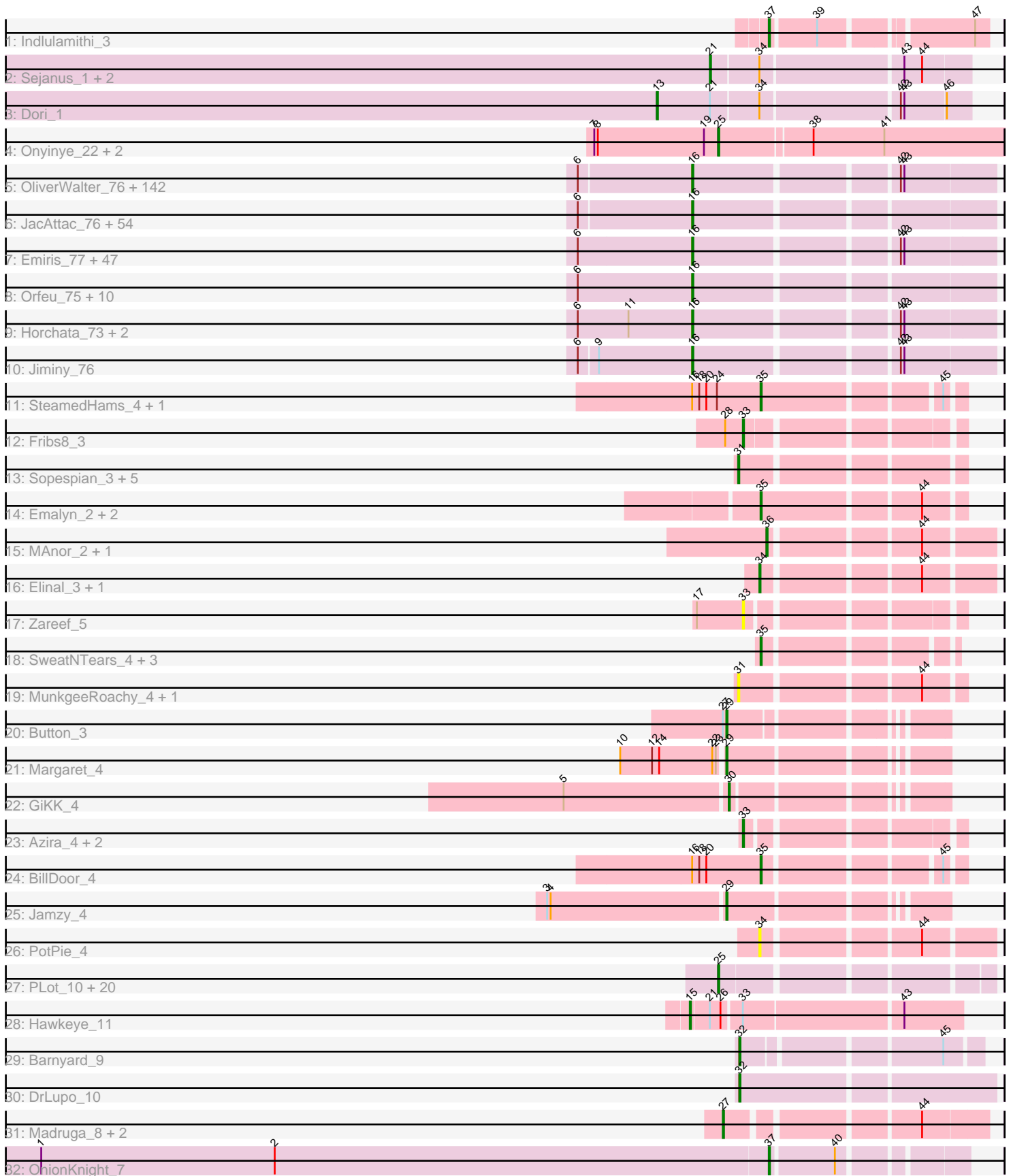


Pham 163289



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 163289 Report

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

Pham number 163289 has 329 members, 40 are drafts.

Phages represented in each track:

- Track 1 : Indlulamithi_3
- Track 2 : Sejanus_1, Mao1_1, Mask_1
- Track 3 : Dori_1
- Track 4 : Onyinye_22, Aikoy_21, Leopard_21
- Track 5 : OliverWalter_76, Kwadwo_75, ThreeOh3D2_78, Potter_72, Colbert_74, FluffyNinja_77, Orwigg_76, DoesntMatter_73, Vista_75, PhatLouie_78, TomBombadil_76, Megatron_77, Cobra_76, Basato_75, Toni_76, Inverness_74, Brilliant_79, LeiMonet_78, Kimbrough_77, Fang_77, LeeLot_75, Zelda_76, Melc17_73, Matalotodo_76, AbsoluteMadLad_75, Katniss_78, Pipsqueak_73, Selr12_77, KingTut_67, FugateOSU_76, Swish_77, Mutante_77, Keitherie_79, Fozzie_74, Mesh1_77, Beaglebox_73, Lulwa_73, Crownjwl_74, CharlieGBrown_74, HSavage_74, LasagnaCat_76, PinheadLarry_75, Serendipity_76, HighStump_77, Windsor_76, Cosmolli16_78, Tooj_73, Vivaldi_76, Frankicide_75, SassyCat97_74, TyrionL_76, Labeouficaum_76, Mosaic_74, Yoshand_77, Phleuron_74, Gareth_76, Pacifista_77, Skippy_77, YouGoGlencoco_76, Dice_76, Phareon_74, KlimbOn_75, ABU_75, Spartan300_75, Cher_76, Anderson_78, Buckeye_76, Wallhey_77, Telesworld_74, CheetO_75, Tomlarah_77, MrPhizzler_75, Jillium_77, Haimas_74, Kahve_77, Schueller_75, Sophia_74, Mana_74, Serpentine_0077, Gwilliam_77, Surely_76, RedMaple_76, Swiphy_79, DuchessDung_74, Etaye_75, Daka_78, Slatt_76, Childish_76, Phunky_74, Lego3393_74, Omniscient_77, Placalicious_75, Mecca_76, Maru_76, Newman_74, Hamish_73, Mulan_75, Trypo_77, Rimu_79, Waterdiva_77, Burr_76, Hocus_74, Riggan_77, DaddyDaniels_79, Zaider_77, Bishoperium_76, Adriana_76, GeneCoco_77, Valjean_75, Phamished_76, Schadenfreude_76, TallGrassMM_75, Piglet_0076, Mcshane_75, Roscoe_76, Scrick_75, Giraffe_76, Antonia_75, BlackStallion_77, Olak_76, Weher20_73, Craff_78, Derpp_76, Vaishali24_77, HenryJackson_77, DelRivs_74, Eremos_75, Soile_77, Banjo_73, ProfessorX_74, AltPhacts_74, Pherdinand_77, Morty_77, Prickles_77, JakeO_77, Chunky_76, MelsMeow_75, Squiggle_75, Soto_73, Scoot17C_77, Olive_74, Durga_78, ShiVal_74
- Track 6 : JacAttac_76, Legolas_77, KingVeVeVe_74, Vaticameos_73, Ashraf_77, Bluephacebaby_75, FriarPreacher_74, Eugenia_77, KLucky39_74, EmpTee_75, PhrodoBaggins_78, IsaacEli_78, Andre_77, Thora_75, BlueHusk_77, Apizium_75, SDcharge11_75, LuckyMarjie_73, Gyarad_0075, Chaelin_77, Grand2040_74, Roliet_73, Nyala_75, Harvey_73, Badfish_77, Charles1_77, Pops_74, Dione_74, Kikipoo_78, Gophee_76, Nicole21_77, Chah_78, Hertubise_76, Kwksand96_77, Virapocalypse_77, Hetaeria_76, Megamind20_76, PhatCats2014_77, Plmatters_74, Iridoclysis_75, Kloppinator_76, Maskar_77, Sheila_72, Squid_75, Usavi_77,

UAch1_77, JangoPhett_74, Longacauda_77, Simielle_75, Oosterbaan_76,
 MiniBoss_73, ImtiyazSitla_77, Sigman_76, Zonia_77, Nacho_0079
 • Track 7 : Emiris_77, LemonSlice_76, Murdoc_73, Cornobble_74, JDog_76,
 DonSanchon_72, Dingo_73, Dati_73, PhrankReynolds_75, Aelin_75, Xavier_76,
 Jiraiya_79, Puhltonio_74, Phergie_76, BatteryCK_74, CampRoach_75, Mag7_74,
 MichaelPhcott_74, Altwerkus_75, Virgeve_74, MRabcd_76, Fringe_80,
 QueenBeane_76, Kailash_74, Coletti_78, PhenghisKhan_76, Veritas_75, Manad_75,
 Morgushi_74, Chorkpop_77, Solosis_74, True_74, MitKao_76, Timmi_75, Held_74,
 CamL_76, Thunderbird_76, Lasso_75, Hartsy_73, Chute_76, Pinkman_76, Daffy_75,
 UncleHowie_73, Haleema_75, Freya_73, Inchworm_77, Samaymay_76, Lopsy_73
 • Track 8 : Orfeu_75, Podrick_75, Magic8_75, Quisquiliae_76, Duggie_76,
 Cannibal_77, Struggle_76, Phipps_75, Lumine_77, Ricotta_73, Numberten_75
 • Track 9 : Horchata_73, DirtJuice_76, LostAndPhound_75
 • Track 10 : Jiminy_76
 • Track 11 : SteamedHams_4, Tolls_4
 • Track 12 : Fribs8_3
 • Track 13 : Sopespian_3, Burnsey_3, Elliott_3, Typhonmarchy_3, GoldHunter_3,
 PsychoKiller_3
 • Track 14 : EMalyn_2, Amok_2, AikoCarson_2
 • Track 15 : MAnor_2, Pons_2
 • Track 16 : Elinal_3, KayGee_2
 • Track 17 : Zareef_5
 • Track 18 : SweatNTears_4, Horseradish_3, MScarn_4, Yummy_3
 • Track 19 : MunkgeeRoachy_4, RedBaron_4
 • Track 20 : Button_3
 • Track 21 : Margaret_4
 • Track 22 : GiKK_4
 • Track 23 : Azira_4, MaVan_4, Nibbles_4
 • Track 24 : BillDoor_4
 • Track 25 : Jamzy_4
 • Track 26 : PotPie_4
 • Track 27 : PLot_10, SirHarley_9, Thoth_10, Visconti_10, WaldoWhy_10,
 Helpful_10, Mopey_10, Delton_10, Nova_10, BigMama_9, KandZ_10, Prager_10,
 Chill_10, Penelope2018_10, Troll4_10, Erk16_10, Giuseppe_10, PBI1_10,
 Adjutor_10, Butterscotch_10, Gumball_9
 • Track 28 : Hawkeye_11
 • Track 29 : Barnyard_9
 • Track 30 : DrLupo_10
 • Track 31 : Madruga_8, Patience_10, Labelle_10
 • Track 32 : OnionKnight_7

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

The start number called the most often in the published annotations is 16, it was called in 234 of the 289 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• ABU_75, AbsoluteMadLad_75, Adriana_76, Aelin_75, AltPhacts_74, Altwerkus_75,
 Anderson_78, Andre_77, Antonia_75, Apizium_75, Ashraf_77, Badfish_77, Banjo_73,
 Basato_75, BatteryCK_74, Beaglebox_73, Bishoperium_76, BlackStallion_77,

