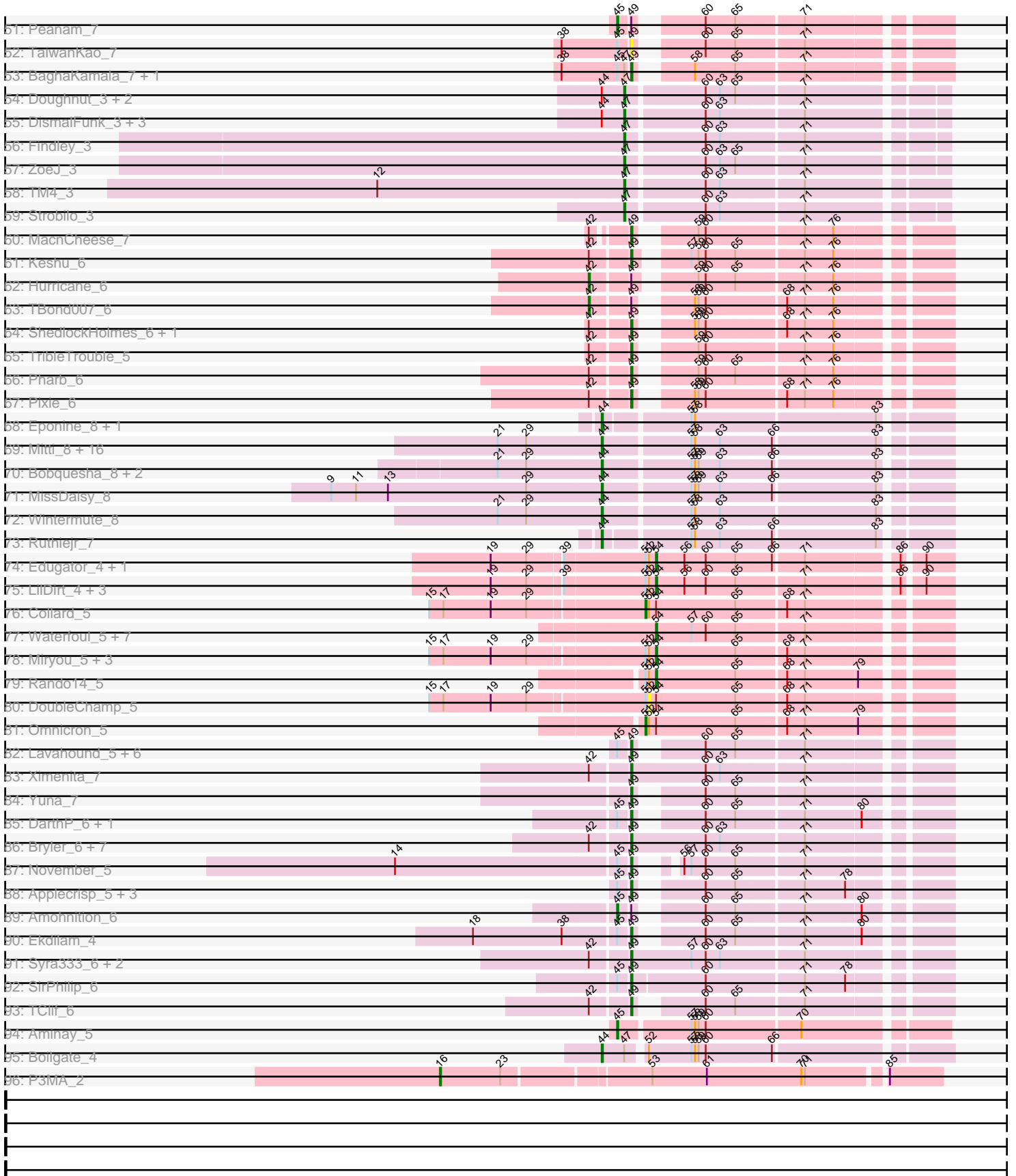


Pham 304651



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 304651 Report

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

Pham number 304651 has 314 members, 31 are drafts.

Phages represented in each track:

- Track 1 : Lton_1
- Track 2 : Faith5x5_1
- Track 3 : OneDirection_1
- Track 4 : Moosehead_1
- Track 5 : Lucky10_1
- Track 6 : InLimbo_1, PhorbesPhlower_1, Morkie_1
- Track 7 : Kumotta_2
- Track 8 : Rooter_1, Shoya_1
- Track 9 : Jeilious_1
- Track 10 : ShaboiShabazz_1, Plagueis_1, Peeb_1, Maliketh_1, Cherrybomb426_1, MZKinsey_1, Sizemore_1, Darionha_1, TinaBug_1, GoldenAsh_1, Schiebel_1, Phish_1, AizenPogi_1, Grizzly_1, DingDing_1, Mowgli_1, Olga_1, Rattrick_1, Kasen3_1, PinkYoshi_1, DMoney_1, Sweets_1, Hotshotbaby7_1
- Track 11 : Gomashi_1, Aroostook_1, Phloodle_1, CassieYates_1, AzulaCat_1, JorRay_1, Crespo_1, Jane_1, Barkley26_1, Ruriko_1, Angel_1, Phreak_1, LouisV14_1, BruceB_1, ECartman_1, Hope_1, Camri_1, Gideon_1, Jolene_1, Frosty24_1, Avrafan_1, TomBrady_1, Chance64_1, ZoMa_1, BPs_1, CLED96_1, Jonghyun_1, Zombie_1, Marmie_1, Rabbs_1, Halo_1, OctaviousRex_1, Renaissance_1, Neoh_1, Sneeze_1, Kareem_1, Remy19_1, Cedasite_1, Periodt_1, BQuat_1, Wendigo_1, Richarlison_1, Annihilator_1, Coleslaw_1
- Track 12 : DNAIII_001
- Track 13 : Taheera_1, Terror_1
- Track 14 : Liefie_1
- Track 15 : Paito_1
- Track 16 : Avocado_1
- Track 17 : GodSpeed_1, Pace1224_1, FlagStaff_1
- Track 18 : Cambiare_2
- Track 19 : Cloudyecho_1
- Track 20 : Pinnie_2
- Track 21 : MOOREtheMARYer_1
- Track 22 : Jolie2_1
- Track 23 : Mercurio_2
- Track 24 : Lemuria_1
- Track 25 : YangYin_1, Stargaze_1
- Track 26 : Antsirabe_1
- Track 27 : Megsy_7
- Track 28 : Atiba_7, Ageofdapage_7

- Track 29 : Oscar_6, Scarlett_6, LeMond_6
- Track 30 : Murucutumbu_7, TruffulaTree_7, JAWS_7, Hyperbowlee_7, Devera_7, BarrelRoll_7, Durfee_7, Beezoo_7, Blizzard_7, Homura_7, ShiaSurprise_7, Clipper_7, CheetoDust_7, CallaLilly_7, Boiiii_7, Llorens_7, Pokerus_6, MacKat_7, Emerson_7, Apocalypse_7, Tiri_7, BGIlluviae_7, Topper_7, Geraldini_7, LaterM_7, Capricorn_7, Veliki_7, Piatt_7, Rosmarinus_7, Illumine_7, Lunahalos_7, Belladonna_7, Mynx_7, YoureAdopted_6, Dalmuri_7, Asayake_7, BEEEST_7, Jeckyll_7, Dole_7, Tachez_7, Ganymede_7, Inky_7, Padpat_7, Spock_7
- Track 31 : SgtBeansprout_3, Nutello_3, Enkosi_3, Teejan_3, Mdavu_3, Torres_3, Trice_3, Nikao_3, LilPharaoh_3, Binglebops_3
- Track 32 : Pisa4_6, Pisa1_6, Marshawn_8
- Track 33 : Sulley_7, Angelica_7, Deby_7
- Track 34 : Prithvi_7, TreyKay_7, LindNT_7
- Track 35 : Adonis_7, Twitch_7, CREW_7, QuincyRose_6, Stinson_7, Jarvi_7, AlishaPH_7, Peel_7, Padfoot_7, CaseJules_7, Zavala_7
- Track 36 : CrimD_7
- Track 37 : Curiosium_8
- Track 38 : KiSi_6
- Track 39 : DartGoblin_7, Urkel_7, Anma_7, Bella96_7, DrHayes_7, TiniBug_7, SamuelLPlaqson_7
- Track 40 : Nibb_6, Chris_6, MarkPhew_6
- Track 41 : Adephegia_7, Ramen_7, Rapunzel97_7, ActinUp_7, HedwigODU_7, Slimphazie_7, Jayhawk_7
- Track 42 : Anaya_8
- Track 43 : Zabiza_7
- Track 44 : Validus_7
- Track 45 : Amelie_3
- Track 46 : Guanica15_7, Yunkel11_7
- Track 47 : Bern_7
- Track 48 : Efra2_7
- Track 49 : Joy99_7
- Track 50 : TingHuaYa_7, LastHope_7
- Track 51 : Peanam_7
- Track 52 : TaiwanKao_7
- Track 53 : BaghaKamala_7, MeaningOfLife_7
- Track 54 : Doughnut_3, BoostSeason_3, Mufasa_3
- Track 55 : DismalFunk_3, Milly_3, DismalStressor_3, Marcoliusprime_3
- Track 56 : Findley_3
- Track 57 : ZoeJ_3
- Track 58 : TM4_3
- Track 59 : Strobilo_3
- Track 60 : MacnCheese_7
- Track 61 : Keshu_6
- Track 62 : Hurricane_6
- Track 63 : TBond007_6
- Track 64 : ShedlockHolmes_6, Lea83_6
- Track 65 : TribbleTrouble_5
- Track 66 : Pharb_6
- Track 67 : Pixie_6
- Track 68 : Eponine_8, Juliette_8
- Track 69 : Mitti_8, Fionnbharth_8, Malthus_8, Cheetobro_8, Chancellor_8, Kraw_8, Taquito_6, Qhanda_8, Y2_08, Lebo14_8, OmniCritical_8, Slarp_8, DanSyl44_8, JF1_8, SamScheppers_6, Y10_08, YasnayaPolyana_8

- Track 70 : Bobquesha_8, Reptar3000_8, Patt_8
- Track 71 : MissDaisy_8
- Track 72 : Wintermute_8
- Track 73 : Ruthiejr_7
- Track 74 : Edugator_4, Dadosky_5
- Track 75 : LilDirt_4, Agent47_5, Neighly_5, ViviJ_4
- Track 76 : Collard_5
- Track 77 : Waterfoul_5, Heftyboy_5, Gengar_5, SoSeph_5, OkiRoe_5, Guillsminger_5, Leston_5, Paola_5
- Track 78 : Miryou_5, BananenDer11_5, Feyre_5, Thyatira_5
- Track 79 : Rando14_5
- Track 80 : DoubleChamp_5
- Track 81 : Omnicron_5
- Track 82 : Lavahound_5, Niklas_7, Chavito_7, Dartin_7, Richo_7, Shaobing_7, McMater_7
- Track 83 : Ximenita_7
- Track 84 : Yuna_7
- Track 85 : DarthP_6, Hammy_6
- Track 86 : Bryler_6, Cain_6, Tierra_6, Phrank_6, Unicorn_6, Krueger_6, PhelpsODU_6, Tigress9_6
- Track 87 : November_5
- Track 88 : Applecrisp_5, Ellie_4, Fefferhead_6, Amgine_5
- Track 89 : Amohnition_6
- Track 90 : Ekdilam_4
- Track 91 : Syra333_6, Sunflower1121_5, Shadow1_5
- Track 92 : SirPhilip_6
- Track 93 : TClif_6
- Track 94 : Aminay_5
- Track 95 : Boilgate_4
- Track 96 : P3MA_2

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

The start number called the most often in the published annotations is 49, it was called in 114 of the 283 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp_7, Adephagia_7, Amgine_5, Angelica_7, Anma_7, Apocalypse_7, Applecrisp_5, Asayake_7, BEEST_7, BGlluviae_7, BaghaKamala_7, BarrelRoll_7, Beezoo_7, Bella96_7, Belladonna_7, Binglebops_3, Blizzard_7, Boiiii_7, Bryler_6, Cain_6, CallaLilly_7, Capricorn_7, Chavito_7, CheetoDust_7, Chris_6, Clipper_7, Dalmuri_7, DartGoblin_7, DarthP_6, Dartin_7, Deby_7, Devera_7, Dole_7, DrHayes_7, Durfee_7, Efra2_7, Ekdilam_4, Ellie_4, Emerson_7, Enkosi_3, Fefferhead_6, Ganymede_7, Geraldini_7, Guanica15_7, Hammy_6, HedwigODU_7, Homura_7, Hyperbowlee_7, Illumine_7, Inky_7, JAWS_7, Jayhawk_7, Jeckyll_7, Joy99_7, Keshu_6, Krueger_6, LaterM_7, Lavahound_5, Lea83_6, LilPharaoh_3, LindNT_7, Llorens_7, Lunahalos_7, MacKat_7, MacnCheese_7, MarkPhew_6, Marshawn_8, McMater_7, Mdavu_3, MeaningOfLife_7, Murucutumbu_7, Mynx_7, Nibb_6, Nikao_3, Niklas_7, November_5, Nutello_3, Padpat_7, Pharb_6, PhelpsODU_6, Phrank_6, Piatt_7, Pisa1_6, Pisa4_6, Pixie_6, Pokerus_6, Prithvi_7,

