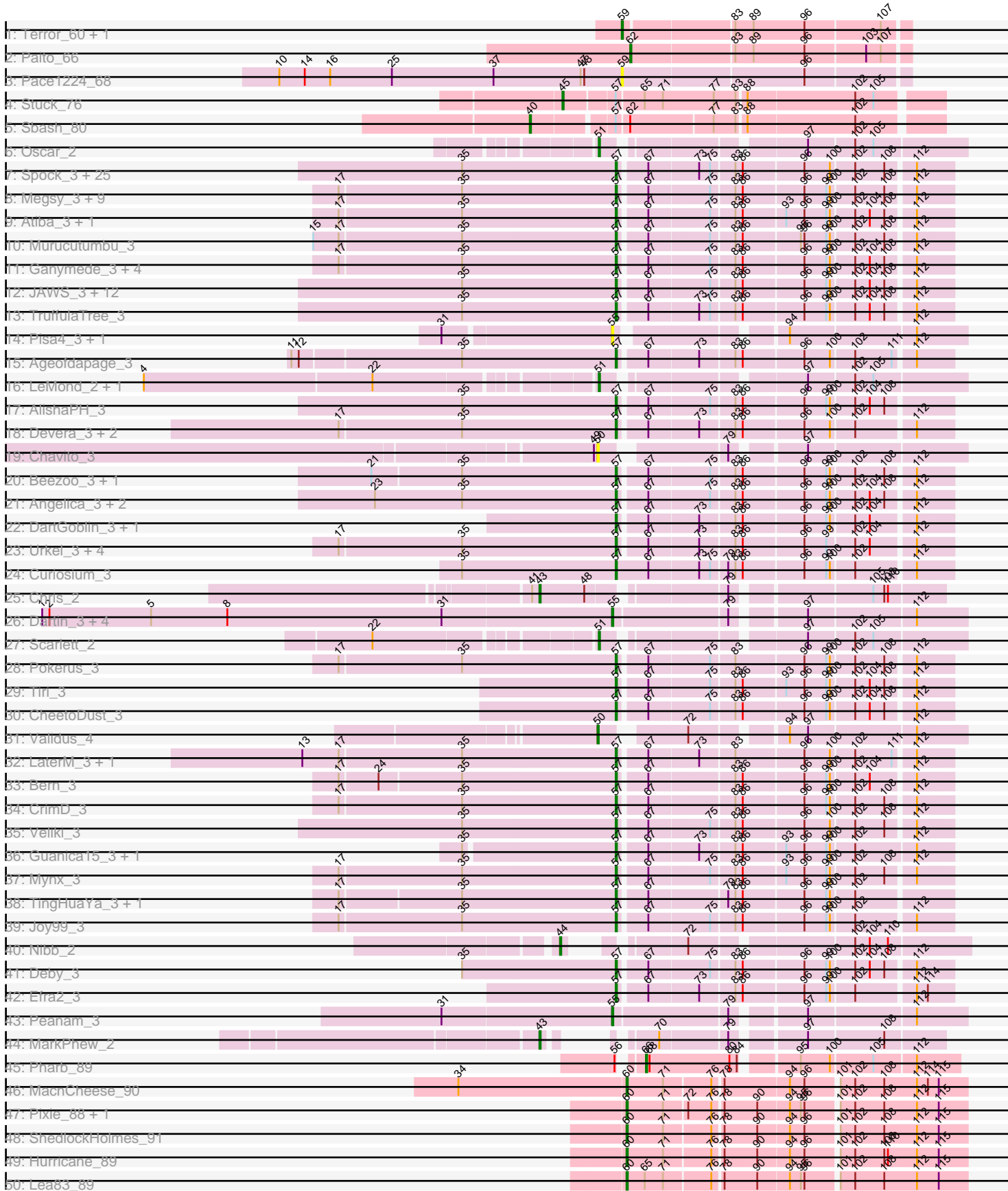
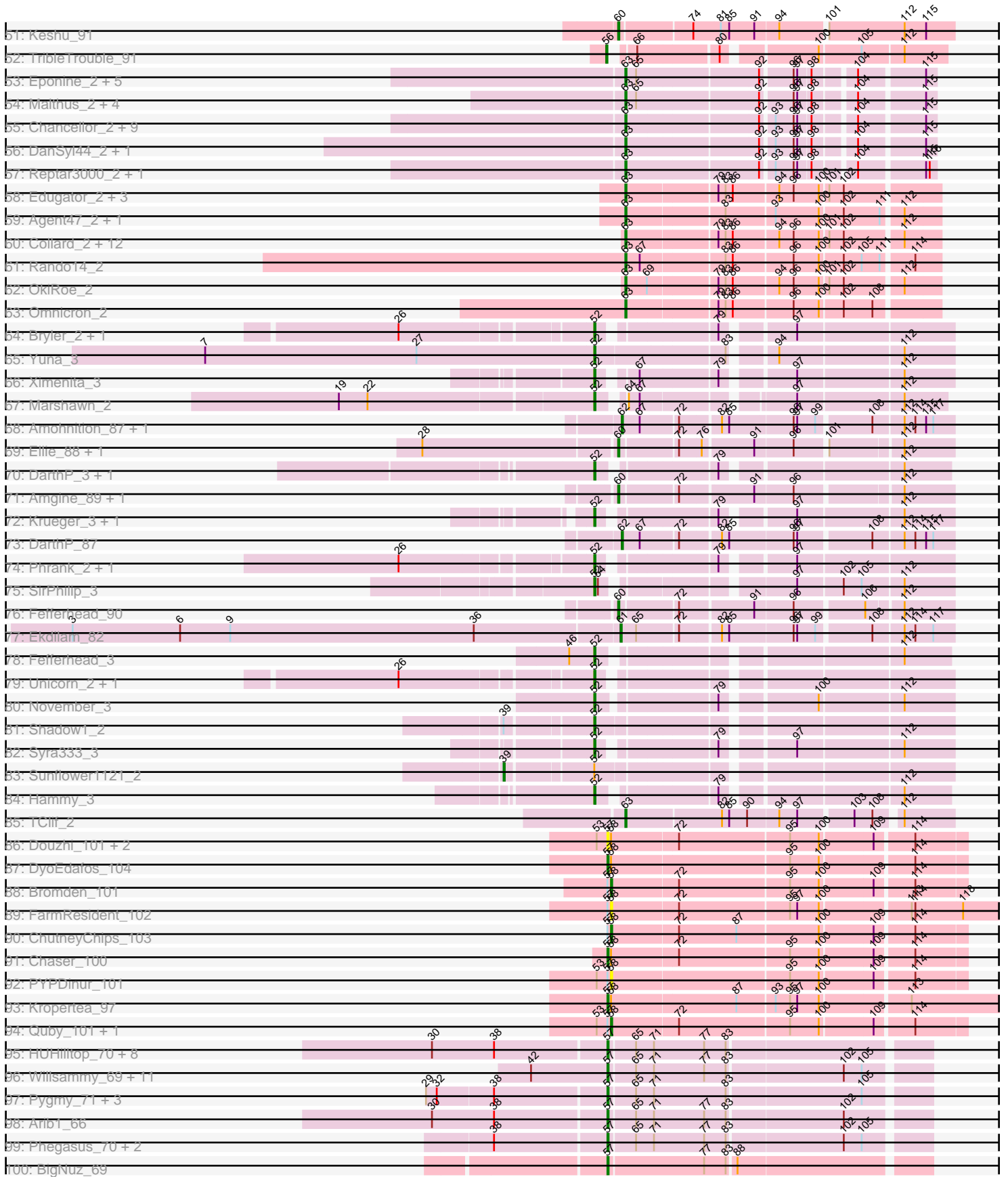


Pham 306110



Pham 306110



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 306110 Report

This analysis was run 06/20/26 on database version 651.

