan_63, Teejan_79, Terror_58, Thyatira_97, Tierra_102, Tigress9_100, TinaBug_63, TingHuaYa_101, TomBrady_62, Torres_80, TribbleTrouble_97, Trice_77, ViviJ_105, WST1_61, Waterfoul_95, Wendigo_62, Wintermute_94, Ximenita_103, Y10_90, Y2_90, YangYin_67, YasnayaPolyana_93, Yuna_100, ZoMa_61, Zombie_62,

Summary by start number:

Start 5:

- 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: P3MA_62 (singleton),

Start 15:

- Found in 85 of 311 (27.3%) of genes in pham
- Manual Annotations of this start: 74 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AizenPogi_63 (G1), Angel_60 (G1), Annihilator_61 (G1), Antsirabe_65 (G5), Aroostook_62 (G1), Avocado_67 (G2), Avrafan_61 (G1), AzulaCat_63 (G1), BPs_62 (G1), BQuat_61 (G1), Barkley26_59 (G1), BruceB_62 (G1), CLED96_61 (G1), Cambiare_66 (G2), Camri_62 (G1), CassieYates_62 (G1), Cedasite_62 (G1), Chance64_62 (G1), Cherrybomb426_61 (G1), Cloudyecho_66 (G3), Coleslaw_61 (G1), Crespo_61 (G1), DMoney_61 (G1), DNAIII_0059 (G1), Darionha_62 (G1), DingDing_61 (G1), ECartman_60 (G1), FlagStaff_64 (G2), Frosty24_62 (G1), Gideon_62 (G1), GoldenAsh_60 (G1), Gomashi_61 (G1), Grizzly_61 (G1), Halo_63 (G1), Hope_62 (G1), Hotshotbaby7_62 (G1), Jane_63 (G1), Jeilious_62 (G), Jolene_62 (G1), Jolie2_61 (G4), Jonghyun_60 (G1), JorRay_63 (G1), Kareem_63 (G1), Kasen3_63 (G1), Lemuria_64 (G4), Liefie_59 (G1), LouisV14_64 (G1), MOOREtheMARYer_66 (G3), MZKinsey_61 (G1),

Maliketh_62 (G1), Marmie_62 (G1), Mercurio_63 (G4), Mowgli_62 (G1), Neoh_60 (G), OctaviousRex_61 (G1), Olga_63 (G1), Paito_63 (G1), Peeb_61 (G1), Periodt_62 (G1), Phish_61 (G1), Phloodle_61 (G1), Phreak_62 (G1), PinkYoshi_62 (G1), Pinnie_65 (G3), Plagueis_62 (G1), Rabbs_63 (G1), Rattrick_62 (G1), Remy19_62 (G1), Renaissance_61 (G1), Richarlison_63 (G1), Ruriko_62 (G1), Schiebel_60 (G1), ShaboiShabazz_61 (G1), Sizemore_63 (G1), Sneeze_62 (G1), Stargaze_65 (G5), Sweets_62 (G1), Taheera_58 (G1), Terror_58 (G1), TinaBug_63 (G1), TomBrady_62 (G1), Wendigo_62 (G1), YangYin_67 (G5), ZoMa_61 (G1), Zombie_62 (G1),

Start 18:

- Found in 3 of 311 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 287
- Called 66.7% of time when present
- Phage (with cluster) where this start called: IdentityCrisis_61 (AJ), WST1_61 (AJ),

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: Aminay_104 (K7),

Start 24:

- 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: Yuna_100 (K6),

Start 25:

- 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: Dardanus_58 (CU3),

Start 26:

- Found in 58 of 311 (18.6%) of genes in pham
- Manual Annotations of this start: 48 of 287
- Called 86.2% of time when present
- Phage (with cluster) where this start called: Agent47_97 (K5), AlleyCat_100 (K5), BananenDer11_99 (K5), BoostSeason_94 (K2), Bryler_94 (K6), Cain_102 (K6), Chris_101 (K1), Collard_95 (K5), Dadosky_100 (K5), DoubleChamp_96 (K5), Doughnut_95 (K2), Edugator_92 (K5), Feyre_98 (K5), Gengar_96 (K5), Guillsminger_96 (K5), Heftyboy_96 (K5), InvictusManeo_97 (K5), KiSi_104 (K1), Kratio_100 (K5), Krueger_101 (K6), Larva_98 (K5), LeMond_103 (K1), Leston_95 (K5), LilDirt_99 (K5), MarkPhew_103 (K1), Miryou_98 (K5), Neighly_100 (K3), Nibb_103 (K1), OkiRoe_97 (K5), Omnicron_96 (K5), Oscar_104 (K1), Paola_93 (K5), PhelpsODU_92 (K6), Phrank_103 (K6), Psycho_98 (K5), Rando14_92 (K5), Scarlett_103 (K1), Shadow1_100 (K6), SirPhilip_98 (K6), SoSeph_96 (K5), Sunflower1121_100 (K6), Syra333_99 (K6), TClif_100 (K6), TM4_92 (K2), Thyatira_97 (K5), Tierra_102 (K6), Tigress9_100 (K6), ViviJ_105 (K5), Waterfoul_95 (K5), Ximenita_103 (K6),

Start 27:

- Found in 119 of 311 (38.3%) of genes in pham

- Manual Annotations of this start: 112 of 287
- Called 97.5% of time when present
- Phage (with cluster) where this start called: ActinUp_97 (K1), Adephagia_95 (K1), Adonis_96 (K1), Ageofdapage_100 (K1), AlishaPH_89 (K1), Amgine_97 (K6), Amohntion_95 (K6), Anaya_99 (K1), Angelica_95 (K1), Apocalypse_99 (K1), Applecrisp_95 (K6), Asayake_97 (K1), Atiba_97 (K1), BEEST_96 (K1), BGlluviae_96 (K1), BaghaKamala_96 (K1), BarrelRoll_96 (K1), Beezoo_100 (K1), Bella96_98 (K1), Belladonna_97 (K1), Bern_97 (K1), Blizzard_97 (K1), Boiiii_97 (K1), CREW_95 (K1), CallaLilly_96 (K1), Capricorn_97 (K1), CaseJules_100 (K1), CheetoDust_96 (K1), Clipper_100 (K1), CrimD_96 (K1), Dalmuri_97 (K1), DartGoblin_97 (K1), DARTH_95 (K6), Deby_96 (K1), Devera_103 (K1), DismalFunk_94 (K2), DismalStressor_94 (K2), Dole_99 (K1), DrHayes_98 (K1), Durfee_97 (K1), Efra2_104 (K1), Ekdilam_92 (K6), Ellie_96 (K6), Emerson_101 (K1), Fefferhead_98 (K6), Findley_94 (K2), Ganymede_96 (K1), Geraldini_97 (K1), Guanica15_103 (K1), Hammy_95 (K6), HedwigODU_96 (K1), Homura_95 (K1), Hyperbowlee_95 (K1), Illumine_100 (K1), InLimbo_72 (DH), Inky_96 (K1), JAWS_95 (K1), Jarvi_96 (K1), Jayhawk_100 (K1), Jeckyll_97 (K1), Joy99_98 (K1), LaterM_96 (K1), Lavahound_96 (K6), LindNT_94 (K1), Llorens_96 (K1), Lunahalos_96 (K1), MacKat_92 (K1), Marcoliusprime_92 (K2), Marshawn_96 (K6), MeaningOfLife_98 (K1), Megsy_102 (K1), Milly_94 (K2), Morkie_74 (DH), Mufasa_94 (K2), Murucutumbu_96 (K1), Mynx_97 (K1), Niklas_98 (K1), November_94 (K6), Padfoot_96 (K1), Padpat_101 (K1), Peanam_99 (K1), Peel_96 (K1), PhorbessPhlower_72 (DH), Piatt_95 (K1), Pisa1_97 (K1), Pisa4_91 (K1), Pokerus_96 (K1), Prithvi_98 (K1), QuincyRose_94 (K1), Ramen_97 (K1), Rapunzel97_99 (K1), Rosmarinus_97 (K1), SamuelLPlaqson_98 (K1), Shaobing_96 (K1), ShiaSurprise_99 (K1), Slimphazie_99 (K1), Spock_96 (K1), Stinson_97 (K1), Strobilo_95 (K2), Sulley_95 (K1), Tachez_97 (K1), TaiwanKao_98 (K1), TiniBug_95 (K1), Tiri_97 (K1), Topper_96 (K1), TreyKay_98 (K1), TruffulaTree_98 (K1), Twitch_97 (K1), Urkel_98 (K1), Validus_106 (K1), Veliki_97 (K1), YoureAdopted_95 (K1), Yunkel11_101 (K1), Zabiza_92 (K1), Zavala_98 (K1), ZoeJ_92 (K2),

Start 28:

- Found in 23 of 311 (7.4%) 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: Amelie_77 (K1), Binglebops_77 (K1), Curiosium_104 (K1), Enkosi_79 (K1), Hurricane_98 (K3), Keshu_101 (K3), LastHope_103 (K1), Lea83_98 (K3), LilPharaoh_78 (K1), MacnCheese_99 (K3), Mdavu_78 (K1), Nikao_80 (K1), Nutello_77 (K1), Pharb_97 (K3), Pixie_100 (K3), SgtBeansprout_78 (K1), ShedlockHolmes_100 (K3), TBond007_97 (K3), Teejan_79 (K1), TingHuaYa_101 (K1), Torres_80 (K1), TribbleTrouble_97 (K3), Trice_77 (K1),

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: LilSpotty_85 (singleton),

Start 30:

- Found in 27 of 311 (8.7%) of genes in pham
- Manual Annotations of this start: 24 of 287
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bobquesha_91 (K4), Boilgate_83 (K8), Chancellor_94 (K4), Cheetobro_92 (K4), DanSyl44_97 (K4), Eponine_96 (K4),

Fionnbharth_94 (K4), JF1_94 (K4), Juliette_96 (K4), Kraw_94 (K4), Lebo14_93 (K4), Lucky10_70 (DH), Malthus_95 (K4), MissDaisy_88 (K4), Mitti_94 (K4), OmniCritical_94 (K4), Patt_87 (K4), Qhanda_94 (K4), Reptar3000_88 (K4), Ruthiejr_96 (K4), SamScheppers_93 (K4), Slarp_92 (K4), Taquito_94 (K4), Wintermute_94 (K4), Y10_90 (K4), Y2_90 (K4), YasnayaPolyana_93 (K4),

Start 33:

- 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: Heinz_62 (DY), Santhid_59 (DY), Tarzan_63 (DY),

Summary by clusters:

There are 19 clusters represented in this pham: DH, singleton, G4, G3, G2, G1, DY, G, G5, AJ, K3, K2, K1, K7, K6, K5, K4, CU3, K8,

Info for manual annotations of cluster AJ:

- Start number 18 was manually annotated 1 time for cluster AJ.