Ramen_7, Rapunzel97_7, Richo_7, Rosmarinus_7, SamuelLPlaçon_7, SgtBeansprout_3, Shadow1_5, Shaobing_7, ShedlockHolmes_6, ShiaSurprise_7, SirPhilip_6, Slimphazie_7, Spock_7, Sulley_7, Sunflower1121_5, Syra333_6, TClif_6, Tachez_7, TaiwanKao_7, Teejan_3, Tierra_6, Tigress9_6, TiniBug_7, Tiri_7, Topper_7, Torres_3, TreyKay_7, TripleTrouble_5, Trice_3, TruffulaTree_7, Unicorn_6, Urkel_7, Veliki_7, Ximenita_7, YoureAdopted_6, Yuna_7, Yunkel11_7,

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

- Adonis_7, Ageofdapage_7, AlishaPH_7, Amelie_3, Amohnition_6, Anaya_8, Atiba_7, Bern_7, CREW_7, CaseJules_7, CrimD_7, Hurricane_6, Jarvi_7, KiSi_6, LeMond_6, Megsy_7, Oscar_6, Padfoot_7, Peanam_7, Peel_7, QuincyRose_6, Scarlett_6, Stinson_7, TBond007_6, Twitch_7, Validus_7, Zabiza_7, Zavala_7,

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

- Agent47_5, AizenPogi_1, Aminay_5, Angel_1, Annihilator_1, Antsirabe_1, Aroostook_1, Avocado_1, Avrafan_1, AzulaCat_1, BPs_1, BQuat_1, BananenDer11_5, Barkley26_1, Bobquesha_8, Boilgate_4, BoostSeason_3, BruceB_1, CLED96_1, Cambiare_2, Camri_1, CassieYates_1, Cedasite_1, Chance64_1, Chancellor_8, Cheetobro_8, Cherrybomb426_1, Cloudyecho_1, Coleslaw_1, Collard_5, Crespo_1, Curiosium_8, DMoney_1, DNAllI_001, Dadosky_5, DanSyl44_8, Darionha_1, DingDing_1, DismalFunk_3, DismalStressor_3, DoubleChamp_5, Doughnut_3, ECartman_1, Edugator_4, Eponine_8, Faith5x5_1, Feyre_5, Findley_3, Fionnbharth_8, FlagStaff_1, Frosty24_1, Gengar_5, Gideon_1, GodSpeed_1, GoldenAsh_1, Gomashi_1, Grizzly_1, Guillsminger_5, Halo_1, Heftyboy_5, Hope_1, Hotshotbaby7_1, InLimbo_1, JF1_8, Jane_1, Jeilious_1, Jolene_1, Jolie2_1, Jonghyun_1, JorRay_1, Juliette_8, Kareem_1, Kasen3_1, Kraw_8, Kumotta_2, LastHope_7, Lebo14_8, Lemuria_1, Leston_5, Liefie_1, LilDirt_4, LouisV14_1, Lton_1, Lucky10_1, MOOREtheMARYer_1, MZKinsey_1, Maliketh_1, Malthus_8, Marcoliusprime_3, Marmie_1, Mercurio_2, Milly_3, Miryou_5, MissDaisy_8, Mitti_8, Moosehead_1, Morkie_1, Mowgli_1, Mufasa_3, Neighly_5, Neoh_1, OctaviousRex_1, OkiRoe_5, Olga_1, OmniCritical_8, Omnicron_5, OneDirection_1, P3MA_2, Pace1224_1, Paito_1, Paola_5, Patt_8, Peeb_1, Periodt_1, Phish_1, Phloodle_1, PhorbesPhlower_1, Phreak_1, PinkYoshi_1, Pinnie_2, Plagueis_1, Qhanda_8, Rabbs_1, Rando14_5, Rattrick_1, Remy19_1, Renaissance_1, Reptar3000_8, Richarlison_1, Rooter_1, Ruriko_1, Ruthiejr_7, SamScheppers_6, Schiebel_1, ShaboiShabazz_1, Shoya_1, Sizemore_1, Slarp_8, Sneeze_1, SoSeph_5, Stargaze_1, Strobilo_3, Sweets_1, TM4_3, Taheera_1, Taquito_6, Terror_1, Thyatira_5, TinaBug_1, TingHuaYa_7, TomBrady_1, ViviJ_4, Waterfoul_5, Wendigo_1, Wintermute_8, Y10_08, Y2_08, YangYin_1, YasnayaPolyana_8, ZoMa_1, ZoeJ_3, Zombie_1,

Summary by start number:

Start 16:

- Found in 1 of 314 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 283
- Called 100.0% of time when present
- Phage (with cluster) where this start called: P3MA_2 (singleton),

Start 20:

- Found in 70 of 314 (22.3%) of genes in pham
- Manual Annotations of this start: 43 of 283
- Called 67.1% of time when present

- Phage (with cluster) where this start called: Angel_1 (G1), Annihilator_1 (G1), Aroostook_1 (G1), Avrafan_1 (G1), AzulaCat_1 (G1), BPs_1 (G1), BQuat_1 (G1), Barkley26_1 (G1), BruceB_1 (G1), CLED96_1 (G1), Camri_1 (G1), CassieYates_1 (G1), Cedasite_1 (G1), Chance64_1 (G1), Coleslaw_1 (G1), Crespo_1 (G1), DNAIII_001 (G1), ECartman_1 (G1), Frosty24_1 (G1), Gideon_1 (G1), Gomashi_1 (G1), Halo_1 (G1), Hope_1 (G1), Jane_1 (G1), Jeilious_1 (G), Jolene_1 (G1), Jonghyun_1 (G1), JorRay_1 (G1), Kareem_1 (G1), Liefie_1 (G1), LouisV14_1 (G1), Marmie_1 (G1), Neoh_1 (G), OctaviousRex_1 (G1), Periodt_1 (G1), Phloodle_1 (G1), Phreak_1 (G1), Rabbs_1 (G1), Remy19_1 (G1), Renaissance_1 (G1), Richarlison_1 (G1), Ruriko_1 (G1), Sneeze_1 (G1), TomBrady_1 (G1), Wendigo_1 (G1), ZoMa_1 (G1), Zombie_1 (G1),

Start 22:

- Found in 75 of 314 (23.9%) of genes in pham
- Manual Annotations of this start: 22 of 283
- Called 36.0% of time when present
- Phage (with cluster) where this start called: AizenPogi_1 (G1), Cherrybomb426_1 (G1), DMoney_1 (G1), Darionha_1 (G1), DingDing_1 (G1), GoldenAsh_1 (G1), Grizzly_1 (G1), Hotshotbaby7_1 (G1), Jolie2_1 (G4), Kasen3_1 (G1), Lemuria_1 (G4), MZKinsey_1 (G1), Maliketh_1 (G1), Mowgli_1 (G1), Olga_1 (G1), Peeb_1 (G1), Phish_1 (G1), PinkYoshi_1 (G1), Plagueis_1 (G1), Rattrick_1 (G1), Schiebel_1 (G1), ShaboiShabazz_1 (G1), Sizemore_1 (G1), Sweets_1 (G1), Taheera_1 (G1), Terror_1 (G1), TinaBug_1 (G1),

Start 26:

- Found in 2 of 314 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 283
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cambiare_2 (G2), Paito_1 (G1),

Start 27:

- Found in 11 of 314 (3.5%) of genes in pham
- Manual Annotations of this start: 6 of 283
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Antsirabe_1 (G5), Avocado_1 (G2), Cloudyecho_1 (G3), FlagStaff_1 (G2), GodSpeed_1 (G2), MOOREtheMARYer_1 (G3), Pace1224_1 (G2), Pinnie_2 (G3), Stargaze_1 (G5), YangYin_1 (G5),

Start 28:

- Found in 1 of 314 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 283
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mercurio_2 (G4),

Start 32:

- Found in 3 of 314 (1.0%) of genes in pham
- Manual Annotations of this start: 2 of 283
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kumotta_2 (FB), Rooter_1 (FB), Shoya_1 (FB),

Start 36:

- Found in 8 of 314 (2.5%) of genes in pham

- Manual Annotations of this start: 7 of 283
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Faith5x5_1 (CZ6), InLimbo_1 (DH), Lton_1 (CZ), Lucky10_1 (DH), Moosehead_1 (CZ6), Morkie_1 (DH), OneDirection_1 (CZ6), PhorbesPhlower_1 (DH),

Start 42:

- Found in 22 of 314 (7.0%) of genes in pham
- Manual Annotations of this start: 2 of 283
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Hurricane_6 (K3), TBond007_6 (K3),

Start 44:

- Found in 33 of 314 (10.5%) of genes in pham
- Manual Annotations of this start: 23 of 283
- Called 78.8% of time when present
- Phage (with cluster) where this start called: Bobquesha_8 (K4), Boilgate_4 (K8), Chancellor_8 (K4), Cheetobro_8 (K4), DanSyl44_8 (K4), Eponine_8 (K4), Fionnbharth_8 (K4), JF1_8 (K4), Juliette_8 (K4), Kraw_8 (K4), Lebo14_8 (K4), Malthus_8 (K4), MissDaisy_8 (K4), Mitti_8 (K4), OmniCritical_8 (K4), Patt_8 (K4), Qhanda_8 (K4), Reptar3000_8 (K4), Ruthiejr_7 (K4), SamScheppers_6 (K4), Slarp_8 (K4), Taquito_6 (K4), Wintermute_8 (K4), Y10_08 (K4), Y2_08 (K4), YasnayaPolyana_8 (K4),

Start 45:

- Found in 130 of 314 (41.4%) of genes in pham
- Manual Annotations of this start: 25 of 283
- Called 19.2% of time when present
- Phage (with cluster) where this start called: Adonis_7 (K1), AlishaPH_7 (K1), Amelie_3 (K1), Aminay_5 (K7), Amohntion_6 (K6), Anaya_8 (K1), Bern_7 (K1), CREW_7 (K1), CaseJules_7 (K1), CrimD_7 (K1), Jarvi_7 (K1), KiSi_6 (K1), LeMond_6 (K1), Megsy_7 (K1), Oscar_6 (K1), Padfoot_7 (K1), Peanam_7 (K1), Peel_7 (K1), QuincyRose_6 (K1), Scarlett_6 (K1), Stinson_7 (K1), Twitch_7 (K1), Validus_7 (K1), Zabiza_7 (K1), Zavala_7 (K1),

Start 47:

- Found in 80 of 314 (25.5%) of genes in pham
- Manual Annotations of this start: 13 of 283
- Called 16.2% of time when present
- Phage (with cluster) where this start called: Ageofdapage_7 (K1), Atiba_7 (K1), BoostSeason_3 (K2), DismalFunk_3 (K2), DismalStressor_3 (K2), Doughnut_3 (K2), Findley_3 (K2), Marcoliusprime_3 (K2), Milly_3 (K2), Mufasa_3 (K2), Strobilo_3 (K2), TM4_3 (K2), ZoeJ_3 (K2),

Start 48:

- Found in 3 of 314 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 283
- Called 66.7% of time when present
- Phage (with cluster) where this start called: LastHope_7 (K1), TingHuaYa_7 (K1),

Start 49:

- Found in 152 of 314 (48.4%) of genes in pham
- Manual Annotations of this start: 114 of 283

