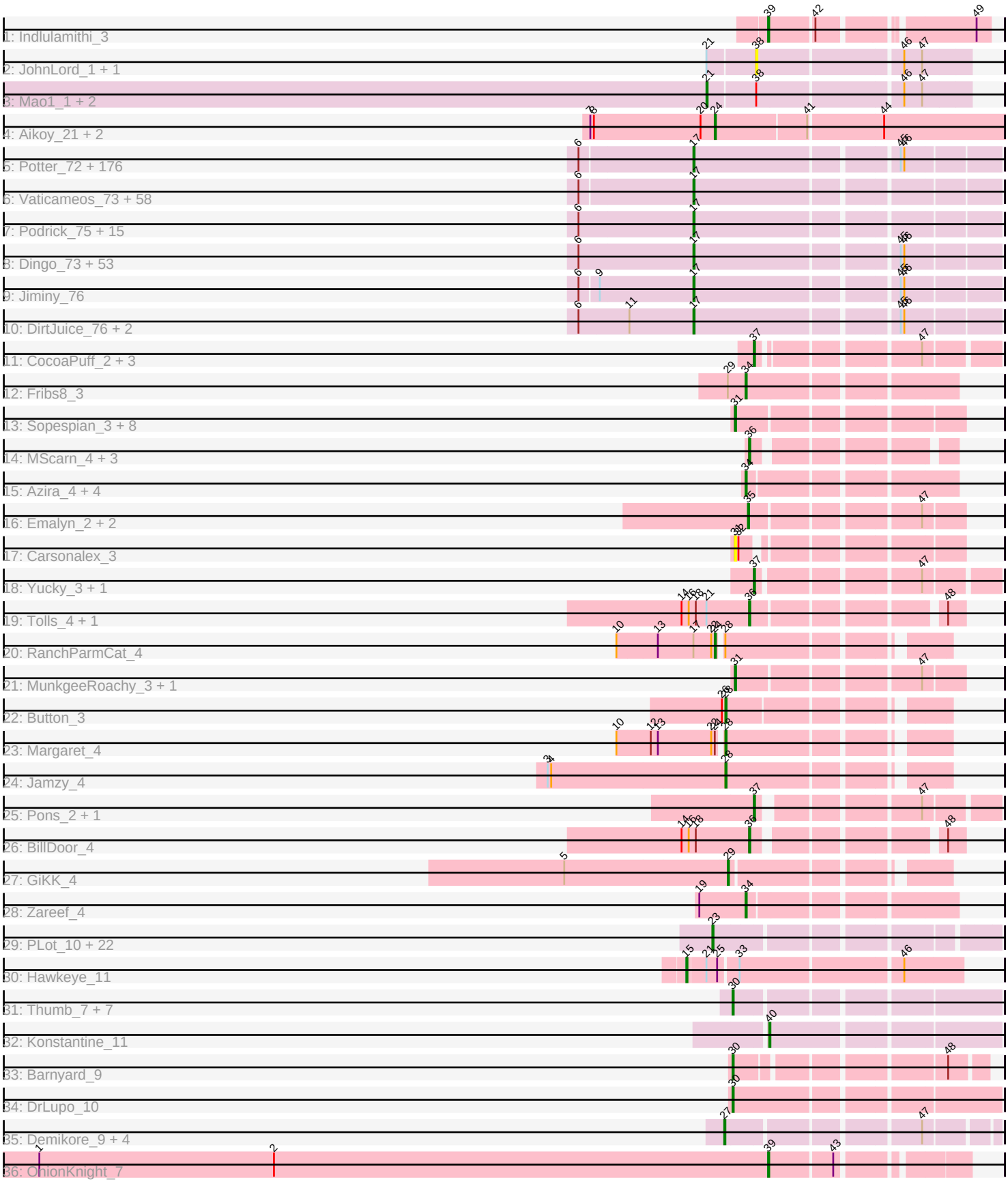
Pham 347110


1: Indlulamithi_3
2: JohnLord_1 + 1
3: Mao1_1 + 2
4: Aikoy_21 + 2
5: Potter_72 + 176
6: Vaticameos_73 + 58
7: Podrick_75 + 15
8: Dingo_73 + 53
9: Jiminy_76
10: DirtJuice_76 + 2
11: CocoaPuff_2 + 3
12: Fribs8_3
13: Sopespian_3 + 8
14: MScarn_4 + 3
15: Azira_4 + 4
16: Emalyn_2 + 2
17: Carsonalex_3
18: Yucky_3 + 1
19: Tolls_4 + 1
20: RanchParmCat_4
21: MunkgeeRoachy_3 + 1
22: Button_3
23: Margaret_4
24: Jamzy_4
25: Pons_2 + 1
26: BillDoor_4
27: GiKK_4
28: Zareef_4
29: PLot_10 + 22
30: Hawkeye_11
31: Thumb_7 + 7
32: Konstantine_11
33: Barnyard_9
34: DrLupo_10
35: Demikore_9 + 4
36: OnionKnight_7

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 347110 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347110 has 402 members, 40 are drafts.

Phages represented in each track:
• Track 1 : Indlulamithi_3
• Track 2 : JohnLord_1, Caterpie_1
• Track 3 : Mao1_1, Mask_1, Sejanus_1
• Track 4 : Aikoy_21, Onyinye_22, Leopard_21
• Track 5 : Potter_72, Iridessa_78, NiaNia_77, FleetyMac_76, LeeLot_75, Taraxa_76, ElvisPhasley_77, GreenChile_75, PinheadLarry_75, Tooj_73, TyrionL_76, PhatLouie_78, Anderson_78, ProfessorX_74, Kahve_77, Schueller_74, GeneCoco_77, Mana_74, RedRaider89_75, Hekos_74, Mecca_76, Kwadwo_75, Adriana_76, Mesh1_77, OneBrain_79, FremontTroll_76, Lego3393_74, Scrick_75, Kimbrough_77, Olak_75, Craff_78, MelsMeow_75, Scoot17C_77, Durga_78, Nathan_77, Matalotodo_75, Colbert_74, TomBombadil_76, Megatron_77, Cobra_76, Inverness_74, Tomlarah_77, Caspiboi_75, Zelda_76, Beaglebox_73, Lulwa_73, LasagnaCat_77, Basato_75, Eremos_75, Katniss_78, Dice_75, Cher_76, Buckeye_76, Brilliant_79, Telesworld_74, Azuria_74, SassyCat97_74, Pacifista_75, Gwilliam_77, Swiphy_78, RedMaple_76, Slatt_76, Phunky_74, Banjo_73, Kiwot_76, Omniscient_77, HSavage_74, Vectra_75, HenryJackson_77, Giraffe_76, Fozzie_74, FugateOSU_76, Vaishali24_77, Phamished_76, Chunky_76, Squiggle_75, OliverWalter_76, Khan1_75, ThreeOh3D2_78, FluffyNinja_77, Windsor_76, Triad_77, Yoshand_77, LeiMonet_79, Nova1_76, ShiVal_74, YouGoGlencoco_76, Mutante_77, Serendipity_76, Riverton_75, CharlieGBrown_74, Karn_76, Cornbread_75, Placalicious_75, TallGrassMM_75, HighStump_77, Cosmolli16_78, Frankicide_75, Labeouficaum_76, Mosaic_74, Phleuron_74, Rimu_76, Flake_75, Phareon_74, KlimbOn_75, Haimas_74, Skippy_77, Sophia_74, Surely_76, DuchessDung_74, Etaye_75, Daka_78, Childish_76, Crownjwl_74, Newman_74, Septica_75, Trypo_77, Burr_76, Hocus_74, BlacksBerry_77, Zaider_77, JakeO_77, DolOn_80, Valjean_75, Morty_77, Roscoe_76, MrPhizzler_79, Antonia_75, Weher20_73, Derpp_76, TooFast2Furius_75, ABU_75, Schadenfreude_76, Soile_77, Hamish_73, Pherdinand_77, Mulan_75, Prickles_77, Soto_73, Piglet_0076, Vista_75, Orwigg_75, DoesntMatter_73, EmGer13_76, Toni_76, Jbug01_75, Fang_77, Melc17_73, AbsoluteMadLad_75, Pipsqueak_73, Mesmerelda_75, Keitherie_79, Chipette_76, Chuni_79, Vivaldi_76, Swish_77, Gareth_76, Gwennie1_75, Serpentine_0077, Spartan300_75, Wallhey_77, CheetO_75, Larson_78, Jillium_77, KingTut_67, DelRivs_74, Waterdiva_77, Jesabah_78, Maru_76, Selr12_77, Riggan_77, DaddyDaniels_79, Bishoperium_76, Olive_74, Mcshane_75, BlackStallion_77, AltPhacts_74
• Track 6 : Vaticameos_73, KLucky39_74, Badfish_77, Hertubise_76, Kwksand96_77, SirBeauregard_77, Gophee_76, Longacauda_77, Sheila_72, Usavi_77,

Oosterbaan_76, JacAttac_76, Sigman_76, Eugenia_77, Legolas_77, KingVeVeVe_74, Bluephacebaby_75, FriarPreacher_74, EmpTee_75, Salazzle_74, PhrodoBaggins_78, IsaacEli_78, Thora_75, LuckyMarjie_73, Chaelin_77, Roliet_73, Harvey_73, Charles1_77, Chah_78, Plmatters_74, Megamind20_76, PhatCats2014_77, Iridoclysis_75, Simielle_75, BlueHusk_77, Pops_74, ImtiyazSitla_77, Aleia_75, Nyala_75, Apizium_75, Gyarad_0075, Dione_74, Kikipoo_78, Grand2040_74, Virapocalypse_77, Kloppinator_76, Maskar_77, Squid_75, MiniBoss_73, JangoPhett_74, Zonia_77, Andre_78, SDcharge11_75, Nacho_0079, Nicole21_77, Hetaeria_76, UAch1_77, Ashraf_77, BoogieWoogie_77
• Track 7 : Podrick_75, Duggie_76, PallasAthena_77, Cannibal_77, Lumine_77, Numberten_75, SallyH_78, Orfeu_75, Aonishiki_76, SilverBell_77, ShadowBud_76, Struggle_76, Magic8_75, Quisquiliae_78, Ricotta_76, Phipps_75
• Track 8 : Dingo_73, Mag7_74, AngelCake_75, CampRoach_77, Lopsy_73, Kailash_74, QueenBeane_76, Happabalu_74, Chute_76, Puhltonio_74, Samaymay_76, Haleema_75, BatteryCK_74, Emiris_77, LemonSlice_76, JDog_75, Nehme_73, PhenghisKhan_76, HogWash_76, Xavier_76, Veritas_75, Plata_75, Solosis_74, Held_74, Hartsy_75, Pinkman_76, DonSanchon_72, Jiraiya_77, Phergie_76, MRabcd_76, Fringe_80, Coletti_79, Chorkpop_77, Lehmann_78, Altwerkus_75, Daffy_75, Dati_73, Cornobble_74, Murdoc_73, Virgeve_74, PhrankReynolds_75, CamL_76, Aelin_75, MichaelPhcott_74, Manad_75, Morgushi_74, Timmi_75, True_74, MitKao_76, Freya_73, Thunderbird_76, Lasso_75, UncleHowie_73, Inchworm_77
• Track 9 : Jiminy_76
• Track 10 : DirtJuice_76, Horchata_73, LostAndPhound_75
• Track 11 : CocoaPuff_2, Elinal_3, Balloona_2, KayGee_2
• Track 12 : Fribs8_3
• Track 13 : Sopespian_3, RADical_3, RSchmailzl_4, Socotra_3, ChickenTender_4, PsychoKiller_3, Burnsey_3, Eliott_3, Starburst_3
• Track 14 : MScarn_4, SweatNTears_4, Horseradish_3, Yummy_3
• Track 15 : Azira_4, Wolfwood_4, Wallaby_5, MaVan_4, Nibbles_4
• Track 16 : Emalyn_2, Amok_2, AikoCarson_2
• Track 17 : Carsonalex_3
• Track 18 : Yucky_3, PotPie_3
• Track 19 : Tolls_4, SteamedHams_4
• Track 20 : RanchParmCat_4
• Track 21 : MunkgeeRoachy_3, RedBaron_4
• Track 22 : Button_3
• Track 23 : Margaret_4
• Track 24 : Jamzy_4
• Track 25 : Pons_2, MAnor_2
• Track 26 : BillDoor_4
• Track 27 : GiKK_4
• Track 28 : Zareef_4
• Track 29 : PLot_10, Thoth_10, Helpful_10, Nova_10, Prager_10, Giuseppe_10, Adjutor_10, Mopey_10, PBI1_10, Butterscotch_10, WaldoWhy_10, Chill_10, BigMama_9, Erk16_10, SirHarley_9, KandZ_10, Delton_10, Penelope2018_10, Visconti_10, Phalaborwa_10, SuperheroCarly_10, Troll4_10, Gumball_9
• Track 30 : Hawkeye_11
• Track 31 : Thumb_7, Oaker_7, Nish23_7, Beckerton_7, Megatron06_8, Cborch11_7, Damien_6, Phreeze_7
• Track 32 : Konstantine_11
• Track 33 : Barnyard_9
• Track 34 : DrLupo_10