Info for manual annotations of cluster CU3:

- Start number 25 was manually annotated 1 time for cluster CU3.

Info for manual annotations of cluster DH:

- Start number 27 was manually annotated 2 times for cluster DH.
- Start number 30 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster DY:

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

Info for manual annotations of cluster G1:

- Start number 15 was manually annotated 65 times for cluster G1.

Info for manual annotations of cluster G2:

- Start number 15 was manually annotated 3 times for cluster G2.

Info for manual annotations of cluster G3:

- Start number 15 was manually annotated 2 times for cluster G3.

Info for manual annotations of cluster G4:

- Start number 15 was manually annotated 2 times for cluster G4.

Info for manual annotations of cluster G5:

- Start number 15 was manually annotated 2 times for cluster G5.

Info for manual annotations of cluster K1:

- Start number 26 was manually annotated 7 times for cluster K1.
- Start number 27 was manually annotated 91 times for cluster K1.
- Start number 28 was manually annotated 11 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 26 was manually annotated 3 times for cluster K2.
- Start number 27 was manually annotated 8 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 28 was manually annotated 9 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 30 was manually annotated 22 times for cluster K4.

Info for manual annotations of cluster K5:

- Start number 26 was manually annotated 25 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 24 was manually annotated 1 time for cluster K6.
- Start number 26 was manually annotated 13 times for cluster K6.
- Start number 27 was manually annotated 11 times for cluster K6.

Info for manual annotations of cluster K7:

- Start number 23 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster K8:

- Start number 30 was manually annotated 1 time for cluster K8.

Gene Information:

Gene: ActinUp_97 Start: 59451, Stop: 59753, Start Num: 27

Candidate Starts for ActinUp_97:

(20, 59430), (Start: 27 @59451 has 112 MA's), (38, 59526), (61, 59712), (64, 59727),

Gene: Adephagia_95 Start: 59285, Stop: 59587, Start Num: 27

Candidate Starts for Adephagia_95:

(20, 59264), (Start: 27 @59285 has 112 MA's), (38, 59360), (61, 59546), (64, 59561),

Gene: Adonis_96 Start: 59670, Stop: 59972, Start Num: 27

Candidate Starts for Adonis_96:

(20, 59649), (Start: 27 @59670 has 112 MA's), (38, 59745), (61, 59931), (64, 59946),

Gene: Agent47_97 Start: 60723, Stop: 61028, Start Num: 26

Candidate Starts for Agent47_97:

(Start: 26 @60723 has 48 MA's), (46, 60891),

Gene: Ageofdapage_100 Start: 60254, Stop: 60556, Start Num: 27

Candidate Starts for Ageofdapage_100:

(20, 60233), (Start: 27 @60254 has 112 MA's), (35, 60305), (38, 60329), (61, 60515), (64, 60530),

Gene: AizenPogi_63 Start: 41125, Stop: 41451, Start Num: 15

Candidate Starts for AizenPogi_63:

(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: AlishaPH_89 Start: 56673, Stop: 56975, Start Num: 27

Candidate Starts for AlishaPH_89:

(20, 56652), (Start: 27 @56673 has 112 MA's), (38, 56748), (61, 56934), (64, 56949),

Gene: AlleyCat_100 Start: 61692, Stop: 61997, Start Num: 26

Candidate Starts for AlleyCat_100:

(Start: 26 @61692 has 48 MA's), (41, 61830),

Gene: Amelie_77 Start: 56074, Stop: 56379, Start Num: 28

Candidate Starts for Amelie_77:

(6, 55942), (Start: 28 @56074 has 20 MA's), (38, 56149), (41, 56194), (61, 56338), (62, 56344), (64, 56353),

Gene: Amgine_97 Start: 61886, Stop: 62176, Start Num: 27

Candidate Starts for Amgine_97:

(Start: 27 @61886 has 112 MA's), (38, 61961), (56, 62123),

Gene: Aminay_104 Start: 59192, Stop: 59479, Start Num: 23

Candidate Starts for Aminay_104:

(Start: 23 @59192 has 1 MA's), (45, 59342),

Gene: Amohndition_95 Start: 61401, Stop: 61697, Start Num: 27

Candidate Starts for Amohndition_95:

(Start: 27 @61401 has 112 MA's), (34, 61449), (38, 61476), (54, 61635), (62, 61662),

Gene: Anaya_99 Start: 60473, Stop: 60775, Start Num: 27

Candidate Starts for Anaya_99:

(20, 60452), (Start: 27 @60473 has 112 MA's), (38, 60548), (61, 60734), (64, 60749),

Gene: Angel_60 Start: 40665, Stop: 40991, Start Num: 15

Candidate Starts for Angel_60:

(Start: 15 @40665 has 74 MA's), (46, 40860), (55, 40938),

Gene: Angelica_95 Start: 59237, Stop: 59539, Start Num: 27

Candidate Starts for Angelica_95:

(20, 59216), (Start: 27 @59237 has 112 MA's), (38, 59312), (61, 59498), (64, 59513),

Gene: Annihilator_61 Start: 41117, Stop: 41443, Start Num: 15

Candidate Starts for Annihilator_61:

(Start: 15 @41117 has 74 MA's), (46, 41312), (55, 41390),

Gene: Antsirabe_65 Start: 44050, Stop: 44373, Start Num: 15

Candidate Starts for Antsirabe_65:

(Start: 15 @44050 has 74 MA's), (31, 44101), (42, 44221), (43, 44224), (45, 44236),

Gene: Apocalypse_99 Start: 59588, Stop: 59890, Start Num: 27

Candidate Starts for Apocalypse_99:

(20, 59567), (Start: 27 @59588 has 112 MA's), (38, 59663), (40, 59699), (61, 59849), (64, 59864),

Gene: Applecrisp_95 Start: 61604, Stop: 61894, Start Num: 27

Candidate Starts for Applecrisp_95:

(Start: 27 @61604 has 112 MA's), (38, 61679), (56, 61841),

Gene: Aroostook_62 Start: 41127, Stop: 41453, Start Num: 15

Candidate Starts for Aroostook_62:

(Start: 15 @41127 has 74 MA's), (46, 41322), (55, 41400),

Gene: Asayake_97 Start: 59544, Stop: 59846, Start Num: 27

Candidate Starts for Asayake_97:

(20, 59523), (Start: 27 @59544 has 112 MA's), (38, 59619), (61, 59805), (64, 59820),

Gene: Atiba_97 Start: 59195, Stop: 59497, Start Num: 27

Candidate Starts for Atiba_97:

(20, 59174), (Start: 27 @59195 has 112 MA's), (38, 59270), (61, 59456), (64, 59471),

Gene: Avocado_67 Start: 44700, Stop: 45026, Start Num: 15

Candidate Starts for Avocado_67:

(Start: 15 @44700 has 74 MA's), (31, 44754),

Gene: Avrafan_61 Start: 41125, Stop: 41451, Start Num: 15

Candidate Starts for Avrafan_61:

(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: AzulaCat_63 Start: 41125, Stop: 41451, Start Num: 15

Candidate Starts for AzulaCat_63:

(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: BEEST_96 Start: 59545, Stop: 59847, Start Num: 27

Candidate Starts for BEEST_96:

(20, 59524), (Start: 27 @59545 has 112 MA's), (38, 59620), (61, 59806), (64, 59821),

Gene: BGlluviae_96 Start: 58947, Stop: 59249, Start Num: 27

Candidate Starts for BGlluviae_96:

(20, 58926), (Start: 27 @58947 has 112 MA's), (38, 59022), (61, 59208), (64, 59223),

Gene: BPs_62 Start: 41125, Stop: 41451, Start Num: 15

Candidate Starts for BPs_62:

(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: BQuat_61 Start: 41117, Stop: 41443, Start Num: 15

Candidate Starts for BQuat_61:

(Start: 15 @41117 has 74 MA's), (46, 41312), (55, 41390),

Gene: BaghaKamala_96 Start: 58771, Stop: 59073, Start Num: 27

Candidate Starts for BaghaKamala_96:

(20, 58750), (Start: 27 @58771 has 112 MA's), (38, 58846), (61, 59032), (64, 59047),

Gene: BananenDer11_99 Start: 60975, Stop: 61280, Start Num: 26

Candidate Starts for BananenDer11_99:

(Start: 26 @60975 has 48 MA's), (46, 61143),

Gene: Barkley26_59 Start: 40570, Stop: 40896, Start Num: 15

Candidate Starts for Barkley26_59:

(Start: 15 @40570 has 74 MA's),

Gene: BarrelRoll_96 Start: 59311, Stop: 59613, Start Num: 27

Candidate Starts for BarrelRoll_96:

(20, 59290), (Start: 27 @59311 has 112 MA's), (38, 59386), (61, 59572), (64, 59587),

Gene: Beezoo_100 Start: 60133, Stop: 60435, Start Num: 27
Candidate Starts for Beezoo_100:
(20, 60112), (Start: 27 @60133 has 112 MA's), (38, 60208), (61, 60394), (64, 60409),

Gene: Bella96_98 Start: 60366, Stop: 60668, Start Num: 27
Candidate Starts for Bella96_98:
(20, 60345), (Start: 27 @60366 has 112 MA's), (38, 60441), (61, 60627),