- Called 81.6% of time when present
- Phage (with cluster) where this start called: ActinUp_7 (K1), Adephagia_7 (K1), Amgine_5 (K6), Angelica_7 (K1), Anma_7 (K1), Apocalypse_7 (K1), Applecrisp_5 (K6), Asayake_7 (K1), BEEEST_7 (K1), BGlluviae_7 (K1), BaghaKamala_7 (K1), BarrelRoll_7 (K1), Beezoo_7 (K1), Bella96_7 (K1), Belladonna_7 (K1), Binglebops_3 (K1), Blizzard_7 (K1), Boiiii_7 (K1), Bryler_6 (K6), Cain_6 (K6), CallaLilly_7 (K1), Capricorn_7 (K1), Chavito_7 (K1), CheetoDust_7 (K1), Chris_6 (K1), Clipper_7 (K1), Dalmuri_7 (K1), DartGoblin_7 (K1), DarthP_6 (K6), Dartin_7 (K1), Deby_7 (K1), Devera_7 (K1), Dole_7 (K1), DrHayes_7 (K1), Durfee_7 (K1), Efra2_7 (K1), Ekdilam_4 (K6), Ellie_4 (K6), Emerson_7 (K1), Enkosi_3 (K1), Fefferhead_6 (K6), Ganymede_7 (K1), Geraldini_7 (K1), Guanica15_7 (K1), Hammy_6 (K6), HedwigODU_7 (K1), Homura_7 (K1), Hyperbowlee_7 (K1), Illumine_7 (K1), Inky_7 (K1), JAWS_7 (K1), Jayhawk_7 (K1), Jeckyll_7 (K1), Joy99_7 (K1), Keshu_6 (K3), Krueger_6 (K6), LaterM_7 (K1), Lavahound_5 (K6), Lea83_6 (K3), LilPharaoh_3 (K1), LindNT_7 (K1), Llorens_7 (K1), Lunahalos_7 (K1), MacKat_7 (K1), MacnCheese_7 (K3), MarkPheW_6 (K1), Marshawn_8 (K6), McMater_7 (K1), Mdavu_3 (K1), MeaningOfLife_7 (K1), Murucutumbu_7 (K1), Mynx_7 (K1), Nibb_6 (K1), Nikao_3 (K1), Niklas_7 (K1), November_5 (K6), Nutello_3 (K1), Padpat_7 (K1), Pharb_6 (K3), PhelpsODU_6 (K6), Phrank_6 (K6), Piatt_7 (K1), Pisa1_6 (K1), Pisa4_6 (K1), Pixie_6 (K3), Pokerus_6 (K1), Prithvi_7 (K1), Ramen_7 (K1), Rapunzel97_7 (K1), Richo_7 (K1), Rosmarinus_7 (K1), SamuelLPlaqson_7 (K1), SgtBeansprout_3 (K1), Shadow1_5 (K6), Shaobing_7 (K1), ShedlockHolmes_6 (K3), ShiaSurprise_7 (K1), SirPhilip_6 (K6), Slimphazie_7 (K1), Spock_7 (K1), Sulley_7 (K1), Sunflower1121_5 (K6), Syra333_6 (K6), TClif_6 (K6), Tachez_7 (K1), TaiwanKao_7 (K1), Teejan_3 (K1), Tierra_6 (K6), Tigress9_6 (K6), TiniBug_7 (K1), Tiri_7 (K1), Topper_7 (K1), Torres_3 (K1), TreyKay_7 (K1), TribbleTrouble_5 (K3), Trice_3 (K1), TruffulaTree_7 (K1), Unicorn_6 (K6), Urkel_7 (K1), Veliki_7 (K1), Ximenita_7 (K6), YoureAdopted_6 (K1), Yuna_7 (K6), Yunkel11_7 (K1),

Start 50:

- Found in 7 of 314 (2.2%) of genes in pham
- Manual Annotations of this start: 1 of 283
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Curiosium_8 (K1),

Start 51:

- Found in 14 of 314 (4.5%) of genes in pham
- Manual Annotations of this start: 2 of 283
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Collard_5 (K5), Omnicron_5 (K5),

Start 52:

- Found in 17 of 314 (5.4%) of genes in pham
- No Manual Annotations of this start.
- Called 5.9% of time when present
- Phage (with cluster) where this start called: DoubleChamp_5 (K5),

Start 54:

- Found in 22 of 314 (7.0%) of genes in pham
- Manual Annotations of this start: 18 of 283
- Called 86.4% of time when present
- Phage (with cluster) where this start called: Agent47_5 (K5), BananenDer11_5 (K5), Dadosky_5 (K5), Edugator_4 (K5), Feyre_5 (K5), Gengar_5 (K5), Guillsminger_5

(K5), Heftyboy_5 (K5), Leston_5 (K5), LilDirt_4 (K5), Miryou_5 (K5), Neighly_5 (K3), OkiRoe_5 (K5), Paola_5 (K5), Rando14_5 (K5), SoSeph_5 (K5), Thyatira_5 (K5), ViviJ_4 (K5), Waterfoul_5 (K5),

Summary by clusters:

There are 19 clusters represented in this pham: DH, G5, G4, G3, G1, G, CZ, CZ6, FB, K3, K2, K1, K7, K6, K5, K4, singleton, K8, G2,

Info for manual annotations of cluster CZ:

- Start number 36 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ6:

- Start number 36 was manually annotated 3 times for cluster CZ6.

Info for manual annotations of cluster DH:

- Start number 36 was manually annotated 3 times for cluster DH.

Info for manual annotations of cluster FB:

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

Info for manual annotations of cluster G1:

- Start number 20 was manually annotated 43 times for cluster G1.
- Start number 22 was manually annotated 21 times for cluster G1.
- Start number 26 was manually annotated 1 time for cluster G1.

Info for manual annotations of cluster G2:

- Start number 26 was manually annotated 1 time for cluster G2.
- Start number 27 was manually annotated 2 times for cluster G2.

Info for manual annotations of cluster G3:

- Start number 27 was manually annotated 2 times for cluster G3.

Info for manual annotations of cluster G4:

- Start number 22 was manually annotated 1 time for cluster G4.
- Start number 28 was manually annotated 1 time for cluster G4.

Info for manual annotations of cluster G5:

- Start number 27 was manually annotated 2 times for cluster G5.

Info for manual annotations of cluster K1:

- Start number 45 was manually annotated 23 times for cluster K1.
- Start number 47 was manually annotated 2 times for cluster K1.
- Start number 48 was manually annotated 1 time for cluster K1.
- Start number 49 was manually annotated 82 times for cluster K1.
- Start number 50 was manually annotated 1 time for cluster K1.

Info for manual annotations of cluster K2:

- Start number 47 was manually annotated 11 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 42 was manually annotated 2 times for cluster K3.

- Start number 49 was manually annotated 7 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 44 was manually annotated 22 times for cluster K4.

Info for manual annotations of cluster K5:

- Start number 51 was manually annotated 2 times for cluster K5.
- Start number 54 was manually annotated 18 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 45 was manually annotated 1 time for cluster K6.
- Start number 49 was manually annotated 25 times for cluster K6.

Info for manual annotations of cluster K7:

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

Info for manual annotations of cluster K8:

- Start number 44 was manually annotated 1 time for cluster K8.

Gene Information:

Gene: ActinUp_7 Start: 1376, Stop: 1603, Start Num: 49

Candidate Starts for ActinUp_7:

(Start: 45 @1367 has 25 MA's), (Start: 47 @1373 has 13 MA's), (Start: 49 @1376 has 114 MA's), (58, 1409), (60, 1418), (65, 1442), (71, 1496),

Gene: Adephagia_7 Start: 1376, Stop: 1603, Start Num: 49

Candidate Starts for Adephagia_7:

(Start: 45 @1367 has 25 MA's), (Start: 47 @1373 has 13 MA's), (Start: 49 @1376 has 114 MA's), (58, 1409), (60, 1418), (65, 1442), (71, 1496),

Gene: Adonis_7 Start: 1384, Stop: 1620, Start Num: 45

Candidate Starts for Adonis_7:

(38, 1339), (Start: 45 @1384 has 25 MA's), (Start: 47 @1390 has 13 MA's), (Start: 49 @1393 has 114 MA's), (58, 1426), (60, 1435), (65, 1459), (71, 1513),

Gene: Agent47_5 Start: 1111, Stop: 1338, Start Num: 54

Candidate Starts for Agent47_5:

(19, 979), (29, 1009), (39, 1036), (Start: 51 @1102 has 2 MA's), (52, 1105), (Start: 54 @1111 has 18 MA's), (56, 1135), (60, 1153), (65, 1177), (71, 1231), (86, 1300), (90, 1315),

Gene: Ageofdapage_7 Start: 1322, Stop: 1552, Start Num: 47

Candidate Starts for Ageofdapage_7:

(38, 1271), (Start: 45 @1316 has 25 MA's), (Start: 47 @1322 has 13 MA's), (Start: 49 @1325 has 114 MA's), (58, 1358), (60, 1367), (65, 1391), (71, 1445),

Gene: AizenPogi_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for AizenPogi_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: AlishaPH_7 Start: 1372, Stop: 1608, Start Num: 45

Candidate Starts for AlishaPH_7:

(38, 1327), (Start: 45 @1372 has 25 MA's), (Start: 47 @1378 has 13 MA's), (Start: 49 @1381 has 114 MA's), (58, 1414), (60, 1423), (65, 1447), (71, 1501),

Gene: Amelie_3 Start: 627, Stop: 863, Start Num: 45

Candidate Starts for Amelie_3:

(Start: 45 @627 has 25 MA's), (Start: 49 @636 has 114 MA's), (60, 678), (62, 684), (65, 702), (71, 756), (77, 783),

Gene: Amgine_5 Start: 970, Stop: 1197, Start Num: 49

Candidate Starts for Amgine_5:

(Start: 45 @961 has 25 MA's), (Start: 49 @970 has 114 MA's), (60, 1012), (65, 1036), (71, 1090), (78, 1123),

Gene: Aminay_5 Start: 1070, Stop: 1327, Start Num: 45

Candidate Starts for Aminay_5:

(Start: 45 @1070 has 25 MA's), (57, 1127), (58, 1130), (59, 1133), (60, 1139), (70, 1214),

Gene: Amohnition_6 Start: 1167, Stop: 1403, Start Num: 45

Candidate Starts for Amohnition_6:

(Start: 45 @1167 has 25 MA's), (Start: 49 @1176 has 114 MA's), (60, 1218), (65, 1242), (71, 1296), (80, 1341),

Gene: Anaya_8 Start: 1396, Stop: 1632, Start Num: 45

Candidate Starts for Anaya_8:

(35, 1345), (Start: 45 @1396 has 25 MA's), (Start: 49 @1405 has 114 MA's), (60, 1447), (65, 1471), (71, 1525),

Gene: Angel_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Angel_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Angelica_7 Start: 1364, Stop: 1591, Start Num: 49

Candidate Starts for Angelica_7:

(35, 1304), (Start: 45 @1355 has 25 MA's), (Start: 49 @1364 has 114 MA's), (60, 1406), (65, 1430), (71, 1484),

Gene: Anma_7 Start: 1355, Stop: 1582, Start Num: 49

Candidate Starts for Anma_7:

(38, 1304), (Start: 45 @1346 has 25 MA's), (Start: 49 @1355 has 114 MA's), (60, 1397), (65, 1421), (71, 1475),

Gene: Annihilator_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Annihilator_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Antsirabe_1 Start: 53, Stop: 382, Start Num: 27

Candidate Starts for Antsirabe_1:

(Start: 27 @53 has 6 MA's), (34, 80), (53, 146), (60, 191), (65, 215), (66, 245), (70, 266),

Gene: Apocalypse_7 Start: 1360, Stop: 1587, Start Num: 49

Candidate Starts for Apocalypse_7:

(38, 1306), (Start: 45 @1351 has 25 MA's), (Start: 47 @1357 has 13 MA's), (Start: 49 @1360 has 114 MA's), (58, 1393), (60, 1402), (65, 1426), (71, 1480),

Gene: Applecrisp_5 Start: 1329, Stop: 1556, Start Num: 49

Candidate Starts for Applecrisp_5:

(Start: 45 @1320 has 25 MA's), (Start: 49 @1329 has 114 MA's), (60, 1371), (65, 1395), (71, 1449), (78, 1482),

Gene: Aroostook_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Aroostook_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Asayake_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Asayake_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Atiba_7 Start: 1342, Stop: 1572, Start Num: 47

Candidate Starts for Atiba_7:

(38, 1291), (Start: 45 @1336 has 25 MA's), (Start: 47 @1342 has 13 MA's), (Start: 49 @1345 has 114 MA's), (58, 1378), (60, 1387), (65, 1411), (71, 1465),

Gene: Avocado_1 Start: 54, Stop: 380, Start Num: 27

Candidate Starts for Avocado_1:

(Start: 27 @54 has 6 MA's), (53, 144), (57, 177), (60, 189), (69, 255), (72, 273), (73, 276), (75, 285),

Gene: Avrafan_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Avrafan_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: AzulaCat_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for AzulaCat_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: BEEST_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for BEEST_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: BGlluviae_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for BGlluviae_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: BPs_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for BPs_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: BQuat_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for BQuat_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: BaghaKamala_7 Start: 1352, Stop: 1579, Start Num: 49

Candidate Starts for BaghaKamala_7:

(38, 1298), (Start: 45 @1343 has 25 MA's), (Start: 47 @1349 has 13 MA's), (Start: 49 @1352 has 114 MA's), (58, 1385), (65, 1418), (71, 1472),

Gene: BananenDer11_5 Start: 1104, Stop: 1331, Start Num: 54

Candidate Starts for BananenDer11_5:

(15, 921), (17, 933), (19, 972), (29, 1002), (Start: 51 @1095 has 2 MA's), (52, 1098), (Start: 54 @1104 has 18 MA's), (65, 1170), (68, 1209), (71, 1224),