BlueHusk_77, Bluephacebaby_75, Brilliant_79, Buckeye_76, Burr_76, CamL_76, CampRoach_75, Cannibal_77, Chaelin_77, Chah_78, Charles1_77, CharlieGBrown_74, CheetO_75, Cher_76, Childish_76, Chorkpop_77, Chunky_76, Chute_76, Cobra_76, Colbert_74, Coletti_78, Cornobble_74, Cosmolli16_78, Craff_78, Crownjwl_74, DaddyDaniels_79, Daffy_75, Daka_78, Dati_73, DelRivs_74, Derpp_76, Dice_76, Dingo_73, Dione_74, DirtJuice_76, DoesntMatter_73, DonSanchon_72, DuchessDung_74, Duggie_76, Durga_78, Emiris_77, EmpTee_75, Eremos_75, Etaye_75, Eugenia_77, Fang_77, FluffyNinja_77, Fozzie_74, Frankicide_75, Freya_73, FriarPreacher_74, Fringe_80, FugateOSU_76, Gareth_76, GeneCoco_77, Giraffe_76, Gophee_76, Grand2040_74, Gwilliam_77, Gyarad_0075, HSavage_74, Haimas_74, Haleema_75, Hamish_73, Hartsy_73, Harvey_73, Held_74, HenryJackson_77, Hertubise_76, Hetaeria_76, HighStump_77, Hocus_74, Horchata_73, ImtiyazSitla_77, Inchworm_77, Inverness_74, Iridoclysis_75, IsaacEli_78, JDog_76, JacAttac_76, JakeO_77, JangoPhett_74, Jillium_77, Jiminy_76, Jiraiya_79, KLucky39_74, Kahve_77, Kailash_74, Katniss_78, Keitherie_79, Kikipoo_78, Kimbrough_77, KingTut_67, KingVeVeVe_74, KlimbOn_75, Kloppinator_76, Kwadwo_75, Kwksand96_77, Labeouficaum_76, LasagnaCat_76, Lasso_75, LeeLot_75, Lego3393_74, Legolas_77, LeiMonet_78, LemonSlice_76, Longacauda_77, Lopsy_73, LostAndPhound_75, LuckyMarjie_73, Lulwa_73, Lumine_77, MRabcd_76, Mag7_74, Magic8_75, Mana_74, Manad_75, Maru_76, Maskar_77, Matalotodo_76, Mcshane_75, Mecca_76, Megamind20_76, Megatron_77, Melc17_73, MelsMeow_75, Mesh1_77, MichaelPhcott_74, MiniBoss_73, MitKao_76, Morgushi_74, Morty_77, Mosaic_74, MrPhizzler_75, Mulan_75, Murdoc_73, Mutante_77, Nacho_0079, Newman_74, Nicole21_77, Numberten_75, Nyala_75, Olak_76, Olive_74, OliverWalter_76, Omniscient_77, Oosterbaan_76, Orfeu_75, Orwigg_76, Pacifista_77, Phamished_76, Phareon_74, PhatCats2014_77, PhatLouie_78, PhenghisKhan_76, Pherdinand_77, Phergie_76, Phipps_75, Phleuron_74, PhrankReynolds_75, PhrodoBaggins_78, Phunky_74, Piglet_0076, PinheadLarry_75, Pinkman_76, Pipsqueak_73, Placalicious_75, Plmatters_74, Podrick_75, Pops_74, Potter_72, Prickles_77, ProfessorX_74, Puhltonio_74, QueenBeane_76, Quisquilliae_76, RedMaple_76, Ricotta_73, Riggan_77, Rimu_79, Roliet_73, Roscoe_76, SDcharge11_75, Samaymay_76, SassyCat97_74, Schadenfreude_76, Schueller_75, Scoot17C_77, Scrick_75, Selr12_77, Serendipity_76, Serpentine_0077, Sheila_72, ShiVal_74, Sigman_76, Simielle_75, Skippy_77, Slatt_76, Soile_77, Solosis_74, Sophia_74, Soto_73, Spartan300_75, Squid_75, Squiggle_75, Struggle_76, Surely_76, Swiphy_79, Swish_77, TallGrassMM_75, Telesworld_74, Thora_75, ThreeOh3D2_78, Thunderbird_76, Timmi_75, TomBombadil_76, Tomlarah_77, Toni_76, Tooj_73, True_74, Trypo_77, TyrionL_76, UAch1_77, UncleHowie_73, Usavi_77, Vaishali24_77, Valjean_75, Vaticameos_73, Veritas_75, Virapocalypse_77, Virgeve_74, Vista_75, Vivaldi_76, Wallhey_77, Waterdiva_77, Weher20_73, Windsor_76, Xavier_76, Yoshand_77, YouGoGlencoco_76, Zaider_77, Zelda_76, Zonia_77,

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

- BillDoor_4, SteamedHams_4, Tolls_4,

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

- Adjutor_10, AikoCarson_2, Aikoy_21, Amok_2, Azira_4, Barnyard_9, BigMama_9, Burnsey_3, Butterscotch_10, Button_3, Chill_10, Delton_10, Dori_1, DrLupo_10, Elinal_3, Elliott_3, Emalyn_2, Erk16_10, Fribs8_3, GiKK_4, Giuseppe_10, GoldHunter_3, Gumball_9, Hawkeye_11, Helpful_10, Horseradish_3, Indulamithi_3, Jamzy_4, KandZ_10, KayGee_2, Labelle_10, Leopard_21, MAnor_2, MScarn_4,

MaVan_4, Madrugas_8, Mao1_1, Margaret_4, Mask_1, Mopey_10, MunkgeeRoachy_4, Nibbles_4, Nova_10, OnionKnight_7, Onyinye_22, PBI1_10, PLOT_10, Patience_10, Penelope2018_10, Pons_2, PotPie_4, Prager_10, PsychoKiller_3, RedBaron_4, Sejanus_1, SirHarley_9, Sopespian_3, SweatNTears_4, Thoth_10, Troll4_10, Typhonomachy_3, Visconti_10, WaldoWhy_10, Yummy_3, Zareef_5,

Summary by start number:

Start 13:

- Found in 1 of 329 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 289
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dori_1 (AD),

Start 15:

- Found in 1 of 329 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 289
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hawkeye_11 (D2),

Start 16:

- Found in 264 of 329 (80.2%) of genes in pham
- Manual Annotations of this start: 234 of 289
- Called 98.9% of time when present
- Phage (with cluster) where this start called: ABU_75 (B1), AbsoluteMadLad_75 (B1), Adriana_76 (B1), Aelin_75 (B1), AltPhacts_74 (B1), Altwerkus_75 (B1), Anderson_78 (B1), Andre_77 (B1), Antonia_75 (B1), Apizium_75 (B1), Ashraf_77 (B1), Badfish_77 (B1), Banjo_73 (B1), Basato_75 (B1), BatteryCK_74 (B1), Beaglebox_73 (B1), Bishoperium_76 (B1), BlackStallion_77 (B1), BlueHusk_77 (B1), Bluephacebaby_75 (B1), Brilliant_79 (B1), Buckeye_76 (B1), Burr_76 (B1), CamL_76 (B1), CampRoach_75 (B1), Cannibal_77 (B1), Chaelin_77 (B1), Chah_78 (B1), Charles1_77 (B1), CharlieGBrown_74 (B1), CheetO_75 (B1), Cher_76 (B1), Childish_76 (B1), Chorkpop_77 (B1), Chunky_76 (B1), Chute_76 (B1), Cobra_76 (B1), Colbert_74 (B1), Coletti_78 (B1), Cornobble_74 (B1), Cosmolli16_78 (B1), Craff_78 (B1), Crownjwl_74 (B1), DaddyDaniels_79 (B1), Daffy_75 (B1), Daka_78 (B1), Dati_73 (B1), DelRivs_74 (B1), Derpp_76 (B1), Dice_76 (B1), Dingo_73 (B1), Dione_74 (B1), DirtJuice_76 (B1), DoesntMatter_73 (B1), DonSanchon_72 (B1), DuchessDung_74 (B1), Duggie_76 (B1), Durga_78 (B1), Emiris_77 (B1), EmpTee_75 (B1), Eremos_75 (B1), Etaye_75 (B1), Eugenia_77 (B1), Fang_77 (B1), FluffyNinja_77 (B1), Fozzie_74 (B1), Frankicide_75 (B1), Freya_73 (B1), FriarPreacher_74 (B1), Fringe_80 (B1), FugateOSU_76 (B1), Gareth_76 (B1), GeneCoco_77 (B1), Giraffe_76 (B1), Gophee_76 (B1), Grand2040_74 (B1), Gwilliam_77 (B1), Gyarad_0075 (B1), HSavage_74 (B1), Haimas_74 (B1), Haleema_75 (B1), Hamish_73 (B1), Hartsy_73 (B1), Harvey_73 (B1), Held_74 (B1), HenryJackson_77 (B1), Hertubise_76 (B1), Hetaeria_76 (B1), HighStump_77 (B1), Hocus_74 (B1), Horchata_73 (B1), ImtiyazSitla_77 (B1), Inchworm_77 (B1), Inverness_74 (B1), Iridoclysis_75 (B1), IsaacEli_78 (B1), JDog_76 (B1), JacAttac_76 (B1), JakeO_77 (B1), JangoPhett_74 (B1), Jillium_77 (B1), Jiminy_76 (B1), Jiraiya_79 (B1), KLucky39_74 (B1), Kahve_77 (B1), Kailash_74 (B1), Katniss_78 (B1), Keitherie_79 (B1), Kikipoo_78 (B1), Kimbrough_77 (B1), KingTut_67 (B1), KingVeVeVe_74 (B1), KlimbOn_75 (B1), Kloppinator_76 (B1), Kwadwo_75 (B1), Kwksand96_77 (B1), Labeouficaum_76 (B1), LasagnaCat_76 (B1), Lasso_75 (B1),

LeeLot_75 (B1), Lego3393_74 (B1), Legolas_77 (B1), LeiMonet_78 (B1), LemonSlice_76 (B1), Longacauda_77 (B1), Lopsy_73 (B1), LostAndPhound_75 (B1), LuckyMarjie_73 (B1), Lulwa_73 (B1), Lumine_77 (B1), MRabcd_76 (B1), Mag7_74 (B1), Magic8_75 (B1), Mana_74 (B1), Manad_75 (B1), Maru_76 (B1), Maskar_77 (B1), Matalotodo_76 (B1), Mcshane_75 (B1), Mecca_76 (B1), Megamind20_76 (B1), Megatron_77 (B1), Melc17_73 (B1), MelsMeow_75 (B1), Mesh1_77 (B1), MichaelPhcott_74 (B1), MiniBoss_73 (B1), MitKao_76 (B1), Morgushi_74 (B1), Morty_77 (B1), Mosaic_74 (B1), MrPhizzler_75 (B1), Mulan_75 (B1), Murdoc_73 (B1), Mutante_77 (B1), Nacho_0079 (B1), Newman_74 (B1), Nicole21_77 (B1), Numberten_75 (B1), Nyala_75 (B1), Olak_76 (B1), Olive_74 (B1), OliverWalter_76 (B1), Omniscient_77 (B1), Oosterbaan_76 (B1), Orfeu_75 (B1), Orwigg_76 (B1), Pacifista_77 (B1), Phamished_76 (B1), Phareon_74 (B1), PhatCats2014_77 (B1), PhatLouie_78 (B1), PhenghisKhan_76 (B1), Pherdinand_77 (B1), Phergie_76 (B1), Phipps_75 (B1), Phleuron_74 (B1), PhrankReynolds_75 (B1), PhrodoBaggins_78 (B1), Phunky_74 (B1), Piglet_0076 (B1), PinheadLarry_75 (B1), Pinkman_76 (B1), Pipsqueak_73 (B1), Placalicious_75 (B1), Plmatters_74 (B1), Podrick_75 (B1), Pops_74 (B1), Potter_72 (B1), Prickles_77 (B1), ProfessorX_74 (B1), Puhltonio_74 (B1), QueenBeane_76 (B1), Quisquillae_76 (B1), RedMaple_76 (B1), Ricotta_73 (B1), Riggan_77 (B1), Rimu_79 (B1), Roliet_73 (B1), Roscoe_76 (B1), SDcharge11_75 (B1), Samaymay_76 (B1), SassyCat97_74 (B1), Schadenfreude_76 (B1), Schueller_75 (B1), Scoot17C_77 (B1), Scrick_75 (B1), Selr12_77 (B1), Serendipity_76 (B1), Serpentine_0077 (B1), Sheila_72 (B1), ShiVal_74 (B1), Sigman_76 (B1), Simielle_75 (B1), Skippy_77 (B1), Slatt_76 (B1), Soile_77 (B1), Solosis_74 (B1), Sophia_74 (B1), Soto_73 (B1), Spartan300_75 (B1), Squid_75 (B1), Squiggle_75 (B1), Struggle_76 (B1), Surely_76 (B1), Swiphy_79 (B1), Swish_77 (B1), TallGrassMM_75 (B1), Telesworld_74 (B1), Thora_75 (B1), ThreeOh3D2_78 (B1), Thunderbird_76 (B1), Timmi_75 (B1), TomBombadil_76 (B1), Tomlarah_77 (B1), Toni_76 (B1), Tooj_73 (B1), True_74 (B1), Trypo_77 (B1), TyrionL_76 (B1), UAch1_77 (B1), UncleHowie_73 (B1), Usavi_77 (B1), Vaishali24_77 (B1), Valjean_75 (B1), Vaticameos_73 (B1), Veritas_75 (B1), Virapocalypse_77 (B1), Virgeve_74 (B1), Vista_75 (B1), Vivaldi_76 (B1), Wallhey_77 (B1), Waterdiva_77 (B1), Weher20_73 (B1), Windsor_76 (B1), Xavier_76 (B1), Yoshand_77 (B1), YouGoGlencoco_76 (B1), Zaider_77 (B1), Zelda_76 (B1), Zonia_77 (B1),