Pham number 306110 has 245 members, 21 are drafts.

Phages represented in each track:

- Track 1 : Terror_60, Taheera_60
- Track 2 : Paito_66
- Track 3 : Pace1224_68
- Track 4 : Stuck_76
- Track 5 : Sbash_80
- Track 6 : Oscar_2
- Track 7 : Spock_3, Llorens_3, Capricorn_3, Durfee_3, Boiii_3, Blizzard_3, ShiaSurprise_3, Homura_3, Topper_3, Twitch_3, Piatt_3, Dalmuri_3, BEEST_3, Jarvi_3, Belladonna_3, Asayake_3, Lunahalos_3, Hyperbowlee_3, BGlluviae_3, Jeckyll_3, Rosmarinus_3, Peel_3, CREW_3, Padfoot_3, Inky_3, CaseJules_3
- Track 8 : Megsy_3, BaghaKamala_3, Prithvi_3, Clipper_3, LindNT_3, TreyKay_3, MacKat_3, YoureAdopted_3, TaiwanKao_3, MeaningOfLife_3
- Track 9 : Atiba_3, Tachez_3
- Track 10 : Murucutumbu_3
- Track 11 : Ganymede_3, Adonis_3, CallaLilly_3, QuincyRose_3, Zavala_3
- Track 12 : JAWS_3, BarrelRoll_3, Anaya_3, Adephagia_3, Zabiza_3, Padpat_3, ActinUp_3, HedwigODU_3, Emerson_3, Slimphazie_3, Jayhawk_3, Rapunzel97_3, Ramen_3
- Track 13 : TruffulaTree_3
- Track 14 : Pisa4_3, Pisa1_3
- Track 15 : Ageofdapage_3
- Track 16 : LeMond_2, KiSi_2
- Track 17 : AlishaPH_3
- Track 18 : Devera_3, Dole_3, Illumine_3
- Track 19 : Chavito_3
- Track 20 : Beezoo_3, Geraldini_3
- Track 21 : Angelica_3, Apocalypse_3, Sulley_3
- Track 22 : DartGoblin_3, Bella96_3
- Track 23 : Urkel_3, DrHayes_3, Anma_3, TiniBug_3, SamuelLPlaqson_3
- Track 24 : Curiosium_3
- Track 25 : Chris_2
- Track 26 : Dartin_3, McMater_3, Shaobing_3, Niklas_3, Richo_3
- Track 27 : Scarlett_2
- Track 28 : Pokerus_3
- Track 29 : Tiri_3
- Track 30 : CheetoDust_3
- Track 31 : Validus_4

- Track 32 : LaterM_3, Stinson_3
- Track 33 : Bern_3
- Track 34 : CrimD_3
- Track 35 : Veliki_3
- Track 36 : Guanica15_3, Yunkel11_3
- Track 37 : Mynx_3
- Track 38 : TingHuaYa_3, LastHope_3
- Track 39 : Joy99_3
- Track 40 : Nibb_2
- Track 41 : Deby_3
- Track 42 : Efra2_3
- Track 43 : Peanam_3
- Track 44 : MarkPhew_2
- Track 45 : Pharb_89
- Track 46 : MacnCheese_90
- Track 47 : Pixie_88, TBond007_85
- Track 48 : ShedlockHolmes_91
- Track 49 : Hurricane_89
- Track 50 : Lea83_89
- Track 51 : Keshu_91
- Track 52 : TribbleTrouble_91
- Track 53 : Eponine_2, Y2_02, Y10_02, Wintermute_2, Fionnbharth_2, JF1_2
- Track 54 : Malthus_2, Kraw_2, Juliette_2, YasnayaPolyana_2, Ruthiejr_2
- Track 55 : Chancellor_2, Cheetobro_2, Patt_2, MissDaisy_2, Qhanda_2, Taquito_2, OmniCritical_2, Slarp_2, Mitti_2, SamScheppers_2
- Track 56 : DanSyl44_2, Lebo14_2
- Track 57 : Reptar3000_2, Bobquesha_2
- Track 58 : Edugator_2, AlleyCat_2, Psycho_2, Dadosky_2
- Track 59 : Agent47_2, InvictusManeo_2
- Track 60 : Collard_2, Heftyboy_2, Paola_2, Waterfoul_2, Leston_2, Thyatira_2, Gengar_2, SoSeph_2, Guillsminger_2, Feyre_2, BananenDer11_2, Miryou_2, DoubleChamp_2
- Track 61 : Rando14_2
- Track 62 : OkiRoe_2
- Track 63 : Omnicron_2
- Track 64 : Bryler_2, Cain_2
- Track 65 : Yuna_3
- Track 66 : Ximenita_3
- Track 67 : Marshawn_2
- Track 68 : Amohnition_87, Hammy_87
- Track 69 : Ellie_88, Applecrisp_87
- Track 70 : DarthP_3, Amohnition_3
- Track 71 : Amgine_89, Lavahound_88
- Track 72 : Krueger_3, Tigress9_3
- Track 73 : DarthP_87
- Track 74 : Phrank_2, Tierra_2
- Track 75 : SirPhilip_3
- Track 76 : Fefferhead_90
- Track 77 : Ekdilam_82
- Track 78 : Fefferhead_3
- Track 79 : Unicorn_2, PhelpsODU_2
- Track 80 : November_3
- Track 81 : Shadow1_2

- Track 82 : Syra333_3
- Track 83 : Sunflower1121_2
- Track 84 : Hammy_3
- Track 85 : TClif_2
- Track 86 : Douzhi_101, BrainDrainer_102, Sheng711_102
- Track 87 : DyoEdafos_104
- Track 88 : Bromden_101
- Track 89 : FarmResident_102
- Track 90 : ChutneyChips_103
- Track 91 : Chaser_100
- Track 92 : PYPDinur_101
- Track 93 : Kropertea_97
- Track 94 : Quby_101, Douge_101
- Track 95 : HUHilltop_70, Sonah_68, Malithi_67, Bogie_70, Dynamo_67, Camster_68, Necropolis_65, Phineas_68, Shipwreck_70
- Track 96 : Willsammy_69, Megiddo_67, Chubbello_66, Donovan_67, Kari_67, Phalm_68, Fishburne_66, Gavriela_67, StressBall_67, KilKor_68, Glaske_67, CactusJack_68
- Track 97 : Pygmy_71, Techage_68, Bartholomew_63, Venti_65
- Track 98 : Arib1_66
- Track 99 : Phegasus_70, Majeke_70, Mangethe_70
- Track 100 : BigNuz_69
- Track 101 : Nazo_70
- Track 102 : ThulaThula_78