Gene: Barkley26_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Barkley26_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: BarrelRoll_7 Start: 1376, Stop: 1603, Start Num: 49

Candidate Starts for BarrelRoll_7:

(38, 1322), (Start: 45 @1367 has 25 MA's), (Start: 47 @1373 has 13 MA's), (Start: 49 @1376 has 114 MA's), (58, 1409), (60, 1418), (65, 1442), (71, 1496),

Gene: Beezoo_7 Start: 1405, Stop: 1632, Start Num: 49

Candidate Starts for Beezoo_7:

(38, 1351), (Start: 45 @1396 has 25 MA's), (Start: 47 @1402 has 13 MA's), (Start: 49 @1405 has 114 MA's), (58, 1438), (60, 1447), (65, 1471), (71, 1525),

Gene: Bella96_7 Start: 1334, Stop: 1561, Start Num: 49

Candidate Starts for Bella96_7:

(38, 1283), (Start: 45 @1325 has 25 MA's), (Start: 49 @1334 has 114 MA's), (60, 1376), (65, 1400), (71, 1454),

Gene: Belladonna_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Belladonna_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Bern_7 Start: 1363, Stop: 1599, Start Num: 45

Candidate Starts for Bern_7:

(Start: 45 @1363 has 25 MA's), (Start: 49 @1372 has 114 MA's), (56, 1396), (60, 1414), (65, 1438), (71, 1492),

Gene: Biglebops_3 Start: 636, Stop: 863, Start Num: 49

Candidate Starts for Biglebops_3:

(Start: 45 @627 has 25 MA's), (Start: 49 @636 has 114 MA's), (60, 678), (62, 684), (65, 702), (71, 756), (77, 783),

Gene: Blizzard_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Blizzard_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Bobquesha_8 Start: 2153, Stop: 2425, Start Num: 44

Candidate Starts for Bobquesha_8:

(21, 2066), (29, 2090), (Start: 44 @2153 has 23 MA's), (57, 2222), (58, 2225), (59, 2228), (63, 2246), (66, 2288), (83, 2372),

Gene: Boiiii_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Boiiii_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Boilgate_4 Start: 1309, Stop: 1578, Start Num: 44

Candidate Starts for Boilgate_4:

(Start: 44 @1309 has 23 MA's), (Start: 47 @1327 has 13 MA's), (52, 1339), (57, 1375), (58, 1378), (59, 1381), (60, 1387), (66, 1441),

Gene: BoostSeason_3 Start: 426, Stop: 674, Start Num: 47

Candidate Starts for BoostSeason_3:

(Start: 44 @408 has 23 MA's), (Start: 47 @426 has 13 MA's), (60, 489), (63, 501), (65, 513), (71, 567),

Gene: BruceB_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for BruceB_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Bryler_6 Start: 1277, Stop: 1525, Start Num: 49

Candidate Starts for Bryler_6:

(Start: 42 @1247 has 2 MA's), (Start: 49 @1277 has 114 MA's), (60, 1340), (63, 1352), (71, 1418),

Gene: CLED96_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for CLED96_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: CREW_7 Start: 1417, Stop: 1653, Start Num: 45

Candidate Starts for CREW_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Cain_6 Start: 1277, Stop: 1525, Start Num: 49

Candidate Starts for Cain_6:

(Start: 42 @1247 has 2 MA's), (Start: 49 @1277 has 114 MA's), (60, 1340), (63, 1352), (71, 1418),

Gene: CallaLilly_7 Start: 1352, Stop: 1579, Start Num: 49

Candidate Starts for CallaLilly_7:

(38, 1298), (Start: 45 @1343 has 25 MA's), (Start: 47 @1349 has 13 MA's), (Start: 49 @1352 has 114 MA's), (58, 1385), (60, 1394), (65, 1418), (71, 1472),

Gene: Cambiare_2 Start: 534, Stop: 869, Start Num: 26

Candidate Starts for Cambiare_2:

(10, 384), (Start: 22 @525 has 22 MA's), (Start: 26 @534 has 2 MA's), (31, 555), (34, 564), (53, 633), (55, 651), (57, 666), (71, 756), (75, 774), (77, 783),

Gene: Camri_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Camri_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Capricorn_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Capricorn_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: CaseJules_7 Start: 1417, Stop: 1653, Start Num: 45

Candidate Starts for CaseJules_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: CassieYates_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for CassieYates_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Cedasite_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Cedasite_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Chance64_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Chance64_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Chancellor_8 Start: 2234, Stop: 2506, Start Num: 44

Candidate Starts for Chancellor_8:

(21, 2147), (29, 2171), (Start: 44 @2234 has 23 MA's), (57, 2303), (58, 2306), (63, 2327), (66, 2369), (83, 2453),

Gene: Chavito_7 Start: 1450, Stop: 1677, Start Num: 49

Candidate Starts for Chavito_7:

(Start: 45 @1441 has 25 MA's), (Start: 49 @1450 has 114 MA's), (60, 1492), (65, 1516), (71, 1570),

Gene: CheetoDust_7 Start: 1402, Stop: 1629, Start Num: 49

Candidate Starts for CheetoDust_7:

(38, 1348), (Start: 45 @1393 has 25 MA's), (Start: 47 @1399 has 13 MA's), (Start: 49 @1402 has 114 MA's), (58, 1435), (60, 1444), (65, 1468), (71, 1522),

Gene: Cheetobro_8 Start: 2234, Stop: 2506, Start Num: 44

Candidate Starts for Cheetobro_8:

(21, 2147), (29, 2171), (Start: 44 @2234 has 23 MA's), (57, 2303), (58, 2306), (63, 2327), (66, 2369), (83, 2453),

Gene: Cherrybomb426_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for Cherrybomb426_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Chris_6 Start: 1317, Stop: 1541, Start Num: 49

Candidate Starts for Chris_6:

(Start: 45 @1308 has 25 MA's), (Start: 49 @1317 has 114 MA's), (65, 1380), (71, 1434),

Gene: Clipper_7 Start: 1402, Stop: 1629, Start Num: 49

Candidate Starts for Clipper_7:

(38, 1348), (Start: 45 @1393 has 25 MA's), (Start: 47 @1399 has 13 MA's), (Start: 49 @1402 has 114 MA's), (58, 1435), (60, 1444), (65, 1468), (71, 1522),

Gene: Cloudyecho_1 Start: 52, Stop: 381, Start Num: 27

Candidate Starts for Cloudyecho_1:

(24, 49), (Start: 27 @52 has 6 MA's), (34, 79), (53, 145), (57, 178), (60, 190), (69, 256), (72, 274), (74, 280), (77, 295), (86, 337),

Gene: Coleslaw_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Coleslaw_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Collard_5 Start: 1095, Stop: 1331, Start Num: 51

Candidate Starts for Collard_5:

(15, 921), (17, 933), (19, 972), (29, 1002), (Start: 51 @1095 has 2 MA's), (52, 1098), (Start: 54 @1104 has 18 MA's), (65, 1170), (68, 1209), (71, 1224),

Gene: Crespo_1 Start: 44, Stop: 388, Start Num: 20

Candidate Starts for Crespo_1:

(Start: 20 @44 has 43 MA's), (Start: 22 @47 has 22 MA's), (53, 149), (65, 218), (70, 269),

Gene: CrimD_7 Start: 1342, Stop: 1578, Start Num: 45

Candidate Starts for CrimD_7:

(Start: 45 @1342 has 25 MA's), (Start: 49 @1351 has 114 MA's), (60, 1393), (65, 1417), (71, 1471),

Gene: Curiosium_8 Start: 1733, Stop: 1978, Start Num: 50

Candidate Starts for Curiosium_8:

(46, 1724), (Start: 48 @1730 has 1 MA's), (Start: 50 @1733 has 1 MA's), (60, 1793), (64, 1814), (70, 1868), (71, 1871), (84, 1931),

Gene: DMoney_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for DMoney_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: DNAIII_001 Start: 52, Stop: 396, Start Num: 20

Candidate Starts for DNAIII_001:

(Start: 20 @52 has 43 MA's), (Start: 22 @55 has 22 MA's), (53, 157), (65, 226), (70, 277),

Gene: Dadosky_5 Start: 1129, Stop: 1356, Start Num: 54

Candidate Starts for Dadosky_5:

(19, 997), (29, 1027), (39, 1054), (Start: 51 @1120 has 2 MA's), (52, 1123), (Start: 54 @1129 has 18 MA's), (56, 1153), (60, 1171), (65, 1195), (66, 1225), (71, 1249), (86, 1318), (90, 1333),

Gene: Dalmuri_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Dalmuri_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: DanSyl44_8 Start: 2234, Stop: 2506, Start Num: 44

Candidate Starts for DanSyl44_8:

(21, 2147), (29, 2171), (Start: 44 @2234 has 23 MA's), (57, 2303), (58, 2306), (63, 2327), (66, 2369), (83, 2453),

Gene: Darionha_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for Darionha_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: DartGoblin_7 Start: 1334, Stop: 1561, Start Num: 49

Candidate Starts for DartGoblin_7:

(38, 1283), (Start: 45 @1325 has 25 MA's), (Start: 49 @1334 has 114 MA's), (60, 1376), (65, 1400), (71, 1454),

Gene: DarthP_6 Start: 1176, Stop: 1403, Start Num: 49

Candidate Starts for DarthP_6:

(Start: 45 @1167 has 25 MA's), (Start: 49 @1176 has 114 MA's), (60, 1218), (65, 1242), (71, 1296), (80, 1341),

Gene: Dartin_7 Start: 1449, Stop: 1676, Start Num: 49

Candidate Starts for Dartin_7:

(Start: 45 @1440 has 25 MA's), (Start: 49 @1449 has 114 MA's), (60, 1491), (65, 1515), (71, 1569),

Gene: Deby_7 Start: 1364, Stop: 1591, Start Num: 49

Candidate Starts for Deby_7:

(35, 1304), (Start: 45 @1355 has 25 MA's), (Start: 49 @1364 has 114 MA's), (60, 1406), (65, 1430), (71, 1484),

Gene: Devera_7 Start: 1393, Stop: 1620, Start Num: 49

Candidate Starts for Devera_7:

(38, 1339), (Start: 45 @1384 has 25 MA's), (Start: 47 @1390 has 13 MA's), (Start: 49 @1393 has 114 MA's), (58, 1426), (60, 1435), (65, 1459), (71, 1513),

Gene: DingDing_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for DingDing_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: DismalFunk_3 Start: 426, Stop: 674, Start Num: 47

Candidate Starts for DismalFunk_3:

(Start: 44 @408 has 23 MA's), (Start: 47 @426 has 13 MA's), (60, 489), (63, 501), (71, 567),

Gene: DismalStressor_3 Start: 426, Stop: 674, Start Num: 47

Candidate Starts for DismalStressor_3:

(Start: 44 @408 has 23 MA's), (Start: 47 @426 has 13 MA's), (60, 489), (63, 501), (71, 567),

Gene: Dole_7 Start: 1393, Stop: 1620, Start Num: 49

Candidate Starts for Dole_7:

(38, 1339), (Start: 45 @1384 has 25 MA's), (Start: 47 @1390 has 13 MA's), (Start: 49 @1393 has 114 MA's), (58, 1426), (60, 1435), (65, 1459), (71, 1513),

Gene: DoubleChamp_5 Start: 1098, Stop: 1331, Start Num: 52

Candidate Starts for DoubleChamp_5:

(15, 921), (17, 933), (19, 972), (29, 1002), (Start: 51 @1095 has 2 MA's), (52, 1098), (Start: 54 @1104 has 18 MA's), (65, 1170), (68, 1209), (71, 1224),

Gene: Doughnut_3 Start: 426, Stop: 674, Start Num: 47

Candidate Starts for Doughnut_3:

(Start: 44 @408 has 23 MA's), (Start: 47 @426 has 13 MA's), (60, 489), (63, 501), (65, 513), (71, 567),

Gene: DrHayes_7 Start: 1355, Stop: 1582, Start Num: 49

Candidate Starts for DrHayes_7:

(38, 1304), (Start: 45 @1346 has 25 MA's), (Start: 49 @1355 has 114 MA's), (60, 1397), (65, 1421), (71, 1475),

Gene: Durfee_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Durfee_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: ECartman_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for ECartman_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Edugator_4 Start: 1129, Stop: 1356, Start Num: 54

Candidate Starts for Edugator_4:

(19, 997), (29, 1027), (39, 1054), (Start: 51 @1120 has 2 MA's), (52, 1123), (Start: 54 @1129 has 18 MA's), (56, 1153), (60, 1171), (65, 1195), (66, 1225), (71, 1249), (86, 1318), (90, 1333),

Gene: Efra2_7 Start: 1360, Stop: 1587, Start Num: 49

Candidate Starts for Efra2_7:

(35, 1297), (Start: 45 @1351 has 25 MA's), (Start: 49 @1360 has 114 MA's), (65, 1426), (71, 1480), (78, 1513),