Start 21:

- Found in 5 of 329 (1.5%) of genes in pham
- Manual Annotations of this start: 2 of 289
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Mao1_1 (AD), Mask_1 (AD), Sejanus_1 (AD),

Start 25:

- Found in 24 of 329 (7.3%) of genes in pham
- Manual Annotations of this start: 23 of 289
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adjutor_10 (D1), Aikoy_21 (AE), BigMama_9 (D1), Butterscotch_10 (D1), Chill_10 (D1), Delton_10 (D1), Erk16_10 (D1), Giuseppe_10 (D1), Gumball_9 (D1), Helpful_10 (D1), KandZ_10 (D1), Leopard_21 (AE), Mopey_10 (D1), Nova_10 (D1), Onyinye_22 (AE), PBI1_10 (D1), PLOT_10 (D1), Penelope2018_10 (D1), Prager_10 (D1), SirHarley_9 (D1), Thoth_10 (D1), Troll4_10 (D1), Visconti_10 (D1), WaldoWhy_10 (D1),

Start 27:

- Found in 4 of 329 (1.2%) of genes in pham
- Manual Annotations of this start: 3 of 289
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Labelle_10 (U), Madruga_8 (U), Patience_10 (U),

Start 29:

- Found in 3 of 329 (0.9%) of genes in pham
- Manual Annotations of this start: 3 of 289
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Button_3 (CT), Jamzy_4 (CT), Margaret_4 (CT),

Start 30:

- Found in 1 of 329 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 289
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GiKK_4 (CT),

Start 31:

- Found in 8 of 329 (2.4%) of genes in pham
- Manual Annotations of this start: 1 of 289
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Burnsey_3 (CT), Elliott_3 (CT), GoldHunter_3 (CT), MunkgeeRoachy_4 (CT), PsychoKiller_3 (CT), RedBaron_4 (CT), Sopespian_3 (CT), Typhonomachy_3 (CT),

Start 32:

- Found in 2 of 329 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 289
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Barnyard_9 (H2), DrLupo_10 (H2),

Start 33:

- Found in 6 of 329 (1.8%) of genes in pham
- Manual Annotations of this start: 4 of 289
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Azira_4 (CT), Fribs8_3 (CT), MaVan_4 (CT), Nibbles_4 (CT), Zareef_5 (CT),

Start 34:

- Found in 7 of 329 (2.1%) of genes in pham
- Manual Annotations of this start: 1 of 289
- Called 42.9% of time when present
- Phage (with cluster) where this start called: Elinal_3 (CT), KayGee_2 (CT), PotPie_4 (CT),

Start 35:

- Found in 10 of 329 (3.0%) of genes in pham
- Manual Annotations of this start: 10 of 289
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AikoCarson_2 (CT), Amok_2 (CT), BillDoor_4 (CT), Emalyn_2 (CT), Horseradish_3 (CT), MScarn_4 (CT),

SteamedHams_4 (CT), SweatNTears_4 (CT), Tolls_4 (CT), Yummy_3 (CT),

Start 36:

- Found in 2 of 329 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 289
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MAnor_2 (CT), Pons_2 (CT),

Start 37:

- Found in 2 of 329 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 289
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Indlulamithi_3 (AC), OnionKnight_7 (singleton),

Summary by clusters:

There are 10 clusters represented in this pham: singleton, AE, AD, H2, AC, U, B1, D1, D2, CT,

Info for manual annotations of cluster AC:

- Start number 37 was manually annotated 1 time for cluster AC.

Info for manual annotations of cluster AD:

- Start number 13 was manually annotated 1 time for cluster AD.
- Start number 21 was manually annotated 2 times for cluster AD.

Info for manual annotations of cluster AE:

- Start number 25 was manually annotated 3 times for cluster AE.

Info for manual annotations of cluster B1:

- Start number 16 was manually annotated 234 times for cluster B1.

Info for manual annotations of cluster CT:

- Start number 29 was manually annotated 3 times for cluster CT.
- Start number 30 was manually annotated 1 time for cluster CT.
- Start number 31 was manually annotated 1 time for cluster CT.
- Start number 33 was manually annotated 4 times for cluster CT.
- Start number 34 was manually annotated 1 time for cluster CT.
- Start number 35 was manually annotated 10 times for cluster CT.
- Start number 36 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster D1:

- Start number 25 was manually annotated 20 times for cluster D1.

Info for manual annotations of cluster D2:

- Start number 15 was manually annotated 1 time for cluster D2.

Info for manual annotations of cluster H2:

- Start number 32 was manually annotated 2 times for cluster H2.

Info for manual annotations of cluster U:

- Start number 27 was manually annotated 3 times for cluster U.

Gene Information:

Gene: ABU_75 Start: 60750, Stop: 60986, Start Num: 16

Candidate Starts for ABU_75:

(6, 60657), (Start: 16 @60750 has 234 MA's), (42, 60909), (43, 60912),

Gene: AbsoluteMadLad_75 Start: 60705, Stop: 60941, Start Num: 16

Candidate Starts for AbsoluteMadLad_75:

(6, 60612), (Start: 16 @60705 has 234 MA's), (42, 60864), (43, 60867),

Gene: Adjutor_10 Start: 7925, Stop: 8137, Start Num: 25

Candidate Starts for Adjutor_10:

(Start: 25 @7925 has 23 MA's),

Gene: Adriana_76 Start: 61285, Stop: 61521, Start Num: 16

Candidate Starts for Adriana_76:

(6, 61192), (Start: 16 @61285 has 234 MA's), (42, 61444), (43, 61447),

Gene: Aelin_75 Start: 60228, Stop: 60464, Start Num: 16

Candidate Starts for Aelin_75:

(6, 60132), (Start: 16 @60228 has 234 MA's), (42, 60387), (43, 60390),

Gene: AikoCarson_2 Start: 534, Stop: 692, Start Num: 35

Candidate Starts for AikoCarson_2:

(Start: 35 @534 has 10 MA's), (44, 660),

Gene: Aikoy_21 Start: 13873, Stop: 14109, Start Num: 25

Candidate Starts for Aikoy_21:

(7, 13768), (8, 13771), (19, 13861), (Start: 25 @13873 has 23 MA's), (38, 13948), (41, 14008),

Gene: AltPhacts_74 Start: 59793, Stop: 60029, Start Num: 16

Candidate Starts for AltPhacts_74:

(6, 59700), (Start: 16 @59793 has 234 MA's), (42, 59952), (43, 59955),

Gene: Altwerkus_75 Start: 60069, Stop: 60305, Start Num: 16

Candidate Starts for Altwerkus_75:

(6, 59973), (Start: 16 @60069 has 234 MA's), (42, 60228), (43, 60231),

Gene: Amok_2 Start: 535, Stop: 693, Start Num: 35

Candidate Starts for Amok_2:

(Start: 35 @535 has 10 MA's), (44, 661),

Gene: Anderson_78 Start: 60626, Stop: 60862, Start Num: 16

Candidate Starts for Anderson_78:

(6, 60533), (Start: 16 @60626 has 234 MA's), (42, 60785), (43, 60788),

Gene: Andre_77 Start: 60644, Stop: 60880, Start Num: 16

Candidate Starts for Andre_77:

(6, 60551), (Start: 16 @60644 has 234 MA's),

Gene: Antonia_75 Start: 60272, Stop: 60508, Start Num: 16
Candidate Starts for Antonia_75:
(6, 60179), (Start: 16 @60272 has 234 MA's), (42, 60431), (43, 60434),

Gene: Apizium_75 Start: 59907, Stop: 60143, Start Num: 16
Candidate Starts for Apizium_75:
(6, 59814), (Start: 16 @59907 has 234 MA's),

Gene: Ashraf_77 Start: 60620, Stop: 60856, Start Num: 16
Candidate Starts for Ashraf_77:
(6, 60527), (Start: 16 @60620 has 234 MA's),

Gene: Azira_4 Start: 1179, Stop: 1337, Start Num: 33
Candidate Starts for Azira_4:
(Start: 33 @1179 has 4 MA's),

Gene: Badfish_77 Start: 60925, Stop: 61161, Start Num: 16
Candidate Starts for Badfish_77:
(6, 60832), (Start: 16 @60925 has 234 MA's),

Gene: Banjo_73 Start: 60214, Stop: 60450, Start Num: 16
Candidate Starts for Banjo_73:
(6, 60121), (Start: 16 @60214 has 234 MA's), (42, 60373), (43, 60376),

Gene: Barnyard_9 Start: 6285, Stop: 6467, Start Num: 32
Candidate Starts for Barnyard_9:
(Start: 32 @6285 has 2 MA's), (45, 6438),

Gene: Basato_75 Start: 60487, Stop: 60723, Start Num: 16
Candidate Starts for Basato_75:
(6, 60394), (Start: 16 @60487 has 234 MA's), (42, 60646), (43, 60649),

Gene: BatteryCK_74 Start: 60187, Stop: 60423, Start Num: 16
Candidate Starts for BatteryCK_74:
(6, 60091), (Start: 16 @60187 has 234 MA's), (42, 60346), (43, 60349),

Gene: Beaglebox_73 Start: 60325, Stop: 60561, Start Num: 16
Candidate Starts for Beaglebox_73:
(6, 60232), (Start: 16 @60325 has 234 MA's), (42, 60484), (43, 60487),

Gene: BigMama_9 Start: 7998, Stop: 8210, Start Num: 25
Candidate Starts for BigMama_9:
(Start: 25 @7998 has 23 MA's),

Gene: BillDoor_4 Start: 852, Stop: 998, Start Num: 35
Candidate Starts for BillDoor_4:
(Start: 16 @795 has 234 MA's), (18, 801), (20, 807), (Start: 35 @852 has 10 MA's), (45, 984),

Gene: Bishoperium_76 Start: 60766, Stop: 61002, Start Num: 16
Candidate Starts for Bishoperium_76:
(6, 60673), (Start: 16 @60766 has 234 MA's), (42, 60925), (43, 60928),

Gene: BlackStallion_77 Start: 60634, Stop: 60870, Start Num: 16

Candidate Starts for BlackStallion_77:
(6, 60541), (Start: 16 @60634 has 234 MA's), (42, 60793), (43, 60796),

Gene: BlueHusk_77 Start: 60261, Stop: 60497, Start Num: 16
Candidate Starts for BlueHusk_77:
(6, 60168), (Start: 16 @60261 has 234 MA's),

Gene: Bluephacebaby_75 Start: 60799, Stop: 61035, Start Num: 16
Candidate Starts for Bluephacebaby_75:
(6, 60706), (Start: 16 @60799 has 234 MA's),

Gene: Brilliant_79 Start: 60780, Stop: 61016, Start Num: 16
Candidate Starts for Brilliant_79:
(6, 60687), (Start: 16 @60780 has 234 MA's), (42, 60939), (43, 60942),

Gene: Buckeye_76 Start: 61313, Stop: 61549, Start Num: 16
Candidate Starts for Buckeye_76:
(6, 61220), (Start: 16 @61313 has 234 MA's), (42, 61472), (43, 61475),

Gene: Burnsey_3 Start: 829, Stop: 999, Start Num: 31
Candidate Starts for Burnsey_3:
(Start: 31 @829 has 1 MA's),

Gene: Burr_76 Start: 60232, Stop: 60468, Start Num: 16
Candidate Starts for Burr_76:
(6, 60139), (Start: 16 @60232 has 234 MA's), (42, 60391), (43, 60394),

Gene: Butterscotch_10 Start: 7985, Stop: 8197, Start Num: 25
Candidate Starts for Butterscotch_10:
(Start: 25 @7985 has 23 MA's),

Gene: Button_3 Start: 752, Stop: 910, Start Num: 29
Candidate Starts for Button_3:
(Start: 27 @749 has 3 MA's), (Start: 29 @752 has 3 MA's),

Gene: CamL_76 Start: 60540, Stop: 60776, Start Num: 16
Candidate Starts for CamL_76:
(6, 60444), (Start: 16 @60540 has 234 MA's), (42, 60699), (43, 60702),

Gene: CampRoach_75 Start: 60647, Stop: 60883, Start Num: 16
Candidate Starts for CampRoach_75:
(6, 60551), (Start: 16 @60647 has 234 MA's), (42, 60806), (43, 60809),