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

The start number called the most often in the published annotations is 57, it was called in 122 of the 224 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ActinUp_3, Adephagia_3, Adonis_3, Ageofdapage_3, AlishaPH_3, Anaya_3, Angelica_3, Anma_3, Apocalypse_3, Arib1_66, Asayake_3, Atiba_3, BEEST_3, BGIluviae_3, BaghaKamala_3, BarrelRoll_3, Bartholomew_63, Beezoo_3, Bella96_3, Belladonna_3, Bern_3, BigNuz_69, Blizzard_3, Bogie_70, Boiiii_3, BrainDrainer_102, CREW_3, CactusJack_68, CallaLilly_3, Camster_68, Capricorn_3, CaseJules_3, Chaser_100, CheetoDust_3, Chubbello_66, Clipper_3, CrimD_3, Curiosium_3, Dalmuri_3, DartGoblin_3, Deby_3, Devera_3, Dole_3, Donovan_67, Douzhi_101, DrHayes_3, Durfee_3, Dynamo_67, DyoEdafos_104, Efra2_3, Emerson_3, Fishburne_66, Ganymede_3, Gavriela_67, Geraldini_3, Glaske_67, Guanica15_3, HUHilltop_70, HedwigODU_3, Homura_3, Hyperbowlee_3, Illumine_3, Inky_3, JAWS_3, Jarvi_3, Jayhawk_3, Jeckyll_3, Joy99_3, Kari_67, KilKor_68, Kropertea_97, LastHope_3, LaterM_3, LindNT_3, Llorens_3, Lunahalos_3, MacKat_3, Majeke_70, Malithi_67, Mangethe_70, MeaningOfLife_3, Megiddo_67, Megsy_3, Murucutumbu_3, Mynx_3, Nazo_70, Necropolis_65, Padfoot_3, Padpat_3, Peel_3, Phalm_68, Phegasus_70, Phineas_68, Piatt_3, Pokerus_3, Prithvi_3, Pygmy_71, QuincyRose_3, Ramen_3, Rapunzel97_3, Rosmarinus_3, SamuelLPlaqson_3, Sheng711_102, ShiaSurprise_3, Shipwreck_70, Slimphazie_3, Sonah_68, Spock_3, Stinson_3, StressBall_67, Sulley_3, Tachez_3, TaiwanKao_3, Techage_68, TingHuaYa_3, TiniBug_3, Tiri_3, Topper_3, TreyKay_3, TruffulaTree_3, Twitch_3,

Urkel_3, Veliki_3, Venti_65, Willsammy_69, YoureAdopted_3, Yunkel11_3, Zabiza_3, Zavala_3,

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

- Bromden_101, ChutneyChips_103, Douge_101, FarmResident_102, PYPDinur_101, Quby_101, Sbash_80, Stuck_76,

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

- Agent47_2, AlleyCat_2, Amgine_89, Amohnition_3, Amohnition_87, Applecrisp_87, BananenDer11_2, Bobquesha_2, Bryler_2, Cain_2, Chancellor_2, Chavito_3, Cheetobro_2, Chris_2, Collard_2, Dadosky_2, DanSyl44_2, DarthP_3, DarthP_87, Dartin_3, DoubleChamp_2, Edugator_2, Ekdilam_82, Ellie_88, Eponine_2, Fefferhead_3, Fefferhead_90, Feyre_2, Fionnbharth_2, Gengar_2, Guillsminger_2, Hammy_3, Hammy_87, Heftyboy_2, Hurricane_89, InvictusManeo_2, JF1_2, Juliette_2, Keshu_91, KiSi_2, Kraw_2, Krueger_3, Lavahound_88, LeMond_2, Lea83_89, Lebo14_2, Leston_2, MacnCheese_90, Malthus_2, MarkPhew_2, Marshawn_2, McMater_3, Miryou_2, MissDaisy_2, Mitti_2, Nibb_2, Niklas_3, November_3, OkiRoe_2, OmniCritical_2, Omnicron_2, Oscar_2, Pace1224_68, Paito_66, Paola_2, Patt_2, Peanam_3, Pharb_89, PhelpsODU_2, Phrank_2, Pisa1_3, Pisa4_3, Pixie_88, Psycho_2, Qhanda_2, Rando14_2, Reptar3000_2, Richo_3, Ruthiejr_2, SamScheppers_2, Scarlett_2, Shadow1_2, Shaobing_3, ShedlockHolmes_91, SirPhilip_3, Slarp_2, SoSeph_2, Sunflower1121_2, Syra333_3, TBond007_85, TClif_2, Taheera_60, Taquito_2, Terror_60, ThulaThula_78, Thyatira_2, Tierra_2, Tigress9_3, TribbleTrouble_91, Unicorn_2, Validus_4, Waterfoul_2, Wintermute_2, Ximenita_3, Y10_02, Y2_02, YasnayaPolyana_2, Yuna_3,

Summary by start number:

Start 39:

- Found in 2 of 245 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 224
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Sunflower1121_2 (K6),

Start 40:

- Found in 1 of 245 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 224
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sbash_80 (I2),

Start 43:

- Found in 2 of 245 (0.8%) of genes in pham
- Manual Annotations of this start: 2 of 224
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chris_2 (K1), MarkPhew_2 (K1),

Start 44:

- Found in 1 of 245 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 224
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nibb_2 (K1),

Start 45:

- Found in 1 of 245 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 224
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Stuck_76 (I2),

Start 50:

- Found in 2 of 245 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 224
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chavito_3 (K1), Validus_4 (K1),

Start 51:

- Found in 4 of 245 (1.6%) of genes in pham
- Manual Annotations of this start: 4 of 224
- Called 100.0% of time when present
- Phage (with cluster) where this start called: KiSi_2 (K1), LeMond_2 (K1), Oscar_2 (K1), Scarlett_2 (K1),

Start 52:

- Found in 20 of 245 (8.2%) of genes in pham
- Manual Annotations of this start: 19 of 224
- Called 95.0% of time when present
- Phage (with cluster) where this start called: Amohnition_3 (K6), Bryler_2 (K6), Cain_2 (K6), DarthP_3 (K6), Fefferhead_3 (K6), Hammy_3 (K6), Krueger_3 (K6), Marshawn_2 (K6), November_3 (K6), PhelpsODU_2 (K6), Phrank_2 (K6), Shadow1_2 (K6), SirPhilip_3 (K6), Syra333_3 (K6), Tierra_2 (K6), Tigress9_3 (K6), Unicorn_2 (K6), Ximenita_3 (K6), Yuna_3 (K6),

Start 55:

- Found in 8 of 245 (3.3%) of genes in pham
- Manual Annotations of this start: 3 of 224
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dartin_3 (K1), McMater_3 (K1), Niklas_3 (K1), Peanam_3 (K1), Pisa1_3 (K1), Pisa4_3 (K1), Richo_3 (K1), Shaobing_3 (K1),

Start 56:

- Found in 2 of 245 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 224
- Called 50.0% of time when present
- Phage (with cluster) where this start called: TripleTrouble_91 (K3),

Start 57:

- Found in 137 of 245 (55.9%) of genes in pham
- Manual Annotations of this start: 122 of 224
- Called 94.2% of time when present
- Phage (with cluster) where this start called: ActinUp_3 (K1), Adephegia_3 (K1), Adonis_3 (K1), Ageofdapage_3 (K1), AlishaPH_3 (K1), Anaya_3 (K1), Angelica_3 (K1), Anma_3 (K1), Apocalypse_3 (K1), Arib1_66 (P1), Asayake_3 (K1), Atiba_3 (K1), BEEST_3 (K1), BGlluviae_3 (K1), BaghaKamala_3 (K1), BarrelRoll_3 (K1), Bartholomew_63 (P1), Beezoo_3 (K1), Bella96_3 (K1), Belladonna_3 (K1), Bern_3 (K1), BigNuz_69 (P4), Blizzard_3 (K1), Bogie_70 (P1), Boiiii_3 (K1), BrainDrainer_102 (L4), CREW_3 (K1), CactusJack_68 (P1), CallaLilly_3 (K1),

Camster_68 (P1), Capricorn_3 (K1), CaseJules_3 (K1), Chaser_100 (L4), CheetoDust_3 (K1), Chubbello_66 (P1), Clipper_3 (K1), CrimD_3 (K1), Curiosium_3 (K1), Dalmuri_3 (K1), DartGoblin_3 (K1), Deby_3 (K1), Devera_3 (K1), Dole_3 (K1), Donovan_67 (P1), Douzhi_101 (L4), DrHayes_3 (K1), Durfee_3 (K1), Dynamo_67 (P1), DyoEdafos_104 (L4), Efra2_3 (K1), Emerson_3 (K1), Fishburne_66 (P1), Ganymede_3 (K1), Gavriela_67 (P1), Geraldini_3 (K1), Glaske_67 (P1), Guanica15_3 (K1), HUHilltop_70 (P1), HedwigODU_3 (K1), Homura_3 (K1), Hyperbowlee_3 (K1), Illumine_3 (K1), Inky_3 (K1), JAWS_3 (K1), Jarvi_3 (K1), Jayhawk_3 (K1), Jeckyll_3 (K1), Joy99_3 (K1), Kari_67 (P1), KilKor_68 (P1), Kropertea_97 (L4), LastHope_3 (K1), LaterM_3 (K1), LindNT_3 (K1), Llorens_3 (K1), Lunahalos_3 (K1), MacKat_3 (K1), Majeke_70 (P1), Malithi_67 (P1), Mangethe_70 (P1), MeaningOfLife_3 (K1), Megiddo_67 (P1), Megsy_3 (K1), Murucutumbu_3 (K1), Mynx_3 (K1), Nazo_70 (P4), Necropolis_65 (P1), Padfoot_3 (K1), Padpat_3 (K1), Peel_3 (K1), Phalm_68 (P1), Phegasus_70 (P1), Phineas_68 (P1), Piatt_3 (K1), Pokerus_3 (K1), Prithvi_3 (K1), Pygmy_71 (P1), QuincyRose_3 (K1), Ramen_3 (K1), Rapunzel97_3 (K1), Rosmarinus_3 (K1), SamuelLPlaqson_3 (K1), Sheng711_102 (L4), ShiaSurprise_3 (K1), Shipwreck_70 (P1), Slimphazie_3 (K1), Sonah_68 (P1), Spock_3 (K1), Stinson_3 (K1), StressBall_67 (P1), Sulley_3 (K1), Tachez_3 (K1), TaiwanKao_3 (K1), Techage_68 (P1), TingHuaYa_3 (K1), TiniBug_3 (K1), Tiri_3 (K1), Topper_3 (K1), TreyKay_3 (K1), TruffulaTree_3 (K1), Twitch_3 (K1), Urkel_3 (K1), Veliki_3 (K1), Venti_65 (P1), Willsammy_69 (P1), YoureAdopted_3 (K1), Yunkel11_3 (K1), Zabiza_3 (K1), Zavala_3 (K1),

Start 58:

- Found in 12 of 245 (4.9%) of genes in pham
- Manual Annotations of this start: 3 of 224
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Bromden_101 (L4), ChutneyChips_103 (L4), Douge_101 (L4), FarmResident_102 (L4), PYPDinur_101 (L4), Quby_101 (L4),

Start 59:

- Found in 3 of 245 (1.2%) of genes in pham
- Manual Annotations of this start: 2 of 224
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pace1224_68 (G2), Taheera_60 (G1), Terror_60 (G1),

Start 60:

- Found in 13 of 245 (5.3%) of genes in pham
- Manual Annotations of this start: 13 of 224
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amgine_89 (K6), Applecrisp_87 (K6), Ellie_88 (K6), Fefferhead_90 (K6), Hurricane_89 (K3), Keshu_91 (K3), Lavahound_88 (K6), Lea83_89 (K3), MacnCheese_90 (K3), Pixie_88 (K3), ShedlockHolmes_91 (K3), TBond007_85 (K3), ThulaThula_78 (P5),

Start 61:

- Found in 1 of 245 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 224
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ekdilam_82 (K6),

Start 62:

- Found in 5 of 245 (2.0%) of genes in pham
- Manual Annotations of this start: 4 of 224
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Amohnition_87 (K6), DarthP_87 (K6), Hammy_87 (K6), Paito_66 (G1),

Start 63:

- Found in 48 of 245 (19.6%) of genes in pham
- Manual Annotations of this start: 44 of 224
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agent47_2 (K5), AlleyCat_2 (K5), BananenDer11_2 (K5), Bobquesha_2 (K4), Chancellor_2 (K4), Cheetobro_2 (K4), Collard_2 (K5), Dadosky_2 (K5), DanSyl44_2 (K4), DoubleChamp_2 (K5), Edugator_2 (K5), Eponine_2 (K4), Feyre_2 (K5), Fionnbharth_2 (K4), Gengar_2 (K5), Guillsminger_2 (K5), Heftyboy_2 (K5), InvictusManeo_2 (K5), JF1_2 (K4), Juliette_2 (K4), Kraw_2 (K4), Lebo14_2 (K4), Leston_2 (K5), Malthus_2 (K4), Miryou_2 (K5), MissDaisy_2 (K4), Mitti_2 (K4), OkiRoe_2 (K5), OmniCritical_2 (K4), Omnicron_2 (K5), Paola_2 (K5), Patt_2 (K4), Psycho_2 (K5), Qhanda_2 (K4), Rando14_2 (K5), Reptar3000_2 (K4), Ruthiejr_2 (K4), SamScheppers_2 (K4), Slarp_2 (K4), SoSeph_2 (K5), TClif_2 (K6), Taquito_2 (K4), Thyatira_2 (K5), Waterfoul_2 (K5), Wintermute_2 (K4), Y10_02 (K4), Y2_02 (K4), YasnayaPolyana_2 (K4),

Start 66:

- Found in 2 of 245 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 224
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Pharb_89 (K3),

Summary by clusters:

There are 12 clusters represented in this pham: P1, P4, G1, P5, I2, L4, K3, K1, K6, K5, K4, G2,

Info for manual annotations of cluster G1:

- Start number 59 was manually annotated 2 times for cluster G1.
- Start number 62 was manually annotated 1 time for cluster G1.

Info for manual annotations of cluster I2:

- Start number 40 was manually annotated 1 time for cluster I2.
- Start number 45 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster K1:

- Start number 43 was manually annotated 2 times for cluster K1.
- Start number 44 was manually annotated 1 time for cluster K1.
- Start number 50 was manually annotated 1 time for cluster K1.
- Start number 51 was manually annotated 4 times for cluster K1.
- Start number 55 was manually annotated 3 times for cluster K1.
- Start number 57 was manually annotated 89 times for cluster K1.