Gene: Ekdilam_4 Start: 911, Stop: 1138, Start Num: 49

Candidate Starts for Ekdilam_4:

(18, 785), (38, 860), (Start: 45 @902 has 25 MA's), (Start: 49 @911 has 114 MA's), (60, 953), (65, 977), (71, 1031), (80, 1076),

Gene: Ellie_4 Start: 1002, Stop: 1229, Start Num: 49

Candidate Starts for Ellie_4:

(Start: 45 @993 has 25 MA's), (Start: 49 @1002 has 114 MA's), (60, 1044), (65, 1068), (71, 1122), (78, 1155),

Gene: Emerson_7 Start: 1382, Stop: 1609, Start Num: 49

Candidate Starts for Emerson_7:

(38, 1328), (Start: 45 @1373 has 25 MA's), (Start: 47 @1379 has 13 MA's), (Start: 49 @1382 has 114 MA's), (58, 1415), (60, 1424), (65, 1448), (71, 1502),

Gene: Enkosi_3 Start: 636, Stop: 863, Start Num: 49

Candidate Starts for Enkosi_3:

(Start: 45 @627 has 25 MA's), (Start: 49 @636 has 114 MA's), (60, 678), (62, 684), (65, 702), (71, 756), (77, 783),

Gene: Eponine_8 Start: 2229, Stop: 2498, Start Num: 44

Candidate Starts for Eponine_8:

(Start: 44 @2229 has 23 MA's), (57, 2295), (58, 2298), (83, 2445),

Gene: Faith5x5_1 Start: 103, Stop: 465, Start Num: 36

Candidate Starts for Faith5x5_1:

(33, 97), (Start: 36 @103 has 7 MA's), (40, 115), (58, 214), (60, 223), (63, 235), (65, 247), (66, 277), (84, 364), (86, 373), (89, 385), (91, 394), (93, 430),

Gene: Fefferhead_6 Start: 1172, Stop: 1399, Start Num: 49

Candidate Starts for Fefferhead_6:

(Start: 45 @1163 has 25 MA's), (Start: 49 @1172 has 114 MA's), (60, 1214), (65, 1238), (71, 1292), (78, 1325),

Gene: Feyre_5 Start: 1105, Stop: 1332, Start Num: 54

Candidate Starts for Feyre_5:

(15, 922), (17, 934), (19, 973), (29, 1003), (Start: 51 @1096 has 2 MA's), (52, 1099), (Start: 54 @1105 has 18 MA's), (65, 1171), (68, 1210), (71, 1225),

Gene: Findley_3 Start: 426, Stop: 674, Start Num: 47

Candidate Starts for Findley_3:

(Start: 47 @426 has 13 MA's), (60, 489), (63, 501), (71, 567),

Gene: Fionnbharth_8 Start: 2221, Stop: 2493, Start Num: 44

Candidate Starts for Fionnbharth_8:

(21, 2134), (29, 2158), (Start: 44 @2221 has 23 MA's), (57, 2290), (58, 2293), (63, 2314), (66, 2356), (83, 2440),

Gene: FlagStaff_1 Start: 52, Stop: 387, Start Num: 27

Candidate Starts for FlagStaff_1:

(Start: 27 @52 has 6 MA's), (34, 79), (65, 214), (66, 244),

Gene: Frosty24_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Frosty24_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Ganymede_7 Start: 1402, Stop: 1629, Start Num: 49

Candidate Starts for Ganymede_7:

(38, 1348), (Start: 45 @1393 has 25 MA's), (Start: 47 @1399 has 13 MA's), (Start: 49 @1402 has 114 MA's), (58, 1435), (60, 1444), (65, 1468), (71, 1522),

Gene: Gengar_5 Start: 1131, Stop: 1358, Start Num: 54

Candidate Starts for Gengar_5:

(Start: 54 @1131 has 18 MA's), (57, 1161), (60, 1173), (65, 1197), (71, 1251),

Gene: Geraldini_7 Start: 1405, Stop: 1632, Start Num: 49

Candidate Starts for Geraldini_7:

(38, 1351), (Start: 45 @1396 has 25 MA's), (Start: 47 @1402 has 13 MA's), (Start: 49 @1405 has 114 MA's), (58, 1438), (60, 1447), (65, 1471), (71, 1525),

Gene: Gideon_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Gideon_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: GodSpeed_1 Start: 52, Stop: 387, Start Num: 27

Candidate Starts for GodSpeed_1:

(Start: 27 @52 has 6 MA's), (34, 79), (65, 214), (66, 244),

Gene: GoldenAsh_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for GoldenAsh_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Gomashi_1 Start: 44, Stop: 388, Start Num: 20

Candidate Starts for Gomashi_1:

(Start: 20 @44 has 43 MA's), (Start: 22 @47 has 22 MA's), (53, 149), (65, 218), (70, 269),

Gene: Grizzly_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for Grizzly_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Guanica15_7 Start: 1376, Stop: 1603, Start Num: 49

Candidate Starts for Guanica15_7:

(35, 1313), (Start: 45 @1367 has 25 MA's), (Start: 49 @1376 has 114 MA's), (65, 1442), (71, 1496),

Gene: Guillsminger_5 Start: 1106, Stop: 1333, Start Num: 54

Candidate Starts for Guillsminger_5:

(Start: 54 @1106 has 18 MA's), (57, 1136), (60, 1148), (65, 1172), (71, 1226),

Gene: Halo_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Halo_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Hammy_6 Start: 1173, Stop: 1400, Start Num: 49

Candidate Starts for Hammy_6:

(Start: 45 @1164 has 25 MA's), (Start: 49 @1173 has 114 MA's), (60, 1215), (65, 1239), (71, 1293), (80, 1338),

Gene: HedwigODU_7 Start: 1376, Stop: 1603, Start Num: 49

Candidate Starts for HedwigODU_7:

(Start: 45 @1367 has 25 MA's), (Start: 47 @1373 has 13 MA's), (Start: 49 @1376 has 114 MA's), (58, 1409), (60, 1418), (65, 1442), (71, 1496),

Gene: Heftyboy_5 Start: 1127, Stop: 1354, Start Num: 54

Candidate Starts for Heftyboy_5:

(Start: 54 @1127 has 18 MA's), (57, 1157), (60, 1169), (65, 1193), (71, 1247),

Gene: Homura_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Homura_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Hope_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Hope_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Hotshotbaby7_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for Hotshotbaby7_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Hurricane_6 Start: 1250, Stop: 1510, Start Num: 42

Candidate Starts for Hurricane_6:

(Start: 42 @1250 has 2 MA's), (Start: 49 @1280 has 114 MA's), (59, 1319), (60, 1325), (65, 1349), (71, 1403), (76, 1427),

Gene: Hyperbowlee_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Hyperbowlee_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Illumine_7 Start: 1393, Stop: 1620, Start Num: 49

Candidate Starts for Illumine_7:

(38, 1339), (Start: 45 @1384 has 25 MA's), (Start: 47 @1390 has 13 MA's), (Start: 49 @1393 has 114 MA's), (58, 1426), (60, 1435), (65, 1459), (71, 1513),

Gene: InLimbo_1 Start: 44, Stop: 346, Start Num: 36

Candidate Starts for InLimbo_1:

(Start: 36 @44 has 7 MA's), (Start: 50 @110 has 1 MA's), (58, 155), (60, 164), (63, 176), (71, 242), (84, 299),

Gene: Inky_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Inky_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: JAWS_7 Start: 1376, Stop: 1603, Start Num: 49

Candidate Starts for JAWS_7:

(38, 1322), (Start: 45 @1367 has 25 MA's), (Start: 47 @1373 has 13 MA's), (Start: 49 @1376 has 114 MA's), (58, 1409), (60, 1418), (65, 1442), (71, 1496),

Gene: JF1_8 Start: 2221, Stop: 2493, Start Num: 44

Candidate Starts for JF1_8:

(21, 2134), (29, 2158), (Start: 44 @2221 has 23 MA's), (57, 2290), (58, 2293), (63, 2314), (66, 2356), (83, 2440),

Gene: Jane_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Jane_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Jarvi_7 Start: 1417, Stop: 1653, Start Num: 45

Candidate Starts for Jarvi_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Jayhawk_7 Start: 1376, Stop: 1603, Start Num: 49

Candidate Starts for Jayhawk_7:

(Start: 45 @1367 has 25 MA's), (Start: 47 @1373 has 13 MA's), (Start: 49 @1376 has 114 MA's), (58, 1409), (60, 1418), (65, 1442), (71, 1496),

Gene: Jeckyll_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Jeckyll_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Jeilious_1 Start: 42, Stop: 386, Start Num: 20

Candidate Starts for Jeilious_1:

(Start: 20 @42 has 43 MA's), (Start: 22 @45 has 22 MA's), (53, 147), (65, 216), (70, 267),

Gene: Jolene_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Jolene_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Jolie2_1 Start: 45, Stop: 404, Start Num: 22

Candidate Starts for Jolie2_1:

(Start: 22 @45 has 22 MA's), (68, 264), (72, 285), (87, 363),

Gene: Jonghyun_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Jonghyun_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: JorRay_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for JorRay_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Joy99_7 Start: 1352, Stop: 1579, Start Num: 49

Candidate Starts for Joy99_7:

(Start: 45 @1343 has 25 MA's), (Start: 47 @1349 has 13 MA's), (Start: 49 @1352 has 114 MA's), (58, 1385), (65, 1418), (71, 1472),

Gene: Juliette_8 Start: 2229, Stop: 2498, Start Num: 44

Candidate Starts for Juliette_8:

(Start: 44 @2229 has 23 MA's), (57, 2295), (58, 2298), (83, 2445),

Gene: Kareem_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Kareem_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Kasen3_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for Kasen3_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Keshu_6 Start: 1259, Stop: 1489, Start Num: 49

Candidate Starts for Keshu_6:

(Start: 42 @1229 has 2 MA's), (Start: 49 @1259 has 114 MA's), (57, 1292), (59, 1298), (60, 1304), (65, 1328), (71, 1382), (76, 1406),

Gene: KiSi_6 Start: 1261, Stop: 1497, Start Num: 45

Candidate Starts for KiSi_6:

(Start: 45 @1261 has 25 MA's), (Start: 49 @1270 has 114 MA's), (65, 1336), (71, 1390),

Gene: Kraw_8 Start: 2221, Stop: 2493, Start Num: 44

Candidate Starts for Kraw_8:

(21, 2134), (29, 2158), (Start: 44 @2221 has 23 MA's), (57, 2290), (58, 2293), (63, 2314), (66, 2356), (83, 2440),

Gene: Krueger_6 Start: 1287, Stop: 1535, Start Num: 49

Candidate Starts for Krueger_6:

(Start: 42 @1257 has 2 MA's), (Start: 49 @1287 has 114 MA's), (60, 1350), (63, 1362), (71, 1428),

Gene: Kumotta_2 Start: 743, Stop: 1042, Start Num: 32

Candidate Starts for Kumotta_2:

(30, 734), (Start: 32 @743 has 2 MA's), (37, 758), (41, 767), (52, 821), (60, 866), (66, 917), (88, 1010),

Gene: LastHope_7 Start: 1385, Stop: 1633, Start Num: 48

Candidate Starts for LastHope_7:

(46, 1379), (Start: 48 @1385 has 1 MA's), (Start: 50 @1388 has 1 MA's), (60, 1448), (63, 1460), (71, 1526),

Gene: LaterM_7 Start: 1357, Stop: 1584, Start Num: 49

Candidate Starts for LaterM_7:

(38, 1303), (Start: 45 @1348 has 25 MA's), (Start: 47 @1354 has 13 MA's), (Start: 49 @1357 has 114 MA's), (58, 1390), (60, 1399), (65, 1423), (71, 1477),

Gene: Lavahound_5 Start: 970, Stop: 1197, Start Num: 49

Candidate Starts for Lavahound_5:

(Start: 45 @961 has 25 MA's), (Start: 49 @970 has 114 MA's), (60, 1012), (65, 1036), (71, 1090),

Gene: LeMond_6 Start: 1261, Stop: 1497, Start Num: 45

Candidate Starts for LeMond_6:

(Start: 45 @1261 has 25 MA's), (Start: 49 @1270 has 114 MA's), (65, 1336), (71, 1390),

Gene: Lea83_6 Start: 1277, Stop: 1504, Start Num: 49

Candidate Starts for Lea83_6:

(Start: 42 @1247 has 2 MA's), (Start: 49 @1277 has 114 MA's), (58, 1310), (59, 1313), (60, 1319), (68, 1382), (71, 1397), (76, 1421),

Gene: Lebo14_8 Start: 2234, Stop: 2506, Start Num: 44

Candidate Starts for Lebo14_8:

(21, 2147), (29, 2171), (Start: 44 @2234 has 23 MA's), (57, 2303), (58, 2306), (63, 2327), (66, 2369), (83, 2453),