• Track 35 : Demikore_9, Labelle_10, Patience_10, Madruga_8, SuperSonics_9
• Track 36 : 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 17, it was called in 284 of the 362 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ABU_75, AbsoluteMadLad_75, Adriana_76, Aelin_75, Aleia_75, AltPhacts_74, Altwerkus_75, Anderson_78, Andre_78, AngelCake_75, Antonia_75, Aonishiki_76, Apizium_75, Ashraf_77, Azuria_74, Badfish_77, Banjo_73, Basato_75, BatteryCK_74, Beaglebox_73, Bishoperium_76, BlackStallion_77, BlacksBerry_77, BlueHusk_77, Bluephacebaby_75, BoogieWoogie_77, Brilliant_79, Buckeye_76, Burr_76, CamL_76, CampRoach_77, Cannibal_77, Caspiboi_75, Chaelin_77, Chah_78, Charles1_77, CharlieGBrown_74, CheetO_75, Cher_76, Childish_76, Chipette_76, Chorkpop_77, Chuni_79, Chunky_76, Chute_76, Cobra_76, Colbert_74, Coletti_79, Cornbread_75, Cornobble_74, Cosmolli16_78, Craff_78, Crownjwl_74, DaddyDaniels_79, Daffy_75, Daka_78, Dati_73, DelRivs_74, Derpp_76, Dice_75, Dingo_73, Dione_74, DirtJuice_76, DoesntMatter_73, DolOn_80, DonSanchon_72, DuchessDung_74, Duggie_76, Durga_78, ElvisPhasley_77, EmGer13_76, Emiris_77, EmpTee_75, Eremos_75, Etaye_75, Eugenia_77, Fang_77, Flake_75, FleetyMac_76, FluffyNinja_77, Fozzie_74, Frankicide_75, FremontTroll_76, Freya_73, FriarPreacher_74, Fringe_80, FugateOSU_76, Gareth_76, GeneCoco_77, Giraffe_76, Gophee_76, Grand2040_74, GreenChile_75, Gwennie1_75, Gwilliam_77, Gyarad_0075, HSavage_74, Haimas_74, Haleema_75, Hamish_73, Happabalu_74, Hartsy_75, Harvey_73, Hekos_74, Held_74, HenryJackson_77, Hertubise_76, Hetaeria_76, HighStump_77, Hocus_74, HogWash_76, Horchata_73, ImtiyazSitla_77, Inchworm_77, Inverness_74, Iridessa_78, Iridoclysis_75, IsaacEli_78, JDog_75, JacAttac_76, JakeO_77, JangoPhett_74, Jbug01_75, Jesabah_78, Jillium_77, Jiminy_76, Jiraiya_77, KLucky39_74, Kahve_77, Kailash_74, Karn_76, Katniss_78, Keitherie_79, Khan1_75, Kikipoo_78, Kimbrough_77, KingTut_67, KingVeVeVe_74, Kiwot_76, KlimbOn_75, Kloppinator_76, Kwadwo_75, Kwksand96_77, Labeouficaum_76, Larson_78, LasagnaCat_77, Lasso_75, LeeLot_75, Lego3393_74, Legolas_77, Lehmann_78, LeiMonet_79, 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_75, Mcshane_75, Mecca_76, Megamind20_76, Megatron_77, Melc17_73, MelsMeow_75, Mesh1_77, Mesmerelda_75, MichaelPhcott_74, MiniBoss_73, MitKao_76, Morgushi_74, Morty_77, Mosaic_74, MrPhizzler_79, Mulan_75, Murdoc_73, Mutante_77, Nacho_0079, Nathan_77, Nehme_73, Newman_74, NiaNia_77, Nicole21_77, Nova1_76, Numberten_75, Nyala_75, Olak_75, Olive_74, OliverWalter_76, Omniscient_77, OneBrain_79, Oosterbaan_76, Orfeu_75, Orwigg_75, Pacifista_75, PallasAthena_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, Plata_75, Plmatters_74, Podrick_75, Pops_74, Potter_72, Prickles_77, ProfessorX_74, Puhltonio_74, QueenBeane_76, Quisquiliae_78, RedMaple_76, RedRaider89_75, Ricotta_76, Riggan_77, Rimu_76,

Riverton_75, Roliet_73, Roscoe_76, SDcharge11_75, Salazzle_74, SallyH_78, Samaymay_76, SassyCat97_74, Schadenfreude_76, Schueller_74, Scoot17C_77, Scrick_75, Selr12_77, Septica_75, Serendipity_76, Serpentine_0077, ShadowBud_76, Sheila_72, ShiVal_74, Sigman_76, SilverBell_77, Simielle_75, SirBeauregard_77, Skippy_77, Slatt_76, Soile_77, Solosis_74, Sophia_74, Soto_73, Spartan300_75, Squid_75, Squiggle_75, Struggle_76, Surely_76, Swiphy_78, Swish_77, TallGrassMM_75, Taraxa_76, Telesworld_74, Thora_75, ThreeOh3D2_78, Thunderbird_76, Timmi_75, TomBombadil_76, Tomlarah_77, Toni_76, TooFast2Furius_75, Tooj_73, Triad_77, True_74, Trypo_77, TyrionL_76, UAch1_77, UncleHowie_73, Usavi_77, Vaishali24_77, Valjean_75, Vaticameos_73, Vectra_75, 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:
• RanchParmCat_4,

Genes that do not have the "Most Annotated" start:
• Adjutor_10, AikoCarson_2, Aikoy_21, Amok_2, Azira_4, Balloona_2, Barnyard_9, Beckerton_7, BigMama_9, BillDoor_4, Burnsey_3, Butterscotch_10, Button_3, Carsonalex_3, Caterpie_1, Cborch11_7, ChickenTender_4, Chill_10, CocoaPuff_2, Damien_6, Delton_10, Demikore_9, DrLupo_10, Elinal_3, Eliott_3, Emalyn_2, Erk16_10, Fribs8_3, GiKK_4, Giuseppe_10, Gumball_9, Hawkeye_11, Helpful_10, Horseradish_3, Indlulamithi_3, Jamzy_4, JohnLord_1, KandZ_10, KayGee_2, Konstantine_11, Labelle_10, Leopard_21, MAnor_2, MScarn_4, MaVan_4, Madruga_8, Mao1_1, Margaret_4, Mask_1, Megatron06_8, Mopey_10, MunkgeeRoachy_3, Nibbles_4, Nish23_7, Nova_10, Oaker_7, OnionKnight_7, Onyinye_22, PBI1_10, PLot_10, Patience_10, Penelope2018_10, Phalaborwa_10, Phreeze_7, Pons_2, PotPie_3, Prager_10, PsychoKiller_3, RADical_3, RSchmailzl_4, RedBaron_4, Sejanus_1, SirHarley_9, Socotra_3, Sopespian_3, Starburst_3, SteamedHams_4, SuperSonics_9, SuperheroCarly_10, SweatNTears_4, Thoth_10, Thumb_7, Tolls_4, Troll4_10, Visconti_10, WaldoWhy_10, Wallaby_5, Wolfwood_4, Yucky_3, Yummy_3, Zareef_4,

Summary by start number:

Start 15:
• Found in 1 of 402 (0.2%) of genes in pham
• Manual Annotations of this start: 1 of 362
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Hawkeye_11 (D2),

Start 17:
• Found in 311 of 402 (77.4%) of genes in pham
• Manual Annotations of this start: 284 of 362
• Called 99.7% of time when present
• Phage (with cluster) where this start called: ABU_75 (B1), AbsoluteMadLad_75 (B1), Adriana_76 (B1), Aelin_75 (B1), Aleia_75 (B1), AltPhacts_74 (B1), Altwerkus_75 (B1), Anderson_78 (B1), Andre_78 (B1), AngelCake_75 (B1), Antonia_75 (B1), Aonishiki_76 (B1), Apizium_75 (B1), Ashraf_77 (B1), Azuria_74 (B1), Badfish_77 (B1), Banjo_73 (B1), Basato_75 (B1), BatteryCK_74 (B1), Beaglebox_73 (B1), Bishoperium_76 (B1), BlackStallion_77 (B1), BlacksBerry_77 (B1), BlueHusk_77 (B1), Bluephacebaby_75 (B1), BoogieWoogie_77 (B1), Brilliant_79 (B1), Buckeye_76

(B1), Burr_76 (B1), CamL_76 (B1), CampRoach_77 (B1), Cannibal_77 (B1), Caspiboi_75 (B1), Chaelin_77 (B1), Chah_78 (B1), Charles1_77 (B1), CharlieGBrown_74 (B1), CheetO_75 (B1), Cher_76 (B1), Childish_76 (B1), Chipette_76 (B1), Chorkpop_77 (B1), Chuni_79 (B1), Chunky_76 (B1), Chute_76 (B1), Cobra_76 (B1), Colbert_74 (B1), Coletti_79 (B1), Cornbread_75 (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_75 (B1), Dingo_73 (B1), Dione_74 (B1), DirtJuice_76 (B1), DoesntMatter_73 (B1), DolOn_80 (B1), DonSanchon_72 (B1), DuchessDung_74 (B1), Duggie_76 (B1), Durga_78 (B1), ElvisPhasley_77 (B1), EmGer13_76 (B1), Emiris_77 (B1), EmpTee_75 (B1), Eremos_75 (B1), Etaye_75 (B1), Eugenia_77 (B1), Fang_77 (B1), Flake_75 (B1), FleetyMac_76 (B1), FluffyNinja_77 (B1), Fozzie_74 (B1), Frankicide_75 (B1), FremontTroll_76 (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), GreenChile_75 (B1), Gwennie1_75 (B1), Gwilliam_77 (B1), Gyarad_0075 (B1), HSavage_74 (B1), Haimas_74 (B1), Haleema_75 (B1), Hamish_73 (B1), Happabalu_74 (B1), Hartsy_75 (B1), Harvey_73 (B1), Hekos_74 (B1), Held_74 (B1), HenryJackson_77 (B1), Hertubise_76 (B1), Hetaeria_76 (B1), HighStump_77 (B1), Hocus_74 (B1), HogWash_76 (B1), Horchata_73 (B1), ImtiyazSitla_77 (B1), Inchworm_77 (B1), Inverness_74 (B1), Iridessa_78 (B1), Iridoclysis_75 (B1), IsaacEli_78 (B1), JDog_75 (B1), JacAttac_76 (B1), JakeO_77 (B1), JangoPhett_74 (B1), Jbug01_75 (B1), Jesabah_78 (B1), Jillium_77 (B1), Jiminy_76 (B1), Jiraiya_77 (B1), KLucky39_74 (B1), Kahve_77 (B1), Kailash_74 (B1), Karn_76 (B1), Katniss_78 (B1), Keitherie_79 (B1), Khan1_75 (B1), Kikipoo_78 (B1), Kimbrough_77 (B1), KingTut_67 (B1), KingVeVeVe_74 (B1), Kiwot_76 (B1), KlimbOn_75 (B1), Kloppinator_76 (B1), Kwadwo_75 (B1), Kwksand96_77 (B1), Labeouficaum_76 (B1), Larson_78 (B1), LasagnaCat_77 (B1), Lasso_75 (B1), LeeLot_75 (B1), Lego3393_74 (B1), Legolas_77 (B1), Lehmann_78 (B1), LeiMonet_79 (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_75 (B1), Mcshane_75 (B1), Mecca_76 (B1), Megamind20_76 (B1), Megatron_77 (B1), Melc17_73 (B1), MelsMeow_75 (B1), Mesh1_77 (B1), Mesmerelda_75 (B1), MichaelPhcott_74 (B1), MiniBoss_73 (B1), MitKao_76 (B1), Morgushi_74 (B1), Morty_77 (B1), Mosaic_74 (B1), MrPhizzler_79 (B1), Mulan_75 (B1), Murdoc_73 (B1), Mutante_77 (B1), Nacho_0079 (B1), Nathan_77 (B1), Nehme_73 (B1), Newman_74 (B1), NiaNia_77 (B1), Nicole21_77 (B1), Nova1_76 (B1), Numberten_75 (B1), Nyala_75 (B1), Olak_75 (B1), Olive_74 (B1), OliverWalter_76 (B1), Omniscient_77 (B1), OneBrain_79 (B1), Oosterbaan_76 (B1), Orfeu_75 (B1), Orwigg_75 (B1), Pacifista_75 (B1), PallasAthena_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), Plata_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), Quisquiliae_78 (B1), RedMaple_76 (B1), RedRaider89_75 (B1), Ricotta_76 (B1), Riggan_77 (B1), Rimu_76 (B1), Riverton_75 (B1), Roliet_73 (B1), Roscoe_76 (B1), SDcharge11_75 (B1), Salazzle_74 (B1), SallyH_78 (B1), Samaymay_76 (B1), SassyCat97_74 (B1), Schadenfreude_76 (B1), Schueller_74 (B1), Scoot17C_77 (B1), Scrick_75 (B1), Selr12_77 (B1), Septica_75 (B1), Serendipity_76 (B1), Serpentine_0077 (B1), ShadowBud_76 (B1), Sheila_72 (B1), ShiVal_74 (B1),

Sigman_76 (B1), SilverBell_77 (B1), Simielle_75 (B1), SirBeauregard_77 (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_78 (B1), Swish_77 (B1), TallGrassMM_75 (B1), Taraxa_76 (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), TooFast2Furius_75 (B1), Tooj_73 (B1), Triad_77 (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), Vectra_75 (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 8 of 402 (2.0%) of genes in pham
• Manual Annotations of this start: 3 of 362
• Called 37.5% of time when present
• Phage (with cluster) where this start called: Mao1_1 (AD), Mask_1 (AD), Sejanus_1 (AD),

Start 23:
• Found in 23 of 402 (5.7%) of genes in pham
• Manual Annotations of this start: 22 of 362
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Adjutor_10 (D1), 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), Mopey_10 (D1), Nova_10 (D1), PBI1_10 (D1), PLot_10 (D1), Penelope2018_10 (D1), Phalaborwa_10 (D1), Prager_10 (D1), SirHarley_9 (D1), SuperheroCarly_10 (D1), Thoth_10 (D1), Troll4_10 (D1), Visconti_10 (D1), WaldoWhy_10 (D1),

Start 24:
• Found in 5 of 402 (1.2%) of genes in pham
• Manual Annotations of this start: 4 of 362
• Called 80.0% of time when present
• Phage (with cluster) where this start called: Aikoy_21 (AE), Leopard_21 (AE), Onyinye_22 (AE), RanchParmCat_4 (CT),

Start 27:
• Found in 5 of 402 (1.2%) of genes in pham
• Manual Annotations of this start: 4 of 362
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Demikore_9 (U), Labelle_10 (U), Madruga_8 (U), Patience_10 (U), SuperSonics_9 (U),

Start 28:
• Found in 4 of 402 (1.0%) of genes in pham
• Manual Annotations of this start: 3 of 362
• Called 75.0% of time when present
• Phage (with cluster) where this start called: Button_3 (CT), Jamzy_4 (CT), Margaret_4 (CT),

Start 29:
• Found in 2 of 402 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 362
• Called 50.0% of time when present
• Phage (with cluster) where this start called: GiKK_4 (CT),

Start 30:
• Found in 10 of 402 (2.5%) of genes in pham
• Manual Annotations of this start: 9 of 362
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Barnyard_9 (H2), Beckerton_7 (H1), Cborch11_7 (H1), Damien_6 (H1), DrLupo_10 (H2), Megatron06_8 (H1), Nish23_7 (H1), Oaker_7 (H1), Phreeze_7 (H1), Thumb_7 (H1),

Start 31:
• Found in 12 of 402 (3.0%) of genes in pham
• Manual Annotations of this start: 6 of 362
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Burnsey_3 (CT), Carsonalex_3 (CT), ChickenTender_4 (CT), Eliott_3 (CT), MunkgeeRoachy_3 (CT), PsychoKiller_3 (CT), RADical_3 (CT), RSchmailzl_4 (CT), RedBaron_4 (CT), Socotra_3 (CT), Sopespian_3 (CT), Starburst_3 (CT),

Start 34:
• Found in 7 of 402 (1.7%) of genes in pham
• Manual Annotations of this start: 6 of 362
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Azira_4 (CT), Fribs8_3 (CT), MaVan_4 (CT), Nibbles_4 (CT), Wallaby_5 (CT), Wolfwood_4 (CT), Zareef_4 (CT),

Start 35:
• Found in 3 of 402 (0.7%) of genes in pham
• Manual Annotations of this start: 3 of 362
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AikoCarson_2 (CT), Amok_2 (CT), Emalyn_2 (CT),

Start 36:
• Found in 7 of 402 (1.7%) of genes in pham
• Manual Annotations of this start: 7 of 362
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BillDoor_4 (CT), Horseradish_3 (CT), MScarn_4 (CT), SteamedHams_4 (CT), SweatNTears_4 (CT), Tolls_4 (CT), Yummy_3 (CT),

Start 37:
• Found in 8 of 402 (2.0%) of genes in pham
• Manual Annotations of this start: 6 of 362
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Balloona_2 (CT), CocoaPuff_2 (CT), Elinal_3 (CT), KayGee_2 (CT), MAnor_2 (CT), Pons_2 (CT), PotPie_3 (CT), Yucky_3 (CT),

Start 38:
• Found in 5 of 402 (1.2%) of genes in pham
• No Manual Annotations of this start.
• Called 40.0% of time when present
• Phage (with cluster) where this start called: Caterpie_1 (AD), JohnLord_1 (AD),

Start 39:
• Found in 2 of 402 (0.5%) of genes in pham
• Manual Annotations of this start: 2 of 362
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Indlulamithi_3 (AC), OnionKnight_7 (singleton),

Start 40:
• Found in 1 of 402 (0.2%) of genes in pham
• Manual Annotations of this start: 1 of 362
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Konstantine_11 (H1),

Summary by clusters:

There are 11 clusters represented in this pham: singleton, AE, AD, H2, H1, AC, U, B1, D1, D2, CT,

Info for manual annotations of cluster AC:
•Start number 39 was manually annotated 1 time for cluster AC.