Info for manual annotations of cluster K3:

- Start number 56 was manually annotated 1 time for cluster K3.
- Start number 60 was manually annotated 7 times for cluster K3.

- Start number 66 was manually annotated 1 time for cluster K3.

Info for manual annotations of cluster K4:

- Start number 63 was manually annotated 22 times for cluster K4.

Info for manual annotations of cluster K5:

- Start number 63 was manually annotated 21 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 39 was manually annotated 1 time for cluster K6.
- Start number 52 was manually annotated 19 times for cluster K6.
- Start number 60 was manually annotated 5 times for cluster K6.
- Start number 61 was manually annotated 1 time for cluster K6.
- Start number 62 was manually annotated 3 times for cluster K6.
- Start number 63 was manually annotated 1 time for cluster K6.

Info for manual annotations of cluster L4:

- Start number 57 was manually annotated 3 times for cluster L4.
- Start number 58 was manually annotated 3 times for cluster L4.

Info for manual annotations of cluster P1:

- Start number 57 was manually annotated 28 times for cluster P1.

Info for manual annotations of cluster P4:

- Start number 57 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 60 was manually annotated 1 time for cluster P5.

Gene Information:

Gene: ActinUp_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for ActinUp_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Adephagia_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Adephagia_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Adonis_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for Adonis_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (104, 644), (108, 656), (112, 677),

Gene: Agent47_2 Start: 300, Stop: 545, Start Num: 63

Candidate Starts for Agent47_2:

(Start: 63 @300 has 44 MA's), (83, 378), (93, 417), (100, 453), (102, 471), (111, 501), (112, 516),

Gene: Ageofdapage_3 Start: 435, Stop: 689, Start Num: 57

Candidate Starts for Ageofdapage_3:

(11, 174), (12, 180), (35, 309), (Start: 57 @435 has 122 MA's), (67, 456), (73, 495), (83, 522), (86, 528), (96, 576), (100, 597), (102, 615), (111, 645), (112, 660),

Gene: AlishaPH_3 Start: 475, Stop: 729, Start Num: 57

Candidate Starts for AlishaPH_3:

(35, 349), (Start: 57 @475 has 122 MA's), (67, 496), (75, 544), (83, 562), (86, 568), (96, 616), (99, 634), (100, 637), (102, 655), (104, 667), (108, 679),

Gene: AlleyCat_2 Start: 300, Stop: 545, Start Num: 63

Candidate Starts for AlleyCat_2:

(Start: 63 @300 has 44 MA's), (79, 372), (83, 378), (86, 384), (94, 420), (96, 432), (100, 453), (101, 459), (102, 471),

Gene: Amgine_89 Start: 58064, Stop: 58318, Start Num: 60

Candidate Starts for Amgine_89:

(Start: 60 @58064 has 13 MA's), (72, 58109), (91, 58166), (96, 58196), (112, 58277),

Gene: Amohndition_87 Start: 57065, Stop: 57322, Start Num: 62

Candidate Starts for Amohndition_87:

(Start: 62 @57065 has 4 MA's), (67, 57080), (72, 57110), (82, 57140), (85, 57146), (96, 57197), (97, 57200), (99, 57215), (108, 57257), (112, 57281), (114, 57290), (115, 57299), (117, 57305),

Gene: Amohndition_3 Start: 416, Stop: 673, Start Num: 52

Candidate Starts for Amohndition_3:

(Start: 52 @416 has 19 MA's), (79, 500), (112, 635),

Gene: Anaya_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Anaya_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Angelica_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Angelica_3:

(23, 278), (35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Anma_3 Start: 440, Stop: 694, Start Num: 57

Candidate Starts for Anma_3:

(17, 215), (35, 314), (Start: 57 @440 has 122 MA's), (67, 461), (73, 500), (83, 527), (86, 533), (96, 581), (99, 599), (102, 620), (104, 632), (112, 665),

Gene: Apocalypse_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Apocalypse_3:

(23, 278), (35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Applecrisp_87 Start: 57244, Stop: 57498, Start Num: 60

Candidate Starts for Applecrisp_87:

(28, 57088), (Start: 60 @57244 has 13 MA's), (72, 57289), (76, 57307), (91, 57346), (96, 57376), (101, 57400), (112, 57457),

Gene: Arib1_66 Start: 42262, Stop: 42516, Start Num: 57

Candidate Starts for Arib1_66:

(30, 42121), (38, 42172), (Start: 57 @42262 has 122 MA's), (65, 42283), (71, 42298), (77, 42340), (83, 42358), (102, 42451),

Gene: Asayake_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Asayake_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Atiba_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for Atiba_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (93, 578), (96, 593), (99, 611), (100, 614), (102, 632), (104, 644), (108, 656), (112, 677),

Gene: BEEST_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for BEEST_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: BGlluviae_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for BGlluviae_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: BaghaKamala_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for BaghaKamala_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (108, 656), (112, 677),

Gene: BananenDer11_2 Start: 274, Stop: 519, Start Num: 63

Candidate Starts for BananenDer11_2:

(Start: 63 @274 has 44 MA's), (79, 346), (83, 352), (86, 358), (94, 394), (96, 406), (100, 427), (101, 433), (102, 445), (112, 490),

Gene: BarrelRoll_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for BarrelRoll_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Bartholomew_63 Start: 41542, Stop: 41796, Start Num: 57

Candidate Starts for Bartholomew_63:

(29, 41398), (32, 41407), (38, 41452), (Start: 57 @41542 has 122 MA's), (65, 41563), (71, 41578), (83, 41638), (105, 41746),

Gene: Beezoo_3 Start: 473, Stop: 727, Start Num: 57

Candidate Starts for Beezoo_3:

(21, 275), (35, 347), (Start: 57 @473 has 122 MA's), (67, 494), (75, 542), (83, 560), (86, 566), (96, 614), (99, 632), (100, 635), (102, 653), (108, 677), (112, 698),

Gene: Bella96_3 Start: 440, Stop: 694, Start Num: 57

Candidate Starts for Bella96_3:

(Start: 57 @440 has 122 MA's), (67, 461), (73, 500), (83, 527), (86, 533), (96, 581), (99, 599), (100, 602), (102, 620), (104, 632), (112, 665),

Gene: Belladonna_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Belladonna_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Bern_3 Start: 436, Stop: 690, Start Num: 57

Candidate Starts for Bern_3:

(17, 214), (24, 244), (35, 310), (Start: 57 @436 has 122 MA's), (67, 457), (83, 523), (86, 529), (96, 577), (99, 595), (100, 598), (102, 616), (104, 628), (112, 661),

Gene: BigNuz_69 Start: 44457, Stop: 44711, Start Num: 57

Candidate Starts for BigNuz_69:

(Start: 57 @44457 has 122 MA's), (77, 44535), (83, 44553), (88, 44559),

Gene: Blizzard_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Blizzard_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Bobquesha_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Bobquesha_2:

(Start: 63 @251 has 44 MA's), (92, 356), (93, 365), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473), (116, 476),

Gene: Bogie_70 Start: 44612, Stop: 44866, Start Num: 57

Candidate Starts for Bogie_70:

(30, 44471), (38, 44522), (Start: 57 @44612 has 122 MA's), (65, 44633), (71, 44648), (77, 44690), (83, 44708),