Gene: Cannibal_77 Start: 60653, Stop: 60889, Start Num: 16
Candidate Starts for Cannibal_77:
(6, 60557), (Start: 16 @60653 has 234 MA's),

Gene: Chaelin_77 Start: 60780, Stop: 61016, Start Num: 16
Candidate Starts for Chaelin_77:
(6, 60687), (Start: 16 @60780 has 234 MA's),

Gene: Chah_78 Start: 60368, Stop: 60604, Start Num: 16
Candidate Starts for Chah_78:

(6, 60275), (Start: 16 @60368 has 234 MA's),

Gene: Charles1_77 Start: 60555, Stop: 60791, Start Num: 16

Candidate Starts for Charles1_77:

(6, 60462), (Start: 16 @60555 has 234 MA's),

Gene: CharlieGBrown_74 Start: 60162, Stop: 60398, Start Num: 16

Candidate Starts for CharlieGBrown_74:

(6, 60069), (Start: 16 @60162 has 234 MA's), (42, 60321), (43, 60324),

Gene: CheetO_75 Start: 60482, Stop: 60718, Start Num: 16

Candidate Starts for CheetO_75:

(6, 60389), (Start: 16 @60482 has 234 MA's), (42, 60641), (43, 60644),

Gene: Cher_76 Start: 60743, Stop: 60979, Start Num: 16

Candidate Starts for Cher_76:

(6, 60650), (Start: 16 @60743 has 234 MA's), (42, 60902), (43, 60905),

Gene: Childish_76 Start: 60944, Stop: 61180, Start Num: 16

Candidate Starts for Childish_76:

(6, 60851), (Start: 16 @60944 has 234 MA's), (42, 61103), (43, 61106),

Gene: Chill_10 Start: 7988, Stop: 8200, Start Num: 25

Candidate Starts for Chill_10:

(Start: 25 @7988 has 23 MA's),

Gene: Chorkpop_77 Start: 60407, Stop: 60643, Start Num: 16

Candidate Starts for Chorkpop_77:

(6, 60311), (Start: 16 @60407 has 234 MA's), (42, 60566), (43, 60569),

Gene: Chunky_76 Start: 60078, Stop: 60314, Start Num: 16

Candidate Starts for Chunky_76:

(6, 59985), (Start: 16 @60078 has 234 MA's), (42, 60237), (43, 60240),

Gene: Chute_76 Start: 60799, Stop: 61029, Start Num: 16

Candidate Starts for Chute_76:

(6, 60703), (Start: 16 @60799 has 234 MA's), (42, 60958), (43, 60961),

Gene: Cobra_76 Start: 60777, Stop: 61013, Start Num: 16

Candidate Starts for Cobra_76:

(6, 60684), (Start: 16 @60777 has 234 MA's), (42, 60936), (43, 60939),

Gene: Colbert_74 Start: 59827, Stop: 60063, Start Num: 16

Candidate Starts for Colbert_74:

(6, 59734), (Start: 16 @59827 has 234 MA's), (42, 59986), (43, 59989),

Gene: Coletti_78 Start: 61302, Stop: 61532, Start Num: 16

Candidate Starts for Coletti_78:

(6, 61206), (Start: 16 @61302 has 234 MA's), (42, 61461), (43, 61464),

Gene: Cornobble_74 Start: 60265, Stop: 60501, Start Num: 16

Candidate Starts for Cornobble_74:

(6, 60169), (Start: 16 @60265 has 234 MA's), (42, 60424), (43, 60427),

Gene: Cosmolli16_78 Start: 61122, Stop: 61358, Start Num: 16
Candidate Starts for Cosmolli16_78:
(6, 61029), (Start: 16 @61122 has 234 MA's), (42, 61281), (43, 61284),

Gene: Craff_78 Start: 61165, Stop: 61401, Start Num: 16
Candidate Starts for Craff_78:
(6, 61072), (Start: 16 @61165 has 234 MA's), (42, 61324), (43, 61327),

Gene: Crownjwl_74 Start: 60257, Stop: 60493, Start Num: 16
Candidate Starts for Crownjwl_74:
(6, 60164), (Start: 16 @60257 has 234 MA's), (42, 60416), (43, 60419),

Gene: DaddyDaniels_79 Start: 60889, Stop: 61125, Start Num: 16
Candidate Starts for DaddyDaniels_79:
(6, 60796), (Start: 16 @60889 has 234 MA's), (42, 61048), (43, 61051),

Gene: Daffy_75 Start: 60392, Stop: 60628, Start Num: 16
Candidate Starts for Daffy_75:
(6, 60296), (Start: 16 @60392 has 234 MA's), (42, 60551), (43, 60554),

Gene: Daka_78 Start: 60750, Stop: 60986, Start Num: 16
Candidate Starts for Daka_78:
(6, 60657), (Start: 16 @60750 has 234 MA's), (42, 60909), (43, 60912),

Gene: Dati_73 Start: 60565, Stop: 60801, Start Num: 16
Candidate Starts for Dati_73:
(6, 60469), (Start: 16 @60565 has 234 MA's), (42, 60724), (43, 60727),

Gene: DelRivs_74 Start: 60205, Stop: 60441, Start Num: 16
Candidate Starts for DelRivs_74:
(6, 60112), (Start: 16 @60205 has 234 MA's), (42, 60364), (43, 60367),

Gene: Delton_10 Start: 7994, Stop: 8206, Start Num: 25
Candidate Starts for Delton_10:
(Start: 25 @7994 has 23 MA's),

Gene: Derpp_76 Start: 60311, Stop: 60547, Start Num: 16
Candidate Starts for Derpp_76:
(6, 60218), (Start: 16 @60311 has 234 MA's), (42, 60470), (43, 60473),

Gene: Dice_76 Start: 60230, Stop: 60466, Start Num: 16
Candidate Starts for Dice_76:
(6, 60137), (Start: 16 @60230 has 234 MA's), (42, 60389), (43, 60392),

Gene: Dingo_73 Start: 59784, Stop: 60020, Start Num: 16
Candidate Starts for Dingo_73:
(6, 59688), (Start: 16 @59784 has 234 MA's), (42, 59943), (43, 59946),

Gene: Dione_74 Start: 59967, Stop: 60203, Start Num: 16
Candidate Starts for Dione_74:
(6, 59874), (Start: 16 @59967 has 234 MA's),

Gene: DirtJuice_76 Start: 60535, Stop: 60771, Start Num: 16
Candidate Starts for DirtJuice_76:
(6, 60439), (11, 60481), (Start: 16 @60535 has 234 MA's), (42, 60694), (43, 60697),

Gene: DoesntMatter_73 Start: 60254, Stop: 60490, Start Num: 16
Candidate Starts for DoesntMatter_73:
(6, 60161), (Start: 16 @60254 has 234 MA's), (42, 60413), (43, 60416),

Gene: DonSanchon_72 Start: 59915, Stop: 60151, Start Num: 16
Candidate Starts for DonSanchon_72:
(6, 59819), (Start: 16 @59915 has 234 MA's), (42, 60074), (43, 60077),

Gene: Dori_1 Start: 1, Stop: 252, Start Num: 13
Candidate Starts for Dori_1:
(Start: 13 @1 has 1 MA's), (Start: 21 @46 has 2 MA's), (Start: 34 @85 has 1 MA's), (42, 196), (43, 199), (46, 232),

Gene: DrLupo_10 Start: 6204, Stop: 6410, Start Num: 32
Candidate Starts for DrLupo_10:
(Start: 32 @6204 has 2 MA's),

Gene: DuchessDung_74 Start: 59793, Stop: 60029, Start Num: 16
Candidate Starts for DuchessDung_74:
(6, 59700), (Start: 16 @59793 has 234 MA's), (42, 59952), (43, 59955),

Gene: Duggie_76 Start: 60534, Stop: 60770, Start Num: 16
Candidate Starts for Duggie_76:
(6, 60438), (Start: 16 @60534 has 234 MA's),

Gene: Durga_78 Start: 61014, Stop: 61250, Start Num: 16
Candidate Starts for Durga_78:
(6, 60921), (Start: 16 @61014 has 234 MA's), (42, 61173), (43, 61176),

Gene: Elinal_3 Start: 643, Stop: 819, Start Num: 34
Candidate Starts for Elinal_3:
(Start: 34 @643 has 1 MA's), (44, 763),

Gene: Elliott_3 Start: 829, Stop: 999, Start Num: 31
Candidate Starts for Elliott_3:
(Start: 31 @829 has 1 MA's),

Gene: Emalyn_2 Start: 534, Stop: 692, Start Num: 35
Candidate Starts for Emalyn_2:
(Start: 35 @534 has 10 MA's), (44, 660),

Gene: Emiris_77 Start: 60926, Stop: 61162, Start Num: 16
Candidate Starts for Emiris_77:
(6, 60830), (Start: 16 @60926 has 234 MA's), (42, 61085), (43, 61088),

Gene: EmpTee_75 Start: 60474, Stop: 60710, Start Num: 16
Candidate Starts for EmpTee_75:
(6, 60381), (Start: 16 @60474 has 234 MA's),

Gene: Eremos_75 Start: 60445, Stop: 60681, Start Num: 16
Candidate Starts for Eremos_75:
(6, 60352), (Start: 16 @60445 has 234 MA's), (42, 60604), (43, 60607),

Gene: Erk16_10 Start: 7994, Stop: 8200, Start Num: 25
Candidate Starts for Erk16_10:
(Start: 25 @7994 has 23 MA's),

Gene: Etaye_75 Start: 61105, Stop: 61341, Start Num: 16
Candidate Starts for Etaye_75:
(6, 61012), (Start: 16 @61105 has 234 MA's), (42, 61264), (43, 61267),

Gene: Eugenia_77 Start: 61059, Stop: 61295, Start Num: 16
Candidate Starts for Eugenia_77:
(6, 60966), (Start: 16 @61059 has 234 MA's),

Gene: Fang_77 Start: 60765, Stop: 61001, Start Num: 16
Candidate Starts for Fang_77:
(6, 60672), (Start: 16 @60765 has 234 MA's), (42, 60924), (43, 60927),

Gene: FluffyNinja_77 Start: 60635, Stop: 60871, Start Num: 16
Candidate Starts for FluffyNinja_77:
(6, 60542), (Start: 16 @60635 has 234 MA's), (42, 60794), (43, 60797),

Gene: Fozzie_74 Start: 60962, Stop: 61198, Start Num: 16
Candidate Starts for Fozzie_74:
(6, 60869), (Start: 16 @60962 has 234 MA's), (42, 61121), (43, 61124),

Gene: Frankicide_75 Start: 60444, Stop: 60680, Start Num: 16
Candidate Starts for Frankicide_75:
(6, 60351), (Start: 16 @60444 has 234 MA's), (42, 60603), (43, 60606),

Gene: Freya_73 Start: 59936, Stop: 60172, Start Num: 16
Candidate Starts for Freya_73:
(6, 59840), (Start: 16 @59936 has 234 MA's), (42, 60095), (43, 60098),

Gene: FriarPreacher_74 Start: 60319, Stop: 60555, Start Num: 16
Candidate Starts for FriarPreacher_74:
(6, 60226), (Start: 16 @60319 has 234 MA's),

Gene: Fribs8_3 Start: 954, Stop: 1115, Start Num: 33
Candidate Starts for Fribs8_3:
(28, 939), (Start: 33 @954 has 4 MA's),

Gene: Fringe_80 Start: 61114, Stop: 61350, Start Num: 16
Candidate Starts for Fringe_80:
(6, 61018), (Start: 16 @61114 has 234 MA's), (42, 61273), (43, 61276),

Gene: FugateOSU_76 Start: 61257, Stop: 61493, Start Num: 16
Candidate Starts for FugateOSU_76:
(6, 61164), (Start: 16 @61257 has 234 MA's), (42, 61416), (43, 61419),

Gene: Gareth_76 Start: 60765, Stop: 61001, Start Num: 16

Candidate Starts for Gareth_76:
(6, 60672), (Start: 16 @60765 has 234 MA's), (42, 60924), (43, 60927),

Gene: GeneCoco_77 Start: 60927, Stop: 61163, Start Num: 16
Candidate Starts for GeneCoco_77:
(6, 60834), (Start: 16 @60927 has 234 MA's), (42, 61086), (43, 61089),

Gene: GiKK_4 Start: 1010, Stop: 1165, Start Num: 30
Candidate Starts for GiKK_4:
(5, 875), (Start: 30 @1010 has 1 MA's),

Gene: Giraffe_76 Start: 60760, Stop: 60996, Start Num: 16
Candidate Starts for Giraffe_76:
(6, 60667), (Start: 16 @60760 has 234 MA's), (42, 60919), (43, 60922),