Info for manual annotations of cluster AD:
•Start number 21 was manually annotated 3 times for cluster AD.

Info for manual annotations of cluster AE:
•Start number 24 was manually annotated 3 times for cluster AE.

Info for manual annotations of cluster B1:
•Start number 17 was manually annotated 284 times for cluster B1.

Info for manual annotations of cluster CT:
•Start number 24 was manually annotated 1 time for cluster CT.
•Start number 28 was manually annotated 3 times for cluster CT.
•Start number 29 was manually annotated 1 time for cluster CT.
•Start number 31 was manually annotated 6 times for cluster CT.
•Start number 34 was manually annotated 6 times for cluster CT.
•Start number 35 was manually annotated 3 times for cluster CT.
•Start number 36 was manually annotated 7 times for cluster CT.
•Start number 37 was manually annotated 6 times for cluster CT.

Info for manual annotations of cluster D1:
•Start number 23 was manually annotated 22 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 H1:

•Start number 30 was manually annotated 7 times for cluster H1.
•Start number 40 was manually annotated 1 time for cluster H1.

Info for manual annotations of cluster H2:
•Start number 30 was manually annotated 2 times for cluster H2.

Info for manual annotations of cluster U:
•Start number 27 was manually annotated 4 times for cluster U.

Gene Information:

Gene: ABU_75 Start: 60750, Stop: 60986, Start Num: 17
Candidate Starts for ABU_75:
(6, 60657), (Start: 17 @60750 has 284 MA's), (45, 60909), (46, 60912),

Gene: AbsoluteMadLad_75 Start: 60705, Stop: 60941, Start Num: 17
Candidate Starts for AbsoluteMadLad_75:
(6, 60612), (Start: 17 @60705 has 284 MA's), (45, 60864), (46, 60867),

Gene: Adjutor_10 Start: 7925, Stop: 8137, Start Num: 23
Candidate Starts for Adjutor_10:
(Start: 23 @7925 has 22 MA's),

Gene: Adriana_76 Start: 61285, Stop: 61521, Start Num: 17
Candidate Starts for Adriana_76:
(6, 61192), (Start: 17 @61285 has 284 MA's), (45, 61444), (46, 61447),

Gene: Aelin_75 Start: 60228, Stop: 60464, Start Num: 17
Candidate Starts for Aelin_75:
(6, 60132), (Start: 17 @60228 has 284 MA's), (45, 60387), (46, 60390),

Gene: AikoCarson_2 Start: 534, Stop: 692, Start Num: 35
Candidate Starts for AikoCarson_2:
(Start: 35 @534 has 3 MA's), (47, 660),

Gene: Aikoy_21 Start: 13873, Stop: 14109, Start Num: 24
Candidate Starts for Aikoy_21:
(7, 13768), (8, 13771), (20, 13861), (Start: 24 @13873 has 4 MA's), (41, 13948), (44, 14008),

Gene: Aleia_75 Start: 60392, Stop: 60628, Start Num: 17
Candidate Starts for Aleia_75:
(6, 60299), (Start: 17 @60392 has 284 MA's),

Gene: AltPhacts_74 Start: 59793, Stop: 60029, Start Num: 17
Candidate Starts for AltPhacts_74:
(6, 59700), (Start: 17 @59793 has 284 MA's), (45, 59952), (46, 59955),

Gene: Altwerkus_75 Start: 60069, Stop: 60305, Start Num: 17
Candidate Starts for Altwerkus_75:
(6, 59973), (Start: 17 @60069 has 284 MA's), (45, 60228), (46, 60231),

Gene: Amok_2 Start: 535, Stop: 693, Start Num: 35
Candidate Starts for Amok_2:
(Start: 35 @535 has 3 MA's), (47, 661),

Gene: Anderson_78 Start: 60626, Stop: 60862, Start Num: 17
Candidate Starts for Anderson_78:
(6, 60533), (Start: 17 @60626 has 284 MA's), (45, 60785), (46, 60788),

Gene: Andre_78 Start: 60644, Stop: 60880, Start Num: 17
Candidate Starts for Andre_78:
(6, 60551), (Start: 17 @60644 has 284 MA's),

Gene: AngelCake_75 Start: 60375, Stop: 60611, Start Num: 17
Candidate Starts for AngelCake_75:
(6, 60279), (Start: 17 @60375 has 284 MA's), (45, 60534), (46, 60537),

Gene: Antonia_75 Start: 60272, Stop: 60508, Start Num: 17
Candidate Starts for Antonia_75:
(6, 60179), (Start: 17 @60272 has 284 MA's), (45, 60431), (46, 60434),

Gene: Aonishiki_76 Start: 60561, Stop: 60797, Start Num: 17
Candidate Starts for Aonishiki_76:
(6, 60465), (Start: 17 @60561 has 284 MA's),

Gene: Apizium_75 Start: 59907, Stop: 60143, Start Num: 17
Candidate Starts for Apizium_75:
(6, 59814), (Start: 17 @59907 has 284 MA's),

Gene: Ashraf_77 Start: 60620, Stop: 60856, Start Num: 17
Candidate Starts for Ashraf_77:
(6, 60527), (Start: 17 @60620 has 284 MA's),

Gene: Azira_4 Start: 1179, Stop: 1337, Start Num: 34
Candidate Starts for Azira_4:
(Start: 34 @1179 has 6 MA's),

Gene: Azuria_74 Start: 60489, Stop: 60725, Start Num: 17
Candidate Starts for Azuria_74:
(6, 60396), (Start: 17 @60489 has 284 MA's), (45, 60648), (46, 60651),

Gene: Badfish_77 Start: 60925, Stop: 61161, Start Num: 17
Candidate Starts for Badfish_77:
(6, 60832), (Start: 17 @60925 has 284 MA's),

Gene: Balloona_2 Start: 643, Stop: 816, Start Num: 37
Candidate Starts for Balloona_2:
(Start: 37 @643 has 6 MA's), (47, 760),

Gene: Banjo_73 Start: 60214, Stop: 60450, Start Num: 17
Candidate Starts for Banjo_73:
(6, 60121), (Start: 17 @60214 has 284 MA's), (45, 60373), (46, 60376),

Gene: Barnyard_9 Start: 6285, Stop: 6467, Start Num: 30

Candidate Starts for Barnyard_9:
(Start: 30 @6285 has 9 MA's), (48, 6438),

Gene: Basato_75 Start: 60487, Stop: 60723, Start Num: 17
Candidate Starts for Basato_75:
(6, 60394), (Start: 17 @60487 has 284 MA's), (45, 60646), (46, 60649),

Gene: BatteryCK_74 Start: 60187, Stop: 60423, Start Num: 17
Candidate Starts for BatteryCK_74:
(6, 60091), (Start: 17 @60187 has 284 MA's), (45, 60346), (46, 60349),

Gene: Beaglebox_73 Start: 60325, Stop: 60561, Start Num: 17
Candidate Starts for Beaglebox_73:
(6, 60232), (Start: 17 @60325 has 284 MA's), (45, 60484), (46, 60487),

Gene: Beckerton_7 Start: 6251, Stop: 6451, Start Num: 30
Candidate Starts for Beckerton_7:
(Start: 30 @6251 has 9 MA's),

Gene: BigMama_9 Start: 7998, Stop: 8210, Start Num: 23
Candidate Starts for BigMama_9:
(Start: 23 @7998 has 22 MA's),

Gene: BillDoor_4 Start: 852, Stop: 998, Start Num: 36
Candidate Starts for BillDoor_4:
(14, 795), (16, 801), (18, 807), (Start: 36 @852 has 7 MA's), (48, 984),

Gene: Bishoperium_76 Start: 60766, Stop: 61002, Start Num: 17
Candidate Starts for Bishoperium_76:
(6, 60673), (Start: 17 @60766 has 284 MA's), (45, 60925), (46, 60928),

Gene: BlackStallion_77 Start: 60634, Stop: 60870, Start Num: 17
Candidate Starts for BlackStallion_77:
(6, 60541), (Start: 17 @60634 has 284 MA's), (45, 60793), (46, 60796),

Gene: BlacksBerry_77 Start: 60141, Stop: 60377, Start Num: 17
Candidate Starts for BlacksBerry_77:
(6, 60048), (Start: 17 @60141 has 284 MA's), (45, 60300), (46, 60303),

Gene: BlueHusk_77 Start: 60261, Stop: 60497, Start Num: 17
Candidate Starts for BlueHusk_77:
(6, 60168), (Start: 17 @60261 has 284 MA's),

Gene: Bluephacebaby_75 Start: 60799, Stop: 61035, Start Num: 17
Candidate Starts for Bluephacebaby_75:
(6, 60706), (Start: 17 @60799 has 284 MA's),

Gene: BoogieWoogie_77 Start: 60232, Stop: 60468, Start Num: 17
Candidate Starts for BoogieWoogie_77:
(6, 60139), (Start: 17 @60232 has 284 MA's),

Gene: Brilliant_79 Start: 60780, Stop: 61016, Start Num: 17
Candidate Starts for Brilliant_79:

(6, 60687), (Start: 17 @60780 has 284 MA's), (45, 60939), (46, 60942),

Gene: Buckeye_76 Start: 61313, Stop: 61549, Start Num: 17
Candidate Starts for Buckeye_76:
(6, 61220), (Start: 17 @61313 has 284 MA's), (45, 61472), (46, 61475),

Gene: Burnsey_3 Start: 829, Stop: 999, Start Num: 31
Candidate Starts for Burnsey_3:
(Start: 31 @829 has 6 MA's),

Gene: Burr_76 Start: 60232, Stop: 60468, Start Num: 17
Candidate Starts for Burr_76:
(6, 60139), (Start: 17 @60232 has 284 MA's), (45, 60391), (46, 60394),

Gene: Butterscotch_10 Start: 7985, Stop: 8197, Start Num: 23
Candidate Starts for Butterscotch_10:
(Start: 23 @7985 has 22 MA's),

Gene: Button_3 Start: 752, Stop: 910, Start Num: 28
Candidate Starts for Button_3:
(26, 749), (Start: 28 @752 has 3 MA's),

Gene: CamL_76 Start: 60540, Stop: 60776, Start Num: 17
Candidate Starts for CamL_76:
(6, 60444), (Start: 17 @60540 has 284 MA's), (45, 60699), (46, 60702),

Gene: CampRoach_77 Start: 60647, Stop: 60883, Start Num: 17
Candidate Starts for CampRoach_77:
(6, 60551), (Start: 17 @60647 has 284 MA's), (45, 60806), (46, 60809),

Gene: Cannibal_77 Start: 60653, Stop: 60889, Start Num: 17
Candidate Starts for Cannibal_77:
(6, 60557), (Start: 17 @60653 has 284 MA's),

Gene: Carsonalex_3 Start: 894, Stop: 1055, Start Num: 31
Candidate Starts for Carsonalex_3:
(Start: 31 @894 has 6 MA's), (32, 897),

Gene: Caspiboi_75 Start: 60486, Stop: 60722, Start Num: 17
Candidate Starts for Caspiboi_75:
(6, 60393), (Start: 17 @60486 has 284 MA's), (45, 60645), (46, 60648),

Gene: Caterpie_1 Start: 40, Stop: 207, Start Num: 38
Candidate Starts for Caterpie_1:
(Start: 21 @1 has 3 MA's), (38, 40), (46, 154), (47, 169),

Gene: Cborch11_7 Start: 5716, Stop: 5916, Start Num: 30
Candidate Starts for Cborch11_7:
(Start: 30 @5716 has 9 MA's),

Gene: Chaelin_77 Start: 60780, Stop: 61016, Start Num: 17
Candidate Starts for Chaelin_77:
(6, 60687), (Start: 17 @60780 has 284 MA's),

Gene: Chah_78 Start: 60368, Stop: 60604, Start Num: 17
Candidate Starts for Chah_78:
(6, 60275), (Start: 17 @60368 has 284 MA's),

Gene: Charles1_77 Start: 60555, Stop: 60791, Start Num: 17
Candidate Starts for Charles1_77:
(6, 60462), (Start: 17 @60555 has 284 MA's),

Gene: CharlieGBrown_74 Start: 60162, Stop: 60398, Start Num: 17
Candidate Starts for CharlieGBrown_74:
(6, 60069), (Start: 17 @60162 has 284 MA's), (45, 60321), (46, 60324),

Gene: CheetO_75 Start: 60482, Stop: 60718, Start Num: 17
Candidate Starts for CheetO_75:
(6, 60389), (Start: 17 @60482 has 284 MA's), (45, 60641), (46, 60644),

Gene: Cher_76 Start: 60743, Stop: 60979, Start Num: 17
Candidate Starts for Cher_76:
(6, 60650), (Start: 17 @60743 has 284 MA's), (45, 60902), (46, 60905),

Gene: ChickenTender_4 Start: 877, Stop: 1047, Start Num: 31
Candidate Starts for ChickenTender_4:
(Start: 31 @877 has 6 MA's),