Gene: Boiii_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Boiii_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: BrainDrainer_102 Start: 61701, Stop: 61985, Start Num: 57

Candidate Starts for BrainDrainer_102:

(53, 61692), (Start: 57 @61701 has 122 MA's), (Start: 58 @61704 has 3 MA's), (72, 61758), (95, 61848), (100, 61872), (109, 61914), (114, 61944),

Gene: Bromden_101 Start: 62440, Stop: 62721, Start Num: 58

Candidate Starts for Bromden_101:

(Start: 57 @62437 has 122 MA's), (Start: 58 @62440 has 3 MA's), (72, 62494), (95, 62584), (100, 62608), (109, 62650), (114, 62680),

Gene: Bryler_2 Start: 388, Stop: 648, Start Num: 52

Candidate Starts for Bryler_2:

(26, 241), (Start: 52 @388 has 19 MA's), (79, 472), (97, 523),

Gene: CREW_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for CREW_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: CactusJack_68 Start: 44240, Stop: 44494, Start Num: 57

Candidate Starts for CactusJack_68:

(42, 44177), (Start: 57 @44240 has 122 MA's), (65, 44261), (71, 44276), (77, 44318), (83, 44336), (102, 44429), (105, 44444),

Gene: Cain_2 Start: 388, Stop: 648, Start Num: 52

Candidate Starts for Cain_2:

(26, 241), (Start: 52 @388 has 19 MA's), (79, 472), (97, 523),

Gene: CallaLilly_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for CallaLilly_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (104, 644), (108, 656), (112, 677),

Gene: Camster_68 Start: 43073, Stop: 43327, Start Num: 57

Candidate Starts for Camster_68:

(30, 42932), (38, 42983), (Start: 57 @43073 has 122 MA's), (65, 43094), (71, 43109), (77, 43151), (83, 43169),

Gene: Capricorn_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Capricorn_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: CaseJules_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for CaseJules_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Chancellor_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Chancellor_2:

(Start: 63 @251 has 44 MA's), (92, 356), (93, 365), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: Chaser_100 Start: 61053, Stop: 61337, Start Num: 57

Candidate Starts for Chaser_100:

(Start: 57 @61053 has 122 MA's), (Start: 58 @61056 has 3 MA's), (72, 61110), (95, 61200), (100, 61224), (109, 61266), (114, 61296),

Gene: Chavito_3 Start: 474, Stop: 734, Start Num: 50

Candidate Starts for Chavito_3:

(49, 471), (Start: 50 @474 has 1 MA's), (79, 558), (97, 609),

Gene: CheetoDust_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for CheetoDust_3:

(Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (104, 644), (108, 656), (112, 677),

Gene: Cheetobro_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Cheetobro_2:

(Start: 63 @251 has 44 MA's), (92, 356), (93, 365), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: Chris_2 Start: 375, Stop: 665, Start Num: 43
Candidate Starts for Chris_2:
(41, 369), (Start: 43 @375 has 2 MA's), (48, 411), (79, 507), (105, 609), (108, 618), (110, 621),

Gene: Chubbello_66 Start: 42262, Stop: 42516, Start Num: 57
Candidate Starts for Chubbello_66:
(42, 42199), (Start: 57 @42262 has 122 MA's), (65, 42283), (71, 42298), (77, 42340), (83, 42358),
(102, 42451), (105, 42466),

Gene: ChutneyChips_103 Start: 61752, Stop: 62033, Start Num: 58
Candidate Starts for ChutneyChips_103:
(Start: 57 @61749 has 122 MA's), (Start: 58 @61752 has 3 MA's), (72, 61806), (87, 61854), (100,
61920), (109, 61962), (114, 61992),

Gene: Clipper_3 Start: 452, Stop: 706, Start Num: 57
Candidate Starts for Clipper_3:
(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96,
593), (99, 611), (100, 614), (102, 632), (108, 656), (112, 677),

Gene: Collard_2 Start: 274, Stop: 519, Start Num: 63
Candidate Starts for Collard_2:
(Start: 63 @274 has 44 MA's), (79, 346), (83, 352), (86, 358), (94, 394), (96, 406), (100, 427), (101,
433), (102, 445), (112, 490),

Gene: CrimD_3 Start: 452, Stop: 706, Start Num: 57
Candidate Starts for CrimD_3:
(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (83, 539), (86, 545), (96, 593), (99,
611), (100, 614), (102, 632), (108, 656), (112, 677),

Gene: Curiosium_3 Start: 517, Stop: 777, Start Num: 57
Candidate Starts for Curiosium_3:
(35, 391), (Start: 57 @517 has 122 MA's), (67, 544), (73, 583), (75, 592), (79, 604), (83, 610), (86,
616), (96, 664), (99, 682), (100, 685), (102, 703), (112, 748),

Gene: Dadosky_2 Start: 300, Stop: 545, Start Num: 63
Candidate Starts for Dadosky_2:
(Start: 63 @300 has 44 MA's), (79, 372), (83, 378), (86, 384), (94, 420), (96, 432), (100, 453), (101,
459), (102, 471),

Gene: Dalmuri_3 Start: 476, Stop: 730, Start Num: 57
Candidate Starts for Dalmuri_3:
(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96,
617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: DanSyl44_2 Start: 251, Stop: 481, Start Num: 63
Candidate Starts for DanSyl44_2:
(Start: 63 @251 has 44 MA's), (92, 356), (93, 365), (96, 380), (97, 383), (98, 392), (104, 422), (115,
473),

Gene: DartGoblin_3 Start: 440, Stop: 694, Start Num: 57
Candidate Starts for DartGoblin_3:

(Start: 57 @440 has 122 MA's), (67, 461), (73, 500), (83, 527), (86, 533), (96, 581), (99, 599), (100, 602), (102, 620), (104, 632), (112, 665),

Gene: DarthP_3 Start: 416, Stop: 673, Start Num: 52

Candidate Starts for DarthP_3:

(Start: 52 @416 has 19 MA's), (79, 500), (112, 635),

Gene: DarthP_87 Start: 56918, Stop: 57175, Start Num: 62

Candidate Starts for DarthP_87:

(Start: 62 @56918 has 4 MA's), (67, 56933), (72, 56963), (82, 56993), (85, 56999), (96, 57050), (97, 57053), (108, 57110), (112, 57134), (114, 57143), (115, 57152), (117, 57158),

Gene: Dartin_3 Start: 469, Stop: 732, Start Num: 55

Candidate Starts for Dartin_3:

(1, 1), (2, 7), (5, 91), (8, 154), (31, 331), (Start: 55 @469 has 3 MA's), (79, 556), (97, 607), (112, 691),

Gene: Deby_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Deby_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Devera_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for Devera_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (73, 512), (83, 539), (86, 545), (96, 593), (100, 614), (102, 632), (112, 677),

Gene: Dole_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for Dole_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (73, 512), (83, 539), (86, 545), (96, 593), (100, 614), (102, 632), (112, 677),

Gene: Donovan_67 Start: 43202, Stop: 43456, Start Num: 57

Candidate Starts for Donovan_67:

(42, 43139), (Start: 57 @43202 has 122 MA's), (65, 43223), (71, 43238), (77, 43280), (83, 43298), (102, 43391), (105, 43406),

Gene: DoubleChamp_2 Start: 274, Stop: 519, Start Num: 63

Candidate Starts for DoubleChamp_2:

(Start: 63 @274 has 44 MA's), (79, 346), (83, 352), (86, 358), (94, 394), (96, 406), (100, 427), (101, 433), (102, 445), (112, 490),

Gene: Douge_101 Start: 61124, Stop: 61405, Start Num: 58

Candidate Starts for Douge_101:

(53, 61112), (Start: 57 @61121 has 122 MA's), (Start: 58 @61124 has 3 MA's), (72, 61178), (95, 61268), (100, 61292), (109, 61334), (114, 61364),

Gene: Douzhi_101 Start: 61390, Stop: 61674, Start Num: 57

Candidate Starts for Douzhi_101:

(53, 61381), (Start: 57 @61390 has 122 MA's), (Start: 58 @61393 has 3 MA's), (72, 61447), (95, 61537), (100, 61561), (109, 61603), (114, 61633),

Gene: DrHayes_3 Start: 440, Stop: 694, Start Num: 57

Candidate Starts for DrHayes_3:

(17, 215), (35, 314), (Start: 57 @440 has 122 MA's), (67, 461), (73, 500), (83, 527), (86, 533), (96, 581), (99, 599), (102, 620), (104, 632), (112, 665),

Gene: Durfee_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Durfee_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Dynamo_67 Start: 42646, Stop: 42900, Start Num: 57

Candidate Starts for Dynamo_67:

(30, 42505), (38, 42556), (Start: 57 @42646 has 122 MA's), (65, 42667), (71, 42682), (77, 42724), (83, 42742),

Gene: DyoEdafos_104 Start: 61681, Stop: 61965, Start Num: 57

Candidate Starts for DyoEdafos_104:

(Start: 57 @61681 has 122 MA's), (Start: 58 @61684 has 3 MA's), (95, 61828), (100, 61852), (114, 61924),

Gene: Edugator_2 Start: 300, Stop: 545, Start Num: 63

Candidate Starts for Edugator_2:

(Start: 63 @300 has 44 MA's), (79, 372), (83, 378), (86, 384), (94, 420), (96, 432), (100, 453), (101, 459), (102, 471),

Gene: Efra2_3 Start: 445, Stop: 699, Start Num: 57

Candidate Starts for Efra2_3:

(Start: 57 @445 has 122 MA's), (67, 466), (73, 505), (83, 532), (86, 538), (96, 586), (99, 604), (100, 607), (102, 625), (112, 670), (114, 679),

Gene: Ekdilam_82 Start: 56617, Stop: 56874, Start Num: 61

Candidate Starts for Ekdilam_82:

(3, 56164), (6, 56254), (9, 56296), (36, 56500), (Start: 61 @56617 has 1 MA's), (65, 56629), (72, 56662), (82, 56692), (85, 56698), (96, 56749), (97, 56752), (99, 56767), (108, 56809), (112, 56833), (114, 56842), (117, 56857),

Gene: Ellie_88 Start: 57234, Stop: 57488, Start Num: 60

Candidate Starts for Ellie_88:

(28, 57078), (Start: 60 @57234 has 13 MA's), (72, 57279), (76, 57297), (91, 57336), (96, 57366), (101, 57390), (112, 57447),

Gene: Emerson_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Emerson_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Eponine_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Eponine_2:

(Start: 63 @251 has 44 MA's), (65, 260), (92, 356), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: FarmResident_102 Start: 61280, Stop: 61591, Start Num: 58

Candidate Starts for FarmResident_102:

(Start: 57 @61277 has 122 MA's), (Start: 58 @61280 has 3 MA's), (72, 61334), (95, 61424), (97, 61430), (100, 61448), (113, 61517), (114, 61520), (118, 61559),

Gene: Fefferhead_90 Start: 57025, Stop: 57279, Start Num: 60
Candidate Starts for Fefferhead_90:
(Start: 60 @57025 has 13 MA's), (72, 57070), (91, 57127), (96, 57157), (106, 57211), (112, 57238),

Gene: Fefferhead_3 Start: 410, Stop: 667, Start Num: 52
Candidate Starts for Fefferhead_3:
(46, 389), (Start: 52 @410 has 19 MA's), (112, 629),

Gene: Feyre_2 Start: 275, Stop: 520, Start Num: 63
Candidate Starts for Feyre_2:
(Start: 63 @275 has 44 MA's), (79, 347), (83, 353), (86, 359), (94, 395), (96, 407), (100, 428), (101, 434), (102, 446), (112, 491),

Gene: Fionnbharth_2 Start: 251, Stop: 481, Start Num: 63
Candidate Starts for Fionnbharth_2:
(Start: 63 @251 has 44 MA's), (65, 260), (92, 356), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: Fishburne_66 Start: 43028, Stop: 43282, Start Num: 57
Candidate Starts for Fishburne_66:
(42, 42965), (Start: 57 @43028 has 122 MA's), (65, 43049), (71, 43064), (77, 43106), (83, 43124), (102, 43217), (105, 43232),

Gene: Ganymede_3 Start: 452, Stop: 706, Start Num: 57
Candidate Starts for Ganymede_3:
(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (104, 644), (108, 656), (112, 677),

Gene: Gavriela_67 Start: 43933, Stop: 44187, Start Num: 57
Candidate Starts for Gavriela_67:
(42, 43870), (Start: 57 @43933 has 122 MA's), (65, 43954), (71, 43969), (77, 44011), (83, 44029), (102, 44122), (105, 44137),

Gene: Gengar_2 Start: 300, Stop: 545, Start Num: 63
Candidate Starts for Gengar_2:
(Start: 63 @300 has 44 MA's), (79, 372), (83, 378), (86, 384), (94, 420), (96, 432), (100, 453), (101, 459), (102, 471), (112, 516),

Gene: Geraldini_3 Start: 473, Stop: 727, Start Num: 57
Candidate Starts for Geraldini_3:
(21, 275), (35, 347), (Start: 57 @473 has 122 MA's), (67, 494), (75, 542), (83, 560), (86, 566), (96, 614), (99, 632), (100, 635), (102, 653), (108, 677), (112, 698),

Gene: Glaske_67 Start: 44240, Stop: 44494, Start Num: 57
Candidate Starts for Glaske_67:
(42, 44177), (Start: 57 @44240 has 122 MA's), (65, 44261), (71, 44276), (77, 44318), (83, 44336), (102, 44429), (105, 44444),

Gene: Guanica15_3 Start: 445, Stop: 702, Start Num: 57
Candidate Starts for Guanica15_3:
(35, 325), (Start: 57 @445 has 122 MA's), (67, 466), (73, 505), (83, 532), (86, 538), (93, 571), (96, 586), (99, 604), (100, 607), (102, 625), (112, 673),

Gene: Guillsminger_2 Start: 275, Stop: 520, Start Num: 63

Candidate Starts for Guillsminger_2:

(Start: 63 @275 has 44 MA's), (79, 347), (83, 353), (86, 359), (94, 395), (96, 407), (100, 428), (101, 434), (102, 446), (112, 491),

Gene: HUHilltop_70 Start: 42869, Stop: 43123, Start Num: 57

Candidate Starts for HUHilltop_70:

(30, 42728), (38, 42779), (Start: 57 @42869 has 122 MA's), (65, 42890), (71, 42905), (77, 42947), (83, 42965),