Gene: Belladonna_97 Start: 59347, Stop: 59649, Start Num: 27
Candidate Starts for Belladonna_97:
(20, 59326), (Start: 27 @59347 has 112 MA's), (38, 59422), (61, 59608), (64, 59623),

Gene: Bern_97 Start: 58007, Stop: 58309, Start Num: 27
Candidate Starts for Bern_97:
(20, 57986), (Start: 27 @58007 has 112 MA's), (38, 58082), (61, 58268), (64, 58283),

Gene: Binglebops_77 Start: 56089, Stop: 56394, Start Num: 28
Candidate Starts for Binglebops_77:
(6, 55957), (Start: 28 @56089 has 20 MA's), (38, 56164), (41, 56209), (61, 56353), (62, 56359), (64, 56368),

Gene: Blizzard_97 Start: 59544, Stop: 59846, Start Num: 27
Candidate Starts for Blizzard_97:
(20, 59523), (Start: 27 @59544 has 112 MA's), (38, 59619), (61, 59805), (64, 59820),

Gene: Bobquesha_91 Start: 54304, Stop: 54585, Start Num: 30
Candidate Starts for Bobquesha_91:
(Start: 30 @54304 has 24 MA's), (63, 54553), (64, 54559),

Gene: Boiiii_97 Start: 59546, Stop: 59848, Start Num: 27
Candidate Starts for Boiiii_97:
(20, 59525), (Start: 27 @59546 has 112 MA's), (38, 59621), (61, 59807), (64, 59822),

Gene: Boilgate_83 Start: 56925, Stop: 57236, Start Num: 30
Candidate Starts for Boilgate_83:
(Start: 30 @56925 has 24 MA's), (64, 57207),

Gene: BoostSeason_94 Start: 57637, Stop: 57918, Start Num: 26
Candidate Starts for BoostSeason_94:
(Start: 26 @57637 has 48 MA's), (Start: 27 @57640 has 112 MA's), (64, 57898),

Gene: BruceB_62 Start: 41125, Stop: 41451, Start Num: 15
Candidate Starts for BruceB_62:
(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: Bryler_94 Start: 57308, Stop: 57616, Start Num: 26
Candidate Starts for Bryler_94:
(Start: 26 @57308 has 48 MA's), (38, 57383), (64, 57590),

Gene: CLED96_61 Start: 40680, Stop: 41006, Start Num: 15
Candidate Starts for CLED96_61:
(Start: 15 @40680 has 74 MA's), (46, 40875), (55, 40953),

Gene: CREW_95 Start: 59346, Stop: 59648, Start Num: 27
Candidate Starts for CREW_95:
(20, 59325), (Start: 27 @59346 has 112 MA's), (38, 59421), (61, 59607), (64, 59622),

Gene: Cain_102 Start: 60455, Stop: 60763, Start Num: 26
Candidate Starts for Cain_102:
(Start: 26 @60455 has 48 MA's), (38, 60530), (64, 60737),

Gene: CallaLilly_96 Start: 59270, Stop: 59572, Start Num: 27
Candidate Starts for CallaLilly_96:
(20, 59249), (Start: 27 @59270 has 112 MA's), (38, 59345), (61, 59531), (64, 59546),

Gene: Cambiare_66 Start: 44472, Stop: 44798, Start Num: 15
Candidate Starts for Cambiare_66:
(Start: 15 @44472 has 74 MA's), (31, 44526), (42, 44646),

Gene: Camri_62 Start: 41125, Stop: 41451, Start Num: 15
Candidate Starts for Camri_62:
(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: Capricorn_97 Start: 59347, Stop: 59649, Start Num: 27
Candidate Starts for Capricorn_97:
(20, 59326), (Start: 27 @59347 has 112 MA's), (38, 59422), (61, 59608), (64, 59623),

Gene: CaseJules_100 Start: 59544, Stop: 59846, Start Num: 27
Candidate Starts for CaseJules_100:
(20, 59523), (Start: 27 @59544 has 112 MA's), (38, 59619), (61, 59805), (64, 59820),

Gene: CassieYates_62 Start: 41125, Stop: 41451, Start Num: 15
Candidate Starts for CassieYates_62:
(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: Cedasite_62 Start: 41125, Stop: 41451, Start Num: 15
Candidate Starts for Cedasite_62:
(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: Chance64_62 Start: 41127, Stop: 41453, Start Num: 15
Candidate Starts for Chance64_62:
(Start: 15 @41127 has 74 MA's), (46, 41322), (55, 41400),

Gene: Chancellor_94 Start: 56785, Stop: 57090, Start Num: 30
Candidate Starts for Chancellor_94:
(Start: 30 @56785 has 24 MA's), (64, 57064),

Gene: CheetoDust_96 Start: 58941, Stop: 59243, Start Num: 27
Candidate Starts for CheetoDust_96:
(20, 58920), (Start: 27 @58941 has 112 MA's), (38, 59016), (61, 59202), (64, 59217),

Gene: Cheetobro_92 Start: 56341, Stop: 56646, Start Num: 30
Candidate Starts for Cheetobro_92:
(Start: 30 @56341 has 24 MA's), (64, 56620),

Gene: Cherrybomb426_61 Start: 40680, Stop: 41006, Start Num: 15
Candidate Starts for Cherrybomb426_61:
(Start: 15 @40680 has 74 MA's), (46, 40875), (55, 40953),

Gene: Chris_101 Start: 61722, Stop: 62015, Start Num: 26
Candidate Starts for Chris_101:
(Start: 26 @61722 has 48 MA's), (51, 61914), (52, 61923), (60, 61971), (66, 62001),

Gene: Clipper_100 Start: 60197, Stop: 60499, Start Num: 27
Candidate Starts for Clipper_100:
(Start: 27 @60197 has 112 MA's), (38, 60272), (61, 60458), (64, 60473),

Gene: Cloudyecho_66 Start: 44342, Stop: 44665, Start Num: 15
Candidate Starts for Cloudyecho_66:
(Start: 15 @44342 has 74 MA's), (31, 44393), (43, 44516), (45, 44528), (65, 44651),

Gene: Coleslaw_61 Start: 41117, Stop: 41443, Start Num: 15
Candidate Starts for Coleslaw_61:
(Start: 15 @41117 has 74 MA's), (46, 41312), (55, 41390),

Gene: Collard_95 Start: 60975, Stop: 61280, Start Num: 26
Candidate Starts for Collard_95:
(Start: 26 @60975 has 48 MA's), (46, 61143),

Gene: Crespo_61 Start: 41126, Stop: 41452, Start Num: 15
Candidate Starts for Crespo_61:
(Start: 15 @41126 has 74 MA's), (46, 41321), (55, 41399),

Gene: CrimD_96 Start: 59439, Stop: 59741, Start Num: 27
Candidate Starts for CrimD_96:
(20, 59418), (Start: 27 @59439 has 112 MA's), (38, 59514), (61, 59700), (64, 59715),

Gene: Curiosium_104 Start: 60864, Stop: 61154, Start Num: 28
Candidate Starts for Curiosium_104:
(Start: 28 @60864 has 20 MA's),

Gene: DMoney_61 Start: 41104, Stop: 41430, Start Num: 15
Candidate Starts for DMoney_61:
(Start: 15 @41104 has 74 MA's), (46, 41299), (55, 41377),

Gene: DNAIII_0059 Start: 38754, Stop: 39080, Start Num: 15
Candidate Starts for DNAIII_0059:
(Start: 15 @38754 has 74 MA's), (46, 38949), (55, 39027),

Gene: Dadosky_100 Start: 61693, Stop: 61998, Start Num: 26
Candidate Starts for Dadosky_100:
(Start: 26 @61693 has 48 MA's), (41, 61831),

Gene: Dalmuri_97 Start: 59347, Stop: 59649, Start Num: 27
Candidate Starts for Dalmuri_97:
(20, 59326), (Start: 27 @59347 has 112 MA's), (38, 59422), (61, 59608), (64, 59623),

Gene: DanSyl44_97 Start: 58171, Stop: 58476, Start Num: 30

Candidate Starts for DanSyl44_97:
(Start: 30 @58171 has 24 MA's), (64, 58450),

Gene: Dardanus_58 Start: 37373, Stop: 37678, Start Num: 25
Candidate Starts for Dardanus_58:
(Start: 25 @37373 has 1 MA's), (32, 37391), (46, 37553),

Gene: Darionha_62 Start: 41125, Stop: 41451, Start Num: 15
Candidate Starts for Darionha_62:
(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: DartGoblin_97 Start: 60040, Stop: 60342, Start Num: 27
Candidate Starts for DartGoblin_97:
(20, 60019), (Start: 27 @60040 has 112 MA's), (38, 60115), (61, 60301), (64, 60316),

Gene: DarthP_95 Start: 61234, Stop: 61530, Start Num: 27
Candidate Starts for DarthP_95:
(Start: 27 @61234 has 112 MA's), (34, 61282), (38, 61309), (54, 61468), (62, 61495),

Gene: Deby_96 Start: 60102, Stop: 60404, Start Num: 27
Candidate Starts for Deby_96:
(20, 60081), (Start: 27 @60102 has 112 MA's), (38, 60177), (61, 60363), (64, 60378),

Gene: Devera_103 Start: 60259, Stop: 60561, Start Num: 27
Candidate Starts for Devera_103:
(20, 60238), (Start: 27 @60259 has 112 MA's), (35, 60310), (38, 60334), (61, 60520), (64, 60535),

Gene: DingDing_61 Start: 41125, Stop: 41451, Start Num: 15
Candidate Starts for DingDing_61:
(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: DismalFunk_94 Start: 57690, Stop: 57968, Start Num: 27
Candidate Starts for DismalFunk_94:
(Start: 26 @57687 has 48 MA's), (Start: 27 @57690 has 112 MA's), (46, 57840), (64, 57948),

Gene: DismalStressor_94 Start: 57690, Stop: 57968, Start Num: 27
Candidate Starts for DismalStressor_94:
(Start: 26 @57687 has 48 MA's), (Start: 27 @57690 has 112 MA's), (46, 57840), (64, 57948),