Gene: Childish_76 Start: 60944, Stop: 61180, Start Num: 17
Candidate Starts for Childish_76:
(6, 60851), (Start: 17 @60944 has 284 MA's), (45, 61103), (46, 61106),

Gene: Chill_10 Start: 7988, Stop: 8200, Start Num: 23
Candidate Starts for Chill_10:
(Start: 23 @7988 has 22 MA's),

Gene: Chipette_76 Start: 60481, Stop: 60717, Start Num: 17
Candidate Starts for Chipette_76:
(6, 60388), (Start: 17 @60481 has 284 MA's), (45, 60640), (46, 60643),

Gene: Chorkpop_77 Start: 60407, Stop: 60643, Start Num: 17
Candidate Starts for Chorkpop_77:
(6, 60311), (Start: 17 @60407 has 284 MA's), (45, 60566), (46, 60569),

Gene: Chuni_79 Start: 60996, Stop: 61232, Start Num: 17
Candidate Starts for Chuni_79:
(6, 60903), (Start: 17 @60996 has 284 MA's), (45, 61155), (46, 61158),

Gene: Chunky_76 Start: 60078, Stop: 60314, Start Num: 17
Candidate Starts for Chunky_76:
(6, 59985), (Start: 17 @60078 has 284 MA's), (45, 60237), (46, 60240),

Gene: Chute_76 Start: 60799, Stop: 61029, Start Num: 17
Candidate Starts for Chute_76:
(6, 60703), (Start: 17 @60799 has 284 MA's), (45, 60958), (46, 60961),

Gene: Cobra_76 Start: 60777, Stop: 61013, Start Num: 17
Candidate Starts for Cobra_76:
(6, 60684), (Start: 17 @60777 has 284 MA's), (45, 60936), (46, 60939),

Gene: CocoaPuff_2 Start: 643, Stop: 816, Start Num: 37
Candidate Starts for CocoaPuff_2:
(Start: 37 @643 has 6 MA's), (47, 760),

Gene: Colbert_74 Start: 59827, Stop: 60063, Start Num: 17
Candidate Starts for Colbert_74:
(6, 59734), (Start: 17 @59827 has 284 MA's), (45, 59986), (46, 59989),

Gene: Coletti_79 Start: 61302, Stop: 61532, Start Num: 17
Candidate Starts for Coletti_79:
(6, 61206), (Start: 17 @61302 has 284 MA's), (45, 61461), (46, 61464),

Gene: Cornbread_75 Start: 60434, Stop: 60670, Start Num: 17
Candidate Starts for Cornbread_75:
(6, 60341), (Start: 17 @60434 has 284 MA's), (45, 60593), (46, 60596),

Gene: Cornobble_74 Start: 60265, Stop: 60501, Start Num: 17
Candidate Starts for Cornobble_74:
(6, 60169), (Start: 17 @60265 has 284 MA's), (45, 60424), (46, 60427),

Gene: Cosmolli16_78 Start: 61122, Stop: 61358, Start Num: 17
Candidate Starts for Cosmolli16_78:
(6, 61029), (Start: 17 @61122 has 284 MA's), (45, 61281), (46, 61284),

Gene: Craff_78 Start: 61165, Stop: 61401, Start Num: 17
Candidate Starts for Craff_78:
(6, 61072), (Start: 17 @61165 has 284 MA's), (45, 61324), (46, 61327),

Gene: Crownjwl_74 Start: 60257, Stop: 60493, Start Num: 17
Candidate Starts for Crownjwl_74:
(6, 60164), (Start: 17 @60257 has 284 MA's), (45, 60416), (46, 60419),

Gene: DaddyDaniels_79 Start: 60889, Stop: 61125, Start Num: 17
Candidate Starts for DaddyDaniels_79:
(6, 60796), (Start: 17 @60889 has 284 MA's), (45, 61048), (46, 61051),

Gene: Daffy_75 Start: 60392, Stop: 60628, Start Num: 17
Candidate Starts for Daffy_75:
(6, 60296), (Start: 17 @60392 has 284 MA's), (45, 60551), (46, 60554),

Gene: Daka_78 Start: 60750, Stop: 60986, Start Num: 17
Candidate Starts for Daka_78:
(6, 60657), (Start: 17 @60750 has 284 MA's), (45, 60909), (46, 60912),

Gene: Damien_6 Start: 5716, Stop: 5916, Start Num: 30
Candidate Starts for Damien_6:
(Start: 30 @5716 has 9 MA's),

Gene: Dati_73 Start: 60565, Stop: 60801, Start Num: 17

Candidate Starts for Dati_73:
(6, 60469), (Start: 17 @60565 has 284 MA's), (45, 60724), (46, 60727),

Gene: DelRivs_74 Start: 60205, Stop: 60441, Start Num: 17
Candidate Starts for DelRivs_74:
(6, 60112), (Start: 17 @60205 has 284 MA's), (45, 60364), (46, 60367),

Gene: Delton_10 Start: 7994, Stop: 8206, Start Num: 23
Candidate Starts for Delton_10:
(Start: 23 @7994 has 22 MA's),

Gene: Demikore_9 Start: 6173, Stop: 6370, Start Num: 27
Candidate Starts for Demikore_9:
(Start: 27 @6173 has 4 MA's), (47, 6317),

Gene: Derpp_76 Start: 60311, Stop: 60547, Start Num: 17
Candidate Starts for Derpp_76:
(6, 60218), (Start: 17 @60311 has 284 MA's), (45, 60470), (46, 60473),

Gene: Dice_75 Start: 60230, Stop: 60466, Start Num: 17
Candidate Starts for Dice_75:
(6, 60137), (Start: 17 @60230 has 284 MA's), (45, 60389), (46, 60392),

Gene: Dingo_73 Start: 59784, Stop: 60020, Start Num: 17
Candidate Starts for Dingo_73:
(6, 59688), (Start: 17 @59784 has 284 MA's), (45, 59943), (46, 59946),

Gene: Dione_74 Start: 59967, Stop: 60203, Start Num: 17
Candidate Starts for Dione_74:
(6, 59874), (Start: 17 @59967 has 284 MA's),

Gene: DirtJuice_76 Start: 60535, Stop: 60771, Start Num: 17
Candidate Starts for DirtJuice_76:
(6, 60439), (11, 60481), (Start: 17 @60535 has 284 MA's), (45, 60694), (46, 60697),

Gene: DoesntMatter_73 Start: 60254, Stop: 60490, Start Num: 17
Candidate Starts for DoesntMatter_73:
(6, 60161), (Start: 17 @60254 has 284 MA's), (45, 60413), (46, 60416),

Gene: DolOn_80 Start: 61684, Stop: 61920, Start Num: 17
Candidate Starts for DolOn_80:
(6, 61591), (Start: 17 @61684 has 284 MA's), (45, 61843), (46, 61846),

Gene: DonSanchon_72 Start: 59915, Stop: 60151, Start Num: 17
Candidate Starts for DonSanchon_72:
(6, 59819), (Start: 17 @59915 has 284 MA's), (45, 60074), (46, 60077),

Gene: DrLupo_10 Start: 6204, Stop: 6410, Start Num: 30
Candidate Starts for DrLupo_10:
(Start: 30 @6204 has 9 MA's),

Gene: DuchessDung_74 Start: 59793, Stop: 60029, Start Num: 17
Candidate Starts for DuchessDung_74:

(6, 59700), (Start: 17 @59793 has 284 MA's), (45, 59952), (46, 59955),

Gene: Duggie_76 Start: 60534, Stop: 60770, Start Num: 17
Candidate Starts for Duggie_76:
(6, 60438), (Start: 17 @60534 has 284 MA's),

Gene: Durga_78 Start: 61014, Stop: 61250, Start Num: 17
Candidate Starts for Durga_78:
(6, 60921), (Start: 17 @61014 has 284 MA's), (45, 61173), (46, 61176),

Gene: Elinal_3 Start: 643, Stop: 819, Start Num: 37
Candidate Starts for Elinal_3:
(Start: 37 @643 has 6 MA's), (47, 763),

Gene: Eliott_3 Start: 829, Stop: 999, Start Num: 31
Candidate Starts for Eliott_3:
(Start: 31 @829 has 6 MA's),

Gene: ElvisPhasley_77 Start: 61390, Stop: 61626, Start Num: 17
Candidate Starts for ElvisPhasley_77:
(6, 61297), (Start: 17 @61390 has 284 MA's), (45, 61549), (46, 61552),

Gene: EmGer13_76 Start: 60272, Stop: 60508, Start Num: 17
Candidate Starts for EmGer13_76:
(6, 60179), (Start: 17 @60272 has 284 MA's), (45, 60431), (46, 60434),

Gene: Emalyn_2 Start: 534, Stop: 692, Start Num: 35
Candidate Starts for Emalyn_2:
(Start: 35 @534 has 3 MA's), (47, 660),

Gene: Emiris_77 Start: 60926, Stop: 61162, Start Num: 17
Candidate Starts for Emiris_77:
(6, 60830), (Start: 17 @60926 has 284 MA's), (45, 61085), (46, 61088),

Gene: EmpTee_75 Start: 60474, Stop: 60710, Start Num: 17
Candidate Starts for EmpTee_75:
(6, 60381), (Start: 17 @60474 has 284 MA's),

Gene: Eremos_75 Start: 60445, Stop: 60681, Start Num: 17
Candidate Starts for Eremos_75:
(6, 60352), (Start: 17 @60445 has 284 MA's), (45, 60604), (46, 60607),

Gene: Erk16_10 Start: 7994, Stop: 8200, Start Num: 23
Candidate Starts for Erk16_10:
(Start: 23 @7994 has 22 MA's),

Gene: Etaye_75 Start: 61105, Stop: 61341, Start Num: 17
Candidate Starts for Etaye_75:
(6, 61012), (Start: 17 @61105 has 284 MA's), (45, 61264), (46, 61267),

Gene: Eugenia_77 Start: 61059, Stop: 61295, Start Num: 17
Candidate Starts for Eugenia_77:
(6, 60966), (Start: 17 @61059 has 284 MA's),

Gene: Fang_77 Start: 60765, Stop: 61001, Start Num: 17
Candidate Starts for Fang_77:
(6, 60672), (Start: 17 @60765 has 284 MA's), (45, 60924), (46, 60927),

Gene: Flake_75 Start: 60519, Stop: 60755, Start Num: 17
Candidate Starts for Flake_75:
(6, 60426), (Start: 17 @60519 has 284 MA's), (45, 60678), (46, 60681),

Gene: FleetyMac_76 Start: 60448, Stop: 60684, Start Num: 17
Candidate Starts for FleetyMac_76:
(6, 60355), (Start: 17 @60448 has 284 MA's), (45, 60607), (46, 60610),

Gene: FluffyNinja_77 Start: 60635, Stop: 60871, Start Num: 17
Candidate Starts for FluffyNinja_77:
(6, 60542), (Start: 17 @60635 has 284 MA's), (45, 60794), (46, 60797),

Gene: Fozzie_74 Start: 60962, Stop: 61198, Start Num: 17
Candidate Starts for Fozzie_74:
(6, 60869), (Start: 17 @60962 has 284 MA's), (45, 61121), (46, 61124),

Gene: Frankicide_75 Start: 60444, Stop: 60680, Start Num: 17
Candidate Starts for Frankicide_75:
(6, 60351), (Start: 17 @60444 has 284 MA's), (45, 60603), (46, 60606),

Gene: FremontTroll_76 Start: 60856, Stop: 61092, Start Num: 17
Candidate Starts for FremontTroll_76:
(6, 60763), (Start: 17 @60856 has 284 MA's), (45, 61015), (46, 61018),

Gene: Freya_73 Start: 59936, Stop: 60172, Start Num: 17
Candidate Starts for Freya_73:
(6, 59840), (Start: 17 @59936 has 284 MA's), (45, 60095), (46, 60098),

Gene: FriarPreacher_74 Start: 60319, Stop: 60555, Start Num: 17
Candidate Starts for FriarPreacher_74:
(6, 60226), (Start: 17 @60319 has 284 MA's),

Gene: Fribs8_3 Start: 954, Stop: 1115, Start Num: 34
Candidate Starts for Fribs8_3:
(Start: 29 @939 has 1 MA's), (Start: 34 @954 has 6 MA's),

Gene: Fringe_80 Start: 61114, Stop: 61350, Start Num: 17
Candidate Starts for Fringe_80:
(6, 61018), (Start: 17 @61114 has 284 MA's), (45, 61273), (46, 61276),

Gene: FugateOSU_76 Start: 61257, Stop: 61493, Start Num: 17
Candidate Starts for FugateOSU_76:
(6, 61164), (Start: 17 @61257 has 284 MA's), (45, 61416), (46, 61419),

Gene: Gareth_76 Start: 60765, Stop: 61001, Start Num: 17
Candidate Starts for Gareth_76:
(6, 60672), (Start: 17 @60765 has 284 MA's), (45, 60924), (46, 60927),

Gene: GeneCoco_77 Start: 60927, Stop: 61163, Start Num: 17
Candidate Starts for GeneCoco_77:
(6, 60834), (Start: 17 @60927 has 284 MA's), (45, 61086), (46, 61089),

Gene: GiKK_4 Start: 1010, Stop: 1165, Start Num: 29
Candidate Starts for GiKK_4:
(5, 875), (Start: 29 @1010 has 1 MA's),

Gene: Giraffe_76 Start: 60760, Stop: 60996, Start Num: 17
Candidate Starts for Giraffe_76:
(6, 60667), (Start: 17 @60760 has 284 MA's), (45, 60919), (46, 60922),

Gene: Giuseppe_10 Start: 7977, Stop: 8189, Start Num: 23
Candidate Starts for Giuseppe_10:
(Start: 23 @7977 has 22 MA's),

Gene: Gophee_76 Start: 60757, Stop: 60993, Start Num: 17
Candidate Starts for Gophee_76:
(6, 60664), (Start: 17 @60757 has 284 MA's),

Gene: Grand2040_74 Start: 60735, Stop: 60971, Start Num: 17
Candidate Starts for Grand2040_74:
(6, 60642), (Start: 17 @60735 has 284 MA's),

Gene: GreenChile_75 Start: 60269, Stop: 60505, Start Num: 17
Candidate Starts for GreenChile_75:
(6, 60176), (Start: 17 @60269 has 284 MA's), (45, 60428), (46, 60431),

Gene: Gumball_9 Start: 7932, Stop: 8144, Start Num: 23
Candidate Starts for Gumball_9:
(Start: 23 @7932 has 22 MA's),

Gene: Gwennie1_75 Start: 60573, Stop: 60809, Start Num: 17
Candidate Starts for Gwennie1_75:
(6, 60480), (Start: 17 @60573 has 284 MA's), (45, 60732), (46, 60735),