Gene: Giuseppe_10 Start: 7977, Stop: 8189, Start Num: 25
Candidate Starts for Giuseppe_10:
(Start: 25 @7977 has 23 MA's),

Gene: GoldHunter_3 Start: 829, Stop: 999, Start Num: 31
Candidate Starts for GoldHunter_3:
(Start: 31 @829 has 1 MA's),

Gene: Gophee_76 Start: 60757, Stop: 60993, Start Num: 16
Candidate Starts for Gophee_76:
(6, 60664), (Start: 16 @60757 has 234 MA's),

Gene: Grand2040_74 Start: 60735, Stop: 60971, Start Num: 16
Candidate Starts for Grand2040_74:
(6, 60642), (Start: 16 @60735 has 234 MA's),

Gene: Gumball_9 Start: 7932, Stop: 8144, Start Num: 25
Candidate Starts for Gumball_9:
(Start: 25 @7932 has 23 MA's),

Gene: Gwilliam_77 Start: 61126, Stop: 61362, Start Num: 16
Candidate Starts for Gwilliam_77:
(6, 61033), (Start: 16 @61126 has 234 MA's), (42, 61285), (43, 61288),

Gene: Gyarad_0075 Start: 60082, Stop: 60318, Start Num: 16
Candidate Starts for Gyarad_0075:
(6, 59989), (Start: 16 @60082 has 234 MA's),

Gene: HSavage_74 Start: 60272, Stop: 60508, Start Num: 16
Candidate Starts for HSavage_74:
(6, 60179), (Start: 16 @60272 has 234 MA's), (42, 60431), (43, 60434),

Gene: Haimas_74 Start: 60192, Stop: 60428, Start Num: 16
Candidate Starts for Haimas_74:
(6, 60099), (Start: 16 @60192 has 234 MA's), (42, 60351), (43, 60354),

Gene: Haleema_75 Start: 60306, Stop: 60542, Start Num: 16
Candidate Starts for Haleema_75:

(6, 60210), (Start: 16 @60306 has 234 MA's), (42, 60465), (43, 60468),

Gene: Hamish_73 Start: 60310, Stop: 60546, Start Num: 16

Candidate Starts for Hamish_73:

(6, 60217), (Start: 16 @60310 has 234 MA's), (42, 60469), (43, 60472),

Gene: Hartsy_73 Start: 60421, Stop: 60657, Start Num: 16

Candidate Starts for Hartsy_73:

(6, 60325), (Start: 16 @60421 has 234 MA's), (42, 60580), (43, 60583),

Gene: Harvey_73 Start: 60218, Stop: 60454, Start Num: 16

Candidate Starts for Harvey_73:

(6, 60125), (Start: 16 @60218 has 234 MA's),

Gene: Hawkeye_11 Start: 7815, Stop: 8030, Start Num: 15

Candidate Starts for Hawkeye_11:

(Start: 15 @7815 has 1 MA's), (Start: 21 @7830 has 2 MA's), (26, 7839), (Start: 33 @7854 has 4 MA's), (43, 7983),

Gene: Held_74 Start: 60213, Stop: 60449, Start Num: 16

Candidate Starts for Held_74:

(6, 60117), (Start: 16 @60213 has 234 MA's), (42, 60372), (43, 60375),

Gene: Helpful_10 Start: 7985, Stop: 8197, Start Num: 25

Candidate Starts for Helpful_10:

(Start: 25 @7985 has 23 MA's),

Gene: HenryJackson_77 Start: 60933, Stop: 61169, Start Num: 16

Candidate Starts for HenryJackson_77:

(6, 60840), (Start: 16 @60933 has 234 MA's), (42, 61092), (43, 61095),

Gene: Hertubise_76 Start: 60699, Stop: 60935, Start Num: 16

Candidate Starts for Hertubise_76:

(6, 60606), (Start: 16 @60699 has 234 MA's),

Gene: Hetaeria_76 Start: 60582, Stop: 60818, Start Num: 16

Candidate Starts for Hetaeria_76:

(6, 60489), (Start: 16 @60582 has 234 MA's),

Gene: HighStump_77 Start: 60718, Stop: 60954, Start Num: 16

Candidate Starts for HighStump_77:

(6, 60625), (Start: 16 @60718 has 234 MA's), (42, 60877), (43, 60880),

Gene: Hocus_74 Start: 60234, Stop: 60470, Start Num: 16

Candidate Starts for Hocus_74:

(6, 60141), (Start: 16 @60234 has 234 MA's), (42, 60393), (43, 60396),

Gene: Horchata_73 Start: 60231, Stop: 60467, Start Num: 16

Candidate Starts for Horchata_73:

(6, 60135), (11, 60177), (Start: 16 @60231 has 234 MA's), (42, 60390), (43, 60393),

Gene: Horseradish_3 Start: 758, Stop: 898, Start Num: 35

Candidate Starts for Horseradish_3:

(Start: 35 @758 has 10 MA's),

Gene: ImtiyazSitla_77 Start: 60620, Stop: 60856, Start Num: 16

Candidate Starts for ImtiyazSitla_77:

(6, 60527), (Start: 16 @60620 has 234 MA's),

Gene: Inchworm_77 Start: 60607, Stop: 60843, Start Num: 16

Candidate Starts for Inchworm_77:

(6, 60511), (Start: 16 @60607 has 234 MA's), (42, 60766), (43, 60769),

Gene: Indlulamithi_3 Start: 3257, Stop: 3418, Start Num: 37

Candidate Starts for Indlulamithi_3:

(Start: 37 @3257 has 2 MA's), (39, 3293), (47, 3407),

Gene: Inverness_74 Start: 60234, Stop: 60470, Start Num: 16

Candidate Starts for Inverness_74:

(6, 60141), (Start: 16 @60234 has 234 MA's), (42, 60393), (43, 60396),

Gene: Iridoclysis_75 Start: 60518, Stop: 60754, Start Num: 16

Candidate Starts for Iridoclysis_75:

(6, 60425), (Start: 16 @60518 has 234 MA's),

Gene: IsaacEli_78 Start: 60865, Stop: 61101, Start Num: 16

Candidate Starts for IsaacEli_78:

(6, 60772), (Start: 16 @60865 has 234 MA's),

Gene: JDog_76 Start: 60757, Stop: 60993, Start Num: 16

Candidate Starts for JDog_76:

(6, 60661), (Start: 16 @60757 has 234 MA's), (42, 60916), (43, 60919),

Gene: JacAttac_76 Start: 60231, Stop: 60467, Start Num: 16

Candidate Starts for JacAttac_76:

(6, 60138), (Start: 16 @60231 has 234 MA's),

Gene: JakeO_77 Start: 60482, Stop: 60718, Start Num: 16

Candidate Starts for JakeO_77:

(6, 60389), (Start: 16 @60482 has 234 MA's), (42, 60641), (43, 60644),

Gene: Jamzy_4 Start: 1014, Stop: 1175, Start Num: 29

Candidate Starts for Jamzy_4:

(3, 867), (4, 870), (Start: 29 @1014 has 3 MA's),

Gene: JangoPhett_74 Start: 60572, Stop: 60808, Start Num: 16

Candidate Starts for JangoPhett_74:

(6, 60479), (Start: 16 @60572 has 234 MA's),

Gene: Jillium_77 Start: 60925, Stop: 61161, Start Num: 16

Candidate Starts for Jillium_77:

(6, 60832), (Start: 16 @60925 has 234 MA's), (42, 61084), (43, 61087),

Gene: Jiminy_76 Start: 60312, Stop: 60548, Start Num: 16

Candidate Starts for Jiminy_76:

(6, 60219), (9, 60234), (Start: 16 @60312 has 234 MA's), (42, 60471), (43, 60474),

Gene: Jiraiya_79 Start: 60517, Stop: 60753, Start Num: 16
Candidate Starts for Jiraiya_79:
(6, 60421), (Start: 16 @60517 has 234 MA's), (42, 60676), (43, 60679),

Gene: KLucky39_74 Start: 60121, Stop: 60357, Start Num: 16
Candidate Starts for KLucky39_74:
(6, 60028), (Start: 16 @60121 has 234 MA's),

Gene: Kahve_77 Start: 60930, Stop: 61166, Start Num: 16
Candidate Starts for Kahve_77:
(6, 60837), (Start: 16 @60930 has 234 MA's), (42, 61089), (43, 61092),

Gene: Kailash_74 Start: 60631, Stop: 60867, Start Num: 16
Candidate Starts for Kailash_74:
(6, 60535), (Start: 16 @60631 has 234 MA's), (42, 60790), (43, 60793),

Gene: KandZ_10 Start: 8082, Stop: 8294, Start Num: 25
Candidate Starts for KandZ_10:
(Start: 25 @8082 has 23 MA's),

Gene: Katniss_78 Start: 60367, Stop: 60603, Start Num: 16
Candidate Starts for Katniss_78:
(6, 60274), (Start: 16 @60367 has 234 MA's), (42, 60526), (43, 60529),

Gene: KayGee_2 Start: 643, Stop: 819, Start Num: 34
Candidate Starts for KayGee_2:
(Start: 34 @643 has 1 MA's), (44, 763),

Gene: Keitherie_79 Start: 60989, Stop: 61225, Start Num: 16
Candidate Starts for Keitherie_79:
(6, 60896), (Start: 16 @60989 has 234 MA's), (42, 61148), (43, 61151),

Gene: Kikipoo_78 Start: 60865, Stop: 61101, Start Num: 16
Candidate Starts for Kikipoo_78:
(6, 60772), (Start: 16 @60865 has 234 MA's),

Gene: Kimbrough_77 Start: 60810, Stop: 61046, Start Num: 16
Candidate Starts for Kimbrough_77:
(6, 60717), (Start: 16 @60810 has 234 MA's), (42, 60969), (43, 60972),

Gene: KingTut_67 Start: 56977, Stop: 57213, Start Num: 16
Candidate Starts for KingTut_67:
(6, 56884), (Start: 16 @56977 has 234 MA's), (42, 57136), (43, 57139),

Gene: KingVeVeVe_74 Start: 59771, Stop: 60007, Start Num: 16
Candidate Starts for KingVeVeVe_74:
(6, 59678), (Start: 16 @59771 has 234 MA's),

Gene: KlimbOn_75 Start: 60245, Stop: 60481, Start Num: 16
Candidate Starts for KlimbOn_75:
(6, 60152), (Start: 16 @60245 has 234 MA's), (42, 60404), (43, 60407),

Gene: Kloppinator_76 Start: 60402, Stop: 60638, Start Num: 16

Candidate Starts for Kloppinator_76:

(6, 60309), (Start: 16 @60402 has 234 MA's),

Gene: Kwadwo_75 Start: 60237, Stop: 60473, Start Num: 16

Candidate Starts for Kwadwo_75:

(6, 60144), (Start: 16 @60237 has 234 MA's), (42, 60396), (43, 60399),

Gene: Kwksand96_77 Start: 60501, Stop: 60737, Start Num: 16

Candidate Starts for Kwksand96_77:

(6, 60408), (Start: 16 @60501 has 234 MA's),

Gene: Labelle_10 Start: 6572, Stop: 6769, Start Num: 27

Candidate Starts for Labelle_10:

(Start: 27 @6572 has 3 MA's), (44, 6716),

Gene: Labeouficaum_76 Start: 60311, Stop: 60547, Start Num: 16

Candidate Starts for Labeouficaum_76:

(6, 60218), (Start: 16 @60311 has 234 MA's), (42, 60470), (43, 60473),

Gene: LasagnaCat_76 Start: 60616, Stop: 60852, Start Num: 16

Candidate Starts for LasagnaCat_76:

(6, 60523), (Start: 16 @60616 has 234 MA's), (42, 60775), (43, 60778),

Gene: Lasso_75 Start: 60467, Stop: 60703, Start Num: 16

Candidate Starts for Lasso_75:

(6, 60371), (Start: 16 @60467 has 234 MA's), (42, 60626), (43, 60629),

Gene: LeeLot_75 Start: 60820, Stop: 61056, Start Num: 16

Candidate Starts for LeeLot_75:

(6, 60727), (Start: 16 @60820 has 234 MA's), (42, 60979), (43, 60982),

Gene: Lego3393_74 Start: 60937, Stop: 61173, Start Num: 16

Candidate Starts for Lego3393_74:

(6, 60844), (Start: 16 @60937 has 234 MA's), (42, 61096), (43, 61099),

Gene: Legolas_77 Start: 60559, Stop: 60795, Start Num: 16

Candidate Starts for Legolas_77:

(6, 60466), (Start: 16 @60559 has 234 MA's),

Gene: LeiMonet_78 Start: 60697, Stop: 60933, Start Num: 16

Candidate Starts for LeiMonet_78:

(6, 60604), (Start: 16 @60697 has 234 MA's), (42, 60856), (43, 60859),

Gene: LemonSlice_76 Start: 60214, Stop: 60450, Start Num: 16

Candidate Starts for LemonSlice_76:

(6, 60118), (Start: 16 @60214 has 234 MA's), (42, 60373), (43, 60376),

Gene: Leopard_21 Start: 14158, Stop: 14394, Start Num: 25

Candidate Starts for Leopard_21:

(7, 14053), (8, 14056), (19, 14146), (Start: 25 @14158 has 23 MA's), (38, 14233), (41, 14293),

Gene: Longacauda_77 Start: 60594, Stop: 60830, Start Num: 16

Candidate Starts for Longacauda_77:
(6, 60501), (Start: 16 @60594 has 234 MA's),

Gene: Lopsy_73 Start: 59921, Stop: 60157, Start Num: 16
Candidate Starts for Lopsy_73:
(6, 59825), (Start: 16 @59921 has 234 MA's), (42, 60080), (43, 60083),

Gene: LostAndPhound_75 Start: 60767, Stop: 61003, Start Num: 16
Candidate Starts for LostAndPhound_75:
(6, 60671), (11, 60713), (Start: 16 @60767 has 234 MA's), (42, 60926), (43, 60929),

Gene: LuckyMarjie_73 Start: 59976, Stop: 60212, Start Num: 16
Candidate Starts for LuckyMarjie_73:
(6, 59883), (Start: 16 @59976 has 234 MA's),

Gene: Lulwa_73 Start: 59588, Stop: 59824, Start Num: 16
Candidate Starts for Lulwa_73:
(6, 59495), (Start: 16 @59588 has 234 MA's), (42, 59747), (43, 59750),

Gene: Lumine_77 Start: 60414, Stop: 60650, Start Num: 16
Candidate Starts for Lumine_77:
(6, 60318), (Start: 16 @60414 has 234 MA's),

Gene: MAnor_2 Start: 640, Stop: 810, Start Num: 36
Candidate Starts for MAnor_2:
(Start: 36 @640 has 1 MA's), (44, 754),

Gene: MRabcd_76 Start: 60692, Stop: 60928, Start Num: 16
Candidate Starts for MRabcd_76:
(6, 60596), (Start: 16 @60692 has 234 MA's), (42, 60851), (43, 60854),

Gene: MScarn_4 Start: 852, Stop: 992, Start Num: 35
Candidate Starts for MScarn_4:
(Start: 35 @852 has 10 MA's),

Gene: MaVan_4 Start: 1180, Stop: 1338, Start Num: 33
Candidate Starts for MaVan_4:
(Start: 33 @1180 has 4 MA's),

Gene: Madruga_8 Start: 6176, Stop: 6373, Start Num: 27
Candidate Starts for Madruga_8:
(Start: 27 @6176 has 3 MA's), (44, 6320),

Gene: Mag7_74 Start: 60175, Stop: 60411, Start Num: 16
Candidate Starts for Mag7_74:
(6, 60079), (Start: 16 @60175 has 234 MA's), (42, 60334), (43, 60337),

Gene: Magic8_75 Start: 60539, Stop: 60775, Start Num: 16
Candidate Starts for Magic8_75:
(6, 60443), (Start: 16 @60539 has 234 MA's),

Gene: Mana_74 Start: 60380, Stop: 60616, Start Num: 16
Candidate Starts for Mana_74:

(6, 60287), (Start: 16 @60380 has 234 MA's), (42, 60539), (43, 60542),

Gene: Manad_75 Start: 60509, Stop: 60745, Start Num: 16

Candidate Starts for Manad_75:

(6, 60413), (Start: 16 @60509 has 234 MA's), (42, 60668), (43, 60671),

Gene: Mao1_1 Start: 1, Stop: 207, Start Num: 21

Candidate Starts for Mao1_1:

(Start: 21 @1 has 2 MA's), (Start: 34 @40 has 1 MA's), (43, 154), (44, 169),

Gene: Margaret_4 Start: 1387, Stop: 1548, Start Num: 29

Candidate Starts for Margaret_4:

(10, 1303), (12, 1330), (14, 1336), (22, 1381), (23, 1384), (Start: 29 @1387 has 3 MA's),

Gene: Maru_76 Start: 60819, Stop: 61055, Start Num: 16

Candidate Starts for Maru_76:

(6, 60726), (Start: 16 @60819 has 234 MA's), (42, 60978), (43, 60981),

Gene: Mask_1 Start: 1, Stop: 207, Start Num: 21

Candidate Starts for Mask_1:

(Start: 21 @1 has 2 MA's), (Start: 34 @40 has 1 MA's), (43, 154), (44, 169),

Gene: Maskar_77 Start: 60620, Stop: 60856, Start Num: 16

Candidate Starts for Maskar_77:

(6, 60527), (Start: 16 @60620 has 234 MA's),

Gene: Matalotodo_76 Start: 61219, Stop: 61455, Start Num: 16

Candidate Starts for Matalotodo_76:

(6, 61126), (Start: 16 @61219 has 234 MA's), (42, 61378), (43, 61381),

Gene: Mcshane_75 Start: 60238, Stop: 60474, Start Num: 16

Candidate Starts for Mcshane_75:

(6, 60145), (Start: 16 @60238 has 234 MA's), (42, 60397), (43, 60400),

Gene: Mecca_76 Start: 60791, Stop: 61027, Start Num: 16

Candidate Starts for Mecca_76:

(6, 60698), (Start: 16 @60791 has 234 MA's), (42, 60950), (43, 60953),

Gene: Megamind20_76 Start: 60220, Stop: 60456, Start Num: 16

Candidate Starts for Megamind20_76:

(6, 60127), (Start: 16 @60220 has 234 MA's),

Gene: Megatron_77 Start: 60909, Stop: 61145, Start Num: 16

Candidate Starts for Megatron_77:

(6, 60816), (Start: 16 @60909 has 234 MA's), (42, 61068), (43, 61071),

Gene: Melc17_73 Start: 60847, Stop: 61083, Start Num: 16

Candidate Starts for Melc17_73:

(6, 60754), (Start: 16 @60847 has 234 MA's), (42, 61006), (43, 61009),

Gene: MelsMeow_75 Start: 60499, Stop: 60735, Start Num: 16

Candidate Starts for MelsMeow_75:

(6, 60406), (Start: 16 @60499 has 234 MA's), (42, 60658), (43, 60661),

Gene: Mesh1_77 Start: 60955, Stop: 61191, Start Num: 16
Candidate Starts for Mesh1_77:
(6, 60862), (Start: 16 @60955 has 234 MA's), (42, 61114), (43, 61117),

Gene: MichaelPhcott_74 Start: 60172, Stop: 60408, Start Num: 16
Candidate Starts for MichaelPhcott_74:
(6, 60076), (Start: 16 @60172 has 234 MA's), (42, 60331), (43, 60334),

Gene: MiniBoss_73 Start: 59544, Stop: 59780, Start Num: 16
Candidate Starts for MiniBoss_73:
(6, 59451), (Start: 16 @59544 has 234 MA's),

Gene: MitKao_76 Start: 60392, Stop: 60628, Start Num: 16
Candidate Starts for MitKao_76:
(6, 60296), (Start: 16 @60392 has 234 MA's), (42, 60551), (43, 60554),

Gene: Mopey_10 Start: 7985, Stop: 8197, Start Num: 25
Candidate Starts for Mopey_10:
(Start: 25 @7985 has 23 MA's),

Gene: Morgushi_74 Start: 60207, Stop: 60443, Start Num: 16
Candidate Starts for Morgushi_74:
(6, 60111), (Start: 16 @60207 has 234 MA's), (42, 60366), (43, 60369),

Gene: Morty_77 Start: 60800, Stop: 61036, Start Num: 16
Candidate Starts for Morty_77:
(6, 60707), (Start: 16 @60800 has 234 MA's), (42, 60959), (43, 60962),

Gene: Mosaic_74 Start: 60384, Stop: 60620, Start Num: 16
Candidate Starts for Mosaic_74:
(6, 60291), (Start: 16 @60384 has 234 MA's), (42, 60543), (43, 60546),

Gene: MrPhizzler_75 Start: 60686, Stop: 60922, Start Num: 16
Candidate Starts for MrPhizzler_75:
(6, 60593), (Start: 16 @60686 has 234 MA's), (42, 60845), (43, 60848),

Gene: Mulan_75 Start: 60432, Stop: 60668, Start Num: 16
Candidate Starts for Mulan_75:
(6, 60339), (Start: 16 @60432 has 234 MA's), (42, 60591), (43, 60594),

Gene: MunkgeeRoachy_4 Start: 877, Stop: 1047, Start Num: 31
Candidate Starts for MunkgeeRoachy_4:
(Start: 31 @877 has 1 MA's), (44, 1015),

Gene: Murdoc_73 Start: 60496, Stop: 60732, Start Num: 16
Candidate Starts for Murdoc_73:
(6, 60400), (Start: 16 @60496 has 234 MA's), (42, 60655), (43, 60658),

Gene: Mutante_77 Start: 60394, Stop: 60630, Start Num: 16
Candidate Starts for Mutante_77:
(6, 60301), (Start: 16 @60394 has 234 MA's), (42, 60553), (43, 60556),

Gene: Nacho_0079 Start: 61291, Stop: 61527, Start Num: 16

Candidate Starts for Nacho_0079:

(6, 61198), (Start: 16 @61291 has 234 MA's),

Gene: Newman_74 Start: 60568, Stop: 60804, Start Num: 16

Candidate Starts for Newman_74:

(6, 60475), (Start: 16 @60568 has 234 MA's), (42, 60727), (43, 60730),

Gene: Nibbles_4 Start: 1180, Stop: 1338, Start Num: 33

Candidate Starts for Nibbles_4:

(Start: 33 @1180 has 4 MA's),

Gene: Nicole21_77 Start: 60527, Stop: 60763, Start Num: 16

Candidate Starts for Nicole21_77:

(6, 60434), (Start: 16 @60527 has 234 MA's),

Gene: Nova_10 Start: 8409, Stop: 8621, Start Num: 25

Candidate Starts for Nova_10:

(Start: 25 @8409 has 23 MA's),

Gene: Numberten_75 Start: 60506, Stop: 60742, Start Num: 16

Candidate Starts for Numberten_75:

(6, 60410), (Start: 16 @60506 has 234 MA's),

Gene: Nyala_75 Start: 60245, Stop: 60481, Start Num: 16

Candidate Starts for Nyala_75:

(6, 60152), (Start: 16 @60245 has 234 MA's),

Gene: Olak_76 Start: 60398, Stop: 60634, Start Num: 16

Candidate Starts for Olak_76:

(6, 60305), (Start: 16 @60398 has 234 MA's), (42, 60557), (43, 60560),

Gene: Olive_74 Start: 60464, Stop: 60700, Start Num: 16

Candidate Starts for Olive_74:

(6, 60371), (Start: 16 @60464 has 234 MA's), (42, 60623), (43, 60626),

Gene: OliverWalter_76 Start: 60717, Stop: 60953, Start Num: 16

Candidate Starts for OliverWalter_76:

(6, 60624), (Start: 16 @60717 has 234 MA's), (42, 60876), (43, 60879),

Gene: Omniscient_77 Start: 61099, Stop: 61335, Start Num: 16

Candidate Starts for Omniscient_77:

(6, 61006), (Start: 16 @61099 has 234 MA's), (42, 61258), (43, 61261),

Gene: OnionKnight_7 Start: 5413, Stop: 5559, Start Num: 37

Candidate Starts for OnionKnight_7:

(1, 4798), (2, 4996), (Start: 37 @5413 has 2 MA's), (40, 5464),

Gene: Onyinye_22 Start: 14039, Stop: 14275, Start Num: 25

Candidate Starts for Onyinye_22:

(7, 13934), (8, 13937), (19, 14027), (Start: 25 @14039 has 23 MA's), (38, 14114), (41, 14174),

Gene: Oosterbaan_76 Start: 60635, Stop: 60871, Start Num: 16

Candidate Starts for Oosterbaan_76:
(6, 60542), (Start: 16 @60635 has 234 MA's),

Gene: Orfeu_75 Start: 60757, Stop: 60993, Start Num: 16
Candidate Starts for Orfeu_75:
(6, 60661), (Start: 16 @60757 has 234 MA's),

