

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 193713 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193713 has 233 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Raqqa_2
- Track 2 : AbbyDaisy_2
- Track 3 : G4_2, Doucette_2, B22_2
- Track 4 : E6_2
- Track 5 : Kumotta_2
- Track 6 : MargaretKali_2
- Track 7 : Sarge_1, BrayBeast_1
- Track 8 : Shoya_1
- Track 9 : Pitbull_1
- Track 10 : Megsy_7
- Track 11 : Rapunzel97_7, Adephagia_7, Slimphazie_7, ActinUp_7, HedwigODU_7, Jayhawk_7, Ramen_7
- Track 12 : Oscar_6, Scarlett_6, LeMond_6
- Track 13 : Curiosium_8
- Track 14 : Murucutumbu_7, TruffulaTree_7, JAWS_7, Devera_7, BarrelRoll_7, Durfee_7, Beezoo_7, Ganymede_7, Boiiii_7, Blizzard_7, Homura_7, ShiaSurprise_7, Pokerus_6, Geraldini_7, Apocalypse_7, Tiri_7, BGlluviae_7, Topper_7, CheetoDust_7, Emerson_7, LaterM_7, Capricorn_7, Veliki_7, Piatt_7, Dole_7, Illumine_7, Lunahalos_7, Dalmuri_7, Belladonna_7, Mynx_7, Llorens_7, YoureAdopted_6, Asayake_7, BEEST_7, Hyperbowlee_7, Jeckyll_7, Rosmarinus_7, Tachez_7, Inky_7, Padpat_7, Spock_7
- Track 15 : SgtBeansprout_3, Torres_3, Nutello_3, Nikao_3, Mdavu_3, LilPharaoh_3, Enkosi_3, Binglebops_3
- Track 16 : Ageofdapage_7, Atiba_7
- Track 17 : Prithvi_7, LindNT_7, TreyKay_7
- Track 18 : Adonis_7, CREW_7, Jarvi_7, QuincyRose_6, Stinson_7, Twitch_7, AlishaPH_7, Peel_7, Padfoot_7, CaseJules_7, Zavala_7
- Track 19 : CrimD_7
- Track 20 : Angelica_7, Sulley_7, Deby_7
- Track 21 : Anaya_8
- Track 22 : Joy99_7
- Track 23 : Chris_6, MarkPhew_6, Nibb_6
- Track 24 : DrHayes_7, Urkel_7, Bella96_7, TiniBug_7, SamuelLPlaqson_7
- Track 25 : Niklas_7, Dartin_7, Richo_7, Shaobing_7, McMater_7
- Track 26 : Zabiza_7
- Track 27 : Amelie_3
- Track 28 : Validus_7

- Track 29 : KiSi_6
- Track 30 : Guanica15_7, Yunkel11_7
- Track 31 : Efra2_7
- Track 32 : LastHope_7, TingHuaYa_7
- Track 33 : TaiwanKao_7
- Track 34 : BaghaKamala_7, MeaningOfLife_7
- Track 35 : Peanam_7
- Track 36 : DismalFunk_3, Milly_3, DismalStressor_3, Marcoliusprime_3
- Track 37 : Strobilo_3
- Track 38 : Findley_3
- Track 39 : ZoeJ_3
- Track 40 : TM4_3
- Track 41 : BoostSeason_3, Mufasa_3
- Track 42 : Keshu_6
- Track 43 : Hurricane_6
- Track 44 : TBond007_6
- Track 45 : ShedlockHolmes_6
- Track 46 : TribbleTrouble_5
- Track 47 : Pharb_6
- Track 48 : Pixie_6
- Track 49 : MacnCheese_7
- Track 50 : Eponine_8, Juliette_8
- Track 51 : Mitti_8, Malthus_8, Chancellor_8, Cheetobro_8, Taquito_6, Y2_08, OmniCritical_8, Fionnbharth_8, JF1_8, SamScheppers_6, Y10_08, Slarp_8
- Track 52 : Patt_8, Reptar3000_8
- Track 53 : MissDaisy_8
- Track 54 : Wintermute_8
- Track 55 : Ruthiejr_7
- Track 56 : Edugator_4, Dadosky_5
- Track 57 : Agent47_5
- Track 58 : Heftyboy_5, Paola_5, Waterfoul_5, Gengar_5, SoSeph_5, Guillsminger_5, OkiRoe_5, Leston_5
- Track 59 : Collard_5
- Track 60 : Thyatira_5, Miryou_5, Feyre_5
- Track 61 : Rando14_5
- Track 62 : Omnicron_5
- Track 63 : Bryler_6, Cain_6, Tierra_6, Phrank_6, Unicorn_6, Krueger_6, PhelpsODU_6
- Track 64 : Ximenita_7
- Track 65 : Yuna_7
- Track 66 : Hammy_6, DarthP_6
- Track 67 : Marshawn_8
- Track 68 : Amohnition_6
- Track 69 : Amgine_5, Ellie_4, Fefferhead_6
- Track 70 : SirPhilip_6
- Track 71 : Ekdilam_4
- Track 72 : Syra333_6, Sunflower1121_5, Shadow1_5
- Track 73 : TClif_6
- Track 74 : Aminay_5
- Track 75 : Boilgate_4
- Track 76 : Vorrps_29, Corndog_31, Bora_27, Wildflower_30, Ashwin_31, Firecracker_30, Mori_29, NiebruSaylor_29, Zakhe101_30, Shida_30, Dylan_29, Krili_29

- Track 77 : Schuy_31, MadKillah_31, Smooch_32, Blessica_30
- Track 78 : Murai_30, Familton_30, Idergollasper_29, FoulBall_29, TelAviv_27, JangDynasty_29
- Track 79 : Alkhayr_28, Catdawg_29, SchoolBus_29, Winget_30, Vagabond_28, Ryadel_32
- Track 80 : YungJamal_32
- Track 81 : MrSmee_1
- Track 82 : ArV2_01
- Track 83 : LilSpotty_1
- Track 84 : MooMoo_1
- Track 85 : Spartoi_1

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

The start number called the most often in the published annotations is 52, it was called in 92 of the 222 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp_7, Adephagia_7, Amgine_5, Angelica_7, Apocalypse_7, Asayake_7, BEEST_7, BGIlluviae_7, BaghaKamala_7, BarrelRoll_7, Beezoo_7, Bella96_7, Belladonna_7, Biglebops_3, Blizzard_7, Boiiii_7, Capricorn_7, CheetoDust_7, Chris_6, Dalmuri_7, DARTH_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, LaterM_7, LilPharaoh_3, LindNT_7, Llorens_7, Lunahalos_7, MacnCheese_7, MarkPhew_6, Marshawn_8, McMater_7, Mdavu_3, MeaningOfLife_7, Murucutumbu_7, Mynx_7, Nibb_6, Nikao_3, Niklas_7, Nutello_3, Padpat_7, Pharb_6, Piatt_7, Pixie_6, Pokerus_6, Prithvi_7, Ramen_7, Rapunzel97_7, Richo_7, Rosmarinus_7, SamuelLPlaqson_7, SgtBeansprout_3, Shaobing_7, ShedlockHolmes_6, ShiaSurprise_7, Slimphazie_7, Spock_7, Sulley_7, TClif_6, Tachez_7, TaiwanKao_7, TiniBug_7, Tiri_7, Topper_7, Torres_3, TreyKay_7, TribbleTrouble_5, TruffulaTree_7, Urkel_7, Veliki_7, YoureAdopted_6, Yuna_7, Yunkel11_7,

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

- Adonis_7, Agent47_5, Ageofdapage_7, AlishaPH_7, Amelie_3, Amohnition_6, Anaya_8, Atiba_7, Boilgate_4, CREW_7, CaseJules_7, Collard_5, CrimD_7, Dadosky_5, Edugator_4, Feyre_5, Hurricane_6, Jarvi_7, KiSi_6, LeMond_6, Megsy_7, Miryou_5, MooMoo_1, Omnicron_5, Oscar_6, Padfoot_7, Peanam_7, Peel_7, QuincyRose_6, Rando14_5, Scarlett_6, Stinson_7, TBond007_6, Thyatira_5, Twitch_7, Validus_7, Zabiza_7, Zavala_7,

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

- AbbyDaisy_2, Alkhayr_28, Aminay_5, ArV2_01, Ashwin_31, B22_2, Blessica_30, BoostSeason_3, Bora_27, BrayBeast_1, Bryler_6, Cain_6, Catdawg_29, Chancellor_8, Cheetobro_8, Corndog_31, Curiosium_8, DismalFunk_3, DismalStressor_3, Doucette_2, Dylan_29, E6_2, Eponine_8, Familton_30, Findley_3, Fionnbharth_8, Firecracker_30, FoulBall_29, G4_2, Gengar_5, Guillsminger_5, Heftyboy_5, Idergollasper_29, JF1_8, JangDynasty_29, Juliette_8, Krili_29,

Krueger_6, Kumotta_2, LastHope_7, Leston_5, LilSpotty_1, MadKillah_31, Malthus_8, Marcoliusprime_3, MargaretKali_2, Milly_3, MissDaisy_8, Mitti_8, Mori_29, MrSmee_1, Mufasa_3, Murai_30, NiebruSaylor_29, OkiRoe_5, OmniCritical_8, Paola_5, Patt_8, PhelpsODU_6, Phrank_6, Pitbull_1, Raqqa_2, Reptar3000_8, Ruthiejr_7, Ryadel_32, SamScheppers_6, Sarge_1, SchoolBus_29, Schuy_31, Shadow1_5, Shida_30, Shoya_1, SirPhilip_6, Slarp_8, Smooch_32, SoSeph_5, Spartoi_1, Strobilo_3, Sunflower1121_5, Syra333_6, TM4_3, Taquito_6, TelAviv_27, Tierra_6, TingHuaYa_7, Unicorn_6, Vagabond_28, Vorrps_29, Waterfoul_5, Wildflower_30, Winget_30, Wintermute_8, Ximenita_7, Y10_08, Y2_08, YungJamal_32, Zakhe101_30, ZoeJ_3,

Summary by start number:

Start 19:

- Found in 1 of 233 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArV2_01 (singleton),

Start 28:

- Found in 67 of 233 (28.8%) of genes in pham
- Manual Annotations of this start: 3 of 222
- Called 4.5% of time when present
- Phage (with cluster) where this start called: BrayBeast_1 (FB), MooMoo_1 (singleton), Sarge_1 (FB),

Start 29:

- Found in 1 of 233 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 222
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pitbull_1 (FQ),

Start 30:

- Found in 5 of 233 (2.1%) of genes in pham
- Manual Annotations of this start: 4 of 222
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Kumotta_2 (FB), LilSpotty_1 (singleton), Shoya_1 (FB), Spartoi_1 (singleton),

Start 33:

- Found in 7 of 233 (3.0%) of genes in pham
- Manual Annotations of this start: 5 of 222
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_2 (AY), B22_2 (BW), Doucette_2 (BW), E6_2 (BW), G4_2 (BW), MrSmee_1 (UNK), Raqqa_2 (AY),

Start 35:

- Found in 1 of 233 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 222
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MargaretKali_2 (FB),

Start 36:

- Found in 22 of 233 (9.4%) of genes in pham
- Manual Annotations of this start: 2 of 222
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Hurricane_6 (K3), TBond007_6 (K3),

Start 37:

- Found in 30 of 233 (12.9%) of genes in pham
- Manual Annotations of this start: 22 of 222
- Called 73.3% of time when present
- Phage (with cluster) where this start called: Ashwin_31 (O), Blessica_30 (O), Bora_27 (O), Corndog_31 (O), Dylan_29 (O), Familton_30 (O), Firecracker_30 (O), FoulBall_29 (O), Idergollasper_29 (O), JangDynasty_29 (O), Krili_29 (O), MadKillah_31 (O), Mori_29 (O), Murai_30 (O), NiebruSaylor_29 (O), Schuy_31 (O), Shida_30 (O), Smooch_32 (O), TelAviv_27 (O), Vorrps_29 (O), Wildflower_30 (O), Zakhe101_30 (O),

Start 39:

- Found in 55 of 233 (23.6%) of genes in pham
- Manual Annotations of this start: 25 of 222
- Called 49.1% of time when present
- Phage (with cluster) where this start called: Alkhayr_28 (O), Boilgate_4 (K8), Catdawg_29 (O), Chancellor_8 (K4), Cheetobro_8 (K4), Eponine_8 (K4), Fionnbharth_8 (K4), JF1_8 (K4), Juliette_8 (K4), Malthus_8 (K4), MissDaisy_8 (K4), Mitti_8 (K4), OmniCritical_8 (K4), Patt_8 (K4), Reptar3000_8 (K4), Ruthiejr_7 (K4), Ryadel_32 (O), SamScheppers_6 (K4), SchoolBus_29 (O), Slarp_8 (K4), Taquito_6 (K4), Vagabond_28 (O), Winget_30 (O), Wintermute_8 (K4), Y10_08 (K4), Y2_08 (K4), YungJamal_32 (O),

Start 42:

- Found in 115 of 233 (49.4%) of genes in pham
- Manual Annotations of this start: 23 of 222
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Adonis_7 (K1), AlishaPH_7 (K1), Amelie_3 (K1), Amohntion_6 (K6), Anaya_8 (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 43:

- Found in 1 of 233 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 222
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aminay_5 (K7),

Start 45:

- Found in 66 of 233 (28.3%) of genes in pham
- Manual Annotations of this start: 2 of 222
- Called 3.0% of time when present
- Phage (with cluster) where this start called: Ageofdapage_7 (K1), Atiba_7 (K1),

Start 46:

- Found in 11 of 233 (4.7%) of genes in pham
- Manual Annotations of this start: 10 of 222

- Called 90.9% of time when present
- Phage (with cluster) where this start called: BoostSeason_3 (K2), DismalFunk_3 (K2), DismalStressor_3 (K2), Findley_3 (K2), Marcoliusprime_3 (K2), Milly_3 (K2), Mufasa_3 (K2), Strobilo_3 (K2), TM4_3 (K2), ZoeJ_3 (K2),

Start 47:

- Found in 3 of 233 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 222
- Called 66.7% of time when present
- Phage (with cluster) where this start called: LastHope_7 (K1), TingHuaYa_7 (K1),

Start 48:

- Found in 12 of 233 (5.2%) of genes in pham
- Manual Annotations of this start: 12 of 222
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bryler_6 (K6), Cain_6 (K6), Krueger_6 (K6), PhelpsODU_6 (K6), Phrank_6 (K6), Shadow1_5 (K6), SirPhilip_6 (K6), Sunflower1121_5 (K6), Syra333_6 (K6), Tierra_6 (K6), Unicorn_6 (K6), Ximenita_7 (K6),

Start 49:

- Found in 3 of 233 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 222
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Curiosium_8 (K1),

Start 51:

- Found in 11 of 233 (4.7%) of genes in pham
- Manual Annotations of this start: 2 of 222
- Called 18.2% of time when present
- Phage (with cluster) where this start called: Collard_5 (K5), Omnicron_5 (K5),

Start 52:

- Found in 135 of 233 (57.9%) of genes in pham
- Manual Annotations of this start: 92 of 222
- Called 71.9% of time when present
- Phage (with cluster) where this start called: ActinUp_7 (K1), Adephagia_7 (K1), Amgine_5 (K6), Angelica_7 (K1), Apocalypse_7 (K1), Asayake_7 (K1), BEEST_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), Boiii_7 (K1), Capricorn_7 (K1), CheetoDust_7 (K1), Chris_6 (K1), Dalmuri_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), LaterM_7 (K1), LilPharaoh_3 (K1), LindNT_7 (K1), Llorens_7 (K1), Lunahalos_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), Nutello_3 (K1), Padpat_7 (K1), Pharb_6 (K3), Piatt_7 (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), Shaobing_7 (K1),

ShedlockHolmes_6 (K3), ShiaSurprise_7 (K1), Slimphazie_7 (K1), Spock_7 (K1), Sulley_7 (K1), TClif_6 (K6), Tachez_7 (K1), TaiwanKao_7 (K1), TiniBug_7 (K1), Tiri_7 (K1), Topper_7 (K1), Torres_3 (K1), TreyKay_7 (K1), TripleTrouble_5 (K3), TruffulaTree_7 (K1), Urkel_7 (K1), Veliki_7 (K1), YoureAdopted_6 (K1), Yuna_7 (K6), Yunkel11_7 (K1),

Start 54:

- Found in 17 of 233 (7.3%) of genes in pham
- Manual Annotations of this start: 15 of 222
- Called 88.2% of time when present
- Phage (with cluster) where this start called: Agent47_5 (K5), Dadosky_5 (K5), Edugator_4 (K5), Feyre_5 (K5), Gengar_5 (K5), Guillsminger_5 (K5), Heftyboy_5 (K5), Leston_5 (K5), Miryou_5 (K5), OkiRoe_5 (K5), Paola_5 (K5), Rando14_5 (K5), SoSeph_5 (K5), Thyatira_5 (K5), Waterfoul_5 (K5),

Summary by clusters:

There are 15 clusters represented in this pham: FQ, singleton, K8, FB, O, K3, K2, K1, BW, K7, K6, K5, K4, AY, UNK,

Info for manual annotations of cluster AY:

- Start number 33 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster BW:

- Start number 33 was manually annotated 4 times for cluster BW.

Info for manual annotations of cluster FB:

- Start number 28 was manually annotated 2 times for cluster FB.
- Start number 30 was manually annotated 2 times for cluster FB.
- Start number 35 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster FQ:

- Start number 29 was manually annotated 1 time for cluster FQ.

Info for manual annotations of cluster K1:

- Start number 42 was manually annotated 22 times for cluster K1.
- Start number 45 was manually annotated 2 times for cluster K1.
- Start number 47 was manually annotated 1 time for cluster K1.
- Start number 49 was manually annotated 1 time for cluster K1.
- Start number 52 was manually annotated 77 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 46 was manually annotated 10 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 36 was manually annotated 2 times for cluster K3.
- Start number 52 was manually annotated 6 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 39 was manually annotated 19 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 15 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 42 was manually annotated 1 time for cluster K6.
- Start number 48 was manually annotated 12 times for cluster K6.
- Start number 52 was manually annotated 9 times for cluster K6.

Info for manual annotations of cluster K7:

- Start number 43 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster K8:

- Start number 39 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster O:

- Start number 37 was manually annotated 22 times for cluster O.
- Start number 39 was manually annotated 5 times for cluster O.

Gene Information:

Gene: AbbyDaisy_2 Start: 413, Stop: 712, Start Num: 33

Candidate Starts for AbbyDaisy_2:

(Start: 33 @413 has 5 MA's), (40, 437), (59, 521), (61, 530),

Gene: ActinUp_7 Start: 1376, Stop: 1603, Start Num: 52

Candidate Starts for ActinUp_7:

(Start: 42 @1367 has 23 MA's), (Start: 45 @1373 has 2 MA's), (Start: 52 @1376 has 92 MA's), (59, 1409), (61, 1418), (67, 1442), (73, 1496),

Gene: Adephagia_7 Start: 1376, Stop: 1603, Start Num: 52

Candidate Starts for Adephagia_7:

(Start: 42 @1367 has 23 MA's), (Start: 45 @1373 has 2 MA's), (Start: 52 @1376 has 92 MA's), (59, 1409), (61, 1418), (67, 1442), (73, 1496),

Gene: Adonis_7 Start: 1384, Stop: 1620, Start Num: 42

Candidate Starts for Adonis_7:

(Start: 28 @1339 has 3 MA's), (Start: 42 @1384 has 23 MA's), (Start: 45 @1390 has 2 MA's), (Start: 52 @1393 has 92 MA's), (59, 1426), (61, 1435), (67, 1459), (73, 1513),

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

Candidate Starts for Agent47_5:

(16, 979), (21, 1009), (31, 1036), (Start: 51 @1102 has 2 MA's), (Start: 52 @1105 has 92 MA's), (Start: 54 @1111 has 15 MA's), (57, 1135), (61, 1153), (67, 1177), (73, 1231), (86, 1300), (87, 1315),

Gene: Ageofdapage_7 Start: 1322, Stop: 1552, Start Num: 45

Candidate Starts for Ageofdapage_7:

(Start: 28 @1271 has 3 MA's), (Start: 42 @1316 has 23 MA's), (Start: 45 @1322 has 2 MA's), (Start: 52 @1325 has 92 MA's), (59, 1358), (61, 1367), (67, 1391), (73, 1445),

Gene: AlishaPH_7 Start: 1372, Stop: 1608, Start Num: 42

Candidate Starts for AlishaPH_7:

(Start: 28 @1327 has 3 MA's), (Start: 42 @1372 has 23 MA's), (Start: 45 @1378 has 2 MA's), (Start: 52 @1381 has 92 MA's), (59, 1414), (61, 1423), (67, 1447), (73, 1501),

Gene: Alkhayr_28 Start: 13190, Stop: 13480, Start Num: 39

Candidate Starts for Alkhayr_28:

(12, 13058), (Start: 37 @13181 has 22 MA's), (Start: 39 @13190 has 25 MA's), (68, 13331), (75, 13373),

Gene: Amelie_3 Start: 627, Stop: 863, Start Num: 42

Candidate Starts for Amelie_3:

(Start: 42 @627 has 23 MA's), (Start: 52 @636 has 92 MA's), (61, 678), (62, 684), (67, 702), (73, 756), (77, 783),

Gene: Amgine_5 Start: 970, Stop: 1197, Start Num: 52

Candidate Starts for Amgine_5:

(Start: 42 @961 has 23 MA's), (Start: 52 @970 has 92 MA's), (61, 1012), (67, 1036), (73, 1090), (78, 1123),

Gene: Aminay_5 Start: 1070, Stop: 1327, Start Num: 43

Candidate Starts for Aminay_5:

(Start: 43 @1070 has 1 MA's), (58, 1127), (59, 1130), (60, 1133), (61, 1139), (72, 1214),

Gene: Amohnition_6 Start: 1167, Stop: 1403, Start Num: 42

Candidate Starts for Amohnition_6:

(Start: 42 @1167 has 23 MA's), (Start: 52 @1176 has 92 MA's), (61, 1218), (67, 1242), (73, 1296), (81, 1341),

Gene: Anaya_8 Start: 1396, Stop: 1632, Start Num: 42

Candidate Starts for Anaya_8:

(26, 1345), (Start: 42 @1396 has 23 MA's), (Start: 52 @1405 has 92 MA's), (61, 1447), (67, 1471), (73, 1525),

Gene: Angelica_7 Start: 1364, Stop: 1591, Start Num: 52

Candidate Starts for Angelica_7:

(26, 1304), (Start: 42 @1355 has 23 MA's), (Start: 52 @1364 has 92 MA's), (61, 1406), (67, 1430), (73, 1484),

Gene: Apocalypse_7 Start: 1360, Stop: 1587, Start Num: 52

Candidate Starts for Apocalypse_7:

(Start: 28 @1306 has 3 MA's), (Start: 42 @1351 has 23 MA's), (Start: 45 @1357 has 2 MA's), (Start: 52 @1360 has 92 MA's), (59, 1393), (61, 1402), (67, 1426), (73, 1480),

Gene: ArV2_01 Start: 36, Stop: 380, Start Num: 19

Candidate Starts for ArV2_01:

(13, 3), (15, 18), (19, 36), (27, 66), (Start: 30 @75 has 4 MA's), (38, 102), (Start: 45 @126 has 2 MA's), (50, 141), (Start: 51 @147 has 2 MA's), (59, 186), (61, 195), (64, 210), (67, 219), (72, 270),

Gene: Asayake_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Asayake_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Ashwin_31 Start: 13191, Stop: 13490, Start Num: 37

Candidate Starts for Ashwin_31:

(18, 13113), (Start: 37 @13191 has 22 MA's), (Start: 39 @13200 has 25 MA's), (68, 13341), (75, 13383),

Gene: Atiba_7 Start: 1342, Stop: 1572, Start Num: 45

Candidate Starts for Atiba_7:

(Start: 28 @1291 has 3 MA's), (Start: 42 @1336 has 23 MA's), (Start: 45 @1342 has 2 MA's), (Start: 52 @1345 has 92 MA's), (59, 1378), (61, 1387), (67, 1411), (73, 1465),

Gene: B22_2 Start: 706, Stop: 1002, Start Num: 33

Candidate Starts for B22_2:

(Start: 33 @706 has 5 MA's), (40, 727), (59, 811), (63, 832), (67, 844), (73, 898),

Gene: BEEST_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for BEEST_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: BGlluviae_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for BGlluviae_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: BaghaKamala_7 Start: 1352, Stop: 1579, Start Num: 52

Candidate Starts for BaghaKamala_7:

(Start: 28 @1298 has 3 MA's), (Start: 42 @1343 has 23 MA's), (Start: 45 @1349 has 2 MA's), (Start: 52 @1352 has 92 MA's), (59, 1385), (67, 1418), (73, 1472),

Gene: BarrelRoll_7 Start: 1376, Stop: 1603, Start Num: 52

Candidate Starts for BarrelRoll_7:

(Start: 28 @1322 has 3 MA's), (Start: 42 @1367 has 23 MA's), (Start: 45 @1373 has 2 MA's), (Start: 52 @1376 has 92 MA's), (59, 1409), (61, 1418), (67, 1442), (73, 1496),

Gene: Beezoo_7 Start: 1405, Stop: 1632, Start Num: 52

Candidate Starts for Beezoo_7:

(Start: 28 @1351 has 3 MA's), (Start: 42 @1396 has 23 MA's), (Start: 45 @1402 has 2 MA's), (Start: 52 @1405 has 92 MA's), (59, 1438), (61, 1447), (67, 1471), (73, 1525),

Gene: Bella96_7 Start: 1334, Stop: 1561, Start Num: 52

Candidate Starts for Bella96_7:

(Start: 28 @1283 has 3 MA's), (Start: 42 @1325 has 23 MA's), (Start: 52 @1334 has 92 MA's), (61, 1376), (67, 1400), (73, 1454),

Gene: Belladonna_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Belladonna_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Biglebops_3 Start: 636, Stop: 863, Start Num: 52

Candidate Starts for Biglebops_3:

(Start: 42 @627 has 23 MA's), (Start: 52 @636 has 92 MA's), (61, 678), (62, 684), (67, 702), (73, 756), (77, 783),

Gene: Blessica_30 Start: 13214, Stop: 13513, Start Num: 37

Candidate Starts for Blessica_30:

(12, 13091), (Start: 37 @13214 has 22 MA's), (Start: 39 @13223 has 25 MA's), (68, 13364), (75, 13406),

Gene: Blizzard_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Blizzard_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Boiiii_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Boiiii_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Boilgate_4 Start: 1309, Stop: 1578, Start Num: 39

Candidate Starts for Boilgate_4:

(Start: 39 @1309 has 25 MA's), (Start: 46 @1327 has 10 MA's), (Start: 52 @1339 has 92 MA's), (58, 1375), (59, 1378), (60, 1381), (61, 1387), (69, 1441),

Gene: BoostSeason_3 Start: 426, Stop: 674, Start Num: 46

Candidate Starts for BoostSeason_3:

(Start: 39 @408 has 25 MA's), (Start: 46 @426 has 10 MA's), (61, 489), (63, 501), (67, 513), (73, 567),

Gene: Bora_27 Start: 12644, Stop: 12943, Start Num: 37

Candidate Starts for Bora_27:

(18, 12566), (Start: 37 @12644 has 22 MA's), (Start: 39 @12653 has 25 MA's), (68, 12794), (75, 12836),

Gene: BrayBeast_1 Start: 49, Stop: 357, Start Num: 28

Candidate Starts for BrayBeast_1:

(23, 28), (Start: 28 @49 has 3 MA's), (40, 85), (55, 142), (77, 277),

Gene: Bryler_6 Start: 1277, Stop: 1525, Start Num: 48

Candidate Starts for Bryler_6:

(Start: 36 @1247 has 2 MA's), (Start: 48 @1277 has 12 MA's), (61, 1340), (63, 1352), (73, 1418),

Gene: CREW_7 Start: 1417, Stop: 1653, Start Num: 42

Candidate Starts for CREW_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Cain_6 Start: 1277, Stop: 1525, Start Num: 48

Candidate Starts for Cain_6:

(Start: 36 @1247 has 2 MA's), (Start: 48 @1277 has 12 MA's), (61, 1340), (63, 1352), (73, 1418),

Gene: Capricorn_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Capricorn_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: CaseJules_7 Start: 1417, Stop: 1653, Start Num: 42

Candidate Starts for CaseJules_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Catdawg_29 Start: 12829, Stop: 13119, Start Num: 39

Candidate Starts for Catdawg_29:

(12, 12697), (Start: 37 @12820 has 22 MA's), (Start: 39 @12829 has 25 MA's), (68, 12970), (75, 13012),

Gene: Chancellor_8 Start: 2234, Stop: 2506, Start Num: 39

Candidate Starts for Chancellor_8:

(17, 2147), (22, 2171), (Start: 39 @2234 has 25 MA's), (58, 2303), (59, 2306), (63, 2327), (69, 2369), (83, 2453),

Gene: CheetoDust_7 Start: 1402, Stop: 1629, Start Num: 52

Candidate Starts for CheetoDust_7:

(Start: 28 @1348 has 3 MA's), (Start: 42 @1393 has 23 MA's), (Start: 45 @1399 has 2 MA's), (Start: 52 @1402 has 92 MA's), (59, 1435), (61, 1444), (67, 1468), (73, 1522),

Gene: Cheetobro_8 Start: 2234, Stop: 2506, Start Num: 39

Candidate Starts for Cheetobro_8:

(17, 2147), (22, 2171), (Start: 39 @2234 has 25 MA's), (58, 2303), (59, 2306), (63, 2327), (69, 2369), (83, 2453),

Gene: Chris_6 Start: 1317, Stop: 1541, Start Num: 52

Candidate Starts for Chris_6:

(Start: 42 @1308 has 23 MA's), (Start: 52 @1317 has 92 MA's), (67, 1380), (73, 1434),

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

Candidate Starts for Collard_5:

(10, 921), (11, 933), (16, 972), (21, 1002), (Start: 51 @1095 has 2 MA's), (Start: 52 @1098 has 92 MA's), (Start: 54 @1104 has 15 MA's), (67, 1170), (70, 1209), (73, 1224),

Gene: Corndog_31 Start: 13270, Stop: 13569, Start Num: 37

Candidate Starts for Corndog_31:

(18, 13192), (Start: 37 @13270 has 22 MA's), (Start: 39 @13279 has 25 MA's), (68, 13420), (75, 13462),

Gene: CrimD_7 Start: 1342, Stop: 1578, Start Num: 42

Candidate Starts for CrimD_7:

(Start: 42 @1342 has 23 MA's), (Start: 52 @1351 has 92 MA's), (61, 1393), (67, 1417), (73, 1471),

Gene: Curiosium_8 Start: 1733, Stop: 1978, Start Num: 49

Candidate Starts for Curiosium_8:

(44, 1724), (Start: 47 @1730 has 1 MA's), (Start: 49 @1733 has 1 MA's), (61, 1793), (66, 1814), (72, 1868), (73, 1871), (85, 1931),

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

Candidate Starts for Dadosky_5:

(16, 997), (21, 1027), (31, 1054), (Start: 51 @1120 has 2 MA's), (Start: 52 @1123 has 92 MA's), (Start: 54 @1129 has 15 MA's), (57, 1153), (61, 1171), (67, 1195), (69, 1225), (73, 1249), (86, 1318), (87, 1333),

Gene: Dalmuri_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Dalmuri_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: DarthP_6 Start: 1176, Stop: 1403, Start Num: 52

Candidate Starts for DarthP_6:

(Start: 42 @1167 has 23 MA's), (Start: 52 @1176 has 92 MA's), (61, 1218), (67, 1242), (73, 1296), (81, 1341),

Gene: Dartin_7 Start: 1449, Stop: 1676, Start Num: 52

Candidate Starts for Dartin_7:

(Start: 42 @1440 has 23 MA's), (Start: 52 @1449 has 92 MA's), (61, 1491), (67, 1515), (73, 1569),

Gene: Deby_7 Start: 1364, Stop: 1591, Start Num: 52

Candidate Starts for Deby_7:

(26, 1304), (Start: 42 @1355 has 23 MA's), (Start: 52 @1364 has 92 MA's), (61, 1406), (67, 1430), (73, 1484),

Gene: Devera_7 Start: 1393, Stop: 1620, Start Num: 52

Candidate Starts for Devera_7:

(Start: 28 @1339 has 3 MA's), (Start: 42 @1384 has 23 MA's), (Start: 45 @1390 has 2 MA's), (Start: 52 @1393 has 92 MA's), (59, 1426), (61, 1435), (67, 1459), (73, 1513),

Gene: DismalFunk_3 Start: 426, Stop: 674, Start Num: 46

Candidate Starts for DismalFunk_3:

(Start: 39 @408 has 25 MA's), (Start: 46 @426 has 10 MA's), (61, 489), (63, 501), (73, 567),

Gene: DismalStressor_3 Start: 426, Stop: 674, Start Num: 46

Candidate Starts for DismalStressor_3:

(Start: 39 @408 has 25 MA's), (Start: 46 @426 has 10 MA's), (61, 489), (63, 501), (73, 567),

Gene: Dole_7 Start: 1393, Stop: 1620, Start Num: 52

Candidate Starts for Dole_7:

(Start: 28 @1339 has 3 MA's), (Start: 42 @1384 has 23 MA's), (Start: 45 @1390 has 2 MA's), (Start: 52 @1393 has 92 MA's), (59, 1426), (61, 1435), (67, 1459), (73, 1513),

Gene: Doucette_2 Start: 706, Stop: 1002, Start Num: 33

Candidate Starts for Doucette_2:

(Start: 33 @706 has 5 MA's), (40, 727), (59, 811), (63, 832), (67, 844), (73, 898),

Gene: DrHayes_7 Start: 1355, Stop: 1582, Start Num: 52

Candidate Starts for DrHayes_7:

(Start: 28 @1304 has 3 MA's), (Start: 42 @1346 has 23 MA's), (Start: 52 @1355 has 92 MA's), (61, 1397), (67, 1421), (73, 1475),

Gene: Durfee_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Durfee_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Dylan_29 Start: 12996, Stop: 13295, Start Num: 37

Candidate Starts for Dylan_29:

(18, 12918), (Start: 37 @12996 has 22 MA's), (Start: 39 @13005 has 25 MA's), (68, 13146), (75, 13188),

Gene: E6_2 Start: 707, Stop: 1003, Start Num: 33

Candidate Starts for E6_2:

(1, 446), (2, 467), (5, 527), (7, 539), (9, 578), (Start: 33 @707 has 5 MA's), (40, 728), (59, 812), (63, 833), (67, 845), (73, 899),

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

Candidate Starts for Edugator_4:

(16, 997), (21, 1027), (31, 1054), (Start: 51 @1120 has 2 MA's), (Start: 52 @1123 has 92 MA's), (Start: 54 @1129 has 15 MA's), (57, 1153), (61, 1171), (67, 1195), (69, 1225), (73, 1249), (86, 1318), (87, 1333),

Gene: Efra2_7 Start: 1360, Stop: 1587, Start Num: 52

Candidate Starts for Efra2_7:

(26, 1297), (Start: 42 @1351 has 23 MA's), (Start: 52 @1360 has 92 MA's), (67, 1426), (73, 1480), (78, 1513),

Gene: Ekdilam_4 Start: 911, Stop: 1138, Start Num: 52

Candidate Starts for Ekdilam_4:

(14, 785), (Start: 28 @860 has 3 MA's), (Start: 42 @902 has 23 MA's), (Start: 52 @911 has 92 MA's), (61, 953), (67, 977), (73, 1031), (81, 1076),

Gene: Ellie_4 Start: 1002, Stop: 1229, Start Num: 52

Candidate Starts for Ellie_4:

(Start: 42 @993 has 23 MA's), (Start: 52 @1002 has 92 MA's), (61, 1044), (67, 1068), (73, 1122), (78, 1155),

Gene: Emerson_7 Start: 1382, Stop: 1609, Start Num: 52

Candidate Starts for Emerson_7:

(Start: 28 @1328 has 3 MA's), (Start: 42 @1373 has 23 MA's), (Start: 45 @1379 has 2 MA's), (Start: 52 @1382 has 92 MA's), (59, 1415), (61, 1424), (67, 1448), (73, 1502),

Gene: Enkosi_3 Start: 636, Stop: 863, Start Num: 52

Candidate Starts for Enkosi_3:

(Start: 42 @627 has 23 MA's), (Start: 52 @636 has 92 MA's), (61, 678), (62, 684), (67, 702), (73, 756), (77, 783),

Gene: Eponine_8 Start: 2229, Stop: 2498, Start Num: 39

Candidate Starts for Eponine_8:

(Start: 39 @2229 has 25 MA's), (58, 2295), (59, 2298), (83, 2445),

Gene: Familton_30 Start: 12824, Stop: 13123, Start Num: 37

Candidate Starts for Familton_30:

(Start: 37 @12824 has 22 MA's), (Start: 39 @12833 has 25 MA's), (68, 12974), (75, 13016),

Gene: Fefferhead_6 Start: 1172, Stop: 1399, Start Num: 52

Candidate Starts for Fefferhead_6:

(Start: 42 @1163 has 23 MA's), (Start: 52 @1172 has 92 MA's), (61, 1214), (67, 1238), (73, 1292), (78, 1325),

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

Candidate Starts for Feyre_5:

(10, 922), (11, 934), (16, 973), (21, 1003), (Start: 51 @1096 has 2 MA's), (Start: 52 @1099 has 92 MA's), (Start: 54 @1105 has 15 MA's), (67, 1171), (70, 1210), (73, 1225),

Gene: Findley_3 Start: 426, Stop: 674, Start Num: 46

Candidate Starts for Findley_3:

(Start: 46 @426 has 10 MA's), (61, 489), (63, 501), (73, 567),

Gene: Fionnbharth_8 Start: 2221, Stop: 2493, Start Num: 39

Candidate Starts for Fionnbharth_8:

(17, 2134), (22, 2158), (Start: 39 @2221 has 25 MA's), (58, 2290), (59, 2293), (63, 2314), (69, 2356), (83, 2440),

Gene: Firecracker_30 Start: 12894, Stop: 13193, Start Num: 37

Candidate Starts for Firecracker_30:

(18, 12816), (Start: 37 @12894 has 22 MA's), (Start: 39 @12903 has 25 MA's), (68, 13044), (75, 13086),

Gene: FoulBall_29 Start: 12818, Stop: 13117, Start Num: 37

Candidate Starts for FoulBall_29:

(Start: 37 @12818 has 22 MA's), (Start: 39 @12827 has 25 MA's), (68, 12968), (75, 13010),

Gene: G4_2 Start: 706, Stop: 1002, Start Num: 33

Candidate Starts for G4_2:

(Start: 33 @706 has 5 MA's), (40, 727), (59, 811), (63, 832), (67, 844), (73, 898),

Gene: Ganymede_7 Start: 1402, Stop: 1629, Start Num: 52

Candidate Starts for Ganymede_7:

(Start: 28 @1348 has 3 MA's), (Start: 42 @1393 has 23 MA's), (Start: 45 @1399 has 2 MA's), (Start: 52 @1402 has 92 MA's), (59, 1435), (61, 1444), (67, 1468), (73, 1522),

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

Candidate Starts for Gengar_5:

(Start: 54 @1131 has 15 MA's), (58, 1161), (61, 1173), (67, 1197), (73, 1251),

Gene: Geraldini_7 Start: 1405, Stop: 1632, Start Num: 52

Candidate Starts for Geraldini_7:

(Start: 28 @1351 has 3 MA's), (Start: 42 @1396 has 23 MA's), (Start: 45 @1402 has 2 MA's), (Start: 52 @1405 has 92 MA's), (59, 1438), (61, 1447), (67, 1471), (73, 1525),

Gene: Guanica15_7 Start: 1376, Stop: 1603, Start Num: 52

Candidate Starts for Guanica15_7:

(26, 1313), (Start: 42 @1367 has 23 MA's), (Start: 52 @1376 has 92 MA's), (67, 1442), (73, 1496),

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

Candidate Starts for Guillsminger_5:

(Start: 54 @1106 has 15 MA's), (58, 1136), (61, 1148), (67, 1172), (73, 1226),

Gene: Hammy_6 Start: 1173, Stop: 1400, Start Num: 52

Candidate Starts for Hammy_6:

(Start: 42 @1164 has 23 MA's), (Start: 52 @1173 has 92 MA's), (61, 1215), (67, 1239), (73, 1293), (81, 1338),

Gene: HedwigODU_7 Start: 1376, Stop: 1603, Start Num: 52

Candidate Starts for HedwigODU_7:

(Start: 42 @1367 has 23 MA's), (Start: 45 @1373 has 2 MA's), (Start: 52 @1376 has 92 MA's), (59, 1409), (61, 1418), (67, 1442), (73, 1496),

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

Candidate Starts for Heftyboy_5:

(Start: 54 @1127 has 15 MA's), (58, 1157), (61, 1169), (67, 1193), (73, 1247),

Gene: Homura_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Homura_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Hurricane_6 Start: 1250, Stop: 1510, Start Num: 36

Candidate Starts for Hurricane_6:

(Start: 36 @1250 has 2 MA's), (Start: 52 @1280 has 92 MA's), (60, 1319), (61, 1325), (67, 1349), (73, 1403), (76, 1427),

Gene: Hyperbowlee_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Hyperbowlee_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Idergollasper_29 Start: 12818, Stop: 13117, Start Num: 37

Candidate Starts for Idergollasper_29:

(Start: 37 @12818 has 22 MA's), (Start: 39 @12827 has 25 MA's), (68, 12968), (75, 13010),

Gene: Illumine_7 Start: 1393, Stop: 1620, Start Num: 52

Candidate Starts for Illumine_7:

(Start: 28 @1339 has 3 MA's), (Start: 42 @1384 has 23 MA's), (Start: 45 @1390 has 2 MA's), (Start: 52 @1393 has 92 MA's), (59, 1426), (61, 1435), (67, 1459), (73, 1513),

Gene: Inky_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Inky_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: JAWS_7 Start: 1376, Stop: 1603, Start Num: 52

Candidate Starts for JAWS_7:

(Start: 28 @1322 has 3 MA's), (Start: 42 @1367 has 23 MA's), (Start: 45 @1373 has 2 MA's), (Start: 52 @1376 has 92 MA's), (59, 1409), (61, 1418), (67, 1442), (73, 1496),

Gene: JF1_8 Start: 2221, Stop: 2493, Start Num: 39

Candidate Starts for JF1_8:

(17, 2134), (22, 2158), (Start: 39 @2221 has 25 MA's), (58, 2290), (59, 2293), (63, 2314), (69, 2356), (83, 2440),

Gene: JangDynasty_29 Start: 12913, Stop: 13212, Start Num: 37

Candidate Starts for JangDynasty_29:

(Start: 37 @12913 has 22 MA's), (Start: 39 @12922 has 25 MA's), (68, 13063), (75, 13105),

Gene: Jarvi_7 Start: 1417, Stop: 1653, Start Num: 42

Candidate Starts for Jarvi_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Jayhawk_7 Start: 1376, Stop: 1603, Start Num: 52

Candidate Starts for Jayhawk_7:

(Start: 42 @1367 has 23 MA's), (Start: 45 @1373 has 2 MA's), (Start: 52 @1376 has 92 MA's), (59, 1409), (61, 1418), (67, 1442), (73, 1496),

Gene: Jeckyll_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Jeckyll_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Joy99_7 Start: 1352, Stop: 1579, Start Num: 52

Candidate Starts for Joy99_7:

(Start: 42 @1343 has 23 MA's), (Start: 45 @1349 has 2 MA's), (Start: 52 @1352 has 92 MA's), (59, 1385), (67, 1418), (73, 1472),

Gene: Juliette_8 Start: 2229, Stop: 2498, Start Num: 39

Candidate Starts for Juliette_8:

(Start: 39 @2229 has 25 MA's), (58, 2295), (59, 2298), (83, 2445),

Gene: Keshu_6 Start: 1259, Stop: 1489, Start Num: 52

Candidate Starts for Keshu_6:

(Start: 36 @1229 has 2 MA's), (Start: 52 @1259 has 92 MA's), (58, 1292), (60, 1298), (61, 1304), (67, 1328), (73, 1382), (76, 1406),

Gene: KiSi_6 Start: 1261, Stop: 1497, Start Num: 42

Candidate Starts for KiSi_6:

(Start: 42 @1261 has 23 MA's), (Start: 52 @1270 has 92 MA's), (67, 1336), (73, 1390),

Gene: Krili_29 Start: 12988, Stop: 13287, Start Num: 37

Candidate Starts for Krili_29:

(18, 12910), (Start: 37 @12988 has 22 MA's), (Start: 39 @12997 has 25 MA's), (68, 13138), (75, 13180),

Gene: Krueger_6 Start: 1287, Stop: 1535, Start Num: 48

Candidate Starts for Krueger_6:

(Start: 36 @1257 has 2 MA's), (Start: 48 @1287 has 12 MA's), (61, 1350), (63, 1362), (73, 1428),

Gene: Kumotta_2 Start: 743, Stop: 1042, Start Num: 30

Candidate Starts for Kumotta_2:

(27, 734), (Start: 30 @743 has 4 MA's), (34, 758), (Start: 37 @767 has 22 MA's), (53, 821), (61, 866), (69, 917), (86, 1010),

Gene: LastHope_7 Start: 1385, Stop: 1633, Start Num: 47

Candidate Starts for LastHope_7:

(44, 1379), (Start: 47 @1385 has 1 MA's), (Start: 49 @1388 has 1 MA's), (61, 1448), (63, 1460), (73, 1526),

Gene: LaterM_7 Start: 1357, Stop: 1584, Start Num: 52

Candidate Starts for LaterM_7:

(Start: 28 @1303 has 3 MA's), (Start: 42 @1348 has 23 MA's), (Start: 45 @1354 has 2 MA's), (Start: 52 @1357 has 92 MA's), (59, 1390), (61, 1399), (67, 1423), (73, 1477),

Gene: LeMond_6 Start: 1261, Stop: 1497, Start Num: 42

Candidate Starts for LeMond_6:

(Start: 42 @1261 has 23 MA's), (Start: 52 @1270 has 92 MA's), (67, 1336), (73, 1390),

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

Candidate Starts for Leston_5:

(Start: 54 @1131 has 15 MA's), (58, 1161), (61, 1173), (67, 1197), (73, 1251),

Gene: LilPharaoh_3 Start: 636, Stop: 863, Start Num: 52

Candidate Starts for LilPharaoh_3:

(Start: 42 @627 has 23 MA's), (Start: 52 @636 has 92 MA's), (61, 678), (62, 684), (67, 702), (73, 756), (77, 783),

Gene: LilSpotty_1 Start: 54, Stop: 344, Start Num: 30

Candidate Starts for LilSpotty_1:

(Start: 30 @54 has 4 MA's), (40, 75), (60, 162), (64, 183), (72, 237), (73, 240), (74, 243), (84, 297),

Gene: LindNT_7 Start: 1351, Stop: 1578, Start Num: 52

Candidate Starts for LindNT_7:

(Start: 42 @1342 has 23 MA's), (Start: 52 @1351 has 92 MA's), (61, 1393), (67, 1417), (73, 1471),

Gene: Llorens_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Llorens_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Lunahalos_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Lunahalos_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: MacnCheese_7 Start: 1483, Stop: 1710, Start Num: 52

Candidate Starts for MacnCheese_7:

(Start: 36 @1459 has 2 MA's), (Start: 52 @1483 has 92 MA's), (60, 1519), (61, 1525), (73, 1603), (76, 1627),

Gene: MadKillah_31 Start: 13207, Stop: 13506, Start Num: 37

Candidate Starts for MadKillah_31:

(12, 13084), (Start: 37 @13207 has 22 MA's), (Start: 39 @13216 has 25 MA's), (68, 13357), (75, 13399),

Gene: Malthus_8 Start: 2221, Stop: 2493, Start Num: 39

Candidate Starts for Malthus_8:

(17, 2134), (22, 2158), (Start: 39 @2221 has 25 MA's), (58, 2290), (59, 2293), (63, 2314), (69, 2356), (83, 2440),

Gene: Marcoliusprime_3 Start: 426, Stop: 674, Start Num: 46

Candidate Starts for Marcoliusprime_3:

(Start: 39 @408 has 25 MA's), (Start: 46 @426 has 10 MA's), (61, 489), (63, 501), (73, 567),

Gene: MargaretKali_2 Start: 578, Stop: 871, Start Num: 35
Candidate Starts for MargaretKali_2:
(Start: 35 @578 has 1 MA's), (40, 593), (60, 680), (61, 686), (65, 704), (67, 710),

Gene: MarkPhew_6 Start: 1221, Stop: 1448, Start Num: 52
Candidate Starts for MarkPhew_6:
(Start: 42 @1212 has 23 MA's), (Start: 52 @1221 has 92 MA's), (67, 1287), (73, 1341),

Gene: Marshawn_8 Start: 1819, Stop: 2043, Start Num: 52
Candidate Starts for Marshawn_8:
(Start: 42 @1810 has 23 MA's), (Start: 52 @1819 has 92 MA's), (61, 1858), (67, 1882), (73, 1936),

Gene: McMater_7 Start: 1449, Stop: 1676, Start Num: 52
Candidate Starts for McMater_7:
(Start: 42 @1440 has 23 MA's), (Start: 52 @1449 has 92 MA's), (61, 1491), (67, 1515), (73, 1569),

Gene: Mdavu_3 Start: 636, Stop: 863, Start Num: 52
Candidate Starts for Mdavu_3:
(Start: 42 @627 has 23 MA's), (Start: 52 @636 has 92 MA's), (61, 678), (62, 684), (67, 702), (73, 756),
(77, 783),