Gene: Dole_99 Start: 60262, Stop: 60564, Start Num: 27
Candidate Starts for Dole_99:
(20, 60241), (Start: 27 @60262 has 112 MA's), (35, 60313), (38, 60337), (61, 60523), (64, 60538),

Gene: DoubleChamp_96 Start: 60975, Stop: 61280, Start Num: 26
Candidate Starts for DoubleChamp_96:
(Start: 26 @60975 has 48 MA's), (46, 61143),

Gene: Doughnut_95 Start: 57819, Stop: 58100, Start Num: 26
Candidate Starts for Doughnut_95:
(Start: 26 @57819 has 48 MA's), (Start: 27 @57822 has 112 MA's), (64, 58080),

Gene: DrHayes_98 Start: 60168, Stop: 60470, Start Num: 27
Candidate Starts for DrHayes_98:

(20, 60147), (Start: 27 @60168 has 112 MA's), (38, 60243), (61, 60429), (64, 60444),

Gene: Durfee_97 Start: 59544, Stop: 59846, Start Num: 27

Candidate Starts for Durfee_97:

(20, 59523), (Start: 27 @59544 has 112 MA's), (38, 59619), (61, 59805), (64, 59820),

Gene: ECartman_60 Start: 41125, Stop: 41451, Start Num: 15

Candidate Starts for ECartman_60:

(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: Edugator_92 Start: 62924, Stop: 63229, Start Num: 26

Candidate Starts for Edugator_92:

(Start: 26 @62924 has 48 MA's), (41, 63062), (46, 63092),

Gene: Efra2_104 Start: 60929, Stop: 61216, Start Num: 27

Candidate Starts for Efra2_104:

(Start: 27 @60929 has 112 MA's), (57, 61166), (62, 61181), (63, 61184),

Gene: Ekdilam_92 Start: 61413, Stop: 61709, Start Num: 27

Candidate Starts for Ekdilam_92:

(3, 61107), (Start: 27 @61413 has 112 MA's), (34, 61461), (38, 61488), (54, 61647), (62, 61674),

Gene: Ellie_96 Start: 61595, Stop: 61885, Start Num: 27

Candidate Starts for Ellie_96:

(Start: 27 @61595 has 112 MA's), (38, 61670), (56, 61832),

Gene: Emerson_101 Start: 59949, Stop: 60251, Start Num: 27

Candidate Starts for Emerson_101:

(20, 59928), (Start: 27 @59949 has 112 MA's), (38, 60024), (61, 60210), (64, 60225),

Gene: Enkosi_79 Start: 58687, Stop: 58992, Start Num: 28

Candidate Starts for Enkosi_79:

(6, 58555), (Start: 28 @58687 has 20 MA's), (38, 58762), (41, 58807), (61, 58951), (62, 58957), (64, 58966),

Gene: Eponine_96 Start: 57765, Stop: 58070, Start Num: 30

Candidate Starts for Eponine_96:

(Start: 30 @57765 has 24 MA's), (39, 57870), (64, 58044),

Gene: Fefferhead_98 Start: 61016, Stop: 61306, Start Num: 27

Candidate Starts for Fefferhead_98:

(Start: 27 @61016 has 112 MA's), (38, 61091), (56, 61253),

Gene: Feyre_98 Start: 63125, Stop: 63430, Start Num: 26

Candidate Starts for Feyre_98:

(Start: 26 @63125 has 48 MA's),

Gene: Findley_94 Start: 57711, Stop: 57989, Start Num: 27

Candidate Starts for Findley_94:

(Start: 26 @57708 has 48 MA's), (Start: 27 @57711 has 112 MA's), (46, 57861), (64, 57969),

Gene: Fionnbharth_94 Start: 57163, Stop: 57468, Start Num: 30

Candidate Starts for Fionnbharth_94:

(Start: 30 @57163 has 24 MA's), (39, 57268), (64, 57442),

Gene: FlagStaff_64 Start: 43887, Stop: 44213, Start Num: 15

Candidate Starts for FlagStaff_64:

(Start: 15 @43887 has 74 MA's), (31, 43941), (42, 44061),

Gene: Frosty24_62 Start: 41125, Stop: 41451, Start Num: 15

Candidate Starts for Frosty24_62:

(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: Ganymede_96 Start: 59358, Stop: 59660, Start Num: 27

Candidate Starts for Ganymede_96:

(20, 59337), (Start: 27 @59358 has 112 MA's), (38, 59433), (61, 59619), (64, 59634),

Gene: Gengar_96 Start: 61193, Stop: 61498, Start Num: 26

Candidate Starts for Gengar_96:

(Start: 26 @61193 has 48 MA's),

Gene: Geraldini_97 Start: 59457, Stop: 59759, Start Num: 27

Candidate Starts for Geraldini_97:

(20, 59436), (Start: 27 @59457 has 112 MA's), (38, 59532), (61, 59718), (64, 59733),

Gene: Gideon_62 Start: 41127, Stop: 41453, Start Num: 15

Candidate Starts for Gideon_62:

(Start: 15 @41127 has 74 MA's), (46, 41322), (55, 41400),

Gene: GoldenAsh_60 Start: 40665, Stop: 40991, Start Num: 15

Candidate Starts for GoldenAsh_60:

(Start: 15 @40665 has 74 MA's), (46, 40860), (55, 40938),

Gene: Gomashi_61 Start: 41127, Stop: 41453, Start Num: 15

Candidate Starts for Gomashi_61:

(Start: 15 @41127 has 74 MA's), (46, 41322), (55, 41400),

Gene: Grizzly_61 Start: 40976, Stop: 41302, Start Num: 15

Candidate Starts for Grizzly_61:

(Start: 15 @40976 has 74 MA's), (46, 41171), (55, 41249),

Gene: Guanica15_103 Start: 60618, Stop: 60905, Start Num: 27

Candidate Starts for Guanica15_103:

(Start: 27 @60618 has 112 MA's), (57, 60855), (62, 60870), (63, 60873),

Gene: Guillsminger_96 Start: 62720, Stop: 63025, Start Num: 26

Candidate Starts for Guillsminger_96:

(Start: 26 @62720 has 48 MA's),

Gene: Halo_63 Start: 41673, Stop: 41999, Start Num: 15

Candidate Starts for Halo_63:

(Start: 15 @41673 has 74 MA's), (46, 41868), (55, 41946),

Gene: Hammy_95 Start: 61452, Stop: 61748, Start Num: 27

Candidate Starts for Hammy_95:

(Start: 27 @61452 has 112 MA's), (34, 61500), (38, 61527), (54, 61686), (62, 61713),

Gene: HedwigODU_96 Start: 59451, Stop: 59753, Start Num: 27
Candidate Starts for HedwigODU_96:
(20, 59430), (Start: 27 @59451 has 112 MA's), (38, 59526), (61, 59712), (64, 59727),

Gene: Heftyboy_96 Start: 61535, Stop: 61840, Start Num: 26
Candidate Starts for Heftyboy_96:
(Start: 26 @61535 has 48 MA's),

Gene: Heinz_62 Start: 39746, Stop: 40030, Start Num: 33
Candidate Starts for Heinz_62:
(Start: 33 @39746 has 3 MA's), (37, 39800),

Gene: Homura_95 Start: 59347, Stop: 59649, Start Num: 27
Candidate Starts for Homura_95:
(20, 59326), (Start: 27 @59347 has 112 MA's), (38, 59422), (61, 59608), (64, 59623),

Gene: Hope_62 Start: 41125, Stop: 41451, Start Num: 15
Candidate Starts for Hope_62:
(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: Hotshotbaby7_62 Start: 41127, Stop: 41453, Start Num: 15
Candidate Starts for Hotshotbaby7_62:
(Start: 15 @41127 has 74 MA's), (46, 41322), (55, 41400),

Gene: Hurricane_98 Start: 60965, Stop: 61252, Start Num: 28
Candidate Starts for Hurricane_98:
(16, 60923), (19, 60938), (Start: 28 @60965 has 20 MA's), (58, 61202), (64, 61226),

Gene: Hyperbowlee_95 Start: 59544, Stop: 59846, Start Num: 27
Candidate Starts for Hyperbowlee_95:
(20, 59523), (Start: 27 @59544 has 112 MA's), (38, 59619), (61, 59805), (64, 59820),

Gene: IdentityCrisis_61 Start: 37798, Stop: 38148, Start Num: 18
Candidate Starts for IdentityCrisis_61:
(Start: 18 @37798 has 1 MA's),

Gene: Illumine_100 Start: 60261, Stop: 60563, Start Num: 27
Candidate Starts for Illumine_100:
(20, 60240), (Start: 27 @60261 has 112 MA's), (35, 60312), (38, 60336), (61, 60522), (64, 60537),

Gene: InLimbo_72 Start: 41229, Stop: 41534, Start Num: 27
Candidate Starts for InLimbo_72:
(8, 41133), (Start: 27 @41229 has 112 MA's), (51, 41439),

Gene: Inky_96 Start: 59347, Stop: 59649, Start Num: 27
Candidate Starts for Inky_96:
(20, 59326), (Start: 27 @59347 has 112 MA's), (38, 59422), (61, 59608), (64, 59623),

Gene: InvictusManeo_97 Start: 60727, Stop: 61032, Start Num: 26
Candidate Starts for InvictusManeo_97:
(Start: 26 @60727 has 48 MA's), (46, 60895),

Gene: JAWS_95 Start: 59388, Stop: 59690, Start Num: 27
Candidate Starts for JAWS_95:
(20, 59367), (Start: 27 @59388 has 112 MA's), (38, 59463), (61, 59649), (64, 59664),

Gene: JF1_94 Start: 57078, Stop: 57383, Start Num: 30
Candidate Starts for JF1_94:
(Start: 30 @57078 has 24 MA's), (39, 57183), (64, 57357),

Gene: Jane_63 Start: 41125, Stop: 41451, Start Num: 15
Candidate Starts for Jane_63:
(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: Jarvi_96 Start: 59347, Stop: 59649, Start Num: 27
Candidate Starts for Jarvi_96:
(20, 59326), (Start: 27 @59347 has 112 MA's), (38, 59422), (61, 59608), (64, 59623),