Gene: Lemuria_1 Start: 45, Stop: 404, Start Num: 22

Candidate Starts for Lemuria_1:

(Start: 22 @45 has 22 MA's), (65, 225), (72, 285), (86, 360),

Gene: Leston_5 Start: 1131, Stop: 1358, Start Num: 54

Candidate Starts for Leston_5:

(Start: 54 @1131 has 18 MA's), (57, 1161), (60, 1173), (65, 1197), (71, 1251),

Gene: Liefie_1 Start: 42, Stop: 386, Start Num: 20

Candidate Starts for Liefie_1:

(Start: 20 @42 has 43 MA's), (Start: 22 @45 has 22 MA's), (53, 147), (65, 216), (70, 267), (77, 297),

Gene: LilDirt_4 Start: 869, Stop: 1096, Start Num: 54

Candidate Starts for LilDirt_4:

(19, 737), (29, 767), (39, 794), (Start: 51 @860 has 2 MA's), (52, 863), (Start: 54 @869 has 18 MA's), (56, 893), (60, 911), (65, 935), (71, 989), (86, 1058), (90, 1073),

Gene: LilPharaoh_3 Start: 636, Stop: 863, Start Num: 49

Candidate Starts for LilPharaoh_3:

(Start: 45 @627 has 25 MA's), (Start: 49 @636 has 114 MA's), (60, 678), (62, 684), (65, 702), (71, 756), (77, 783),

Gene: LindNT_7 Start: 1351, Stop: 1578, Start Num: 49

Candidate Starts for LindNT_7:

(Start: 45 @1342 has 25 MA's), (Start: 49 @1351 has 114 MA's), (60, 1393), (65, 1417), (71, 1471),

Gene: Llorens_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Llorens_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: LouisV14_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for LouisV14_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Lton_1 Start: 107, Stop: 469, Start Num: 36

Candidate Starts for Lton_1:

(Start: 36 @107 has 7 MA's), (40, 119), (58, 218), (60, 227), (63, 239), (65, 251), (66, 281), (68, 290), (70, 302), (86, 377), (92, 416),

Gene: Lucky10_1 Start: 45, Stop: 347, Start Num: 36

Candidate Starts for Lucky10_1:

(Start: 36 @45 has 7 MA's), (Start: 50 @111 has 1 MA's), (52, 117), (53, 120), (58, 156), (60, 165), (63, 177), (71, 243), (84, 300),

Gene: Lunahalos_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Lunahalos_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: MOOREtheMARYer_1 Start: 53, Stop: 379, Start Num: 27

Candidate Starts for MOOREtheMARYer_1:

(24, 50), (Start: 27 @53 has 6 MA's), (34, 80), (53, 143), (57, 176), (60, 188), (69, 254), (72, 272),

Gene: MZKinsey_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for MZKinsey_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: MacKat_7 Start: 1402, Stop: 1629, Start Num: 49

Candidate Starts for MacKat_7:

(38, 1348), (Start: 45 @1393 has 25 MA's), (Start: 47 @1399 has 13 MA's), (Start: 49 @1402 has 114 MA's), (58, 1435), (60, 1444), (65, 1468), (71, 1522),

Gene: MacnCheese_7 Start: 1483, Stop: 1710, Start Num: 49

Candidate Starts for MacnCheese_7:

(Start: 42 @1459 has 2 MA's), (Start: 49 @1483 has 114 MA's), (59, 1519), (60, 1525), (71, 1603), (76, 1627),

Gene: Maliketh_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for Maliketh_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Malthus_8 Start: 2221, Stop: 2493, Start Num: 44

Candidate Starts for Malthus_8:

(21, 2134), (29, 2158), (Start: 44 @2221 has 23 MA's), (57, 2290), (58, 2293), (63, 2314), (66, 2356), (83, 2440),

Gene: Marcoliusprime_3 Start: 426, Stop: 674, Start Num: 47

Candidate Starts for Marcoliusprime_3:

(Start: 44 @408 has 23 MA's), (Start: 47 @426 has 13 MA's), (60, 489), (63, 501), (71, 567),

Gene: MarkPhew_6 Start: 1221, Stop: 1448, Start Num: 49

Candidate Starts for MarkPhew_6:

(Start: 45 @1212 has 25 MA's), (Start: 49 @1221 has 114 MA's), (65, 1287), (71, 1341),

Gene: Marmie_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Marmie_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Marshawn_8 Start: 1819, Stop: 2043, Start Num: 49

Candidate Starts for Marshawn_8:

(Start: 45 @1810 has 25 MA's), (Start: 49 @1819 has 114 MA's), (60, 1858), (65, 1882), (71, 1936),

Gene: McMater_7 Start: 1449, Stop: 1676, Start Num: 49

Candidate Starts for McMater_7:

(Start: 45 @1440 has 25 MA's), (Start: 49 @1449 has 114 MA's), (60, 1491), (65, 1515), (71, 1569),

Gene: Mdavu_3 Start: 636, Stop: 863, Start Num: 49

Candidate Starts for Mdavu_3:

(Start: 45 @627 has 25 MA's), (Start: 49 @636 has 114 MA's), (60, 678), (62, 684), (65, 702), (71, 756), (77, 783),

Gene: MeaningOfLife_7 Start: 1352, Stop: 1579, Start Num: 49

Candidate Starts for MeaningOfLife_7:

(38, 1298), (Start: 45 @1343 has 25 MA's), (Start: 47 @1349 has 13 MA's), (Start: 49 @1352 has 114 MA's), (58, 1385), (65, 1418), (71, 1472),

Gene: Megsy_7 Start: 1342, Stop: 1578, Start Num: 45

Candidate Starts for Megsy_7:

(38, 1297), (Start: 45 @1342 has 25 MA's), (Start: 49 @1351 has 114 MA's), (60, 1393), (65, 1417), (71, 1471),

Gene: Mercurio_2 Start: 700, Stop: 1044, Start Num: 28

Candidate Starts for Mercurio_2:

(1, 271), (2, 343), (3, 349), (4, 355), (5, 415), (7, 514), (8, 523), (25, 691), (Start: 27 @697 has 6 MA's), (Start: 28 @700 has 1 MA's), (60, 844), (65, 868), (66, 898), (67, 901), (86, 1000),

Gene: Milly_3 Start: 426, Stop: 674, Start Num: 47

Candidate Starts for Milly_3:

(Start: 44 @408 has 23 MA's), (Start: 47 @426 has 13 MA's), (60, 489), (63, 501), (71, 567),

Gene: Miryou_5 Start: 1105, Stop: 1332, Start Num: 54

Candidate Starts for Miryou_5:

(15, 922), (17, 934), (19, 973), (29, 1003), (Start: 51 @1096 has 2 MA's), (52, 1099), (Start: 54 @1105 has 18 MA's), (65, 1171), (68, 1210), (71, 1225),

Gene: MissDaisy_8 Start: 2177, Stop: 2449, Start Num: 44

Candidate Starts for MissDaisy_8:

(9, 1949), (11, 1970), (13, 1997), (29, 2114), (Start: 44 @2177 has 23 MA's), (57, 2246), (58, 2249), (59, 2252), (63, 2270), (66, 2312), (83, 2396),

Gene: Mitti_8 Start: 2234, Stop: 2506, Start Num: 44

Candidate Starts for Mitti_8:

(21, 2147), (29, 2171), (Start: 44 @2234 has 23 MA's), (57, 2303), (58, 2306), (63, 2327), (66, 2369), (83, 2453),

Gene: Moosehead_1 Start: 103, Stop: 465, Start Num: 36

Candidate Starts for Moosehead_1:

(33, 97), (Start: 36 @103 has 7 MA's), (40, 115), (58, 214), (60, 223), (63, 235), (65, 247), (66, 277), (81, 352), (84, 364), (86, 373), (89, 385), (91, 394), (93, 430),

Gene: Morkie_1 Start: 44, Stop: 346, Start Num: 36

Candidate Starts for Morkie_1:

(Start: 36 @44 has 7 MA's), (Start: 50 @110 has 1 MA's), (58, 155), (60, 164), (63, 176), (71, 242), (84, 299),

Gene: Mowgli_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for Mowgli_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Mufasa_3 Start: 426, Stop: 674, Start Num: 47

Candidate Starts for Mufasa_3:

(Start: 44 @408 has 23 MA's), (Start: 47 @426 has 13 MA's), (60, 489), (63, 501), (65, 513), (71, 567),

Gene: Murucutumbu_7 Start: 1351, Stop: 1578, Start Num: 49

Candidate Starts for Murucutumbu_7:

(38, 1297), (Start: 45 @1342 has 25 MA's), (Start: 47 @1348 has 13 MA's), (Start: 49 @1351 has 114 MA's), (58, 1384), (60, 1393), (65, 1417), (71, 1471),

Gene: Mynx_7 Start: 1402, Stop: 1629, Start Num: 49

Candidate Starts for Mynx_7:

(38, 1348), (Start: 45 @1393 has 25 MA's), (Start: 47 @1399 has 13 MA's), (Start: 49 @1402 has 114 MA's), (58, 1435), (60, 1444), (65, 1468), (71, 1522),

Gene: Neighly_5 Start: 869, Stop: 1096, Start Num: 54

Candidate Starts for Neighly_5:

(19, 737), (29, 767), (39, 794), (Start: 51 @860 has 2 MA's), (52, 863), (Start: 54 @869 has 18 MA's), (56, 893), (60, 911), (65, 935), (71, 989), (86, 1058), (90, 1073),

Gene: Neoh_1 Start: 44, Stop: 388, Start Num: 20

Candidate Starts for Neoh_1:

(Start: 20 @44 has 43 MA's), (Start: 22 @47 has 22 MA's), (53, 149), (65, 218), (70, 269),

Gene: Nibb_6 Start: 1364, Stop: 1591, Start Num: 49

Candidate Starts for Nibb_6:

(Start: 45 @1355 has 25 MA's), (Start: 49 @1364 has 114 MA's), (65, 1430), (71, 1484),

Gene: Nikao_3 Start: 636, Stop: 863, Start Num: 49

Candidate Starts for Nikao_3:

(Start: 45 @627 has 25 MA's), (Start: 49 @636 has 114 MA's), (60, 678), (62, 684), (65, 702), (71, 756), (77, 783),

Gene: Niklas_7 Start: 1449, Stop: 1676, Start Num: 49

Candidate Starts for Niklas_7:

(Start: 45 @1440 has 25 MA's), (Start: 49 @1449 has 114 MA's), (60, 1491), (65, 1515), (71, 1569),

Gene: November_5 Start: 1039, Stop: 1257, Start Num: 49

Candidate Starts for November_5:

(14, 847), (Start: 45 @1030 has 25 MA's), (Start: 49 @1039 has 114 MA's), (56, 1054), (57, 1060), (60, 1072), (65, 1096), (71, 1150),

Gene: Nutello_3 Start: 636, Stop: 863, Start Num: 49

Candidate Starts for Nutello_3:

(Start: 45 @627 has 25 MA's), (Start: 49 @636 has 114 MA's), (60, 678), (62, 684), (65, 702), (71, 756), (77, 783),

Gene: OctaviousRex_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for OctaviousRex_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: OkiRoe_5 Start: 1107, Stop: 1334, Start Num: 54

Candidate Starts for OkiRoe_5:

(Start: 54 @1107 has 18 MA's), (57, 1137), (60, 1149), (65, 1173), (71, 1227),

Gene: Olga_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for Olga_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: OmniCritical_8 Start: 2221, Stop: 2493, Start Num: 44

Candidate Starts for OmniCritical_8:

(21, 2134), (29, 2158), (Start: 44 @2221 has 23 MA's), (57, 2290), (58, 2293), (63, 2314), (66, 2356), (83, 2440),

Gene: Omnicron_5 Start: 1158, Stop: 1394, Start Num: 51

Candidate Starts for Omnicron_5:

(Start: 51 @1158 has 2 MA's), (52, 1161), (Start: 54 @1167 has 18 MA's), (65, 1233), (68, 1272), (71, 1287), (79, 1329),

Gene: OneDirection_1 Start: 104, Stop: 466, Start Num: 36

Candidate Starts for OneDirection_1:

(33, 98), (Start: 36 @104 has 7 MA's), (58, 215), (59, 218), (60, 224), (63, 236), (65, 248), (66, 278), (84, 365), (92, 413), (93, 431),

Gene: Oscar_6 Start: 1262, Stop: 1498, Start Num: 45

Candidate Starts for Oscar_6:

(Start: 45 @1262 has 25 MA's), (Start: 49 @1271 has 114 MA's), (65, 1337), (71, 1391),

Gene: P3MA_2 Start: 587, Stop: 982, Start Num: 16

Candidate Starts for P3MA_2:

(Start: 16 @587 has 1 MA's), (23, 638), (53, 752), (61, 797), (70, 875), (71, 878), (85, 938),