Gene: Orwigg_76 Start: 60184, Stop: 60420, Start Num: 16
Candidate Starts for Orwigg_76:
(6, 60091), (Start: 16 @60184 has 234 MA's), (42, 60343), (43, 60346),

Gene: PBI1_10 Start: 7922, Stop: 8128, Start Num: 25
Candidate Starts for PBI1_10:
(Start: 25 @7922 has 23 MA's),

Gene: PLOT_10 Start: 7994, Stop: 8200, Start Num: 25
Candidate Starts for PLOT_10:
(Start: 25 @7994 has 23 MA's),

Gene: Pacifista_77 Start: 60246, Stop: 60482, Start Num: 16
Candidate Starts for Pacifista_77:
(6, 60153), (Start: 16 @60246 has 234 MA's), (42, 60405), (43, 60408),

Gene: Patience_10 Start: 7102, Stop: 7299, Start Num: 27
Candidate Starts for Patience_10:
(Start: 27 @7102 has 3 MA's), (44, 7246),

Gene: Penelope2018_10 Start: 7985, Stop: 8197, Start Num: 25
Candidate Starts for Penelope2018_10:
(Start: 25 @7985 has 23 MA's),

Gene: Phamished_76 Start: 60415, Stop: 60651, Start Num: 16
Candidate Starts for Phamished_76:
(6, 60322), (Start: 16 @60415 has 234 MA's), (42, 60574), (43, 60577),

Gene: Phareon_74 Start: 59935, Stop: 60171, Start Num: 16
Candidate Starts for Phareon_74:
(6, 59842), (Start: 16 @59935 has 234 MA's), (42, 60094), (43, 60097),

Gene: PhatCats2014_77 Start: 60921, Stop: 61157, Start Num: 16
Candidate Starts for PhatCats2014_77:
(6, 60828), (Start: 16 @60921 has 234 MA's),

Gene: PhatLouie_78 Start: 60769, Stop: 61005, Start Num: 16
Candidate Starts for PhatLouie_78:
(6, 60676), (Start: 16 @60769 has 234 MA's), (42, 60928), (43, 60931),

Gene: PhenghisKhan_76 Start: 60389, Stop: 60625, Start Num: 16
Candidate Starts for PhenghisKhan_76:
(6, 60293), (Start: 16 @60389 has 234 MA's), (42, 60548), (43, 60551),

Gene: Pherdinand_77 Start: 60637, Stop: 60873, Start Num: 16
Candidate Starts for Pherdinand_77:

(6, 60544), (Start: 16 @60637 has 234 MA's), (42, 60796), (43, 60799),

Gene: Phergie_76 Start: 60381, Stop: 60617, Start Num: 16

Candidate Starts for Phergie_76:

(6, 60285), (Start: 16 @60381 has 234 MA's), (42, 60540), (43, 60543),

Gene: Phipps_75 Start: 60471, Stop: 60707, Start Num: 16

Candidate Starts for Phipps_75:

(6, 60375), (Start: 16 @60471 has 234 MA's),

Gene: Phleuron_74 Start: 60205, Stop: 60441, Start Num: 16

Candidate Starts for Phleuron_74:

(6, 60112), (Start: 16 @60205 has 234 MA's), (42, 60364), (43, 60367),

Gene: PhrankReynolds_75 Start: 60386, Stop: 60622, Start Num: 16

Candidate Starts for PhrankReynolds_75:

(6, 60290), (Start: 16 @60386 has 234 MA's), (42, 60545), (43, 60548),

Gene: PhrodoBaggins_78 Start: 60777, Stop: 61013, Start Num: 16

Candidate Starts for PhrodoBaggins_78:

(6, 60684), (Start: 16 @60777 has 234 MA's),

Gene: Phunky_74 Start: 60268, Stop: 60504, Start Num: 16

Candidate Starts for Phunky_74:

(6, 60175), (Start: 16 @60268 has 234 MA's), (42, 60427), (43, 60430),

Gene: Piglet_0076 Start: 60893, Stop: 61129, Start Num: 16

Candidate Starts for Piglet_0076:

(6, 60800), (Start: 16 @60893 has 234 MA's), (42, 61052), (43, 61055),

Gene: PinheadLarry_75 Start: 60544, Stop: 60780, Start Num: 16

Candidate Starts for PinheadLarry_75:

(6, 60451), (Start: 16 @60544 has 234 MA's), (42, 60703), (43, 60706),

Gene: Pinkman_76 Start: 60495, Stop: 60731, Start Num: 16

Candidate Starts for Pinkman_76:

(6, 60399), (Start: 16 @60495 has 234 MA's), (42, 60654), (43, 60657),

Gene: Pipsqueak_73 Start: 60224, Stop: 60460, Start Num: 16

Candidate Starts for Pipsqueak_73:

(6, 60131), (Start: 16 @60224 has 234 MA's), (42, 60383), (43, 60386),

Gene: Placalicious_75 Start: 61259, Stop: 61495, Start Num: 16

Candidate Starts for Placalicious_75:

(6, 61166), (Start: 16 @61259 has 234 MA's), (42, 61418), (43, 61421),

Gene: Plmatters_74 Start: 60221, Stop: 60457, Start Num: 16

Candidate Starts for Plmatters_74:

(6, 60128), (Start: 16 @60221 has 234 MA's),

Gene: Podrick_75 Start: 60305, Stop: 60541, Start Num: 16

Candidate Starts for Podrick_75:

(6, 60209), (Start: 16 @60305 has 234 MA's),

Gene: Pons_2 Start: 640, Stop: 810, Start Num: 36

Candidate Starts for Pons_2:

(Start: 36 @640 has 1 MA's), (44, 754),

Gene: Pops_74 Start: 60234, Stop: 60470, Start Num: 16

Candidate Starts for Pops_74:

(6, 60141), (Start: 16 @60234 has 234 MA's),

Gene: PotPie_4 Start: 1499, Stop: 1675, Start Num: 34

Candidate Starts for PotPie_4:

(Start: 34 @1499 has 1 MA's), (44, 1619),

Gene: Potter_72 Start: 60227, Stop: 60463, Start Num: 16

Candidate Starts for Potter_72:

(6, 60134), (Start: 16 @60227 has 234 MA's), (42, 60386), (43, 60389),

Gene: Prager_10 Start: 7994, Stop: 8206, Start Num: 25

Candidate Starts for Prager_10:

(Start: 25 @7994 has 23 MA's),

Gene: Prickles_77 Start: 60749, Stop: 60985, Start Num: 16

Candidate Starts for Prickles_77:

(6, 60656), (Start: 16 @60749 has 234 MA's), (42, 60908), (43, 60911),

Gene: ProfessorX_74 Start: 60265, Stop: 60501, Start Num: 16

Candidate Starts for ProfessorX_74:

(6, 60172), (Start: 16 @60265 has 234 MA's), (42, 60424), (43, 60427),

Gene: PsychoKiller_3 Start: 829, Stop: 999, Start Num: 31

Candidate Starts for PsychoKiller_3:

(Start: 31 @829 has 1 MA's),

Gene: Puhltonio_74 Start: 60494, Stop: 60730, Start Num: 16

Candidate Starts for Puhltonio_74:

(6, 60398), (Start: 16 @60494 has 234 MA's), (42, 60653), (43, 60656),

Gene: QueenBeane_76 Start: 60540, Stop: 60776, Start Num: 16

Candidate Starts for QueenBeane_76:

(6, 60444), (Start: 16 @60540 has 234 MA's), (42, 60699), (43, 60702),

Gene: Quisquilliae_76 Start: 60561, Stop: 60797, Start Num: 16

Candidate Starts for Quisquilliae_76:

(6, 60465), (Start: 16 @60561 has 234 MA's),

Gene: RedBaron_4 Start: 877, Stop: 1044, Start Num: 31

Candidate Starts for RedBaron_4:

(Start: 31 @877 has 1 MA's), (44, 1012),

Gene: RedMaple_76 Start: 60988, Stop: 61224, Start Num: 16

Candidate Starts for RedMaple_76:

(6, 60895), (Start: 16 @60988 has 234 MA's), (42, 61147), (43, 61150),

Gene: Ricotta_73 Start: 60231, Stop: 60467, Start Num: 16

Candidate Starts for Ricotta_73:

(6, 60135), (Start: 16 @60231 has 234 MA's),

Gene: Riggan_77 Start: 60557, Stop: 60793, Start Num: 16

Candidate Starts for Riggan_77:

(6, 60464), (Start: 16 @60557 has 234 MA's), (42, 60716), (43, 60719),

Gene: Rimu_79 Start: 60707, Stop: 60943, Start Num: 16

Candidate Starts for Rimu_79:

(6, 60614), (Start: 16 @60707 has 234 MA's), (42, 60866), (43, 60869),

Gene: Roliet_73 Start: 59592, Stop: 59828, Start Num: 16

Candidate Starts for Roliet_73:

(6, 59499), (Start: 16 @59592 has 234 MA's),

Gene: Roscoe_76 Start: 60677, Stop: 60913, Start Num: 16

Candidate Starts for Roscoe_76:

(6, 60584), (Start: 16 @60677 has 234 MA's), (42, 60836), (43, 60839),

Gene: SDcharge11_75 Start: 59710, Stop: 59946, Start Num: 16

Candidate Starts for SDcharge11_75:

(6, 59617), (Start: 16 @59710 has 234 MA's),

Gene: Samaymay_76 Start: 60540, Stop: 60776, Start Num: 16

Candidate Starts for Samaymay_76:

(6, 60444), (Start: 16 @60540 has 234 MA's), (42, 60699), (43, 60702),

Gene: SassyCat97_74 Start: 60220, Stop: 60456, Start Num: 16

Candidate Starts for SassyCat97_74:

(6, 60127), (Start: 16 @60220 has 234 MA's), (42, 60379), (43, 60382),

Gene: Schadenfreude_76 Start: 60129, Stop: 60365, Start Num: 16

Candidate Starts for Schadenfreude_76:

(6, 60036), (Start: 16 @60129 has 234 MA's), (42, 60288), (43, 60291),

Gene: Schueller_75 Start: 60492, Stop: 60728, Start Num: 16

Candidate Starts for Schueller_75:

(6, 60399), (Start: 16 @60492 has 234 MA's), (42, 60651), (43, 60654),

Gene: Scoot17C_77 Start: 60347, Stop: 60583, Start Num: 16

Candidate Starts for Scoot17C_77:

(6, 60254), (Start: 16 @60347 has 234 MA's), (42, 60506), (43, 60509),

Gene: Scrick_75 Start: 60229, Stop: 60465, Start Num: 16

Candidate Starts for Scrick_75:

(6, 60136), (Start: 16 @60229 has 234 MA's), (42, 60388), (43, 60391),

Gene: Sejanus_1 Start: 1, Stop: 207, Start Num: 21

Candidate Starts for Sejanus_1:

(Start: 21 @1 has 2 MA's), (Start: 34 @40 has 1 MA's), (43, 154), (44, 169),

Gene: Selr12_77 Start: 60274, Stop: 60510, Start Num: 16

Candidate Starts for Selr12_77:

(6, 60181), (Start: 16 @60274 has 234 MA's), (42, 60433), (43, 60436),

Gene: Serendipity_76 Start: 60702, Stop: 60938, Start Num: 16

Candidate Starts for Serendipity_76:

(6, 60609), (Start: 16 @60702 has 234 MA's), (42, 60861), (43, 60864),

Gene: Serpentine_0077 Start: 60785, Stop: 61021, Start Num: 16

Candidate Starts for Serpentine_0077:

(6, 60692), (Start: 16 @60785 has 234 MA's), (42, 60944), (43, 60947),

Gene: Sheila_72 Start: 59623, Stop: 59859, Start Num: 16

Candidate Starts for Sheila_72:

(6, 59530), (Start: 16 @59623 has 234 MA's),

Gene: ShiVal_74 Start: 60257, Stop: 60493, Start Num: 16

Candidate Starts for ShiVal_74:

(6, 60164), (Start: 16 @60257 has 234 MA's), (42, 60416), (43, 60419),

Gene: Sigman_76 Start: 60231, Stop: 60467, Start Num: 16

Candidate Starts for Sigman_76:

(6, 60138), (Start: 16 @60231 has 234 MA's),

Gene: Simielle_75 Start: 60199, Stop: 60435, Start Num: 16

Candidate Starts for Simielle_75:

(6, 60106), (Start: 16 @60199 has 234 MA's),

Gene: SirHarley_9 Start: 7914, Stop: 8126, Start Num: 25

Candidate Starts for SirHarley_9:

(Start: 25 @7914 has 23 MA's),

Gene: Skippy_77 Start: 60626, Stop: 60862, Start Num: 16

Candidate Starts for Skippy_77:

(6, 60533), (Start: 16 @60626 has 234 MA's), (42, 60785), (43, 60788),

Gene: Slatt_76 Start: 60513, Stop: 60749, Start Num: 16

Candidate Starts for Slatt_76:

(6, 60420), (Start: 16 @60513 has 234 MA's), (42, 60672), (43, 60675),

Gene: Soile_77 Start: 60751, Stop: 60987, Start Num: 16

Candidate Starts for Soile_77:

(6, 60658), (Start: 16 @60751 has 234 MA's), (42, 60910), (43, 60913),

Gene: Solosis_74 Start: 60218, Stop: 60454, Start Num: 16

Candidate Starts for Solosis_74:

(6, 60122), (Start: 16 @60218 has 234 MA's), (42, 60377), (43, 60380),

Gene: Sopespian_3 Start: 829, Stop: 999, Start Num: 31

Candidate Starts for Sopespian_3:

(Start: 31 @829 has 1 MA's),

Gene: Sophia_74 Start: 60208, Stop: 60444, Start Num: 16

Candidate Starts for Sophia_74:

(6, 60115), (Start: 16 @60208 has 234 MA's), (42, 60367), (43, 60370),

Gene: Soto_73 Start: 59751, Stop: 59987, Start Num: 16

Candidate Starts for Soto_73:

(6, 59658), (Start: 16 @59751 has 234 MA's), (42, 59910), (43, 59913),

Gene: Spartan300_75 Start: 60469, Stop: 60705, Start Num: 16

Candidate Starts for Spartan300_75:

(6, 60376), (Start: 16 @60469 has 234 MA's), (42, 60628), (43, 60631),

Gene: Squid_75 Start: 60499, Stop: 60735, Start Num: 16

Candidate Starts for Squid_75:

(6, 60406), (Start: 16 @60499 has 234 MA's),

Gene: Squiggle_75 Start: 60224, Stop: 60460, Start Num: 16

Candidate Starts for Squiggle_75:

(6, 60131), (Start: 16 @60224 has 234 MA's), (42, 60383), (43, 60386),

Gene: SteamedHams_4 Start: 852, Stop: 1004, Start Num: 35

Candidate Starts for SteamedHams_4:

(Start: 16 @795 has 234 MA's), (18, 801), (20, 807), (24, 816), (Start: 35 @852 has 10 MA's), (45, 990),

Gene: Struggle_76 Start: 60319, Stop: 60555, Start Num: 16

Candidate Starts for Struggle_76:

(6, 60223), (Start: 16 @60319 has 234 MA's),

Gene: Surely_76 Start: 60789, Stop: 61025, Start Num: 16

Candidate Starts for Surely_76:

(6, 60696), (Start: 16 @60789 has 234 MA's), (42, 60948), (43, 60951),

Gene: SweatNTears_4 Start: 1378, Stop: 1518, Start Num: 35

Candidate Starts for SweatNTears_4:

(Start: 35 @1378 has 10 MA's),

Gene: Swiphy_79 Start: 60769, Stop: 61005, Start Num: 16

Candidate Starts for Swiphy_79:

(6, 60676), (Start: 16 @60769 has 234 MA's), (42, 60928), (43, 60931),

Gene: Swish_77 Start: 60652, Stop: 60888, Start Num: 16

Candidate Starts for Swish_77:

(6, 60559), (Start: 16 @60652 has 234 MA's), (42, 60811), (43, 60814),

Gene: TallGrassMM_75 Start: 60283, Stop: 60519, Start Num: 16

Candidate Starts for TallGrassMM_75:

(6, 60190), (Start: 16 @60283 has 234 MA's), (42, 60442), (43, 60445),

Gene: Telesworld_74 Start: 60361, Stop: 60597, Start Num: 16

Candidate Starts for Telesworld_74:

(6, 60268), (Start: 16 @60361 has 234 MA's), (42, 60520), (43, 60523),

Gene: Thora_75 Start: 60738, Stop: 60974, Start Num: 16

Candidate Starts for Thora_75:

(6, 60645), (Start: 16 @60738 has 234 MA's),

Gene: Thoth_10 Start: 7982, Stop: 8194, Start Num: 25

Candidate Starts for Thoth_10:

(Start: 25 @7982 has 23 MA's),

Gene: ThreeOh3D2_78 Start: 60912, Stop: 61148, Start Num: 16

Candidate Starts for ThreeOh3D2_78:

(6, 60819), (Start: 16 @60912 has 234 MA's), (42, 61071), (43, 61074),

Gene: Thunderbird_76 Start: 60481, Stop: 60717, Start Num: 16

Candidate Starts for Thunderbird_76:

(6, 60385), (Start: 16 @60481 has 234 MA's), (42, 60640), (43, 60643),

Gene: Timmi_75 Start: 60255, Stop: 60491, Start Num: 16

Candidate Starts for Timmi_75:

(6, 60159), (Start: 16 @60255 has 234 MA's), (42, 60414), (43, 60417),

Gene: Tolls_4 Start: 852, Stop: 1004, Start Num: 35

Candidate Starts for Tolls_4:

(Start: 16 @795 has 234 MA's), (18, 801), (20, 807), (24, 816), (Start: 35 @852 has 10 MA's), (45, 990),

Gene: TomBombadil_76 Start: 60782, Stop: 61018, Start Num: 16

Candidate Starts for TomBombadil_76:

(6, 60689), (Start: 16 @60782 has 234 MA's), (42, 60941), (43, 60944),

Gene: Tomlarah_77 Start: 61090, Stop: 61326, Start Num: 16

Candidate Starts for Tomlarah_77:

(6, 60997), (Start: 16 @61090 has 234 MA's), (42, 61249), (43, 61252),

Gene: Toni_76 Start: 60685, Stop: 60921, Start Num: 16

Candidate Starts for Toni_76:

(6, 60592), (Start: 16 @60685 has 234 MA's), (42, 60844), (43, 60847),

Gene: Tooj_73 Start: 59916, Stop: 60152, Start Num: 16

Candidate Starts for Tooj_73:

(6, 59823), (Start: 16 @59916 has 234 MA's), (42, 60075), (43, 60078),

Gene: Troll4_10 Start: 7986, Stop: 8198, Start Num: 25

Candidate Starts for Troll4_10:

(Start: 25 @7986 has 23 MA's),

Gene: True_74 Start: 60225, Stop: 60461, Start Num: 16

Candidate Starts for True_74:

(6, 60129), (Start: 16 @60225 has 234 MA's), (42, 60384), (43, 60387),

Gene: Trypo_77 Start: 60940, Stop: 61176, Start Num: 16

Candidate Starts for Trypo_77:

(6, 60847), (Start: 16 @60940 has 234 MA's), (42, 61099), (43, 61102),

Gene: Typhonomachy_3 Start: 829, Stop: 999, Start Num: 31

Candidate Starts for Typhonomachy_3:

(Start: 31 @829 has 1 MA's),

Gene: TyrionL_76 Start: 60311, Stop: 60547, Start Num: 16

Candidate Starts for TyrionL_76:

(6, 60218), (Start: 16 @60311 has 234 MA's), (42, 60470), (43, 60473),

Gene: UAch1_77 Start: 60582, Stop: 60818, Start Num: 16

Candidate Starts for UAch1_77:

(6, 60489), (Start: 16 @60582 has 234 MA's),

Gene: UncleHowie_73 Start: 59919, Stop: 60155, Start Num: 16

Candidate Starts for UncleHowie_73:

(6, 59823), (Start: 16 @59919 has 234 MA's), (42, 60078), (43, 60081),

Gene: Usavi_77 Start: 60908, Stop: 61144, Start Num: 16

Candidate Starts for Usavi_77:

(6, 60815), (Start: 16 @60908 has 234 MA's),

Gene: Vaishali24_77 Start: 60528, Stop: 60764, Start Num: 16

Candidate Starts for Vaishali24_77:

(6, 60435), (Start: 16 @60528 has 234 MA's), (42, 60687), (43, 60690),

Gene: Valjean_75 Start: 60470, Stop: 60706, Start Num: 16

Candidate Starts for Valjean_75:

(6, 60377), (Start: 16 @60470 has 234 MA's), (42, 60629), (43, 60632),

Gene: Vaticameos_73 Start: 58786, Stop: 59022, Start Num: 16

Candidate Starts for Vaticameos_73:

(6, 58693), (Start: 16 @58786 has 234 MA's),

Gene: Veritas_75 Start: 60396, Stop: 60632, Start Num: 16

Candidate Starts for Veritas_75:

(6, 60300), (Start: 16 @60396 has 234 MA's), (42, 60555), (43, 60558),

Gene: Virapocalypse_77 Start: 60581, Stop: 60817, Start Num: 16

Candidate Starts for Virapocalypse_77:

(6, 60488), (Start: 16 @60581 has 234 MA's),

Gene: Virgeve_74 Start: 60198, Stop: 60434, Start Num: 16

Candidate Starts for Virgeve_74:

(6, 60102), (Start: 16 @60198 has 234 MA's), (42, 60357), (43, 60360),

Gene: Visconti_10 Start: 7995, Stop: 8207, Start Num: 25

Candidate Starts for Visconti_10:

(Start: 25 @7995 has 23 MA's),

Gene: Vista_75 Start: 60394, Stop: 60630, Start Num: 16

Candidate Starts for Vista_75:

(6, 60301), (Start: 16 @60394 has 234 MA's), (42, 60553), (43, 60556),

Gene: Vivaldi_76 Start: 60678, Stop: 60914, Start Num: 16

Candidate Starts for Vivaldi_76:

(6, 60585), (Start: 16 @60678 has 234 MA's), (42, 60837), (43, 60840),

Gene: WaldoWhy_10 Start: 7988, Stop: 8200, Start Num: 25
Candidate Starts for WaldoWhy_10:
(Start: 25 @7988 has 23 MA's),

Gene: Wallhey_77 Start: 60501, Stop: 60737, Start Num: 16
Candidate Starts for Wallhey_77:
(6, 60408), (Start: 16 @60501 has 234 MA's), (42, 60660), (43, 60663),

Gene: Waterdiva_77 Start: 60768, Stop: 61004, Start Num: 16
Candidate Starts for Waterdiva_77:
(6, 60675), (Start: 16 @60768 has 234 MA's), (42, 60927), (43, 60930),

Gene: Weher20_73 Start: 60839, Stop: 61075, Start Num: 16
Candidate Starts for Weher20_73:
(6, 60746), (Start: 16 @60839 has 234 MA's), (42, 60998), (43, 61001),

Gene: Windsor_76 Start: 60784, Stop: 61020, Start Num: 16
Candidate Starts for Windsor_76:
(6, 60691), (Start: 16 @60784 has 234 MA's), (42, 60943), (43, 60946),

Gene: Xavier_76 Start: 60390, Stop: 60626, Start Num: 16
Candidate Starts for Xavier_76:
(6, 60294), (Start: 16 @60390 has 234 MA's), (42, 60549), (43, 60552),

Gene: Yoshand_77 Start: 60635, Stop: 60871, Start Num: 16
Candidate Starts for Yoshand_77:
(6, 60542), (Start: 16 @60635 has 234 MA's), (42, 60794), (43, 60797),

Gene: YouGoGlencoco_76 Start: 60509, Stop: 60745, Start Num: 16
Candidate Starts for YouGoGlencoco_76:
(6, 60416), (Start: 16 @60509 has 234 MA's), (42, 60668), (43, 60671),

Gene: Yummy_3 Start: 758, Stop: 898, Start Num: 35
Candidate Starts for Yummy_3:
(Start: 35 @758 has 10 MA's),

Gene: Zaider_77 Start: 60710, Stop: 60946, Start Num: 16
Candidate Starts for Zaider_77:
(6, 60617), (Start: 16 @60710 has 234 MA's), (42, 60869), (43, 60872),

Gene: Zareef_5 Start: 1180, Stop: 1338, Start Num: 33
Candidate Starts for Zareef_5:
(17, 1141), (Start: 33 @1180 has 4 MA's),

Gene: Zelda_76 Start: 60840, Stop: 61076, Start Num: 16
Candidate Starts for Zelda_76:
(6, 60747), (Start: 16 @60840 has 234 MA's), (42, 60999), (43, 61002),

Gene: Zonia_77 Start: 60952, Stop: 61188, Start Num: 16
Candidate Starts for Zonia_77:
(6, 60859), (Start: 16 @60952 has 234 MA's),