Gene: Jayhawk_100 Start: 59371, Stop: 59673, Start Num: 27
Candidate Starts for Jayhawk_100:
(20, 59350), (Start: 27 @59371 has 112 MA's), (38, 59446), (61, 59632), (64, 59647),

Gene: Jeckyll_97 Start: 59347, Stop: 59649, Start Num: 27
Candidate Starts for Jeckyll_97:
(20, 59326), (Start: 27 @59347 has 112 MA's), (38, 59422), (61, 59608), (64, 59623),

Gene: Jeilious_62 Start: 41124, Stop: 41450, Start Num: 15
Candidate Starts for Jeilious_62:
(Start: 15 @41124 has 74 MA's), (46, 41319), (55, 41397),

Gene: Jolene_62 Start: 41529, Stop: 41855, Start Num: 15
Candidate Starts for Jolene_62:
(Start: 15 @41529 has 74 MA's), (46, 41724), (55, 41802),

Gene: Jolie2_61 Start: 43385, Stop: 43714, Start Num: 15
Candidate Starts for Jolie2_61:
(Start: 15 @43385 has 74 MA's), (44, 43568), (55, 43655),

Gene: Jonghyun_60 Start: 41128, Stop: 41454, Start Num: 15
Candidate Starts for Jonghyun_60:
(Start: 15 @41128 has 74 MA's), (46, 41323), (55, 41401),

Gene: JorRay_63 Start: 41125, Stop: 41451, Start Num: 15
Candidate Starts for JorRay_63:
(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: Joy99_98 Start: 59476, Stop: 59778, Start Num: 27
Candidate Starts for Joy99_98:
(20, 59455), (Start: 27 @59476 has 112 MA's), (38, 59551), (61, 59737), (64, 59752),

Gene: Juliette_96 Start: 57159, Stop: 57464, Start Num: 30
Candidate Starts for Juliette_96:
(Start: 30 @57159 has 24 MA's), (39, 57264), (64, 57438),

Gene: Kareem_63 Start: 41125, Stop: 41451, Start Num: 15

Candidate Starts for Kareem_63:

(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: Kasen3_63 Start: 41114, Stop: 41440, Start Num: 15

Candidate Starts for Kasen3_63:

(Start: 15 @41114 has 74 MA's), (46, 41309), (55, 41387),

Gene: Keshu_101 Start: 60898, Stop: 61185, Start Num: 28

Candidate Starts for Keshu_101:

(7, 60787), (9, 60811), (16, 60856), (19, 60871), (Start: 28 @60898 has 20 MA's), (58, 61135), (64, 61159),

Gene: KiSi_104 Start: 62208, Stop: 62504, Start Num: 26

Candidate Starts for KiSi_104:

(Start: 26 @62208 has 48 MA's), (51, 62400), (52, 62409),

Gene: Kratio_100 Start: 62318, Stop: 62623, Start Num: 26

Candidate Starts for Kratio_100:

(Start: 26 @62318 has 48 MA's), (46, 62486),

Gene: Kraw_94 Start: 56894, Stop: 57199, Start Num: 30

Candidate Starts for Kraw_94:

(Start: 30 @56894 has 24 MA's), (39, 56999), (64, 57173),

Gene: Krueger_101 Start: 59962, Stop: 60270, Start Num: 26

Candidate Starts for Krueger_101:

(Start: 26 @59962 has 48 MA's), (38, 60037), (64, 60244),

Gene: Larva_98 Start: 62571, Stop: 62876, Start Num: 26

Candidate Starts for Larva_98:

(Start: 26 @62571 has 48 MA's), (41, 62709),

Gene: LastHope_103 Start: 60575, Stop: 60865, Start Num: 28

Candidate Starts for LastHope_103:

(Start: 28 @60575 has 20 MA's), (49, 60758),

Gene: LaterM_96 Start: 59784, Stop: 60086, Start Num: 27

Candidate Starts for LaterM_96:

(20, 59763), (Start: 27 @59784 has 112 MA's), (35, 59835), (38, 59859), (61, 60045), (64, 60060),

Gene: Lavahound_96 Start: 62017, Stop: 62307, Start Num: 27

Candidate Starts for Lavahound_96:

(Start: 27 @62017 has 112 MA's), (38, 62092), (56, 62254),

Gene: LeMond_103 Start: 62165, Stop: 62461, Start Num: 26

Candidate Starts for LeMond_103:

(Start: 26 @62165 has 48 MA's), (51, 62357), (52, 62366),

Gene: Lea83_98 Start: 60751, Stop: 61038, Start Num: 28

Candidate Starts for Lea83_98:

(7, 60640), (16, 60709), (19, 60724), (Start: 28 @60751 has 20 MA's), (58, 60988), (64, 61012),

Gene: Lebo14_93 Start: 57318, Stop: 57623, Start Num: 30

Candidate Starts for Lebo14_93:
(Start: 30 @57318 has 24 MA's), (64, 57597),

Gene: Lemuria_64 Start: 44074, Stop: 44403, Start Num: 15
Candidate Starts for Lemuria_64:
(Start: 15 @44074 has 74 MA's), (44, 44257), (48, 44287), (55, 44344),

Gene: Leston_95 Start: 61375, Stop: 61680, Start Num: 26
Candidate Starts for Leston_95:
(Start: 26 @61375 has 48 MA's),

Gene: Liefie_59 Start: 40764, Stop: 41090, Start Num: 15
Candidate Starts for Liefie_59:
(Start: 15 @40764 has 74 MA's),

Gene: LilDirt_99 Start: 60776, Stop: 61081, Start Num: 26
Candidate Starts for LilDirt_99:
(Start: 26 @60776 has 48 MA's), (46, 60944),

Gene: LilPharaoh_78 Start: 55802, Stop: 56107, Start Num: 28
Candidate Starts for LilPharaoh_78:
(6, 55670), (Start: 28 @55802 has 20 MA's), (38, 55877), (41, 55922), (61, 56066), (62, 56072), (64, 56081),

Gene: LilSpotty_85 Start: 49411, Stop: 49689, Start Num: 29
Candidate Starts for LilSpotty_85:
(Start: 29 @49411 has 1 MA's), (63, 49663),

Gene: LindNT_94 Start: 59694, Stop: 59996, Start Num: 27
Candidate Starts for LindNT_94:
(20, 59673), (Start: 27 @59694 has 112 MA's), (38, 59769), (61, 59955), (64, 59970),

Gene: Llorens_96 Start: 59347, Stop: 59649, Start Num: 27
Candidate Starts for Llorens_96:
(20, 59326), (Start: 27 @59347 has 112 MA's), (38, 59422), (61, 59608), (64, 59623),

Gene: LouisV14_64 Start: 43369, Stop: 43695, Start Num: 15
Candidate Starts for LouisV14_64:
(Start: 15 @43369 has 74 MA's), (46, 43564), (55, 43642),

Gene: Lucky10_70 Start: 42595, Stop: 42897, Start Num: 30
Candidate Starts for Lucky10_70:
(8, 42496), (Start: 30 @42595 has 24 MA's), (51, 42802),

Gene: Lunahalos_96 Start: 59347, Stop: 59649, Start Num: 27
Candidate Starts for Lunahalos_96:
(20, 59326), (Start: 27 @59347 has 112 MA's), (38, 59422), (61, 59608), (64, 59623),

Gene: MOOREtheMARYer_66 Start: 43647, Stop: 43973, Start Num: 15
Candidate Starts for MOOREtheMARYer_66:
(Start: 15 @43647 has 74 MA's), (31, 43701), (42, 43821), (43, 43824),

Gene: MZKinsey_61 Start: 41125, Stop: 41451, Start Num: 15

Candidate Starts for MZKinsey_61:

(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: MacKat_92 Start: 55081, Stop: 55383, Start Num: 27

Candidate Starts for MacKat_92:

(Start: 27 @55081 has 112 MA's), (38, 55156), (61, 55342), (64, 55357),

Gene: MacnCheese_99 Start: 61214, Stop: 61501, Start Num: 28

Candidate Starts for MacnCheese_99:

(10, 61130), (16, 61172), (19, 61187), (Start: 28 @61214 has 20 MA's),

Gene: Maliketh_62 Start: 41125, Stop: 41451, Start Num: 15

Candidate Starts for Maliketh_62:

(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: Malthus_95 Start: 56888, Stop: 57193, Start Num: 30

Candidate Starts for Malthus_95:

(Start: 30 @56888 has 24 MA's), (39, 56993), (64, 57167),

Gene: Marcoliusprime_92 Start: 57690, Stop: 57968, Start Num: 27

Candidate Starts for Marcoliusprime_92:

(Start: 26 @57687 has 48 MA's), (Start: 27 @57690 has 112 MA's), (46, 57840), (64, 57948),

Gene: MarkPhew_103 Start: 61805, Stop: 62098, Start Num: 26

Candidate Starts for MarkPhew_103:

(Start: 26 @61805 has 48 MA's), (38, 61880), (52, 62006), (66, 62084),

Gene: Marmie_62 Start: 41126, Stop: 41452, Start Num: 15

Candidate Starts for Marmie_62:

(Start: 15 @41126 has 74 MA's), (46, 41321), (55, 41399),

Gene: Marshawn_96 Start: 61097, Stop: 61411, Start Num: 27

Candidate Starts for Marshawn_96:

(Start: 27 @61097 has 112 MA's), (38, 61172), (63, 61379), (64, 61385),

Gene: Mdavu_78 Start: 56078, Stop: 56383, Start Num: 28

Candidate Starts for Mdavu_78:

(6, 55946), (Start: 28 @56078 has 20 MA's), (38, 56153), (41, 56198), (61, 56342), (62, 56348), (64, 56357),

Gene: MeaningOfLife_98 Start: 60071, Stop: 60373, Start Num: 27

Candidate Starts for MeaningOfLife_98:

(20, 60050), (Start: 27 @60071 has 112 MA's), (38, 60146), (61, 60332), (64, 60347),

Gene: Megsy_102 Start: 59832, Stop: 60134, Start Num: 27

Candidate Starts for Megsy_102:

(20, 59811), (Start: 27 @59832 has 112 MA's), (38, 59907), (61, 60093), (64, 60108),