Gene: Pace1224_1 Start: 52, Stop: 387, Start Num: 27

Candidate Starts for Pace1224_1:

(Start: 27 @52 has 6 MA's), (34, 79), (65, 214), (66, 244),

Gene: Padfoot_7 Start: 1417, Stop: 1653, Start Num: 45

Candidate Starts for Padfoot_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Padpat_7 Start: 1382, Stop: 1609, Start Num: 49

Candidate Starts for Padpat_7:

(38, 1328), (Start: 45 @1373 has 25 MA's), (Start: 47 @1379 has 13 MA's), (Start: 49 @1382 has 114 MA's), (58, 1415), (60, 1424), (65, 1448), (71, 1502),

Gene: Paito_1 Start: 47, Stop: 382, Start Num: 26

Candidate Starts for Paito_1:

(Start: 26 @47 has 2 MA's), (31, 62), (57, 173), (65, 209), (67, 242),

Gene: Paola_5 Start: 1106, Stop: 1333, Start Num: 54

Candidate Starts for Paola_5:

(Start: 54 @1106 has 18 MA's), (57, 1136), (60, 1148), (65, 1172), (71, 1226),

Gene: Patt_8 Start: 2153, Stop: 2425, Start Num: 44

Candidate Starts for Patt_8:

(21, 2066), (29, 2090), (Start: 44 @2153 has 23 MA's), (57, 2222), (58, 2225), (59, 2228), (63, 2246), (66, 2288), (83, 2372),

Gene: Peanam_7 Start: 1440, Stop: 1676, Start Num: 45

Candidate Starts for Peanam_7:

(Start: 45 @1440 has 25 MA's), (Start: 49 @1449 has 114 MA's), (60, 1491), (65, 1515), (71, 1569),

Gene: Peeb_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for Peeb_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Peel_7 Start: 1417, Stop: 1653, Start Num: 45

Candidate Starts for Peel_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Periodt_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Periodt_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Pharb_6 Start: 1077, Stop: 1304, Start Num: 49

Candidate Starts for Pharb_6:

(Start: 42 @1047 has 2 MA's), (Start: 49 @1077 has 114 MA's), (59, 1113), (60, 1119), (65, 1143), (71, 1197), (76, 1221),

Gene: PhelpsODU_6 Start: 1317, Stop: 1565, Start Num: 49

Candidate Starts for PhelpsODU_6:

(Start: 42 @1287 has 2 MA's), (Start: 49 @1317 has 114 MA's), (60, 1380), (63, 1392), (71, 1458),

Gene: Phish_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for Phish_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Phloodle_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Phloodle_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: PhorbesPhlower_1 Start: 44, Stop: 346, Start Num: 36

Candidate Starts for PhorbesPhlower_1:

(Start: 36 @44 has 7 MA's), (Start: 50 @110 has 1 MA's), (58, 155), (60, 164), (63, 176), (71, 242), (84, 299),

Gene: Phrank_6 Start: 1283, Stop: 1531, Start Num: 49

Candidate Starts for Phrank_6:

(Start: 42 @1253 has 2 MA's), (Start: 49 @1283 has 114 MA's), (60, 1346), (63, 1358), (71, 1424),

Gene: Phreak_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Phreak_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Piatt_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Piatt_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: PinkYoshi_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for PinkYoshi_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Pinnie_2 Start: 520, Stop: 846, Start Num: 27

Candidate Starts for Pinnie_2:

(6, 322), (Start: 27 @520 has 6 MA's), (34, 547), (53, 613), (57, 646), (60, 658), (69, 724), (72, 742), (74, 748),

Gene: Pisa1_6 Start: 1151, Stop: 1378, Start Num: 49

Candidate Starts for Pisa1_6:

(Start: 45 @1142 has 25 MA's), (Start: 49 @1151 has 114 MA's), (60, 1193), (65, 1217), (71, 1271),

Gene: Pisa4_6 Start: 1151, Stop: 1378, Start Num: 49

Candidate Starts for Pisa4_6:

(Start: 45 @1142 has 25 MA's), (Start: 49 @1151 has 114 MA's), (60, 1193), (65, 1217), (71, 1271),

Gene: Pixie_6 Start: 1028, Stop: 1255, Start Num: 49

Candidate Starts for Pixie_6:

(Start: 42 @998 has 2 MA's), (Start: 49 @1028 has 114 MA's), (58, 1061), (59, 1064), (60, 1070), (68, 1133), (71, 1148), (76, 1172),

Gene: Plagueis_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for Plagueis_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Pokerus_6 Start: 1336, Stop: 1563, Start Num: 49

Candidate Starts for Pokerus_6:

(38, 1282), (Start: 45 @1327 has 25 MA's), (Start: 47 @1333 has 13 MA's), (Start: 49 @1336 has 114 MA's), (58, 1369), (60, 1378), (65, 1402), (71, 1456),

Gene: Prithvi_7 Start: 1351, Stop: 1578, Start Num: 49

Candidate Starts for Prithvi_7:

(Start: 45 @1342 has 25 MA's), (Start: 49 @1351 has 114 MA's), (60, 1393), (65, 1417), (71, 1471),

Gene: Qhanda_8 Start: 2234, Stop: 2506, Start Num: 44

Candidate Starts for Qhanda_8:

(21, 2147), (29, 2171), (Start: 44 @2234 has 23 MA's), (57, 2303), (58, 2306), (63, 2327), (66, 2369), (83, 2453),

Gene: QuincyRose_6 Start: 1393, Stop: 1629, Start Num: 45

Candidate Starts for QuincyRose_6:

(38, 1348), (Start: 45 @1393 has 25 MA's), (Start: 47 @1399 has 13 MA's), (Start: 49 @1402 has 114 MA's), (58, 1435), (60, 1444), (65, 1468), (71, 1522),

Gene: Rabbs_1 Start: 44, Stop: 388, Start Num: 20

Candidate Starts for Rabbs_1:

(Start: 20 @44 has 43 MA's), (Start: 22 @47 has 22 MA's), (53, 149), (65, 218), (70, 269),

Gene: Ramen_7 Start: 1376, Stop: 1603, Start Num: 49

Candidate Starts for Ramen_7:

(Start: 45 @1367 has 25 MA's), (Start: 47 @1373 has 13 MA's), (Start: 49 @1376 has 114 MA's), (58, 1409), (60, 1418), (65, 1442), (71, 1496),

Gene: Rando14_5 Start: 1196, Stop: 1423, Start Num: 54

Candidate Starts for Rando14_5:

(Start: 51 @1187 has 2 MA's), (52, 1190), (Start: 54 @1196 has 18 MA's), (65, 1262), (68, 1301), (71, 1316), (79, 1358),

Gene: Rapunzel97_7 Start: 1376, Stop: 1603, Start Num: 49

Candidate Starts for Rapunzel97_7:

(Start: 45 @1367 has 25 MA's), (Start: 47 @1373 has 13 MA's), (Start: 49 @1376 has 114 MA's), (58, 1409), (60, 1418), (65, 1442), (71, 1496),

Gene: Rattrick_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for Rattrick_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Remy19_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Remy19_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Renaissance_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Renaissance_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Reptar3000_8 Start: 2152, Stop: 2424, Start Num: 44

Candidate Starts for Reptar3000_8:

(21, 2065), (29, 2089), (Start: 44 @2152 has 23 MA's), (57, 2221), (58, 2224), (59, 2227), (63, 2245), (66, 2287), (83, 2371),

Gene: Richarlison_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Richarlison_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Richo_7 Start: 1449, Stop: 1676, Start Num: 49

Candidate Starts for Richo_7:

(Start: 45 @1440 has 25 MA's), (Start: 49 @1449 has 114 MA's), (60, 1491), (65, 1515), (71, 1569),

Gene: Rooter_1 Start: 59, Stop: 364, Start Num: 32

Candidate Starts for Rooter_1:

(Start: 32 @59 has 2 MA's), (43, 101), (88, 332),

Gene: Rosmarinus_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Rosmarinus_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Ruriko_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Ruriko_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Ruthiejr_7 Start: 1960, Stop: 2229, Start Num: 44

Candidate Starts for Ruthiejr_7:

(Start: 44 @1960 has 23 MA's), (57, 2026), (58, 2029), (63, 2050), (66, 2092), (83, 2176),

Gene: SamScheppers_6 Start: 1831, Stop: 2103, Start Num: 44

Candidate Starts for SamScheppers_6:

(21, 1744), (29, 1768), (Start: 44 @1831 has 23 MA's), (57, 1900), (58, 1903), (63, 1924), (66, 1966), (83, 2050),

Gene: SamuelLPlaqson_7 Start: 1355, Stop: 1582, Start Num: 49

Candidate Starts for SamuelLPlaqson_7:

(38, 1304), (Start: 45 @1346 has 25 MA's), (Start: 49 @1355 has 114 MA's), (60, 1397), (65, 1421), (71, 1475),

Gene: Scarlett_6 Start: 1261, Stop: 1497, Start Num: 45

Candidate Starts for Scarlett_6:

(Start: 45 @1261 has 25 MA's), (Start: 49 @1270 has 114 MA's), (65, 1336), (71, 1390),

Gene: Schiebel_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for Schiebel_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: SgtBeansprout_3 Start: 636, Stop: 863, Start Num: 49

Candidate Starts for SgtBeansprout_3:

(Start: 45 @627 has 25 MA's), (Start: 49 @636 has 114 MA's), (60, 678), (62, 684), (65, 702), (71, 756), (77, 783),

Gene: ShaboiShabazz_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for ShaboiShabazz_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Shadow1_5 Start: 1191, Stop: 1439, Start Num: 49

Candidate Starts for Shadow1_5:

(Start: 42 @1161 has 2 MA's), (Start: 49 @1191 has 114 MA's), (57, 1242), (60, 1254), (63, 1266), (71, 1332),

Gene: Shaobing_7 Start: 1449, Stop: 1676, Start Num: 49

Candidate Starts for Shaobing_7:

(Start: 45 @1440 has 25 MA's), (Start: 49 @1449 has 114 MA's), (60, 1491), (65, 1515), (71, 1569),

Gene: ShedlockHolmes_6 Start: 1277, Stop: 1504, Start Num: 49

Candidate Starts for ShedlockHolmes_6:

(Start: 42 @1247 has 2 MA's), (Start: 49 @1277 has 114 MA's), (58, 1310), (59, 1313), (60, 1319), (68, 1382), (71, 1397), (76, 1421),

Gene: ShiaSurprise_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for ShiaSurprise_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Shoya_1 Start: 59, Stop: 364, Start Num: 32

Candidate Starts for Shoya_1:

(Start: 32 @59 has 2 MA's), (43, 101), (88, 332),

Gene: SirPhilip_6 Start: 1153, Stop: 1398, Start Num: 49

Candidate Starts for SirPhilip_6:

(Start: 45 @1144 has 25 MA's), (Start: 49 @1153 has 114 MA's), (60, 1213), (71, 1291), (78, 1324),

Gene: Sizemore_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for Sizemore_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Slarp_8 Start: 2234, Stop: 2506, Start Num: 44

Candidate Starts for Slarp_8:

(21, 2147), (29, 2171), (Start: 44 @2234 has 23 MA's), (57, 2303), (58, 2306), (63, 2327), (66, 2369), (83, 2453),

Gene: Slimphazie_7 Start: 1376, Stop: 1603, Start Num: 49

Candidate Starts for Slimphazie_7:

(Start: 45 @1367 has 25 MA's), (Start: 47 @1373 has 13 MA's), (Start: 49 @1376 has 114 MA's), (58, 1409), (60, 1418), (65, 1442), (71, 1496),

Gene: Sneeze_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Sneeze_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: SoSeph_5 Start: 1127, Stop: 1354, Start Num: 54

Candidate Starts for SoSeph_5:

(Start: 54 @1127 has 18 MA's), (57, 1157), (60, 1169), (65, 1193), (71, 1247),

Gene: Spock_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Spock_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Stargaze_1 Start: 52, Stop: 372, Start Num: 27

Candidate Starts for Stargaze_1:

(Start: 27 @52 has 6 MA's), (53, 136), (60, 181), (65, 205), (70, 256), (82, 310),

Gene: Stinson_7 Start: 1348, Stop: 1584, Start Num: 45

Candidate Starts for Stinson_7:

(38, 1303), (Start: 45 @1348 has 25 MA's), (Start: 47 @1354 has 13 MA's), (Start: 49 @1357 has 114 MA's), (58, 1390), (60, 1399), (65, 1423), (71, 1477),

Gene: Strobilo_3 Start: 426, Stop: 674, Start Num: 47

Candidate Starts for Strobilo_3:

(Start: 47 @426 has 13 MA's), (60, 489), (63, 501), (71, 567),

Gene: Sulley_7 Start: 1364, Stop: 1591, Start Num: 49

Candidate Starts for Sulley_7:

(35, 1304), (Start: 45 @1355 has 25 MA's), (Start: 49 @1364 has 114 MA's), (60, 1406), (65, 1430), (71, 1484),

Gene: Sunflower1121_5 Start: 1190, Stop: 1438, Start Num: 49

Candidate Starts for Sunflower1121_5:

(Start: 42 @1160 has 2 MA's), (Start: 49 @1190 has 114 MA's), (57, 1241), (60, 1253), (63, 1265), (71, 1331),

Gene: Sweets_1 Start: 46, Stop: 387, Start Num: 22

Candidate Starts for Sweets_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Syra333_6 Start: 1295, Stop: 1543, Start Num: 49

Candidate Starts for Syra333_6:

(Start: 42 @1265 has 2 MA's), (Start: 49 @1295 has 114 MA's), (57, 1346), (60, 1358), (63, 1370), (71, 1436),

Gene: TBond007_6 Start: 997, Stop: 1254, Start Num: 42

Candidate Starts for TBond007_6:

(Start: 42 @997 has 2 MA's), (Start: 49 @1027 has 114 MA's), (58, 1060), (59, 1063), (60, 1069), (68, 1132), (71, 1147), (76, 1171),

Gene: TClif_6 Start: 1251, Stop: 1478, Start Num: 49

Candidate Starts for TClif_6:

(Start: 42 @1221 has 2 MA's), (Start: 49 @1251 has 114 MA's), (60, 1293), (65, 1317), (71, 1371),

Gene: TM4_3 Start: 438, Stop: 689, Start Num: 47

Candidate Starts for TM4_3:

(12, 231), (Start: 47 @438 has 13 MA's), (60, 501), (63, 513), (71, 579),

Gene: Tachez_7 Start: 1345, Stop: 1572, Start Num: 49

Candidate Starts for Tachez_7:

(38, 1291), (Start: 45 @1336 has 25 MA's), (Start: 47 @1342 has 13 MA's), (Start: 49 @1345 has 114 MA's), (58, 1378), (60, 1387), (65, 1411), (71, 1465),

Gene: Taheera_1 Start: 47, Stop: 391, Start Num: 22

Candidate Starts for Taheera_1:

(Start: 22 @47 has 22 MA's), (53, 149), (65, 218),

Gene: TaiwanKao_7 Start: 1351, Stop: 1578, Start Num: 49

Candidate Starts for TaiwanKao_7:

(38, 1297), (Start: 45 @1342 has 25 MA's), (Start: 49 @1351 has 114 MA's), (60, 1393), (65, 1417), (71, 1471),

Gene: Taquito_6 Start: 1832, Stop: 2104, Start Num: 44
Candidate Starts for Taquito_6:
(21, 1745), (29, 1769), (Start: 44 @1832 has 23 MA's), (57, 1901), (58, 1904), (63, 1925), (66, 1967),
(83, 2051),

Gene: Teejan_3 Start: 636, Stop: 863, Start Num: 49
Candidate Starts for Teejan_3:
(Start: 45 @627 has 25 MA's), (Start: 49 @636 has 114 MA's), (60, 678), (62, 684), (65, 702), (71,
756), (77, 783),

Gene: Terror_1 Start: 47, Stop: 391, Start Num: 22
Candidate Starts for Terror_1:
(Start: 22 @47 has 22 MA's), (53, 149), (65, 218),

Gene: Thyatira_5 Start: 1105, Stop: 1332, Start Num: 54
Candidate Starts for Thyatira_5:
(15, 922), (17, 934), (19, 973), (29, 1003), (Start: 51 @1096 has 2 MA's), (52, 1099), (Start: 54 @1105
has 18 MA's), (65, 1171), (68, 1210), (71, 1225),

Gene: Tierra_6 Start: 1285, Stop: 1533, Start Num: 49
Candidate Starts for Tierra_6:
(Start: 42 @1255 has 2 MA's), (Start: 49 @1285 has 114 MA's), (60, 1348), (63, 1360), (71, 1426),

Gene: Tigress9_6 Start: 1287, Stop: 1535, Start Num: 49
Candidate Starts for Tigress9_6:
(Start: 42 @1257 has 2 MA's), (Start: 49 @1287 has 114 MA's), (60, 1350), (63, 1362), (71, 1428),

Gene: TinaBug_1 Start: 46, Stop: 387, Start Num: 22
Candidate Starts for TinaBug_1:
(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: TingHuaYa_7 Start: 1386, Stop: 1634, Start Num: 48
Candidate Starts for TingHuaYa_7:
(46, 1380), (Start: 48 @1386 has 1 MA's), (Start: 50 @1389 has 1 MA's), (60, 1449), (63, 1461), (71,
1527),

Gene: TiniBug_7 Start: 1355, Stop: 1582, Start Num: 49
Candidate Starts for TiniBug_7:
(38, 1304), (Start: 45 @1346 has 25 MA's), (Start: 49 @1355 has 114 MA's), (60, 1397), (65, 1421),
(71, 1475),

Gene: Tiri_7 Start: 1393, Stop: 1620, Start Num: 49
Candidate Starts for Tiri_7:
(38, 1339), (Start: 45 @1384 has 25 MA's), (Start: 47 @1390 has 13 MA's), (Start: 49 @1393 has 114
MA's), (58, 1426), (60, 1435), (65, 1459), (71, 1513),

Gene: TomBrady_1 Start: 44, Stop: 388, Start Num: 20
Candidate Starts for TomBrady_1:
(Start: 20 @44 has 43 MA's), (Start: 22 @47 has 22 MA's), (53, 149), (65, 218), (70, 269),

Gene: Topper_7 Start: 1426, Stop: 1653, Start Num: 49
Candidate Starts for Topper_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Torres_3 Start: 636, Stop: 863, Start Num: 49

Candidate Starts for Torres_3:

(Start: 45 @627 has 25 MA's), (Start: 49 @636 has 114 MA's), (60, 678), (62, 684), (65, 702), (71, 756), (77, 783),

Gene: TreyKay_7 Start: 1351, Stop: 1578, Start Num: 49

Candidate Starts for TreyKay_7:

(Start: 45 @1342 has 25 MA's), (Start: 49 @1351 has 114 MA's), (60, 1393), (65, 1417), (71, 1471),

Gene: TribelTrouble_5 Start: 1095, Stop: 1322, Start Num: 49

Candidate Starts for TribelTrouble_5:

(Start: 42 @1065 has 2 MA's), (Start: 49 @1095 has 114 MA's), (59, 1131), (60, 1137), (71, 1215), (76, 1239),

Gene: Trice_3 Start: 636, Stop: 863, Start Num: 49

Candidate Starts for Trice_3:

(Start: 45 @627 has 25 MA's), (Start: 49 @636 has 114 MA's), (60, 678), (62, 684), (65, 702), (71, 756), (77, 783),

Gene: TruffulaTree_7 Start: 1376, Stop: 1603, Start Num: 49

Candidate Starts for TruffulaTree_7:

(38, 1322), (Start: 45 @1367 has 25 MA's), (Start: 47 @1373 has 13 MA's), (Start: 49 @1376 has 114 MA's), (58, 1409), (60, 1418), (65, 1442), (71, 1496),

Gene: Twitch_7 Start: 1417, Stop: 1653, Start Num: 45

Candidate Starts for Twitch_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: Unicorn_6 Start: 1317, Stop: 1565, Start Num: 49

Candidate Starts for Unicorn_6:

(Start: 42 @1287 has 2 MA's), (Start: 49 @1317 has 114 MA's), (60, 1380), (63, 1392), (71, 1458),

Gene: Urkel_7 Start: 1355, Stop: 1582, Start Num: 49

Candidate Starts for Urkel_7:

(38, 1304), (Start: 45 @1346 has 25 MA's), (Start: 49 @1355 has 114 MA's), (60, 1397), (65, 1421), (71, 1475),

Gene: Validus_7 Start: 1356, Stop: 1592, Start Num: 45

Candidate Starts for Validus_7:

(Start: 45 @1356 has 25 MA's), (Start: 49 @1365 has 114 MA's), (60, 1407), (65, 1431), (71, 1485),

Gene: Veliki_7 Start: 1426, Stop: 1653, Start Num: 49

Candidate Starts for Veliki_7:

(38, 1372), (Start: 45 @1417 has 25 MA's), (Start: 47 @1423 has 13 MA's), (Start: 49 @1426 has 114 MA's), (58, 1459), (60, 1468), (65, 1492), (71, 1546),

Gene: ViviJ_4 Start: 869, Stop: 1096, Start Num: 54

Candidate Starts for ViviJ_4:

(19, 737), (29, 767), (39, 794), (Start: 51 @860 has 2 MA's), (52, 863), (Start: 54 @869 has 18 MA's), (56, 893), (60, 911), (65, 935), (71, 989), (86, 1058), (90, 1073),

Gene: Waterfoul_5 Start: 1127, Stop: 1354, Start Num: 54

Candidate Starts for Waterfoul_5:

(Start: 54 @1127 has 18 MA's), (57, 1157), (60, 1169), (65, 1193), (71, 1247),

Gene: Wendigo_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Wendigo_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: Wintermute_8 Start: 2220, Stop: 2492, Start Num: 44

Candidate Starts for Wintermute_8:

(21, 2133), (29, 2157), (Start: 44 @2220 has 23 MA's), (57, 2289), (58, 2292), (63, 2313), (83, 2439),

Gene: Ximenita_7 Start: 1459, Stop: 1707, Start Num: 49

Candidate Starts for Ximenita_7:

(Start: 42 @1429 has 2 MA's), (Start: 49 @1459 has 114 MA's), (60, 1522), (63, 1534), (71, 1600),

Gene: Y10_08 Start: 2221, Stop: 2493, Start Num: 44

Candidate Starts for Y10_08:

(21, 2134), (29, 2158), (Start: 44 @2221 has 23 MA's), (57, 2290), (58, 2293), (63, 2314), (66, 2356), (83, 2440),

Gene: Y2_08 Start: 2221, Stop: 2493, Start Num: 44

Candidate Starts for Y2_08:

(21, 2134), (29, 2158), (Start: 44 @2221 has 23 MA's), (57, 2290), (58, 2293), (63, 2314), (66, 2356), (83, 2440),

Gene: YangYin_1 Start: 52, Stop: 372, Start Num: 27

Candidate Starts for YangYin_1:

(Start: 27 @52 has 6 MA's), (53, 136), (60, 181), (65, 205), (70, 256), (82, 310),

Gene: YasnayaPolyana_8 Start: 2221, Stop: 2493, Start Num: 44

Candidate Starts for YasnayaPolyana_8:

(21, 2134), (29, 2158), (Start: 44 @2221 has 23 MA's), (57, 2290), (58, 2293), (63, 2314), (66, 2356), (83, 2440),

Gene: YoureAdopted_6 Start: 1352, Stop: 1579, Start Num: 49

Candidate Starts for YoureAdopted_6:

(38, 1298), (Start: 45 @1343 has 25 MA's), (Start: 47 @1349 has 13 MA's), (Start: 49 @1352 has 114 MA's), (58, 1385), (60, 1394), (65, 1418), (71, 1472),

Gene: Yuna_7 Start: 1452, Stop: 1679, Start Num: 49

Candidate Starts for Yuna_7:

(Start: 49 @1452 has 114 MA's), (60, 1494), (65, 1518), (71, 1572),

Gene: Yunkel11_7 Start: 1376, Stop: 1603, Start Num: 49

Candidate Starts for Yunkel11_7:

(35, 1313), (Start: 45 @1367 has 25 MA's), (Start: 49 @1376 has 114 MA's), (65, 1442), (71, 1496),

Gene: Zabiza_7 Start: 1367, Stop: 1603, Start Num: 45

Candidate Starts for Zabiza_7:

(Start: 45 @1367 has 25 MA's), (Start: 47 @1373 has 13 MA's), (Start: 49 @1376 has 114 MA's), (58, 1409), (60, 1418), (65, 1442), (71, 1496),

Gene: Zavala_7 Start: 1352, Stop: 1588, Start Num: 45

Candidate Starts for Zavala_7:

(38, 1307), (Start: 45 @1352 has 25 MA's), (Start: 47 @1358 has 13 MA's), (Start: 49 @1361 has 114 MA's), (58, 1394), (60, 1403), (65, 1427), (71, 1481),

Gene: ZoMa_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for ZoMa_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),

Gene: ZoeJ_3 Start: 426, Stop: 674, Start Num: 47

Candidate Starts for ZoeJ_3:

(Start: 47 @426 has 13 MA's), (60, 489), (63, 501), (65, 513), (71, 567),

Gene: Zombie_1 Start: 43, Stop: 387, Start Num: 20

Candidate Starts for Zombie_1:

(Start: 20 @43 has 43 MA's), (Start: 22 @46 has 22 MA's), (53, 148), (65, 217), (70, 268),