Gene: Gwilliam_77 Start: 61126, Stop: 61362, Start Num: 17
Candidate Starts for Gwilliam_77:
(6, 61033), (Start: 17 @61126 has 284 MA's), (45, 61285), (46, 61288),

Gene: Gyarad_0075 Start: 60082, Stop: 60318, Start Num: 17
Candidate Starts for Gyarad_0075:
(6, 59989), (Start: 17 @60082 has 284 MA's),

Gene: HSavage_74 Start: 60272, Stop: 60508, Start Num: 17
Candidate Starts for HSavage_74:
(6, 60179), (Start: 17 @60272 has 284 MA's), (45, 60431), (46, 60434),

Gene: Haimas_74 Start: 60192, Stop: 60428, Start Num: 17
Candidate Starts for Haimas_74:
(6, 60099), (Start: 17 @60192 has 284 MA's), (45, 60351), (46, 60354),

Gene: Haleema_75 Start: 60306, Stop: 60542, Start Num: 17

Candidate Starts for Haleema_75:
(6, 60210), (Start: 17 @60306 has 284 MA's), (45, 60465), (46, 60468),

Gene: Hamish_73 Start: 60310, Stop: 60546, Start Num: 17
Candidate Starts for Hamish_73:
(6, 60217), (Start: 17 @60310 has 284 MA's), (45, 60469), (46, 60472),

Gene: Happabalu_74 Start: 61411, Stop: 61647, Start Num: 17
Candidate Starts for Happabalu_74:
(6, 61315), (Start: 17 @61411 has 284 MA's), (45, 61570), (46, 61573),

Gene: Hartsy_75 Start: 60421, Stop: 60657, Start Num: 17
Candidate Starts for Hartsy_75:
(6, 60325), (Start: 17 @60421 has 284 MA's), (45, 60580), (46, 60583),

Gene: Harvey_73 Start: 60218, Stop: 60454, Start Num: 17
Candidate Starts for Harvey_73:
(6, 60125), (Start: 17 @60218 has 284 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 3 MA's), (25, 7839), (33, 7854), (46, 7983),

Gene: Hekos_74 Start: 60104, Stop: 60340, Start Num: 17
Candidate Starts for Hekos_74:
(6, 60011), (Start: 17 @60104 has 284 MA's), (45, 60263), (46, 60266),

Gene: Held_74 Start: 60213, Stop: 60449, Start Num: 17
Candidate Starts for Held_74:
(6, 60117), (Start: 17 @60213 has 284 MA's), (45, 60372), (46, 60375),

Gene: Helpful_10 Start: 7985, Stop: 8197, Start Num: 23
Candidate Starts for Helpful_10:
(Start: 23 @7985 has 22 MA's),

Gene: HenryJackson_77 Start: 60933, Stop: 61169, Start Num: 17
Candidate Starts for HenryJackson_77:
(6, 60840), (Start: 17 @60933 has 284 MA's), (45, 61092), (46, 61095),

Gene: Hertubise_76 Start: 60699, Stop: 60935, Start Num: 17
Candidate Starts for Hertubise_76:
(6, 60606), (Start: 17 @60699 has 284 MA's),

Gene: Hetaeria_76 Start: 60582, Stop: 60818, Start Num: 17
Candidate Starts for Hetaeria_76:
(6, 60489), (Start: 17 @60582 has 284 MA's),

Gene: HighStump_77 Start: 60718, Stop: 60954, Start Num: 17
Candidate Starts for HighStump_77:
(6, 60625), (Start: 17 @60718 has 284 MA's), (45, 60877), (46, 60880),

Gene: Hocus_74 Start: 60234, Stop: 60470, Start Num: 17
Candidate Starts for Hocus_74:

(6, 60141), (Start: 17 @60234 has 284 MA's), (45, 60393), (46, 60396),

Gene: HogWash_76 Start: 61113, Stop: 61349, Start Num: 17
Candidate Starts for HogWash_76:
(6, 61017), (Start: 17 @61113 has 284 MA's), (45, 61272), (46, 61275),

Gene: Horchata_73 Start: 60231, Stop: 60467, Start Num: 17
Candidate Starts for Horchata_73:
(6, 60135), (11, 60177), (Start: 17 @60231 has 284 MA's), (45, 60390), (46, 60393),

Gene: Horseradish_3 Start: 758, Stop: 898, Start Num: 36
Candidate Starts for Horseradish_3:
(Start: 36 @758 has 7 MA's),

Gene: ImtiyazSitla_77 Start: 60620, Stop: 60856, Start Num: 17
Candidate Starts for ImtiyazSitla_77:
(6, 60527), (Start: 17 @60620 has 284 MA's),

Gene: Inchworm_77 Start: 60607, Stop: 60843, Start Num: 17
Candidate Starts for Inchworm_77:
(6, 60511), (Start: 17 @60607 has 284 MA's), (45, 60766), (46, 60769),

Gene: Indlulamithi_3 Start: 3257, Stop: 3418, Start Num: 39
Candidate Starts for Indlulamithi_3:
(Start: 39 @3257 has 2 MA's), (42, 3293), (49, 3407),

Gene: Inverness_74 Start: 60234, Stop: 60470, Start Num: 17
Candidate Starts for Inverness_74:
(6, 60141), (Start: 17 @60234 has 284 MA's), (45, 60393), (46, 60396),

Gene: Iridessa_78 Start: 60349, Stop: 60585, Start Num: 17
Candidate Starts for Iridessa_78:
(6, 60256), (Start: 17 @60349 has 284 MA's), (45, 60508), (46, 60511),

Gene: Iridoclysis_75 Start: 60518, Stop: 60754, Start Num: 17
Candidate Starts for Iridoclysis_75:
(6, 60425), (Start: 17 @60518 has 284 MA's),

Gene: IsaacEli_78 Start: 60865, Stop: 61101, Start Num: 17
Candidate Starts for IsaacEli_78:
(6, 60772), (Start: 17 @60865 has 284 MA's),

Gene: JDog_75 Start: 60757, Stop: 60993, Start Num: 17
Candidate Starts for JDog_75:
(6, 60661), (Start: 17 @60757 has 284 MA's), (45, 60916), (46, 60919),

Gene: JacAttac_76 Start: 60231, Stop: 60467, Start Num: 17
Candidate Starts for JacAttac_76:
(6, 60138), (Start: 17 @60231 has 284 MA's),

Gene: JakeO_77 Start: 60482, Stop: 60718, Start Num: 17
Candidate Starts for JakeO_77:
(6, 60389), (Start: 17 @60482 has 284 MA's), (45, 60641), (46, 60644),

Gene: Jamzy_4 Start: 1014, Stop: 1175, Start Num: 28
Candidate Starts for Jamzy_4:
(3, 867), (4, 870), (Start: 28 @1014 has 3 MA's),

Gene: JangoPhett_74 Start: 60572, Stop: 60808, Start Num: 17
Candidate Starts for JangoPhett_74:
(6, 60479), (Start: 17 @60572 has 284 MA's),

Gene: Jbug01_75 Start: 60124, Stop: 60360, Start Num: 17
Candidate Starts for Jbug01_75:
(6, 60031), (Start: 17 @60124 has 284 MA's), (45, 60283), (46, 60286),

Gene: Jesabah_78 Start: 61337, Stop: 61573, Start Num: 17
Candidate Starts for Jesabah_78:
(6, 61244), (Start: 17 @61337 has 284 MA's), (45, 61496), (46, 61499),

Gene: Jillium_77 Start: 60925, Stop: 61161, Start Num: 17
Candidate Starts for Jillium_77:
(6, 60832), (Start: 17 @60925 has 284 MA's), (45, 61084), (46, 61087),

Gene: Jiminy_76 Start: 60312, Stop: 60548, Start Num: 17
Candidate Starts for Jiminy_76:
(6, 60219), (9, 60234), (Start: 17 @60312 has 284 MA's), (45, 60471), (46, 60474),

Gene: Jiraiya_77 Start: 60517, Stop: 60753, Start Num: 17
Candidate Starts for Jiraiya_77:
(6, 60421), (Start: 17 @60517 has 284 MA's), (45, 60676), (46, 60679),

Gene: JohnLord_1 Start: 40, Stop: 207, Start Num: 38
Candidate Starts for JohnLord_1:
(Start: 21 @1 has 3 MA's), (38, 40), (46, 154), (47, 169),

Gene: KLucky39_74 Start: 60121, Stop: 60357, Start Num: 17
Candidate Starts for KLucky39_74:
(6, 60028), (Start: 17 @60121 has 284 MA's),

Gene: Kahve_77 Start: 60930, Stop: 61166, Start Num: 17
Candidate Starts for Kahve_77:
(6, 60837), (Start: 17 @60930 has 284 MA's), (45, 61089), (46, 61092),

Gene: Kailash_74 Start: 60631, Stop: 60867, Start Num: 17
Candidate Starts for Kailash_74:
(6, 60535), (Start: 17 @60631 has 284 MA's), (45, 60790), (46, 60793),

Gene: KandZ_10 Start: 8082, Stop: 8294, Start Num: 23
Candidate Starts for KandZ_10:
(Start: 23 @8082 has 22 MA's),

Gene: Karn_76 Start: 60487, Stop: 60723, Start Num: 17
Candidate Starts for Karn_76:
(6, 60394), (Start: 17 @60487 has 284 MA's), (45, 60646), (46, 60649),

Gene: Katniss_78 Start: 60367, Stop: 60603, Start Num: 17
Candidate Starts for Katniss_78:
(6, 60274), (Start: 17 @60367 has 284 MA's), (45, 60526), (46, 60529),

Gene: KayGee_2 Start: 643, Stop: 819, Start Num: 37
Candidate Starts for KayGee_2:
(Start: 37 @643 has 6 MA's), (47, 763),

Gene: Keitherie_79 Start: 60989, Stop: 61225, Start Num: 17
Candidate Starts for Keitherie_79:
(6, 60896), (Start: 17 @60989 has 284 MA's), (45, 61148), (46, 61151),

Gene: Khan1_75 Start: 60709, Stop: 60945, Start Num: 17
Candidate Starts for Khan1_75:
(6, 60616), (Start: 17 @60709 has 284 MA's), (45, 60868), (46, 60871),

Gene: Kikipoo_78 Start: 60865, Stop: 61101, Start Num: 17
Candidate Starts for Kikipoo_78:
(6, 60772), (Start: 17 @60865 has 284 MA's),

Gene: Kimbrough_77 Start: 60810, Stop: 61046, Start Num: 17
Candidate Starts for Kimbrough_77:
(6, 60717), (Start: 17 @60810 has 284 MA's), (45, 60969), (46, 60972),

Gene: KingTut_67 Start: 56977, Stop: 57213, Start Num: 17
Candidate Starts for KingTut_67:
(6, 56884), (Start: 17 @56977 has 284 MA's), (45, 57136), (46, 57139),

Gene: KingVeVeVe_74 Start: 59771, Stop: 60007, Start Num: 17
Candidate Starts for KingVeVeVe_74:
(6, 59678), (Start: 17 @59771 has 284 MA's),

Gene: Kiwot_76 Start: 60397, Stop: 60633, Start Num: 17
Candidate Starts for Kiwot_76:
(6, 60304), (Start: 17 @60397 has 284 MA's), (45, 60556), (46, 60559),

Gene: KlimbOn_75 Start: 60245, Stop: 60481, Start Num: 17
Candidate Starts for KlimbOn_75:
(6, 60152), (Start: 17 @60245 has 284 MA's), (45, 60404), (46, 60407),

Gene: Kloppinator_76 Start: 60402, Stop: 60638, Start Num: 17
Candidate Starts for Kloppinator_76:
(6, 60309), (Start: 17 @60402 has 284 MA's),

Gene: Konstantine_11 Start: 6936, Stop: 7115, Start Num: 40
Candidate Starts for Konstantine_11:
(Start: 40 @6936 has 1 MA's),

Gene: Kwadwo_75 Start: 60237, Stop: 60473, Start Num: 17
Candidate Starts for Kwadwo_75:
(6, 60144), (Start: 17 @60237 has 284 MA's), (45, 60396), (46, 60399),

Gene: Kwksand96_77 Start: 60501, Stop: 60737, Start Num: 17

Candidate Starts for Kwksand96_77:
(6, 60408), (Start: 17 @60501 has 284 MA's),

Gene: Labelle_10 Start: 6572, Stop: 6769, Start Num: 27
Candidate Starts for Labelle_10:
(Start: 27 @6572 has 4 MA's), (47, 6716),

Gene: Labeouficaum_76 Start: 60311, Stop: 60547, Start Num: 17
Candidate Starts for Labeouficaum_76:
(6, 60218), (Start: 17 @60311 has 284 MA's), (45, 60470), (46, 60473),

Gene: Larson_78 Start: 60579, Stop: 60815, Start Num: 17
Candidate Starts for Larson_78:
(6, 60486), (Start: 17 @60579 has 284 MA's), (45, 60738), (46, 60741),

Gene: LasagnaCat_77 Start: 60616, Stop: 60852, Start Num: 17
Candidate Starts for LasagnaCat_77:
(6, 60523), (Start: 17 @60616 has 284 MA's), (45, 60775), (46, 60778),

Gene: Lasso_75 Start: 60467, Stop: 60703, Start Num: 17
Candidate Starts for Lasso_75:
(6, 60371), (Start: 17 @60467 has 284 MA's), (45, 60626), (46, 60629),

Gene: LeeLot_75 Start: 60820, Stop: 61056, Start Num: 17
Candidate Starts for LeeLot_75:
(6, 60727), (Start: 17 @60820 has 284 MA's), (45, 60979), (46, 60982),

Gene: Lego3393_74 Start: 60937, Stop: 61173, Start Num: 17
Candidate Starts for Lego3393_74:
(6, 60844), (Start: 17 @60937 has 284 MA's), (45, 61096), (46, 61099),

Gene: Legolas_77 Start: 60559, Stop: 60795, Start Num: 17
Candidate Starts for Legolas_77:
(6, 60466), (Start: 17 @60559 has 284 MA's),

Gene: Lehmann_78 Start: 60796, Stop: 61032, Start Num: 17
Candidate Starts for Lehmann_78:
(6, 60700), (Start: 17 @60796 has 284 MA's), (45, 60955), (46, 60958),

Gene: LeiMonet_79 Start: 60697, Stop: 60933, Start Num: 17
Candidate Starts for LeiMonet_79:
(6, 60604), (Start: 17 @60697 has 284 MA's), (45, 60856), (46, 60859),

Gene: LemonSlice_76 Start: 60214, Stop: 60450, Start Num: 17
Candidate Starts for LemonSlice_76:
(6, 60118), (Start: 17 @60214 has 284 MA's), (45, 60373), (46, 60376),