Gene: Mercurio_63 Start: 43953, Stop: 44282, Start Num: 15

Candidate Starts for Mercurio_63:

(Start: 15 @43953 has 74 MA's), (44, 44136), (55, 44223),

Gene: Milly_94 Start: 57772, Stop: 58050, Start Num: 27

Candidate Starts for Milly_94:

(Start: 26 @57769 has 48 MA's), (Start: 27 @57772 has 112 MA's), (46, 57922), (64, 58030),

Gene: Miryou_98 Start: 62747, Stop: 63052, Start Num: 26

Candidate Starts for Miryou_98:

(Start: 26 @62747 has 48 MA's),

Gene: MissDaisy_88 Start: 53576, Stop: 53857, Start Num: 30

Candidate Starts for MissDaisy_88:

(Start: 30 @53576 has 24 MA's), (63, 53825), (64, 53831),

Gene: Mitti_94 Start: 56983, Stop: 57288, Start Num: 30

Candidate Starts for Mitti_94:

(Start: 30 @56983 has 24 MA's), (64, 57262),

Gene: Morkie_74 Start: 41703, Stop: 42008, Start Num: 27

Candidate Starts for Morkie_74:

(8, 41607), (Start: 27 @41703 has 112 MA's), (51, 41913),

Gene: Mowgli_62 Start: 41126, Stop: 41452, Start Num: 15

Candidate Starts for Mowgli_62:

(Start: 15 @41126 has 74 MA's), (46, 41321), (55, 41399),

Gene: Mufasa_94 Start: 57627, Stop: 57905, Start Num: 27

Candidate Starts for Mufasa_94:

(Start: 26 @57624 has 48 MA's), (Start: 27 @57627 has 112 MA's), (64, 57885),

Gene: Murucutumbu_96 Start: 60249, Stop: 60551, Start Num: 27

Candidate Starts for Murucutumbu_96:

(20, 60228), (Start: 27 @60249 has 112 MA's), (35, 60300), (38, 60324), (61, 60510), (64, 60525),

Gene: Mynx_97 Start: 59694, Stop: 59996, Start Num: 27

Candidate Starts for Mynx_97:

(20, 59673), (Start: 27 @59694 has 112 MA's), (38, 59769), (61, 59955), (64, 59970),

Gene: Neighly_100 Start: 62570, Stop: 62875, Start Num: 26

Candidate Starts for Neighly_100:

(Start: 26 @62570 has 48 MA's), (41, 62708),

Gene: Neoh_60 Start: 41118, Stop: 41444, Start Num: 15

Candidate Starts for Neoh_60:

(Start: 15 @41118 has 74 MA's), (46, 41313), (55, 41391),

Gene: Nibb_103 Start: 61945, Stop: 62238, Start Num: 26

Candidate Starts for Nibb_103:

(Start: 26 @61945 has 48 MA's), (38, 62020), (52, 62146), (60, 62194),

Gene: Nikao_80 Start: 58687, Stop: 58992, Start Num: 28

Candidate Starts for Nikao_80:

(6, 58555), (Start: 28 @58687 has 20 MA's), (38, 58762), (41, 58807), (61, 58951), (62, 58957), (64, 58966),

Gene: Niklas_98 Start: 60655, Stop: 60942, Start Num: 27

Candidate Starts for Niklas_98:

(2, 60328), (12, 60592), (Start: 27 @60655 has 112 MA's), (38, 60730), (51, 60847), (57, 60892), (66, 60928),

Gene: November_94 Start: 61155, Stop: 61454, Start Num: 27

Candidate Starts for November_94:

(Start: 27 @61155 has 112 MA's), (34, 61203), (38, 61230), (62, 61419),

Gene: Nutello_77 Start: 56074, Stop: 56379, Start Num: 28

Candidate Starts for Nutello_77:

(6, 55942), (Start: 28 @56074 has 20 MA's), (38, 56149), (41, 56194), (61, 56338), (62, 56344), (64, 56353),

Gene: OctaviousRex_61 Start: 41104, Stop: 41430, Start Num: 15

Candidate Starts for OctaviousRex_61:

(Start: 15 @41104 has 74 MA's), (46, 41299), (55, 41377),

Gene: OkiRoe_97 Start: 62228, Stop: 62533, Start Num: 26

Candidate Starts for OkiRoe_97:

(Start: 26 @62228 has 48 MA's),

Gene: Olga_63 Start: 41126, Stop: 41452, Start Num: 15

Candidate Starts for Olga_63:

(Start: 15 @41126 has 74 MA's), (46, 41321), (55, 41399),

Gene: OmniCritical_94 Start: 57061, Stop: 57366, Start Num: 30

Candidate Starts for OmniCritical_94:

(Start: 30 @57061 has 24 MA's), (64, 57340),

Gene: Omnicron_96 Start: 61077, Stop: 61382, Start Num: 26

Candidate Starts for Omnicron_96:

(14, 61029), (Start: 26 @61077 has 48 MA's), (46, 61245),

Gene: Oscar_104 Start: 62087, Stop: 62383, Start Num: 26

Candidate Starts for Oscar_104:

(Start: 26 @62087 has 48 MA's), (51, 62279), (52, 62288),

Gene: P3MA_62 Start: 40389, Stop: 40811, Start Num: 5

Candidate Starts for P3MA_62:

(Start: 5 @40389 has 1 MA's), (Start: 18 @40497 has 1 MA's), (50, 40710), (64, 40788),

Gene: Padfoot_96 Start: 59544, Stop: 59846, Start Num: 27

Candidate Starts for Padfoot_96:

(20, 59523), (Start: 27 @59544 has 112 MA's), (38, 59619), (61, 59805), (64, 59820),

Gene: Padpat_101 Start: 59949, Stop: 60251, Start Num: 27

Candidate Starts for Padpat_101:

(20, 59928), (Start: 27 @59949 has 112 MA's), (38, 60024), (61, 60210), (64, 60225),

Gene: Paito_63 Start: 40764, Stop: 41090, Start Num: 15

Candidate Starts for Paito_63:

(Start: 15 @40764 has 74 MA's),

Gene: Paola_93 Start: 61102, Stop: 61407, Start Num: 26
Candidate Starts for Paola_93:
(Start: 26 @61102 has 48 MA's),

Gene: Patt_87 Start: 53723, Stop: 54004, Start Num: 30
Candidate Starts for Patt_87:
(Start: 30 @53723 has 24 MA's), (63, 53972), (64, 53978),

Gene: Peanam_99 Start: 60707, Stop: 60994, Start Num: 27
Candidate Starts for Peanam_99:
(2, 60395), (12, 60644), (Start: 27 @60707 has 112 MA's), (38, 60782), (51, 60899), (57, 60944), (66, 60980),

Gene: Peeb_61 Start: 41100, Stop: 41426, Start Num: 15
Candidate Starts for Peeb_61:
(Start: 15 @41100 has 74 MA's), (46, 41295), (55, 41373),

Gene: Peel_96 Start: 59350, Stop: 59652, Start Num: 27
Candidate Starts for Peel_96:
(20, 59329), (Start: 27 @59350 has 112 MA's), (38, 59425), (61, 59611), (64, 59626),

Gene: Periodt_62 Start: 41518, Stop: 41844, Start Num: 15
Candidate Starts for Periodt_62:
(Start: 15 @41518 has 74 MA's),

Gene: Pharb_97 Start: 60473, Stop: 60760, Start Num: 28
Candidate Starts for Pharb_97:
(1, 60098), (4, 60224), (7, 60362), (10, 60389), (17, 60437), (Start: 28 @60473 has 20 MA's), (34, 60521), (53, 60701),

Gene: PhelpsODU_92 Start: 56221, Stop: 56529, Start Num: 26
Candidate Starts for PhelpsODU_92:
(Start: 26 @56221 has 48 MA's), (38, 56296), (64, 56503),

Gene: Phish_61 Start: 41125, Stop: 41451, Start Num: 15
Candidate Starts for Phish_61:
(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: Phloodle_61 Start: 41141, Stop: 41467, Start Num: 15
Candidate Starts for Phloodle_61:
(Start: 15 @41141 has 74 MA's), (46, 41336), (55, 41414),

Gene: PhorbesPhlower_72 Start: 41098, Stop: 41403, Start Num: 27
Candidate Starts for PhorbesPhlower_72:
(8, 41002), (Start: 27 @41098 has 112 MA's), (51, 41308),

Gene: Phrank_103 Start: 60753, Stop: 61058, Start Num: 26
Candidate Starts for Phrank_103:
(Start: 26 @60753 has 48 MA's), (38, 60828), (64, 61032),

Gene: Phreak_62 Start: 41125, Stop: 41451, Start Num: 15
Candidate Starts for Phreak_62:
(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: Piatt_95 Start: 59544, Stop: 59846, Start Num: 27

Candidate Starts for Piatt_95:

(20, 59523), (Start: 27 @59544 has 112 MA's), (38, 59619), (61, 59805), (64, 59820),

Gene: PinkYoshi_62 Start: 41117, Stop: 41443, Start Num: 15

Candidate Starts for PinkYoshi_62:

(Start: 15 @41117 has 74 MA's), (46, 41312), (55, 41390),

Gene: Pinnie_65 Start: 44002, Stop: 44328, Start Num: 15

Candidate Starts for Pinnie_65:

(Start: 15 @44002 has 74 MA's), (31, 44056), (42, 44176), (43, 44179),

Gene: Pisa1_97 Start: 60084, Stop: 60386, Start Num: 27

Candidate Starts for Pisa1_97:

(20, 60063), (Start: 27 @60084 has 112 MA's), (38, 60159), (61, 60345), (64, 60360),

Gene: Pisa4_91 Start: 55453, Stop: 55755, Start Num: 27

Candidate Starts for Pisa4_91:

(20, 55432), (Start: 27 @55453 has 112 MA's), (38, 55528), (61, 55714), (64, 55729),

Gene: Pixie_100 Start: 60794, Stop: 61081, Start Num: 28

Candidate Starts for Pixie_100:

(7, 60683), (16, 60752), (19, 60767), (Start: 28 @60794 has 20 MA's), (58, 61031), (64, 61055),

Gene: Plagueis_62 Start: 40946, Stop: 41272, Start Num: 15

Candidate Starts for Plagueis_62:

(Start: 15 @40946 has 74 MA's), (46, 41141), (55, 41219),

Gene: Pokerus_96 Start: 59414, Stop: 59716, Start Num: 27

Candidate Starts for Pokerus_96:

(20, 59393), (Start: 27 @59414 has 112 MA's), (38, 59489), (61, 59675), (64, 59690),

Gene: Prithvi_98 Start: 59952, Stop: 60254, Start Num: 27

Candidate Starts for Prithvi_98:

(20, 59931), (Start: 27 @59952 has 112 MA's), (38, 60027), (61, 60213), (64, 60228),

Gene: Psycho_98 Start: 61690, Stop: 61995, Start Num: 26

Candidate Starts for Psycho_98:

(Start: 26 @61690 has 48 MA's), (41, 61828),

Gene: Qhanda_94 Start: 56341, Stop: 56646, Start Num: 30

Candidate Starts for Qhanda_94:

(Start: 30 @56341 has 24 MA's), (64, 56620),

Gene: QuincyRose_94 Start: 59358, Stop: 59660, Start Num: 27

Candidate Starts for QuincyRose_94:

(20, 59337), (Start: 27 @59358 has 112 MA's), (38, 59433), (61, 59619), (64, 59634),

Gene: Rabbs_63 Start: 41200, Stop: 41526, Start Num: 15

Candidate Starts for Rabbs_63:

(Start: 15 @41200 has 74 MA's), (55, 41473),

Gene: Ramen_97 Start: 59101, Stop: 59403, Start Num: 27
Candidate Starts for Ramen_97:
(20, 59080), (Start: 27 @59101 has 112 MA's), (38, 59176), (61, 59362), (64, 59377),

Gene: Rando14_92 Start: 59491, Stop: 59796, Start Num: 26
Candidate Starts for Rando14_92:
(14, 59443), (Start: 26 @59491 has 48 MA's), (46, 59659),

Gene: Rapunzel97_99 Start: 59326, Stop: 59628, Start Num: 27
Candidate Starts for Rapunzel97_99:
(20, 59305), (Start: 27 @59326 has 112 MA's), (38, 59401), (61, 59587), (64, 59602),

Gene: Rattrick_62 Start: 41518, Stop: 41844, Start Num: 15
Candidate Starts for Rattrick_62:
(Start: 15 @41518 has 74 MA's),

Gene: Remy19_62 Start: 41125, Stop: 41451, Start Num: 15
Candidate Starts for Remy19_62:
(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: Renaissance_61 Start: 41103, Stop: 41429, Start Num: 15
Candidate Starts for Renaissance_61:
(Start: 15 @41103 has 74 MA's), (46, 41298), (55, 41376),

Gene: Reptar3000_88 Start: 53713, Stop: 53994, Start Num: 30
Candidate Starts for Reptar3000_88:
(Start: 30 @53713 has 24 MA's), (63, 53962), (64, 53968),

Gene: Richarlison_63 Start: 41110, Stop: 41436, Start Num: 15
Candidate Starts for Richarlison_63:
(Start: 15 @41110 has 74 MA's), (46, 41305), (55, 41383),

Gene: Rosmarinus_97 Start: 59335, Stop: 59637, Start Num: 27
Candidate Starts for Rosmarinus_97:
(20, 59314), (Start: 27 @59335 has 112 MA's), (38, 59410), (61, 59596), (64, 59611),

Gene: Ruriko_62 Start: 41127, Stop: 41453, Start Num: 15
Candidate Starts for Ruriko_62:
(Start: 15 @41127 has 74 MA's), (46, 41322), (55, 41400),

Gene: Ruthiejr_96 Start: 56946, Stop: 57251, Start Num: 30
Candidate Starts for Ruthiejr_96:
(Start: 30 @56946 has 24 MA's), (39, 57051), (64, 57225),

Gene: SamScheppers_93 Start: 57439, Stop: 57744, Start Num: 30
Candidate Starts for SamScheppers_93:
(Start: 30 @57439 has 24 MA's), (64, 57718),

Gene: SamuelLPlaqson_98 Start: 60168, Stop: 60470, Start Num: 27
Candidate Starts for SamuelLPlaqson_98:
(20, 60147), (Start: 27 @60168 has 112 MA's), (38, 60243), (61, 60429), (64, 60444),

Gene: Santhid_59 Start: 38581, Stop: 38865, Start Num: 33

Candidate Starts for Santhid_59:
(11, 38500), (21, 38542), (22, 38545), (Start: 33 @38581 has 3 MA's), (37, 38635),

Gene: Scarlett_103 Start: 61956, Stop: 62252, Start Num: 26
Candidate Starts for Scarlett_103:
(Start: 26 @61956 has 48 MA's), (51, 62148), (52, 62157),

Gene: Schiebel_60 Start: 40665, Stop: 40991, Start Num: 15
Candidate Starts for Schiebel_60:
(Start: 15 @40665 has 74 MA's), (46, 40860), (55, 40938),

Gene: SgtBeansprout_78 Start: 56074, Stop: 56379, Start Num: 28
Candidate Starts for SgtBeansprout_78:
(6, 55942), (Start: 28 @56074 has 20 MA's), (38, 56149), (41, 56194), (61, 56338), (62, 56344), (64, 56353),

Gene: ShaboiShabazz_61 Start: 41125, Stop: 41451, Start Num: 15
Candidate Starts for ShaboiShabazz_61:
(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: Shadow1_100 Start: 60099, Stop: 60404, Start Num: 26
Candidate Starts for Shadow1_100:
(Start: 26 @60099 has 48 MA's), (38, 60174), (64, 60378),

Gene: Shaobing_96 Start: 60696, Stop: 60983, Start Num: 27
Candidate Starts for Shaobing_96:
(2, 60369), (12, 60633), (Start: 27 @60696 has 112 MA's), (38, 60771), (51, 60888), (57, 60933), (66, 60969),

Gene: ShedlockHolmes_100 Start: 60729, Stop: 61016, Start Num: 28
Candidate Starts for ShedlockHolmes_100:
(7, 60618), (16, 60687), (19, 60702), (Start: 28 @60729 has 20 MA's), (58, 60966), (64, 60990),

Gene: ShiaSurprise_99 Start: 59544, Stop: 59846, Start Num: 27
Candidate Starts for ShiaSurprise_99:
(20, 59523), (Start: 27 @59544 has 112 MA's), (38, 59619), (61, 59805), (64, 59820),

Gene: SirPhilip_98 Start: 61540, Stop: 61833, Start Num: 26
Candidate Starts for SirPhilip_98:
(Start: 26 @61540 has 48 MA's), (38, 61615),

Gene: Sizemore_63 Start: 41114, Stop: 41440, Start Num: 15
Candidate Starts for Sizemore_63:
(Start: 15 @41114 has 74 MA's), (46, 41309), (55, 41387),

Gene: Slarp_92 Start: 56344, Stop: 56649, Start Num: 30
Candidate Starts for Slarp_92:
(Start: 30 @56344 has 24 MA's), (64, 56623),

Gene: Slimphazie_99 Start: 59782, Stop: 60084, Start Num: 27
Candidate Starts for Slimphazie_99:
(20, 59761), (Start: 27 @59782 has 112 MA's), (38, 59857), (61, 60043), (64, 60058),

Gene: Sneeze_62 Start: 41199, Stop: 41525, Start Num: 15

Candidate Starts for Sneeze_62:

(Start: 15 @41199 has 74 MA's), (55, 41472),

Gene: SoSeph_96 Start: 61535, Stop: 61840, Start Num: 26

Candidate Starts for SoSeph_96:

(Start: 26 @61535 has 48 MA's),

Gene: Spock_96 Start: 59348, Stop: 59650, Start Num: 27

Candidate Starts for Spock_96:

(20, 59327), (Start: 27 @59348 has 112 MA's), (38, 59423), (61, 59609), (64, 59624),

Gene: Stargaze_65 Start: 44492, Stop: 44815, Start Num: 15

Candidate Starts for Stargaze_65:

(Start: 15 @44492 has 74 MA's), (31, 44543), (42, 44663),

Gene: Stinson_97 Start: 59559, Stop: 59861, Start Num: 27

Candidate Starts for Stinson_97:

(20, 59538), (Start: 27 @59559 has 112 MA's), (35, 59610), (38, 59634), (61, 59820), (64, 59835),

Gene: Strobilo_95 Start: 57688, Stop: 57966, Start Num: 27

Candidate Starts for Strobilo_95:

(Start: 26 @57685 has 48 MA's), (Start: 27 @57688 has 112 MA's), (46, 57838), (64, 57946),

Gene: Sulley_95 Start: 59512, Stop: 59814, Start Num: 27

Candidate Starts for Sulley_95:

(20, 59491), (Start: 27 @59512 has 112 MA's), (38, 59587), (61, 59773), (64, 59788),

Gene: Sunflower1121_100 Start: 59857, Stop: 60162, Start Num: 26

Candidate Starts for Sunflower1121_100:

(Start: 26 @59857 has 48 MA's), (38, 59932), (64, 60136),

Gene: Sweets_62 Start: 41120, Stop: 41446, Start Num: 15

Candidate Starts for Sweets_62:

(Start: 15 @41120 has 74 MA's), (46, 41315), (55, 41393),

Gene: Syra333_99 Start: 59939, Stop: 60244, Start Num: 26

Candidate Starts for Syra333_99:

(Start: 26 @59939 has 48 MA's), (38, 60014), (64, 60218),

Gene: TBond007_97 Start: 60792, Stop: 61079, Start Num: 28

Candidate Starts for TBond007_97:

(7, 60681), (16, 60750), (19, 60765), (Start: 28 @60792 has 20 MA's), (58, 61029), (64, 61053),

Gene: TClif_100 Start: 61109, Stop: 61408, Start Num: 26

Candidate Starts for TClif_100:

(Start: 26 @61109 has 48 MA's), (36, 61175), (51, 61301), (57, 61349), (64, 61382),