Gene: MeaningOfLife_7 Start: 1352, Stop: 1579, Start Num: 52
Candidate Starts for MeaningOfLife_7:
(Start: 28 @1298 has 3 MA's), (Start: 42 @1343 has 23 MA's), (Start: 45 @1349 has 2 MA's), (Start:
52 @1352 has 92 MA's), (59, 1385), (67, 1418), (73, 1472),

Gene: Megsy_7 Start: 1342, Stop: 1578, Start Num: 42
Candidate Starts for Megsy_7:
(Start: 28 @1297 has 3 MA's), (Start: 42 @1342 has 23 MA's), (Start: 52 @1351 has 92 MA's), (61,
1393), (67, 1417), (73, 1471),

Gene: Milly_3 Start: 426, Stop: 674, Start Num: 46
Candidate Starts for Milly_3:
(Start: 39 @408 has 25 MA's), (Start: 46 @426 has 10 MA's), (61, 489), (63, 501), (73, 567),

Gene: Miryou_5 Start: 1105, Stop: 1332, Start Num: 54
Candidate Starts for Miryou_5:
(10, 922), (11, 934), (16, 973), (21, 1003), (Start: 51 @1096 has 2 MA's), (Start: 52 @1099 has 92
MA's), (Start: 54 @1105 has 15 MA's), (67, 1171), (70, 1210), (73, 1225),

Gene: MissDaisy_8 Start: 2177, Stop: 2449, Start Num: 39
Candidate Starts for MissDaisy_8:
(3, 1949), (4, 1970), (8, 1997), (22, 2114), (Start: 39 @2177 has 25 MA's), (58, 2246), (59, 2249), (60,
2252), (63, 2270), (69, 2312), (83, 2396),

Gene: Mitti_8 Start: 2234, Stop: 2506, Start Num: 39
Candidate Starts for Mitti_8:
(17, 2147), (22, 2171), (Start: 39 @2234 has 25 MA's), (58, 2303), (59, 2306), (63, 2327), (69, 2369),
(83, 2453),

Gene: MooMoo_1 Start: 63, Stop: 377, Start Num: 28
Candidate Starts for MooMoo_1:

(Start: 28 @63 has 3 MA's), (Start: 36 @87 has 2 MA's), (Start: 52 @138 has 92 MA's), (60, 186), (61, 192), (67, 216), (72, 267), (76, 294), (77, 297), (78, 303),

Gene: Mori_29 Start: 12859, Stop: 13158, Start Num: 37

Candidate Starts for Mori_29:

(18, 12781), (Start: 37 @12859 has 22 MA's), (Start: 39 @12868 has 25 MA's), (68, 13009), (75, 13051),

Gene: MrSmee_1 Start: 51, Stop: 347, Start Num: 33

Candidate Starts for MrSmee_1:

(32, 45), (Start: 33 @51 has 5 MA's), (59, 156), (61, 165), (67, 189), (70, 228), (77, 270),

Gene: Mufasa_3 Start: 426, Stop: 674, Start Num: 46

Candidate Starts for Mufasa_3:

(Start: 39 @408 has 25 MA's), (Start: 46 @426 has 10 MA's), (61, 489), (63, 501), (67, 513), (73, 567),

Gene: Murai_30 Start: 13049, Stop: 13348, Start Num: 37

Candidate Starts for Murai_30:

(Start: 37 @13049 has 22 MA's), (Start: 39 @13058 has 25 MA's), (68, 13199), (75, 13241),

Gene: Murucutumbu_7 Start: 1351, Stop: 1578, Start Num: 52

Candidate Starts for Murucutumbu_7:

(Start: 28 @1297 has 3 MA's), (Start: 42 @1342 has 23 MA's), (Start: 45 @1348 has 2 MA's), (Start: 52 @1351 has 92 MA's), (59, 1384), (61, 1393), (67, 1417), (73, 1471),

Gene: Mynx_7 Start: 1402, Stop: 1629, Start Num: 52

Candidate Starts for Mynx_7:

(Start: 28 @1348 has 3 MA's), (Start: 42 @1393 has 23 MA's), (Start: 45 @1399 has 2 MA's), (Start: 52 @1402 has 92 MA's), (59, 1435), (61, 1444), (67, 1468), (73, 1522),

Gene: Nibb_6 Start: 1364, Stop: 1591, Start Num: 52

Candidate Starts for Nibb_6:

(Start: 42 @1355 has 23 MA's), (Start: 52 @1364 has 92 MA's), (67, 1430), (73, 1484),

Gene: NiebruSaylor_29 Start: 12860, Stop: 13159, Start Num: 37

Candidate Starts for NiebruSaylor_29:

(18, 12782), (Start: 37 @12860 has 22 MA's), (Start: 39 @12869 has 25 MA's), (68, 13010), (75, 13052),

Gene: Nikao_3 Start: 636, Stop: 863, Start Num: 52

Candidate Starts for Nikao_3:

(Start: 42 @627 has 23 MA's), (Start: 52 @636 has 92 MA's), (61, 678), (62, 684), (67, 702), (73, 756), (77, 783),

Gene: Niklas_7 Start: 1449, Stop: 1676, Start Num: 52

Candidate Starts for Niklas_7:

(Start: 42 @1440 has 23 MA's), (Start: 52 @1449 has 92 MA's), (61, 1491), (67, 1515), (73, 1569),

Gene: Nutello_3 Start: 636, Stop: 863, Start Num: 52

Candidate Starts for Nutello_3:

(Start: 42 @627 has 23 MA's), (Start: 52 @636 has 92 MA's), (61, 678), (62, 684), (67, 702), (73, 756), (77, 783),

Gene: OkiRoe_5 Start: 1107, Stop: 1334, Start Num: 54
Candidate Starts for OkiRoe_5:
(Start: 54 @1107 has 15 MA's), (58, 1137), (61, 1149), (67, 1173), (73, 1227),

Gene: OmniCritical_8 Start: 2221, Stop: 2493, Start Num: 39
Candidate Starts for OmniCritical_8:
(17, 2134), (22, 2158), (Start: 39 @2221 has 25 MA's), (58, 2290), (59, 2293), (63, 2314), (69, 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), (Start: 52 @1161 has 92 MA's), (Start: 54 @1167 has 15 MA's), (67,
1233), (70, 1272), (73, 1287), (80, 1329),

Gene: Oscar_6 Start: 1262, Stop: 1498, Start Num: 42
Candidate Starts for Oscar_6:
(Start: 42 @1262 has 23 MA's), (Start: 52 @1271 has 92 MA's), (67, 1337), (73, 1391),

Gene: Padfoot_7 Start: 1417, Stop: 1653, Start Num: 42
Candidate Starts for Padfoot_7:
(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start:
52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Padpat_7 Start: 1382, Stop: 1609, Start Num: 52
Candidate Starts for Padpat_7:
(Start: 28 @1328 has 3 MA's), (Start: 42 @1373 has 23 MA's), (Start: 45 @1379 has 2 MA's), (Start:
52 @1382 has 92 MA's), (59, 1415), (61, 1424), (67, 1448), (73, 1502),

Gene: Paola_5 Start: 1106, Stop: 1333, Start Num: 54
Candidate Starts for Paola_5:
(Start: 54 @1106 has 15 MA's), (58, 1136), (61, 1148), (67, 1172), (73, 1226),

Gene: Patt_8 Start: 2153, Stop: 2425, Start Num: 39
Candidate Starts for Patt_8:
(17, 2066), (22, 2090), (Start: 39 @2153 has 25 MA's), (58, 2222), (59, 2225), (60, 2228), (63, 2246),
(69, 2288), (83, 2372),

Gene: Peanam_7 Start: 1440, Stop: 1676, Start Num: 42
Candidate Starts for Peanam_7:
(Start: 42 @1440 has 23 MA's), (Start: 52 @1449 has 92 MA's), (61, 1491), (67, 1515), (73, 1569),

Gene: Peel_7 Start: 1417, Stop: 1653, Start Num: 42
Candidate Starts for Peel_7:
(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start:
52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Pharb_6 Start: 1077, Stop: 1304, Start Num: 52
Candidate Starts for Pharb_6:
(Start: 36 @1047 has 2 MA's), (Start: 52 @1077 has 92 MA's), (60, 1113), (61, 1119), (67, 1143), (73,
1197), (76, 1221),

Gene: PhelpsODU_6 Start: 1317, Stop: 1565, Start Num: 48
Candidate Starts for PhelpsODU_6:

(Start: 36 @1287 has 2 MA's), (Start: 48 @1317 has 12 MA's), (61, 1380), (63, 1392), (73, 1458),

Gene: Phrank_6 Start: 1283, Stop: 1531, Start Num: 48

Candidate Starts for Phrank_6:

(Start: 36 @1253 has 2 MA's), (Start: 48 @1283 has 12 MA's), (61, 1346), (63, 1358), (73, 1424),

Gene: Piatt_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Piatt_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Pitbull_1 Start: 58, Stop: 360, Start Num: 29

Candidate Starts for Pitbull_1:

(Start: 29 @58 has 1 MA's), (31, 61), (Start: 36 @79 has 2 MA's), (40, 88), (69, 235), (70, 244), (72, 256), (73, 259),

Gene: Pixie_6 Start: 1028, Stop: 1255, Start Num: 52

Candidate Starts for Pixie_6:

(Start: 36 @998 has 2 MA's), (Start: 52 @1028 has 92 MA's), (59, 1061), (60, 1064), (61, 1070), (70, 1133), (73, 1148), (76, 1172),

Gene: Pokerus_6 Start: 1336, Stop: 1563, Start Num: 52

Candidate Starts for Pokerus_6:

(Start: 28 @1282 has 3 MA's), (Start: 42 @1327 has 23 MA's), (Start: 45 @1333 has 2 MA's), (Start: 52 @1336 has 92 MA's), (59, 1369), (61, 1378), (67, 1402), (73, 1456),

Gene: Prithvi_7 Start: 1351, Stop: 1578, Start Num: 52

Candidate Starts for Prithvi_7:

(Start: 42 @1342 has 23 MA's), (Start: 52 @1351 has 92 MA's), (61, 1393), (67, 1417), (73, 1471),

Gene: QuincyRose_6 Start: 1393, Stop: 1629, Start Num: 42

Candidate Starts for QuincyRose_6:

(Start: 28 @1348 has 3 MA's), (Start: 42 @1393 has 23 MA's), (Start: 45 @1399 has 2 MA's), (Start: 52 @1402 has 92 MA's), (59, 1435), (61, 1444), (67, 1468), (73, 1522),

Gene: Ramen_7 Start: 1376, Stop: 1603, Start Num: 52

Candidate Starts for Ramen_7:

(Start: 42 @1367 has 23 MA's), (Start: 45 @1373 has 2 MA's), (Start: 52 @1376 has 92 MA's), (59, 1409), (61, 1418), (67, 1442), (73, 1496),

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

Candidate Starts for Rando14_5:

(Start: 51 @1187 has 2 MA's), (Start: 52 @1190 has 92 MA's), (Start: 54 @1196 has 15 MA's), (67, 1262), (70, 1301), (73, 1316), (80, 1358),

Gene: Rapunzel97_7 Start: 1376, Stop: 1603, Start Num: 52

Candidate Starts for Rapunzel97_7:

(Start: 42 @1367 has 23 MA's), (Start: 45 @1373 has 2 MA's), (Start: 52 @1376 has 92 MA's), (59, 1409), (61, 1418), (67, 1442), (73, 1496),

Gene: Raqqa_2 Start: 745, Stop: 1044, Start Num: 33

Candidate Starts for Raqqa_2:

(31, 736), (Start: 33 @745 has 5 MA's), (40, 769), (59, 853), (60, 856), (61, 862),

Gene: Reptar3000_8 Start: 2152, Stop: 2424, Start Num: 39

Candidate Starts for Reptar3000_8:

(17, 2065), (22, 2089), (Start: 39 @2152 has 25 MA's), (58, 2221), (59, 2224), (60, 2227), (63, 2245), (69, 2287), (83, 2371),

Gene: Richo_7 Start: 1449, Stop: 1676, Start Num: 52

Candidate Starts for Richo_7:

(Start: 42 @1440 has 23 MA's), (Start: 52 @1449 has 92 MA's), (61, 1491), (67, 1515), (73, 1569),

Gene: Rosmarinus_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Rosmarinus_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Ruthiejr_7 Start: 1960, Stop: 2229, Start Num: 39

Candidate Starts for Ruthiejr_7:

(Start: 39 @1960 has 25 MA's), (58, 2026), (59, 2029), (63, 2050), (69, 2092), (83, 2176),

Gene: Ryadel_32 Start: 13643, Stop: 13933, Start Num: 39

Candidate Starts for Ryadel_32:

(12, 13511), (Start: 37 @13634 has 22 MA's), (Start: 39 @13643 has 25 MA's), (68, 13784), (75, 13826),

Gene: SamScheppers_6 Start: 1831, Stop: 2103, Start Num: 39

Candidate Starts for SamScheppers_6:

(17, 1744), (22, 1768), (Start: 39 @1831 has 25 MA's), (58, 1900), (59, 1903), (63, 1924), (69, 1966), (83, 2050),

Gene: SamuelLPlaqson_7 Start: 1355, Stop: 1582, Start Num: 52

Candidate Starts for SamuelLPlaqson_7:

(Start: 28 @1304 has 3 MA's), (Start: 42 @1346 has 23 MA's), (Start: 52 @1355 has 92 MA's), (61, 1397), (67, 1421), (73, 1475),

Gene: Sarge_1 Start: 49, Stop: 357, Start Num: 28

Candidate Starts for Sarge_1:

(23, 28), (Start: 28 @49 has 3 MA's), (40, 85), (55, 142), (77, 277),

Gene: Scarlett_6 Start: 1261, Stop: 1497, Start Num: 42

Candidate Starts for Scarlett_6:

(Start: 42 @1261 has 23 MA's), (Start: 52 @1270 has 92 MA's), (67, 1336), (73, 1390),

Gene: SchoolBus_29 Start: 12830, Stop: 13120, Start Num: 39

Candidate Starts for SchoolBus_29:

(12, 12698), (Start: 37 @12821 has 22 MA's), (Start: 39 @12830 has 25 MA's), (68, 12971), (75, 13013),

Gene: Schuy_31 Start: 13207, Stop: 13506, Start Num: 37

Candidate Starts for Schuy_31:

(12, 13084), (Start: 37 @13207 has 22 MA's), (Start: 39 @13216 has 25 MA's), (68, 13357), (75, 13399),

Gene: SgtBeansprout_3 Start: 636, Stop: 863, Start Num: 52

Candidate Starts for SgtBeansprout_3:

(Start: 42 @627 has 23 MA's), (Start: 52 @636 has 92 MA's), (61, 678), (62, 684), (67, 702), (73, 756), (77, 783),

Gene: Shadow1_5 Start: 1191, Stop: 1439, Start Num: 48

Candidate Starts for Shadow1_5:

(Start: 36 @1161 has 2 MA's), (Start: 48 @1191 has 12 MA's), (58, 1242), (61, 1254), (63, 1266), (73, 1332),

Gene: Shaobing_7 Start: 1449, Stop: 1676, Start Num: 52

Candidate Starts for Shaobing_7:

(Start: 42 @1440 has 23 MA's), (Start: 52 @1449 has 92 MA's), (61, 1491), (67, 1515), (73, 1569),

Gene: ShedlockHolmes_6 Start: 1277, Stop: 1504, Start Num: 52

Candidate Starts for ShedlockHolmes_6:

(Start: 36 @1247 has 2 MA's), (Start: 52 @1277 has 92 MA's), (59, 1310), (60, 1313), (61, 1319), (70, 1382), (73, 1397), (76, 1421),

Gene: ShiaSurprise_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for ShiaSurprise_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Shida_30 Start: 13114, Stop: 13413, Start Num: 37

Candidate Starts for Shida_30:

(18, 13036), (Start: 37 @13114 has 22 MA's), (Start: 39 @13123 has 25 MA's), (68, 13264), (75, 13306),

Gene: Shoya_1 Start: 59, Stop: 364, Start Num: 30

Candidate Starts for Shoya_1:

(Start: 30 @59 has 4 MA's), (41, 101), (86, 332),

Gene: SirPhilip_6 Start: 1153, Stop: 1398, Start Num: 48

Candidate Starts for SirPhilip_6:

(Start: 42 @1144 has 23 MA's), (Start: 48 @1153 has 12 MA's), (61, 1213), (73, 1291), (78, 1324),

Gene: Slarp_8 Start: 2234, Stop: 2506, Start Num: 39

Candidate Starts for Slarp_8:

(17, 2147), (22, 2171), (Start: 39 @2234 has 25 MA's), (58, 2303), (59, 2306), (63, 2327), (69, 2369), (83, 2453),

Gene: Slimphazie_7 Start: 1376, Stop: 1603, Start Num: 52

Candidate Starts for Slimphazie_7:

(Start: 42 @1367 has 23 MA's), (Start: 45 @1373 has 2 MA's), (Start: 52 @1376 has 92 MA's), (59, 1409), (61, 1418), (67, 1442), (73, 1496),

Gene: Smooch_32 Start: 14365, Stop: 14664, Start Num: 37

Candidate Starts for Smooch_32:

(12, 14242), (Start: 37 @14365 has 22 MA's), (Start: 39 @14374 has 25 MA's), (68, 14515), (75, 14557),

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

Candidate Starts for SoSeph_5:

(Start: 54 @1127 has 15 MA's), (58, 1157), (61, 1169), (67, 1193), (73, 1247),

Gene: Spartoi_1 Start: 95, Stop: 397, Start Num: 30

Candidate Starts for Spartoi_1:

(20, 50), (24, 68), (25, 80), (Start: 30 @95 has 4 MA's), (Start: 51 @158 has 2 MA's), (56, 173), (61, 206), (69, 260), (71, 272), (79, 320), (82, 341),

Gene: Spock_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Spock_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Stinson_7 Start: 1348, Stop: 1584, Start Num: 42

Candidate Starts for Stinson_7:

(Start: 28 @1303 has 3 MA's), (Start: 42 @1348 has 23 MA's), (Start: 45 @1354 has 2 MA's), (Start: 52 @1357 has 92 MA's), (59, 1390), (61, 1399), (67, 1423), (73, 1477),

Gene: Strobilo_3 Start: 426, Stop: 674, Start Num: 46

Candidate Starts for Strobilo_3:

(Start: 46 @426 has 10 MA's), (61, 489), (63, 501), (73, 567),

Gene: Sulley_7 Start: 1364, Stop: 1591, Start Num: 52

Candidate Starts for Sulley_7:

(26, 1304), (Start: 42 @1355 has 23 MA's), (Start: 52 @1364 has 92 MA's), (61, 1406), (67, 1430), (73, 1484),

Gene: Sunflower1121_5 Start: 1190, Stop: 1438, Start Num: 48

Candidate Starts for Sunflower1121_5:

(Start: 36 @1160 has 2 MA's), (Start: 48 @1190 has 12 MA's), (58, 1241), (61, 1253), (63, 1265), (73, 1331),

Gene: Syra333_6 Start: 1295, Stop: 1543, Start Num: 48

Candidate Starts for Syra333_6:

(Start: 36 @1265 has 2 MA's), (Start: 48 @1295 has 12 MA's), (58, 1346), (61, 1358), (63, 1370), (73, 1436),

Gene: TBond007_6 Start: 997, Stop: 1254, Start Num: 36

Candidate Starts for TBond007_6:

(Start: 36 @997 has 2 MA's), (Start: 52 @1027 has 92 MA's), (59, 1060), (60, 1063), (61, 1069), (70, 1132), (73, 1147), (76, 1171),

Gene: TClif_6 Start: 1251, Stop: 1478, Start Num: 52

Candidate Starts for TClif_6:

(Start: 36 @1221 has 2 MA's), (Start: 52 @1251 has 92 MA's), (61, 1293), (67, 1317), (73, 1371),

Gene: TM4_3 Start: 438, Stop: 689, Start Num: 46

Candidate Starts for TM4_3:

(6, 231), (Start: 46 @438 has 10 MA's), (61, 501), (63, 513), (73, 579),

Gene: Tachez_7 Start: 1345, Stop: 1572, Start Num: 52

Candidate Starts for Tachez_7:

(Start: 28 @1291 has 3 MA's), (Start: 42 @1336 has 23 MA's), (Start: 45 @1342 has 2 MA's), (Start: 52 @1345 has 92 MA's), (59, 1378), (61, 1387), (67, 1411), (73, 1465),

Gene: TaiwanKao_7 Start: 1351, Stop: 1578, Start Num: 52

Candidate Starts for TaiwanKao_7:

(Start: 28 @1297 has 3 MA's), (Start: 42 @1342 has 23 MA's), (Start: 52 @1351 has 92 MA's), (61, 1393), (67, 1417), (73, 1471),

Gene: Taquito_6 Start: 1832, Stop: 2104, Start Num: 39

Candidate Starts for Taquito_6:

(17, 1745), (22, 1769), (Start: 39 @1832 has 25 MA's), (58, 1901), (59, 1904), (63, 1925), (69, 1967), (83, 2051),

Gene: TelAviv_27 Start: 12815, Stop: 13114, Start Num: 37

Candidate Starts for TelAviv_27:

(Start: 37 @12815 has 22 MA's), (Start: 39 @12824 has 25 MA's), (68, 12965), (75, 13007),

Gene: Thyatira_5 Start: 1105, Stop: 1332, Start Num: 54

Candidate Starts for Thyatira_5:

(10, 922), (11, 934), (16, 973), (21, 1003), (Start: 51 @1096 has 2 MA's), (Start: 52 @1099 has 92 MA's), (Start: 54 @1105 has 15 MA's), (67, 1171), (70, 1210), (73, 1225),

Gene: Tierra_6 Start: 1285, Stop: 1533, Start Num: 48

Candidate Starts for Tierra_6:

(Start: 36 @1255 has 2 MA's), (Start: 48 @1285 has 12 MA's), (61, 1348), (63, 1360), (73, 1426),

Gene: TingHuaYa_7 Start: 1386, Stop: 1634, Start Num: 47

Candidate Starts for TingHuaYa_7:

(44, 1380), (Start: 47 @1386 has 1 MA's), (Start: 49 @1389 has 1 MA's), (61, 1449), (63, 1461), (73, 1527),

Gene: TiniBug_7 Start: 1355, Stop: 1582, Start Num: 52

Candidate Starts for TiniBug_7:

(Start: 28 @1304 has 3 MA's), (Start: 42 @1346 has 23 MA's), (Start: 52 @1355 has 92 MA's), (61, 1397), (67, 1421), (73, 1475),

Gene: Tiri_7 Start: 1393, Stop: 1620, Start Num: 52

Candidate Starts for Tiri_7:

(Start: 28 @1339 has 3 MA's), (Start: 42 @1384 has 23 MA's), (Start: 45 @1390 has 2 MA's), (Start: 52 @1393 has 92 MA's), (59, 1426), (61, 1435), (67, 1459), (73, 1513),

Gene: Topper_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Topper_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Torres_3 Start: 636, Stop: 863, Start Num: 52

Candidate Starts for Torres_3:

(Start: 42 @627 has 23 MA's), (Start: 52 @636 has 92 MA's), (61, 678), (62, 684), (67, 702), (73, 756), (77, 783),

Gene: TreyKay_7 Start: 1351, Stop: 1578, Start Num: 52

Candidate Starts for TreyKay_7:

(Start: 42 @1342 has 23 MA's), (Start: 52 @1351 has 92 MA's), (61, 1393), (67, 1417), (73, 1471),

Gene: TribbleTrouble_5 Start: 1095, Stop: 1322, Start Num: 52

Candidate Starts for TribbleTrouble_5:

(Start: 36 @1065 has 2 MA's), (Start: 52 @1095 has 92 MA's), (60, 1131), (61, 1137), (73, 1215), (76, 1239),

Gene: TruffulaTree_7 Start: 1376, Stop: 1603, Start Num: 52

Candidate Starts for TruffulaTree_7:

(Start: 28 @1322 has 3 MA's), (Start: 42 @1367 has 23 MA's), (Start: 45 @1373 has 2 MA's), (Start: 52 @1376 has 92 MA's), (59, 1409), (61, 1418), (67, 1442), (73, 1496),

Gene: Twitch_7 Start: 1417, Stop: 1653, Start Num: 42

Candidate Starts for Twitch_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Unicorn_6 Start: 1317, Stop: 1565, Start Num: 48

Candidate Starts for Unicorn_6:

(Start: 36 @1287 has 2 MA's), (Start: 48 @1317 has 12 MA's), (61, 1380), (63, 1392), (73, 1458),

Gene: Urkel_7 Start: 1355, Stop: 1582, Start Num: 52

Candidate Starts for Urkel_7:

(Start: 28 @1304 has 3 MA's), (Start: 42 @1346 has 23 MA's), (Start: 52 @1355 has 92 MA's), (61, 1397), (67, 1421), (73, 1475),

Gene: Vagabond_28 Start: 13097, Stop: 13387, Start Num: 39

Candidate Starts for Vagabond_28:

(12, 12965), (Start: 37 @13088 has 22 MA's), (Start: 39 @13097 has 25 MA's), (68, 13238), (75, 13280),

Gene: Validus_7 Start: 1356, Stop: 1592, Start Num: 42

Candidate Starts for Validus_7:

(Start: 42 @1356 has 23 MA's), (Start: 52 @1365 has 92 MA's), (61, 1407), (67, 1431), (73, 1485),

Gene: Veliki_7 Start: 1426, Stop: 1653, Start Num: 52

Candidate Starts for Veliki_7:

(Start: 28 @1372 has 3 MA's), (Start: 42 @1417 has 23 MA's), (Start: 45 @1423 has 2 MA's), (Start: 52 @1426 has 92 MA's), (59, 1459), (61, 1468), (67, 1492), (73, 1546),

Gene: Vorrps_29 Start: 12860, Stop: 13159, Start Num: 37

Candidate Starts for Vorrps_29:

(18, 12782), (Start: 37 @12860 has 22 MA's), (Start: 39 @12869 has 25 MA's), (68, 13010), (75, 13052),

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

Candidate Starts for Waterfoul_5:

(Start: 54 @1127 has 15 MA's), (58, 1157), (61, 1169), (67, 1193), (73, 1247),

Gene: Wildflower_30 Start: 12855, Stop: 13154, Start Num: 37

Candidate Starts for Wildflower_30:

(18, 12777), (Start: 37 @12855 has 22 MA's), (Start: 39 @12864 has 25 MA's), (68, 13005), (75, 13047),

Gene: Winget_30 Start: 13096, Stop: 13386, Start Num: 39

Candidate Starts for Winget_30:

(12, 12964), (Start: 37 @13087 has 22 MA's), (Start: 39 @13096 has 25 MA's), (68, 13237), (75, 13279),

Gene: Wintermute_8 Start: 2220, Stop: 2492, Start Num: 39

Candidate Starts for Wintermute_8:

(17, 2133), (22, 2157), (Start: 39 @2220 has 25 MA's), (58, 2289), (59, 2292), (63, 2313), (83, 2439),

Gene: Ximenita_7 Start: 1459, Stop: 1707, Start Num: 48

Candidate Starts for Ximenita_7:

(Start: 36 @1429 has 2 MA's), (Start: 48 @1459 has 12 MA's), (61, 1522), (63, 1534), (73, 1600),

Gene: Y10_08 Start: 2221, Stop: 2493, Start Num: 39

Candidate Starts for Y10_08:

(17, 2134), (22, 2158), (Start: 39 @2221 has 25 MA's), (58, 2290), (59, 2293), (63, 2314), (69, 2356), (83, 2440),

Gene: Y2_08 Start: 2221, Stop: 2493, Start Num: 39

Candidate Starts for Y2_08:

(17, 2134), (22, 2158), (Start: 39 @2221 has 25 MA's), (58, 2290), (59, 2293), (63, 2314), (69, 2356), (83, 2440),

Gene: YoureAdopted_6 Start: 1352, Stop: 1579, Start Num: 52

Candidate Starts for YoureAdopted_6:

(Start: 28 @1298 has 3 MA's), (Start: 42 @1343 has 23 MA's), (Start: 45 @1349 has 2 MA's), (Start: 52 @1352 has 92 MA's), (59, 1385), (61, 1394), (67, 1418), (73, 1472),

Gene: Yuna_7 Start: 1452, Stop: 1679, Start Num: 52

Candidate Starts for Yuna_7:

(Start: 52 @1452 has 92 MA's), (61, 1494), (67, 1518), (73, 1572),

Gene: YungJamal_32 Start: 13159, Stop: 13449, Start Num: 39

Candidate Starts for YungJamal_32:

(18, 13072), (Start: 37 @13150 has 22 MA's), (Start: 39 @13159 has 25 MA's), (68, 13300), (75, 13342),

Gene: Yunkel11_7 Start: 1376, Stop: 1603, Start Num: 52

Candidate Starts for Yunkel11_7:

(26, 1313), (Start: 42 @1367 has 23 MA's), (Start: 52 @1376 has 92 MA's), (67, 1442), (73, 1496),

Gene: Zabiza_7 Start: 1367, Stop: 1603, Start Num: 42

Candidate Starts for Zabiza_7:

(Start: 42 @1367 has 23 MA's), (Start: 45 @1373 has 2 MA's), (Start: 52 @1376 has 92 MA's), (59, 1409), (61, 1418), (67, 1442), (73, 1496),

Gene: Zakhe101_30 Start: 13000, Stop: 13299, Start Num: 37

Candidate Starts for Zakhe101_30:

(18, 12922), (Start: 37 @13000 has 22 MA's), (Start: 39 @13009 has 25 MA's), (68, 13150), (75, 13192),

Gene: Zavala_7 Start: 1352, Stop: 1588, Start Num: 42

Candidate Starts for Zavala_7:

(Start: 28 @1307 has 3 MA's), (Start: 42 @1352 has 23 MA's), (Start: 45 @1358 has 2 MA's), (Start: 52 @1361 has 92 MA's), (59, 1394), (61, 1403), (67, 1427), (73, 1481),

Gene: ZoeJ_3 Start: 426, Stop: 674, Start Num: 46

Candidate Starts for ZoeJ_3:

(Start: 46 @426 has 10 MA's), (61, 489), (63, 501), (67, 513), (73, 567),