Gene: Leopard_21 Start: 14158, Stop: 14394, Start Num: 24
Candidate Starts for Leopard_21:
(7, 14053), (8, 14056), (20, 14146), (Start: 24 @14158 has 4 MA's), (41, 14233), (44, 14293),

Gene: Longacauda_77 Start: 60594, Stop: 60830, Start Num: 17
Candidate Starts for Longacauda_77:

(6, 60501), (Start: 17 @60594 has 284 MA's),

Gene: Lopsy_73 Start: 59921, Stop: 60157, Start Num: 17
Candidate Starts for Lopsy_73:
(6, 59825), (Start: 17 @59921 has 284 MA's), (45, 60080), (46, 60083),

Gene: LostAndPhound_75 Start: 60767, Stop: 61003, Start Num: 17
Candidate Starts for LostAndPhound_75:
(6, 60671), (11, 60713), (Start: 17 @60767 has 284 MA's), (45, 60926), (46, 60929),

Gene: LuckyMarjie_73 Start: 59976, Stop: 60212, Start Num: 17
Candidate Starts for LuckyMarjie_73:
(6, 59883), (Start: 17 @59976 has 284 MA's),

Gene: Lulwa_73 Start: 59588, Stop: 59824, Start Num: 17
Candidate Starts for Lulwa_73:
(6, 59495), (Start: 17 @59588 has 284 MA's), (45, 59747), (46, 59750),

Gene: Lumine_77 Start: 60414, Stop: 60650, Start Num: 17
Candidate Starts for Lumine_77:
(6, 60318), (Start: 17 @60414 has 284 MA's),

Gene: MAnor_2 Start: 640, Stop: 810, Start Num: 37
Candidate Starts for MAnor_2:
(Start: 37 @640 has 6 MA's), (47, 754),

Gene: MRabcd_76 Start: 60692, Stop: 60928, Start Num: 17
Candidate Starts for MRabcd_76:
(6, 60596), (Start: 17 @60692 has 284 MA's), (45, 60851), (46, 60854),

Gene: MScarn_4 Start: 852, Stop: 992, Start Num: 36
Candidate Starts for MScarn_4:
(Start: 36 @852 has 7 MA's),

Gene: MaVan_4 Start: 1180, Stop: 1338, Start Num: 34
Candidate Starts for MaVan_4:
(Start: 34 @1180 has 6 MA's),

Gene: Madruga_8 Start: 6176, Stop: 6373, Start Num: 27
Candidate Starts for Madruga_8:
(Start: 27 @6176 has 4 MA's), (47, 6320),

Gene: Mag7_74 Start: 60175, Stop: 60411, Start Num: 17
Candidate Starts for Mag7_74:
(6, 60079), (Start: 17 @60175 has 284 MA's), (45, 60334), (46, 60337),

Gene: Magic8_75 Start: 60539, Stop: 60775, Start Num: 17
Candidate Starts for Magic8_75:
(6, 60443), (Start: 17 @60539 has 284 MA's),

Gene: Mana_74 Start: 60380, Stop: 60616, Start Num: 17
Candidate Starts for Mana_74:
(6, 60287), (Start: 17 @60380 has 284 MA's), (45, 60539), (46, 60542),

Gene: Manad_75 Start: 60509, Stop: 60745, Start Num: 17
Candidate Starts for Manad_75:
(6, 60413), (Start: 17 @60509 has 284 MA's), (45, 60668), (46, 60671),

Gene: Mao1_1 Start: 1, Stop: 207, Start Num: 21
Candidate Starts for Mao1_1:
(Start: 21 @1 has 3 MA's), (38, 40), (46, 154), (47, 169),

Gene: Margaret_4 Start: 1387, Stop: 1548, Start Num: 28
Candidate Starts for Margaret_4:
(10, 1303), (12, 1330), (13, 1336), (22, 1381), (Start: 24 @1384 has 4 MA's), (Start: 28 @1387 has 3 MA's),

Gene: Maru_76 Start: 60819, Stop: 61055, Start Num: 17
Candidate Starts for Maru_76:
(6, 60726), (Start: 17 @60819 has 284 MA's), (45, 60978), (46, 60981),

Gene: Mask_1 Start: 1, Stop: 207, Start Num: 21
Candidate Starts for Mask_1:
(Start: 21 @1 has 3 MA's), (38, 40), (46, 154), (47, 169),

Gene: Maskar_77 Start: 60620, Stop: 60856, Start Num: 17
Candidate Starts for Maskar_77:
(6, 60527), (Start: 17 @60620 has 284 MA's),

Gene: Matalotodo_75 Start: 61219, Stop: 61455, Start Num: 17
Candidate Starts for Matalotodo_75:
(6, 61126), (Start: 17 @61219 has 284 MA's), (45, 61378), (46, 61381),

Gene: Mcshane_75 Start: 60238, Stop: 60474, Start Num: 17
Candidate Starts for Mcshane_75:
(6, 60145), (Start: 17 @60238 has 284 MA's), (45, 60397), (46, 60400),

Gene: Mecca_76 Start: 60791, Stop: 61027, Start Num: 17
Candidate Starts for Mecca_76:
(6, 60698), (Start: 17 @60791 has 284 MA's), (45, 60950), (46, 60953),

Gene: Megamind20_76 Start: 60220, Stop: 60456, Start Num: 17
Candidate Starts for Megamind20_76:
(6, 60127), (Start: 17 @60220 has 284 MA's),

Gene: Megatron_77 Start: 60909, Stop: 61145, Start Num: 17
Candidate Starts for Megatron_77:
(6, 60816), (Start: 17 @60909 has 284 MA's), (45, 61068), (46, 61071),

Gene: Megatron06_8 Start: 6251, Stop: 6451, Start Num: 30
Candidate Starts for Megatron06_8:
(Start: 30 @6251 has 9 MA's),

Gene: Melc17_73 Start: 60847, Stop: 61083, Start Num: 17
Candidate Starts for Melc17_73:
(6, 60754), (Start: 17 @60847 has 284 MA's), (45, 61006), (46, 61009),

Gene: MelsMeow_75 Start: 60499, Stop: 60735, Start Num: 17
Candidate Starts for MelsMeow_75:
(6, 60406), (Start: 17 @60499 has 284 MA's), (45, 60658), (46, 60661),

Gene: Mesh1_77 Start: 60955, Stop: 61191, Start Num: 17
Candidate Starts for Mesh1_77:
(6, 60862), (Start: 17 @60955 has 284 MA's), (45, 61114), (46, 61117),

Gene: Mesmerelda_75 Start: 60790, Stop: 61026, Start Num: 17
Candidate Starts for Mesmerelda_75:
(6, 60697), (Start: 17 @60790 has 284 MA's), (45, 60949), (46, 60952),

Gene: MichaelPhcott_74 Start: 60172, Stop: 60408, Start Num: 17
Candidate Starts for MichaelPhcott_74:
(6, 60076), (Start: 17 @60172 has 284 MA's), (45, 60331), (46, 60334),

Gene: MiniBoss_73 Start: 59544, Stop: 59780, Start Num: 17
Candidate Starts for MiniBoss_73:
(6, 59451), (Start: 17 @59544 has 284 MA's),

Gene: MitKao_76 Start: 60392, Stop: 60628, Start Num: 17
Candidate Starts for MitKao_76:
(6, 60296), (Start: 17 @60392 has 284 MA's), (45, 60551), (46, 60554),

Gene: Mopey_10 Start: 7985, Stop: 8197, Start Num: 23
Candidate Starts for Mopey_10:
(Start: 23 @7985 has 22 MA's),

Gene: Morgushi_74 Start: 60207, Stop: 60443, Start Num: 17
Candidate Starts for Morgushi_74:
(6, 60111), (Start: 17 @60207 has 284 MA's), (45, 60366), (46, 60369),

Gene: Morty_77 Start: 60800, Stop: 61036, Start Num: 17
Candidate Starts for Morty_77:
(6, 60707), (Start: 17 @60800 has 284 MA's), (45, 60959), (46, 60962),

Gene: Mosaic_74 Start: 60384, Stop: 60620, Start Num: 17
Candidate Starts for Mosaic_74:
(6, 60291), (Start: 17 @60384 has 284 MA's), (45, 60543), (46, 60546),

Gene: MrPhizzler_79 Start: 60686, Stop: 60922, Start Num: 17
Candidate Starts for MrPhizzler_79:
(6, 60593), (Start: 17 @60686 has 284 MA's), (45, 60845), (46, 60848),

Gene: Mulan_75 Start: 60432, Stop: 60668, Start Num: 17
Candidate Starts for Mulan_75:
(6, 60339), (Start: 17 @60432 has 284 MA's), (45, 60591), (46, 60594),

Gene: MunkgeeRoachy_3 Start: 877, Stop: 1047, Start Num: 31
Candidate Starts for MunkgeeRoachy_3:
(Start: 31 @877 has 6 MA's), (47, 1015),

Gene: Murdoc_73 Start: 60496, Stop: 60732, Start Num: 17
Candidate Starts for Murdoc_73:
(6, 60400), (Start: 17 @60496 has 284 MA's), (45, 60655), (46, 60658),

Gene: Mutante_77 Start: 60394, Stop: 60630, Start Num: 17
Candidate Starts for Mutante_77:
(6, 60301), (Start: 17 @60394 has 284 MA's), (45, 60553), (46, 60556),

Gene: Nacho_0079 Start: 61291, Stop: 61527, Start Num: 17
Candidate Starts for Nacho_0079:
(6, 61198), (Start: 17 @61291 has 284 MA's),

Gene: Nathan_77 Start: 60749, Stop: 60985, Start Num: 17
Candidate Starts for Nathan_77:
(6, 60656), (Start: 17 @60749 has 284 MA's), (45, 60908), (46, 60911),

Gene: Nehme_73 Start: 60583, Stop: 60819, Start Num: 17
Candidate Starts for Nehme_73:
(6, 60487), (Start: 17 @60583 has 284 MA's), (45, 60742), (46, 60745),

Gene: Newman_74 Start: 60568, Stop: 60804, Start Num: 17
Candidate Starts for Newman_74:
(6, 60475), (Start: 17 @60568 has 284 MA's), (45, 60727), (46, 60730),

Gene: NiaNia_77 Start: 60267, Stop: 60503, Start Num: 17
Candidate Starts for NiaNia_77:
(6, 60174), (Start: 17 @60267 has 284 MA's), (45, 60426), (46, 60429),

Gene: Nibbles_4 Start: 1180, Stop: 1338, Start Num: 34
Candidate Starts for Nibbles_4:
(Start: 34 @1180 has 6 MA's),

Gene: Nicole21_77 Start: 60527, Stop: 60763, Start Num: 17
Candidate Starts for Nicole21_77:
(6, 60434), (Start: 17 @60527 has 284 MA's),

Gene: Nish23_7 Start: 5716, Stop: 5916, Start Num: 30
Candidate Starts for Nish23_7:
(Start: 30 @5716 has 9 MA's),

Gene: Nova_10 Start: 8409, Stop: 8621, Start Num: 23
Candidate Starts for Nova_10:
(Start: 23 @8409 has 22 MA's),

Gene: Nova1_76 Start: 60373, Stop: 60609, Start Num: 17
Candidate Starts for Nova1_76:
(6, 60280), (Start: 17 @60373 has 284 MA's), (45, 60532), (46, 60535),

Gene: Numberten_75 Start: 60506, Stop: 60742, Start Num: 17
Candidate Starts for Numberten_75:
(6, 60410), (Start: 17 @60506 has 284 MA's),

Gene: Nyala_75 Start: 60245, Stop: 60481, Start Num: 17

Candidate Starts for Nyala_75:
(6, 60152), (Start: 17 @60245 has 284 MA's),

Gene: Oaker_7 Start: 5972, Stop: 6172, Start Num: 30
Candidate Starts for Oaker_7:
(Start: 30 @5972 has 9 MA's),

Gene: Olak_75 Start: 60398, Stop: 60634, Start Num: 17
Candidate Starts for Olak_75:
(6, 60305), (Start: 17 @60398 has 284 MA's), (45, 60557), (46, 60560),

Gene: Olive_74 Start: 60464, Stop: 60700, Start Num: 17
Candidate Starts for Olive_74:
(6, 60371), (Start: 17 @60464 has 284 MA's), (45, 60623), (46, 60626),

Gene: OliverWalter_76 Start: 60717, Stop: 60953, Start Num: 17
Candidate Starts for OliverWalter_76:
(6, 60624), (Start: 17 @60717 has 284 MA's), (45, 60876), (46, 60879),

Gene: Omniscient_77 Start: 61099, Stop: 61335, Start Num: 17
Candidate Starts for Omniscient_77:
(6, 61006), (Start: 17 @61099 has 284 MA's), (45, 61258), (46, 61261),

Gene: OneBrain_79 Start: 60481, Stop: 60717, Start Num: 17
Candidate Starts for OneBrain_79:
(6, 60388), (Start: 17 @60481 has 284 MA's), (45, 60640), (46, 60643),

Gene: OnionKnight_7 Start: 5413, Stop: 5559, Start Num: 39
Candidate Starts for OnionKnight_7:
(1, 4798), (2, 4996), (Start: 39 @5413 has 2 MA's), (43, 5464),

Gene: Onyinye_22 Start: 14039, Stop: 14275, Start Num: 24
Candidate Starts for Onyinye_22:
(7, 13934), (8, 13937), (20, 14027), (Start: 24 @14039 has 4 MA's), (41, 14114), (44, 14174),

Gene: Oosterbaan_76 Start: 60635, Stop: 60871, Start Num: 17
Candidate Starts for Oosterbaan_76:
(6, 60542), (Start: 17 @60635 has 284 MA's),

Gene: Orfeu_75 Start: 60757, Stop: 60993, Start Num: 17
Candidate Starts for Orfeu_75:
(6, 60661), (Start: 17 @60757 has 284 MA's),

Gene: Orwigg_75 Start: 60184, Stop: 60420, Start Num: 17
Candidate Starts for Orwigg_75:
(6, 60091), (Start: 17 @60184 has 284 MA's), (45, 60343), (46, 60346),

Gene: PBI1_10 Start: 7922, Stop: 8128, Start Num: 23
Candidate Starts for PBI1_10:
(Start: 23 @7922 has 22 MA's),

Gene: PLot_10 Start: 7994, Stop: 8200, Start Num: 23
Candidate Starts for PLot_10:

(Start: 23 @7994 has 22 MA's),

Gene: Pacifista_75 Start: 60246, Stop: 60482, Start Num: 17
Candidate Starts for Pacifista_75:
(6, 60153), (Start: 17 @60246 has 284 MA's), (45, 60405), (46, 60408),