Gene: TM4_92 Start: 52356, Stop: 52637, Start Num: 26

Candidate Starts for TM4_92:

(Start: 26 @52356 has 48 MA's), (Start: 27 @52359 has 112 MA's), (46, 52509), (47, 52515), (64, 52617),

Gene: Tachez_97 Start: 59195, Stop: 59497, Start Num: 27
Candidate Starts for Tachez_97:
(20, 59174), (Start: 27 @59195 has 112 MA's), (38, 59270), (61, 59456), (64, 59471),

Gene: Taheera_58 Start: 40097, Stop: 40423, Start Num: 15
Candidate Starts for Taheera_58:
(Start: 15 @40097 has 74 MA's), (59, 40382),

Gene: TaiwanKao_98 Start: 59607, Stop: 59909, Start Num: 27
Candidate Starts for TaiwanKao_98:
(20, 59586), (Start: 27 @59607 has 112 MA's), (38, 59682), (61, 59868), (64, 59883),

Gene: Taquito_94 Start: 57502, Stop: 57783, Start Num: 30
Candidate Starts for Taquito_94:
(Start: 30 @57502 has 24 MA's), (64, 57757),

Gene: Tarzan_63 Start: 39834, Stop: 40118, Start Num: 33
Candidate Starts for Tarzan_63:
(13, 39759), (21, 39795), (22, 39798), (Start: 33 @39834 has 3 MA's), (37, 39888),

Gene: Teejan_79 Start: 58687, Stop: 58992, Start Num: 28
Candidate Starts for Teejan_79:
(6, 58555), (Start: 28 @58687 has 20 MA's), (38, 58762), (41, 58807), (61, 58951), (62, 58957), (64, 58966),

Gene: Terror_58 Start: 40097, Stop: 40423, Start Num: 15
Candidate Starts for Terror_58:
(Start: 15 @40097 has 74 MA's), (59, 40382),

Gene: Thyatira_97 Start: 63441, Stop: 63746, Start Num: 26
Candidate Starts for Thyatira_97:
(Start: 26 @63441 has 48 MA's),

Gene: Tierra_102 Start: 61060, Stop: 61368, Start Num: 26
Candidate Starts for Tierra_102:
(Start: 26 @61060 has 48 MA's), (38, 61135), (64, 61342),

Gene: Tigress9_100 Start: 60290, Stop: 60598, Start Num: 26
Candidate Starts for Tigress9_100:
(Start: 26 @60290 has 48 MA's), (38, 60365), (64, 60572),

Gene: TinaBug_63 Start: 41673, Stop: 41999, Start Num: 15
Candidate Starts for TinaBug_63:
(Start: 15 @41673 has 74 MA's), (46, 41868), (55, 41946),

Gene: TingHuaYa_101 Start: 60903, Stop: 61193, Start Num: 28
Candidate Starts for TingHuaYa_101:
(Start: 28 @60903 has 20 MA's), (49, 61086),

Gene: TiniBug_95 Start: 59943, Stop: 60245, Start Num: 27
Candidate Starts for TiniBug_95:
(20, 59922), (Start: 27 @59943 has 112 MA's), (38, 60018), (61, 60204), (64, 60219),

Gene: Tiri_97 Start: 59088, Stop: 59390, Start Num: 27
Candidate Starts for Tiri_97:
(20, 59067), (Start: 27 @59088 has 112 MA's), (38, 59163), (61, 59349), (64, 59364),

Gene: TomBrady_62 Start: 41126, Stop: 41452, Start Num: 15
Candidate Starts for TomBrady_62:
(Start: 15 @41126 has 74 MA's), (46, 41321), (55, 41399),

Gene: Topper_96 Start: 59347, Stop: 59649, Start Num: 27
Candidate Starts for Topper_96:
(20, 59326), (Start: 27 @59347 has 112 MA's), (38, 59422), (61, 59608), (64, 59623),

Gene: Torres_80 Start: 58688, Stop: 58993, Start Num: 28
Candidate Starts for Torres_80:
(6, 58556), (Start: 28 @58688 has 20 MA's), (38, 58763), (41, 58808), (61, 58952), (62, 58958), (64, 58967),

Gene: TreyKay_98 Start: 59952, Stop: 60254, Start Num: 27
Candidate Starts for TreyKay_98:
(20, 59931), (Start: 27 @59952 has 112 MA's), (38, 60027), (61, 60213), (64, 60228),

Gene: TribbleTrouble_97 Start: 61312, Stop: 61599, Start Num: 28
Candidate Starts for TribbleTrouble_97:
(7, 61201), (16, 61270), (19, 61285), (Start: 28 @61312 has 20 MA's), (58, 61549), (64, 61573),

Gene: Trice_77 Start: 56075, Stop: 56380, Start Num: 28
Candidate Starts for Trice_77:
(6, 55943), (Start: 28 @56075 has 20 MA's), (38, 56150), (41, 56195), (61, 56339), (62, 56345), (64, 56354),

Gene: TruffulaTree_98 Start: 59748, Stop: 60050, Start Num: 27
Candidate Starts for TruffulaTree_98:
(20, 59727), (Start: 27 @59748 has 112 MA's), (38, 59823), (61, 60009), (64, 60024),

Gene: Twitch_97 Start: 59350, Stop: 59652, Start Num: 27
Candidate Starts for Twitch_97:
(20, 59329), (Start: 27 @59350 has 112 MA's), (38, 59425), (61, 59611), (64, 59626),

Gene: Urkel_98 Start: 60168, Stop: 60470, Start Num: 27
Candidate Starts for Urkel_98:
(20, 60147), (Start: 27 @60168 has 112 MA's), (38, 60243), (61, 60429), (64, 60444),

Gene: Validus_106 Start: 62130, Stop: 62417, Start Num: 27
Candidate Starts for Validus_106:
(Start: 27 @62130 has 112 MA's), (38, 62205), (51, 62322), (57, 62367), (62, 62382), (66, 62403),

Gene: Veliki_97 Start: 59373, Stop: 59675, Start Num: 27
Candidate Starts for Veliki_97:
(20, 59352), (Start: 27 @59373 has 112 MA's), (38, 59448), (61, 59634), (64, 59649),

Gene: ViviJ_105 Start: 63064, Stop: 63369, Start Num: 26
Candidate Starts for ViviJ_105:
(Start: 26 @63064 has 48 MA's), (46, 63232),

Gene: WST1_61 Start: 37648, Stop: 37995, Start Num: 18
Candidate Starts for WST1_61:
(Start: 18 @37648 has 1 MA's), (41, 37822), (50, 37888), (64, 37966),

Gene: Waterfoul_95 Start: 60815, Stop: 61120, Start Num: 26
Candidate Starts for Waterfoul_95:
(Start: 26 @60815 has 48 MA's),

Gene: Wendigo_62 Start: 41104, Stop: 41430, Start Num: 15
Candidate Starts for Wendigo_62:
(Start: 15 @41104 has 74 MA's), (46, 41299), (55, 41377),

Gene: Wintermute_94 Start: 57134, Stop: 57439, Start Num: 30
Candidate Starts for Wintermute_94:
(Start: 30 @57134 has 24 MA's), (39, 57239), (64, 57413),

Gene: Ximenita_103 Start: 60672, Stop: 60977, Start Num: 26
Candidate Starts for Ximenita_103:
(Start: 26 @60672 has 48 MA's), (38, 60747), (64, 60951),

Gene: Y10_90 Start: 57078, Stop: 57383, Start Num: 30
Candidate Starts for Y10_90:
(Start: 30 @57078 has 24 MA's), (39, 57183), (64, 57357),

Gene: Y2_90 Start: 57078, Stop: 57383, Start Num: 30
Candidate Starts for Y2_90:
(Start: 30 @57078 has 24 MA's), (39, 57183), (64, 57357),

Gene: YangYin_67 Start: 44221, Stop: 44544, Start Num: 15
Candidate Starts for YangYin_67:
(Start: 15 @44221 has 74 MA's), (31, 44272), (42, 44392), (43, 44395), (45, 44407), (46, 44413),

Gene: YasnayaPolyana_93 Start: 57067, Stop: 57372, Start Num: 30
Candidate Starts for YasnayaPolyana_93:
(Start: 30 @57067 has 24 MA's), (64, 57346),

Gene: YoureAdopted_95 Start: 59143, Stop: 59445, Start Num: 27
Candidate Starts for YoureAdopted_95:
(20, 59122), (Start: 27 @59143 has 112 MA's), (38, 59218), (61, 59404), (64, 59419),

Gene: Yuna_100 Start: 61837, Stop: 62139, Start Num: 24
Candidate Starts for Yuna_100:
(Start: 24 @61837 has 1 MA's), (38, 61912), (61, 62098),

Gene: Yunkel11_101 Start: 60401, Stop: 60688, Start Num: 27
Candidate Starts for Yunkel11_101:
(Start: 27 @60401 has 112 MA's), (57, 60638), (62, 60653), (63, 60656),

Gene: Zabiza_92 Start: 55756, Stop: 56058, Start Num: 27
Candidate Starts for Zabiza_92:
(20, 55735), (Start: 27 @55756 has 112 MA's), (38, 55831), (61, 56017), (64, 56032),

Gene: Zavala_98 Start: 59608, Stop: 59910, Start Num: 27

Candidate Starts for Zavala_98:

(20, 59587), (Start: 27 @59608 has 112 MA's), (38, 59683), (61, 59869), (64, 59884),

Gene: ZoMa_61 Start: 41125, Stop: 41451, Start Num: 15

Candidate Starts for ZoMa_61:

(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),

Gene: ZoeJ_92 Start: 56879, Stop: 57157, Start Num: 27

Candidate Starts for ZoeJ_92:

(Start: 26 @56876 has 48 MA's), (Start: 27 @56879 has 112 MA's), (40, 56990), (46, 57029), (64, 57137),

Gene: Zombie_62 Start: 41125, Stop: 41451, Start Num: 15

Candidate Starts for Zombie_62:

(Start: 15 @41125 has 74 MA's), (46, 41320), (55, 41398),