Gene: PallasAthena_77 Start: 60229, Stop: 60465, Start Num: 17
Candidate Starts for PallasAthena_77:
(6, 60133), (Start: 17 @60229 has 284 MA's),

Gene: Patience_10 Start: 7102, Stop: 7299, Start Num: 27
Candidate Starts for Patience_10:
(Start: 27 @7102 has 4 MA's), (47, 7246),

Gene: Penelope2018_10 Start: 7985, Stop: 8197, Start Num: 23
Candidate Starts for Penelope2018_10:
(Start: 23 @7985 has 22 MA's),

Gene: Phalaborwa_10 Start: 8027, Stop: 8239, Start Num: 23
Candidate Starts for Phalaborwa_10:
(Start: 23 @8027 has 22 MA's),

Gene: Phamished_76 Start: 60415, Stop: 60651, Start Num: 17
Candidate Starts for Phamished_76:
(6, 60322), (Start: 17 @60415 has 284 MA's), (45, 60574), (46, 60577),

Gene: Phareon_74 Start: 59935, Stop: 60171, Start Num: 17
Candidate Starts for Phareon_74:
(6, 59842), (Start: 17 @59935 has 284 MA's), (45, 60094), (46, 60097),

Gene: PhatCats2014_77 Start: 60921, Stop: 61157, Start Num: 17
Candidate Starts for PhatCats2014_77:
(6, 60828), (Start: 17 @60921 has 284 MA's),

Gene: PhatLouie_78 Start: 60769, Stop: 61005, Start Num: 17
Candidate Starts for PhatLouie_78:
(6, 60676), (Start: 17 @60769 has 284 MA's), (45, 60928), (46, 60931),

Gene: PhenghisKhan_76 Start: 60389, Stop: 60625, Start Num: 17
Candidate Starts for PhenghisKhan_76:
(6, 60293), (Start: 17 @60389 has 284 MA's), (45, 60548), (46, 60551),

Gene: Pherdinand_77 Start: 60637, Stop: 60873, Start Num: 17
Candidate Starts for Pherdinand_77:
(6, 60544), (Start: 17 @60637 has 284 MA's), (45, 60796), (46, 60799),

Gene: Phergie_76 Start: 60381, Stop: 60617, Start Num: 17
Candidate Starts for Phergie_76:
(6, 60285), (Start: 17 @60381 has 284 MA's), (45, 60540), (46, 60543),

Gene: Phipps_75 Start: 60471, Stop: 60707, Start Num: 17
Candidate Starts for Phipps_75:
(6, 60375), (Start: 17 @60471 has 284 MA's),

Gene: Phleuron_74 Start: 60205, Stop: 60441, Start Num: 17
Candidate Starts for Phleuron_74:
(6, 60112), (Start: 17 @60205 has 284 MA's), (45, 60364), (46, 60367),

Gene: PhrankReynolds_75 Start: 60386, Stop: 60622, Start Num: 17
Candidate Starts for PhrankReynolds_75:
(6, 60290), (Start: 17 @60386 has 284 MA's), (45, 60545), (46, 60548),

Gene: Phreeze_7 Start: 5716, Stop: 5916, Start Num: 30
Candidate Starts for Phreeze_7:
(Start: 30 @5716 has 9 MA's),

Gene: PhrodoBaggins_78 Start: 60777, Stop: 61013, Start Num: 17
Candidate Starts for PhrodoBaggins_78:
(6, 60684), (Start: 17 @60777 has 284 MA's),

Gene: Phunky_74 Start: 60268, Stop: 60504, Start Num: 17
Candidate Starts for Phunky_74:
(6, 60175), (Start: 17 @60268 has 284 MA's), (45, 60427), (46, 60430),

Gene: Piglet_0076 Start: 60893, Stop: 61129, Start Num: 17
Candidate Starts for Piglet_0076:
(6, 60800), (Start: 17 @60893 has 284 MA's), (45, 61052), (46, 61055),

Gene: PinheadLarry_75 Start: 60544, Stop: 60780, Start Num: 17
Candidate Starts for PinheadLarry_75:
(6, 60451), (Start: 17 @60544 has 284 MA's), (45, 60703), (46, 60706),

Gene: Pinkman_76 Start: 60495, Stop: 60731, Start Num: 17
Candidate Starts for Pinkman_76:
(6, 60399), (Start: 17 @60495 has 284 MA's), (45, 60654), (46, 60657),

Gene: Pipsqueak_73 Start: 60224, Stop: 60460, Start Num: 17
Candidate Starts for Pipsqueak_73:
(6, 60131), (Start: 17 @60224 has 284 MA's), (45, 60383), (46, 60386),

Gene: Placalicious_75 Start: 61259, Stop: 61495, Start Num: 17
Candidate Starts for Placalicious_75:
(6, 61166), (Start: 17 @61259 has 284 MA's), (45, 61418), (46, 61421),

Gene: Plata_75 Start: 60483, Stop: 60719, Start Num: 17
Candidate Starts for Plata_75:
(6, 60387), (Start: 17 @60483 has 284 MA's), (45, 60642), (46, 60645),

Gene: Plmatters_74 Start: 60221, Stop: 60457, Start Num: 17
Candidate Starts for Plmatters_74:
(6, 60128), (Start: 17 @60221 has 284 MA's),

Gene: Podrick_75 Start: 60305, Stop: 60541, Start Num: 17
Candidate Starts for Podrick_75:
(6, 60209), (Start: 17 @60305 has 284 MA's),

Gene: Pons_2 Start: 640, Stop: 810, Start Num: 37
Candidate Starts for Pons_2:
(Start: 37 @640 has 6 MA's), (47, 754),

Gene: Pops_74 Start: 60234, Stop: 60470, Start Num: 17
Candidate Starts for Pops_74:
(6, 60141), (Start: 17 @60234 has 284 MA's),

Gene: PotPie_3 Start: 1499, Stop: 1675, Start Num: 37
Candidate Starts for PotPie_3:
(Start: 37 @1499 has 6 MA's), (47, 1619),

Gene: Potter_72 Start: 60227, Stop: 60463, Start Num: 17
Candidate Starts for Potter_72:
(6, 60134), (Start: 17 @60227 has 284 MA's), (45, 60386), (46, 60389),

Gene: Prager_10 Start: 7994, Stop: 8206, Start Num: 23
Candidate Starts for Prager_10:
(Start: 23 @7994 has 22 MA's),

Gene: Prickles_77 Start: 60749, Stop: 60985, Start Num: 17
Candidate Starts for Prickles_77:
(6, 60656), (Start: 17 @60749 has 284 MA's), (45, 60908), (46, 60911),

Gene: ProfessorX_74 Start: 60265, Stop: 60501, Start Num: 17
Candidate Starts for ProfessorX_74:
(6, 60172), (Start: 17 @60265 has 284 MA's), (45, 60424), (46, 60427),

Gene: PsychoKiller_3 Start: 829, Stop: 999, Start Num: 31
Candidate Starts for PsychoKiller_3:
(Start: 31 @829 has 6 MA's),

Gene: Puhltonio_74 Start: 60494, Stop: 60730, Start Num: 17
Candidate Starts for Puhltonio_74:
(6, 60398), (Start: 17 @60494 has 284 MA's), (45, 60653), (46, 60656),

Gene: QueenBeane_76 Start: 60540, Stop: 60776, Start Num: 17
Candidate Starts for QueenBeane_76:
(6, 60444), (Start: 17 @60540 has 284 MA's), (45, 60699), (46, 60702),

Gene: Quisquiliae_78 Start: 60561, Stop: 60797, Start Num: 17
Candidate Starts for Quisquiliae_78:
(6, 60465), (Start: 17 @60561 has 284 MA's),

Gene: RADical_3 Start: 830, Stop: 1000, Start Num: 31
Candidate Starts for RADical_3:
(Start: 31 @830 has 6 MA's),

Gene: RSchmailzl_4 Start: 877, Stop: 1047, Start Num: 31
Candidate Starts for RSchmailzl_4:
(Start: 31 @877 has 6 MA's),

Gene: RanchParmCat_4 Start: 1384, Stop: 1548, Start Num: 24

Candidate Starts for RanchParmCat_4:
(10, 1303), (13, 1336), (Start: 17 @1366 has 284 MA's), (22, 1381), (Start: 24 @1384 has 4 MA's), (Start: 28 @1387 has 3 MA's),

Gene: RedBaron_4 Start: 877, Stop: 1044, Start Num: 31
Candidate Starts for RedBaron_4:
(Start: 31 @877 has 6 MA's), (47, 1012),

Gene: RedMaple_76 Start: 60988, Stop: 61224, Start Num: 17
Candidate Starts for RedMaple_76:
(6, 60895), (Start: 17 @60988 has 284 MA's), (45, 61147), (46, 61150),

Gene: RedRaider89_75 Start: 60676, Stop: 60912, Start Num: 17
Candidate Starts for RedRaider89_75:
(6, 60583), (Start: 17 @60676 has 284 MA's), (45, 60835), (46, 60838),

Gene: Ricotta_76 Start: 60231, Stop: 60467, Start Num: 17
Candidate Starts for Ricotta_76:
(6, 60135), (Start: 17 @60231 has 284 MA's),

Gene: Riggan_77 Start: 60557, Stop: 60793, Start Num: 17
Candidate Starts for Riggan_77:
(6, 60464), (Start: 17 @60557 has 284 MA's), (45, 60716), (46, 60719),

Gene: Rimu_76 Start: 60707, Stop: 60943, Start Num: 17
Candidate Starts for Rimu_76:
(6, 60614), (Start: 17 @60707 has 284 MA's), (45, 60866), (46, 60869),

Gene: Riverton_75 Start: 60490, Stop: 60726, Start Num: 17
Candidate Starts for Riverton_75:
(6, 60397), (Start: 17 @60490 has 284 MA's), (45, 60649), (46, 60652),

Gene: Roliet_73 Start: 59592, Stop: 59828, Start Num: 17
Candidate Starts for Roliet_73:
(6, 59499), (Start: 17 @59592 has 284 MA's),

Gene: Roscoe_76 Start: 60677, Stop: 60913, Start Num: 17
Candidate Starts for Roscoe_76:
(6, 60584), (Start: 17 @60677 has 284 MA's), (45, 60836), (46, 60839),

Gene: SDcharge11_75 Start: 59710, Stop: 59946, Start Num: 17
Candidate Starts for SDcharge11_75:
(6, 59617), (Start: 17 @59710 has 284 MA's),

Gene: Salazzle_74 Start: 60410, Stop: 60646, Start Num: 17
Candidate Starts for Salazzle_74:
(6, 60317), (Start: 17 @60410 has 284 MA's),

Gene: SallyH_78 Start: 60509, Stop: 60745, Start Num: 17
Candidate Starts for SallyH_78:
(6, 60413), (Start: 17 @60509 has 284 MA's),

Gene: Samaymay_76 Start: 60540, Stop: 60776, Start Num: 17

Candidate Starts for Samaymay_76:
(6, 60444), (Start: 17 @60540 has 284 MA's), (45, 60699), (46, 60702),

Gene: SassyCat97_74 Start: 60220, Stop: 60456, Start Num: 17
Candidate Starts for SassyCat97_74:
(6, 60127), (Start: 17 @60220 has 284 MA's), (45, 60379), (46, 60382),

Gene: Schadenfreude_76 Start: 60129, Stop: 60365, Start Num: 17
Candidate Starts for Schadenfreude_76:
(6, 60036), (Start: 17 @60129 has 284 MA's), (45, 60288), (46, 60291),

Gene: Schueller_74 Start: 60492, Stop: 60728, Start Num: 17
Candidate Starts for Schueller_74:
(6, 60399), (Start: 17 @60492 has 284 MA's), (45, 60651), (46, 60654),

Gene: Scoot17C_77 Start: 60347, Stop: 60583, Start Num: 17
Candidate Starts for Scoot17C_77:
(6, 60254), (Start: 17 @60347 has 284 MA's), (45, 60506), (46, 60509),

Gene: Scrick_75 Start: 60229, Stop: 60465, Start Num: 17
Candidate Starts for Scrick_75:
(6, 60136), (Start: 17 @60229 has 284 MA's), (45, 60388), (46, 60391),

Gene: Sejanus_1 Start: 1, Stop: 207, Start Num: 21
Candidate Starts for Sejanus_1:
(Start: 21 @1 has 3 MA's), (38, 40), (46, 154), (47, 169),

Gene: Selr12_77 Start: 60274, Stop: 60510, Start Num: 17
Candidate Starts for Selr12_77:
(6, 60181), (Start: 17 @60274 has 284 MA's), (45, 60433), (46, 60436),

Gene: Septica_75 Start: 60490, Stop: 60726, Start Num: 17
Candidate Starts for Septica_75:
(6, 60397), (Start: 17 @60490 has 284 MA's), (45, 60649), (46, 60652),

Gene: Serendipity_76 Start: 60702, Stop: 60938, Start Num: 17
Candidate Starts for Serendipity_76:
(6, 60609), (Start: 17 @60702 has 284 MA's), (45, 60861), (46, 60864),

Gene: Serpentine_0077 Start: 60785, Stop: 61021, Start Num: 17
Candidate Starts for Serpentine_0077:
(6, 60692), (Start: 17 @60785 has 284 MA's), (45, 60944), (46, 60947),

Gene: ShadowBud_76 Start: 60558, Stop: 60794, Start Num: 17
Candidate Starts for ShadowBud_76:
(6, 60462), (Start: 17 @60558 has 284 MA's),

Gene: Sheila_72 Start: 59623, Stop: 59859, Start Num: 17
Candidate Starts for Sheila_72:
(6, 59530), (Start: 17 @59623 has 284 MA's),

Gene: ShiVal_74 Start: 60257, Stop: 60493, Start Num: 17
Candidate Starts for ShiVal_74:

(6, 60164), (Start: 17 @60257 has 284 MA's), (45, 60416), (46, 60419),

Gene: Sigman_76 Start: 60231, Stop: 60467, Start Num: 17
Candidate Starts for Sigman_76:
(6, 60138), (Start: 17 @60231 has 284 MA's),

Gene: SilverBell_77 Start: 60668, Stop: 60904, Start Num: 17
Candidate Starts for SilverBell_77:
(6, 60572), (Start: 17 @60668 has 284 MA's),

Gene: Simielle_75 Start: 60199, Stop: 60435, Start Num: 17
Candidate Starts for Simielle_75:
(6, 60106), (Start: 17 @60199 has 284 MA's),

Gene: SirBeauregard_77 Start: 60777, Stop: 61013, Start Num: 17
Candidate Starts for SirBeauregard_77:
(6, 60684), (Start: 17 @60777 has 284 MA's),

Gene: SirHarley_9 Start: 7914, Stop: 8126, Start Num: 23
Candidate Starts for SirHarley_9:
(Start: 23 @7914 has 22 MA's),

Gene: Skippy_77 Start: 60626, Stop: 60862, Start Num: 17
Candidate Starts for Skippy_77:
(6, 60533), (Start: 17 @60626 has 284 MA's), (45, 60785), (46, 60788),

Gene: Slatt_76 Start: 60513, Stop: 60749, Start Num: 17
Candidate Starts for Slatt_76:
(6, 60420), (Start: 17 @60513 has 284 MA's), (45, 60672), (46, 60675),

Gene: Socotra_3 Start: 829, Stop: 999, Start Num: 31
Candidate Starts for Socotra_3:
(Start: 31 @829 has 6 MA's),

Gene: Soile_77 Start: 60751, Stop: 60987, Start Num: 17
Candidate Starts for Soile_77:
(6, 60658), (Start: 17 @60751 has 284 MA's), (45, 60910), (46, 60913),

Gene: Solosis_74 Start: 60218, Stop: 60454, Start Num: 17
Candidate Starts for Solosis_74:
(6, 60122), (Start: 17 @60218 has 284 MA's), (45, 60377), (46, 60380),

Gene: Sopespian_3 Start: 829, Stop: 999, Start Num: 31
Candidate Starts for Sopespian_3:
(Start: 31 @829 has 6 MA's),

Gene: Sophia_74 Start: 60208, Stop: 60444, Start Num: 17
Candidate Starts for Sophia_74:
(6, 60115), (Start: 17 @60208 has 284 MA's), (45, 60367), (46, 60370),

Gene: Soto_73 Start: 59751, Stop: 59987, Start Num: 17
Candidate Starts for Soto_73:
(6, 59658), (Start: 17 @59751 has 284 MA's), (45, 59910), (46, 59913),

Gene: Spartan300_75 Start: 60469, Stop: 60705, Start Num: 17
Candidate Starts for Spartan300_75:
(6, 60376), (Start: 17 @60469 has 284 MA's), (45, 60628), (46, 60631),

Gene: Squid_75 Start: 60499, Stop: 60735, Start Num: 17
Candidate Starts for Squid_75:
(6, 60406), (Start: 17 @60499 has 284 MA's),

Gene: Squiggle_75 Start: 60224, Stop: 60460, Start Num: 17
Candidate Starts for Squiggle_75:
(6, 60131), (Start: 17 @60224 has 284 MA's), (45, 60383), (46, 60386),

Gene: Starburst_3 Start: 829, Stop: 999, Start Num: 31
Candidate Starts for Starburst_3:
(Start: 31 @829 has 6 MA's),

Gene: SteamedHams_4 Start: 852, Stop: 1004, Start Num: 36
Candidate Starts for SteamedHams_4:
(14, 795), (16, 801), (18, 807), (Start: 21 @816 has 3 MA's), (Start: 36 @852 has 7 MA's), (48, 990),

Gene: Struggle_76 Start: 60319, Stop: 60555, Start Num: 17
Candidate Starts for Struggle_76:
(6, 60223), (Start: 17 @60319 has 284 MA's),

Gene: SuperSonics_9 Start: 6314, Stop: 6511, Start Num: 27
Candidate Starts for SuperSonics_9:
(Start: 27 @6314 has 4 MA's), (47, 6458),

Gene: SuperheroCarly_10 Start: 7847, Stop: 8059, Start Num: 23
Candidate Starts for SuperheroCarly_10:
(Start: 23 @7847 has 22 MA's),

Gene: Surely_76 Start: 60789, Stop: 61025, Start Num: 17
Candidate Starts for Surely_76:
(6, 60696), (Start: 17 @60789 has 284 MA's), (45, 60948), (46, 60951),

Gene: SweatNTears_4 Start: 1378, Stop: 1518, Start Num: 36
Candidate Starts for SweatNTears_4:
(Start: 36 @1378 has 7 MA's),

Gene: Swiphy_78 Start: 60769, Stop: 61005, Start Num: 17
Candidate Starts for Swiphy_78:
(6, 60676), (Start: 17 @60769 has 284 MA's), (45, 60928), (46, 60931),

Gene: Swish_77 Start: 60652, Stop: 60888, Start Num: 17
Candidate Starts for Swish_77:
(6, 60559), (Start: 17 @60652 has 284 MA's), (45, 60811), (46, 60814),

Gene: TallGrassMM_75 Start: 60283, Stop: 60519, Start Num: 17
Candidate Starts for TallGrassMM_75:
(6, 60190), (Start: 17 @60283 has 284 MA's), (45, 60442), (46, 60445),

Gene: Taraxa_76 Start: 60115, Stop: 60351, Start Num: 17
Candidate Starts for Taraxa_76:
(6, 60022), (Start: 17 @60115 has 284 MA's), (45, 60274), (46, 60277),

Gene: Telesworld_74 Start: 60361, Stop: 60597, Start Num: 17
Candidate Starts for Telesworld_74:
(6, 60268), (Start: 17 @60361 has 284 MA's), (45, 60520), (46, 60523),

Gene: Thora_75 Start: 60738, Stop: 60974, Start Num: 17
Candidate Starts for Thora_75:
(6, 60645), (Start: 17 @60738 has 284 MA's),

Gene: Thoth_10 Start: 7982, Stop: 8194, Start Num: 23
Candidate Starts for Thoth_10:
(Start: 23 @7982 has 22 MA's),

Gene: ThreeOh3D2_78 Start: 60912, Stop: 61148, Start Num: 17
Candidate Starts for ThreeOh3D2_78:
(6, 60819), (Start: 17 @60912 has 284 MA's), (45, 61071), (46, 61074),

Gene: Thumb_7 Start: 5717, Stop: 5917, Start Num: 30
Candidate Starts for Thumb_7:
(Start: 30 @5717 has 9 MA's),

Gene: Thunderbird_76 Start: 60481, Stop: 60717, Start Num: 17
Candidate Starts for Thunderbird_76:
(6, 60385), (Start: 17 @60481 has 284 MA's), (45, 60640), (46, 60643),

Gene: Timmi_75 Start: 60255, Stop: 60491, Start Num: 17
Candidate Starts for Timmi_75:
(6, 60159), (Start: 17 @60255 has 284 MA's), (45, 60414), (46, 60417),

Gene: Tolls_4 Start: 852, Stop: 1004, Start Num: 36
Candidate Starts for Tolls_4:
(14, 795), (16, 801), (18, 807), (Start: 21 @816 has 3 MA's), (Start: 36 @852 has 7 MA's), (48, 990),

Gene: TomBombadil_76 Start: 60782, Stop: 61018, Start Num: 17
Candidate Starts for TomBombadil_76:
(6, 60689), (Start: 17 @60782 has 284 MA's), (45, 60941), (46, 60944),

Gene: Tomlarah_77 Start: 61090, Stop: 61326, Start Num: 17
Candidate Starts for Tomlarah_77:
(6, 60997), (Start: 17 @61090 has 284 MA's), (45, 61249), (46, 61252),

Gene: Toni_76 Start: 60685, Stop: 60921, Start Num: 17
Candidate Starts for Toni_76:
(6, 60592), (Start: 17 @60685 has 284 MA's), (45, 60844), (46, 60847),

Gene: TooFast2Furius_75 Start: 60472, Stop: 60708, Start Num: 17
Candidate Starts for TooFast2Furius_75:
(6, 60379), (Start: 17 @60472 has 284 MA's), (45, 60631), (46, 60634),

Gene: Tooj_73 Start: 59916, Stop: 60152, Start Num: 17

Candidate Starts for Tooj_73:
(6, 59823), (Start: 17 @59916 has 284 MA's), (45, 60075), (46, 60078),

Gene: Triad_77 Start: 60098, Stop: 60334, Start Num: 17
Candidate Starts for Triad_77:
(6, 60005), (Start: 17 @60098 has 284 MA's), (45, 60257), (46, 60260),

Gene: Troll4_10 Start: 7986, Stop: 8198, Start Num: 23
Candidate Starts for Troll4_10:
(Start: 23 @7986 has 22 MA's),

Gene: True_74 Start: 60225, Stop: 60461, Start Num: 17
Candidate Starts for True_74:
(6, 60129), (Start: 17 @60225 has 284 MA's), (45, 60384), (46, 60387),

Gene: Trypo_77 Start: 60940, Stop: 61176, Start Num: 17
Candidate Starts for Trypo_77:
(6, 60847), (Start: 17 @60940 has 284 MA's), (45, 61099), (46, 61102),

Gene: TyrionL_76 Start: 60311, Stop: 60547, Start Num: 17
Candidate Starts for TyrionL_76:
(6, 60218), (Start: 17 @60311 has 284 MA's), (45, 60470), (46, 60473),

Gene: UAch1_77 Start: 60582, Stop: 60818, Start Num: 17
Candidate Starts for UAch1_77:
(6, 60489), (Start: 17 @60582 has 284 MA's),

Gene: UncleHowie_73 Start: 59919, Stop: 60155, Start Num: 17
Candidate Starts for UncleHowie_73:
(6, 59823), (Start: 17 @59919 has 284 MA's), (45, 60078), (46, 60081),

Gene: Usavi_77 Start: 60908, Stop: 61144, Start Num: 17
Candidate Starts for Usavi_77:
(6, 60815), (Start: 17 @60908 has 284 MA's),

Gene: Vaishali24_77 Start: 60528, Stop: 60764, Start Num: 17
Candidate Starts for Vaishali24_77:
(6, 60435), (Start: 17 @60528 has 284 MA's), (45, 60687), (46, 60690),

Gene: Valjean_75 Start: 60470, Stop: 60706, Start Num: 17
Candidate Starts for Valjean_75:
(6, 60377), (Start: 17 @60470 has 284 MA's), (45, 60629), (46, 60632),

Gene: Vaticameos_73 Start: 58786, Stop: 59022, Start Num: 17
Candidate Starts for Vaticameos_73:
(6, 58693), (Start: 17 @58786 has 284 MA's),

Gene: Vectra_75 Start: 60372, Stop: 60608, Start Num: 17
Candidate Starts for Vectra_75:
(6, 60279), (Start: 17 @60372 has 284 MA's), (45, 60531), (46, 60534),

Gene: Veritas_75 Start: 60396, Stop: 60632, Start Num: 17
Candidate Starts for Veritas_75:

(6, 60300), (Start: 17 @60396 has 284 MA's), (45, 60555), (46, 60558),

Gene: Virapocalypse_77 Start: 60581, Stop: 60817, Start Num: 17
Candidate Starts for Virapocalypse_77:
(6, 60488), (Start: 17 @60581 has 284 MA's),

Gene: Virgeve_74 Start: 60198, Stop: 60434, Start Num: 17
Candidate Starts for Virgeve_74:
(6, 60102), (Start: 17 @60198 has 284 MA's), (45, 60357), (46, 60360),

Gene: Visconti_10 Start: 7995, Stop: 8207, Start Num: 23
Candidate Starts for Visconti_10:
(Start: 23 @7995 has 22 MA's),

Gene: Vista_75 Start: 60394, Stop: 60630, Start Num: 17
Candidate Starts for Vista_75:
(6, 60301), (Start: 17 @60394 has 284 MA's), (45, 60553), (46, 60556),

Gene: Vivaldi_76 Start: 60678, Stop: 60914, Start Num: 17
Candidate Starts for Vivaldi_76:
(6, 60585), (Start: 17 @60678 has 284 MA's), (45, 60837), (46, 60840),

Gene: WaldoWhy_10 Start: 7988, Stop: 8200, Start Num: 23
Candidate Starts for WaldoWhy_10:
(Start: 23 @7988 has 22 MA's),

Gene: Wallaby_5 Start: 1179, Stop: 1337, Start Num: 34
Candidate Starts for Wallaby_5:
(Start: 34 @1179 has 6 MA's),

Gene: Wallhey_77 Start: 60501, Stop: 60737, Start Num: 17
Candidate Starts for Wallhey_77:
(6, 60408), (Start: 17 @60501 has 284 MA's), (45, 60660), (46, 60663),

Gene: Waterdiva_77 Start: 60768, Stop: 61004, Start Num: 17
Candidate Starts for Waterdiva_77:
(6, 60675), (Start: 17 @60768 has 284 MA's), (45, 60927), (46, 60930),

Gene: Weher20_73 Start: 60839, Stop: 61075, Start Num: 17
Candidate Starts for Weher20_73:
(6, 60746), (Start: 17 @60839 has 284 MA's), (45, 60998), (46, 61001),

Gene: Windsor_76 Start: 60784, Stop: 61020, Start Num: 17
Candidate Starts for Windsor_76:
(6, 60691), (Start: 17 @60784 has 284 MA's), (45, 60943), (46, 60946),

Gene: Wolfwood_4 Start: 1179, Stop: 1337, Start Num: 34
Candidate Starts for Wolfwood_4:
(Start: 34 @1179 has 6 MA's),

Gene: Xavier_76 Start: 60390, Stop: 60626, Start Num: 17
Candidate Starts for Xavier_76:
(6, 60294), (Start: 17 @60390 has 284 MA's), (45, 60549), (46, 60552),

Gene: Yoshand_77 Start: 60635, Stop: 60871, Start Num: 17
Candidate Starts for Yoshand_77:
(6, 60542), (Start: 17 @60635 has 284 MA's), (45, 60794), (46, 60797),

Gene: YouGoGlencoco_76 Start: 60509, Stop: 60745, Start Num: 17
Candidate Starts for YouGoGlencoco_76:
(6, 60416), (Start: 17 @60509 has 284 MA's), (45, 60668), (46, 60671),

Gene: Yucky_3 Start: 1499, Stop: 1675, Start Num: 37
Candidate Starts for Yucky_3:
(Start: 37 @1499 has 6 MA's), (47, 1619),

Gene: Yummy_3 Start: 758, Stop: 898, Start Num: 36
Candidate Starts for Yummy_3:
(Start: 36 @758 has 7 MA's),

Gene: Zaider_77 Start: 60710, Stop: 60946, Start Num: 17
Candidate Starts for Zaider_77:
(6, 60617), (Start: 17 @60710 has 284 MA's), (45, 60869), (46, 60872),

Gene: Zareef_4 Start: 1180, Stop: 1338, Start Num: 34
Candidate Starts for Zareef_4:
(19, 1141), (Start: 34 @1180 has 6 MA's),

Gene: Zelda_76 Start: 60840, Stop: 61076, Start Num: 17
Candidate Starts for Zelda_76:
(6, 60747), (Start: 17 @60840 has 284 MA's), (45, 60999), (46, 61002),

Gene: Zonia_77 Start: 60952, Stop: 61188, Start Num: 17
Candidate Starts for Zonia_77:
(6, 60859), (Start: 17 @60952 has 284 MA's),