Gene: Hammy_87 Start: 56908, Stop: 57165, Start Num: 62

Candidate Starts for Hammy_87:

(Start: 62 @56908 has 4 MA's), (67, 56923), (72, 56953), (82, 56983), (85, 56989), (96, 57040), (97, 57043), (99, 57058), (108, 57100), (112, 57124), (114, 57133), (115, 57142), (117, 57148),

Gene: Hammy_3 Start: 413, Stop: 670, Start Num: 52

Candidate Starts for Hammy_3:

(Start: 52 @413 has 19 MA's), (79, 497), (112, 632),

Gene: HedwigODU_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for HedwigODU_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Heftyboy_2 Start: 296, Stop: 541, Start Num: 63

Candidate Starts for Heftyboy_2:

(Start: 63 @296 has 44 MA's), (79, 368), (83, 374), (86, 380), (94, 416), (96, 428), (100, 449), (101, 455), (102, 467), (112, 512),

Gene: Homura_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Homura_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Hurricane_89 Start: 56085, Stop: 56348, Start Num: 60

Candidate Starts for Hurricane_89:

(Start: 60 @56085 has 13 MA's), (71, 56115), (76, 56151), (78, 56157), (90, 56184), (94, 56208), (96, 56220), (101, 56244), (102, 56256), (108, 56280), (110, 56283), (112, 56307), (115, 56325),

Gene: Hyperbowlee_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Hyperbowlee_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Illumine_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for Illumine_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (73, 512), (83, 539), (86, 545), (96, 593), (100, 614), (102, 632), (112, 677),

Gene: Inky_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Inky_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: InvictusManeo_2 Start: 300, Stop: 545, Start Num: 63

Candidate Starts for InvictusManeo_2:

(Start: 63 @300 has 44 MA's), (83, 378), (93, 417), (100, 453), (102, 471), (111, 501), (112, 516),

Gene: JAWS_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for JAWS_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: JF1_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for JF1_2:

(Start: 63 @251 has 44 MA's), (65, 260), (92, 356), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: Jarvi_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Jarvi_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Jayhawk_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Jayhawk_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Jeckyll_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Jeckyll_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Joy99_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for Joy99_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (112, 677),

Gene: Juliette_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Juliette_2:

(Start: 63 @251 has 44 MA's), (65, 260), (92, 356), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: Kari_67 Start: 43025, Stop: 43279, Start Num: 57

Candidate Starts for Kari_67:

(42, 42962), (Start: 57 @43025 has 122 MA's), (65, 43046), (71, 43061), (77, 43103), (83, 43121), (102, 43214), (105, 43229),

Gene: Keshu_91 Start: 56377, Stop: 56640, Start Num: 60

Candidate Starts for Keshu_91:

(Start: 60 @56377 has 13 MA's), (74, 56434), (81, 56455), (85, 56461), (91, 56482), (94, 56500), (101, 56536), (112, 56599), (115, 56617),

Gene: KiSi_2 Start: 346, Stop: 612, Start Num: 51

Candidate Starts for KiSi_2:

(4, 1), (22, 187), (Start: 51 @346 has 4 MA's), (97, 487), (102, 523), (105, 538),

Gene: KilKor_68 Start: 44933, Stop: 45187, Start Num: 57

Candidate Starts for KilKor_68:

(42, 44870), (Start: 57 @44933 has 122 MA's), (65, 44954), (71, 44969), (77, 45011), (83, 45029), (102, 45122), (105, 45137),

Gene: Kraw_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Kraw_2:

(Start: 63 @251 has 44 MA's), (65, 260), (92, 356), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: Kropertea_97 Start: 60883, Stop: 61203, Start Num: 57

Candidate Starts for Kropertea_97:

(Start: 57 @60883 has 122 MA's), (Start: 58 @60886 has 3 MA's), (87, 60988), (93, 61018), (95, 61030), (97, 61036), (100, 61054), (113, 61123),

Gene: Krueger_3 Start: 500, Stop: 760, Start Num: 52

Candidate Starts for Krueger_3:

(Start: 52 @500 has 19 MA's), (79, 584), (97, 635), (112, 719),

Gene: LastHope_3 Start: 447, Stop: 701, Start Num: 57

Candidate Starts for LastHope_3:

(17, 225), (35, 321), (Start: 57 @447 has 122 MA's), (67, 468), (79, 528), (83, 534), (86, 540), (96, 588), (99, 606), (100, 609), (102, 627),

Gene: LaterM_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for LaterM_3:

(13, 197), (17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (73, 512), (83, 539), (96, 593), (100, 614), (102, 632), (111, 662), (112, 677),

Gene: Lavahound_88 Start: 58194, Stop: 58448, Start Num: 60

Candidate Starts for Lavahound_88:

(Start: 60 @58194 has 13 MA's), (72, 58239), (91, 58296), (96, 58326), (112, 58407),

Gene: LeMond_2 Start: 346, Stop: 612, Start Num: 51

Candidate Starts for LeMond_2:

(4, 1), (22, 187), (Start: 51 @346 has 4 MA's), (97, 487), (102, 523), (105, 538),

Gene: Lea83_89 Start: 56206, Stop: 56469, Start Num: 60

Candidate Starts for Lea83_89:

(Start: 60 @56206 has 13 MA's), (65, 56221), (71, 56236), (76, 56272), (78, 56278), (90, 56305), (94, 56329), (95, 56338), (96, 56341), (101, 56365), (102, 56377), (108, 56401), (112, 56428), (115, 56446),

Gene: Lebo14_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Lebo14_2:

(Start: 63 @251 has 44 MA's), (92, 356), (93, 365), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: Leston_2 Start: 300, Stop: 545, Start Num: 63

Candidate Starts for Leston_2:

(Start: 63 @300 has 44 MA's), (79, 372), (83, 378), (86, 384), (94, 420), (96, 432), (100, 453), (101, 459), (102, 471), (112, 516),

Gene: LindNT_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for LindNT_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (108, 656), (112, 677),

Gene: Llorens_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Llorens_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Lunahalos_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Lunahalos_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: MacKat_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for MacKat_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (108, 656), (112, 677),

Gene: MacnCheese_90 Start: 56613, Stop: 56876, Start Num: 60

Candidate Starts for MacnCheese_90:

(34, 56478), (Start: 60 @56613 has 13 MA's), (71, 56643), (76, 56679), (78, 56685), (94, 56736), (96, 56748), (101, 56772), (102, 56784), (108, 56808), (112, 56835), (114, 56844), (115, 56853),

Gene: Majeke_70 Start: 43651, Stop: 43905, Start Num: 57

Candidate Starts for Majeke_70:

(38, 43561), (Start: 57 @43651 has 122 MA's), (65, 43672), (71, 43687), (77, 43729), (83, 43747), (102, 43840), (105, 43855),

Gene: Malithi_67 Start: 42795, Stop: 43049, Start Num: 57

Candidate Starts for Malithi_67:

(30, 42654), (38, 42705), (Start: 57 @42795 has 122 MA's), (65, 42816), (71, 42831), (77, 42873), (83, 42891),

Gene: Malthus_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Malthus_2:

(Start: 63 @251 has 44 MA's), (65, 260), (92, 356), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: Mangethe_70 Start: 43651, Stop: 43905, Start Num: 57

Candidate Starts for Mangethe_70:

(38, 43561), (Start: 57 @43651 has 122 MA's), (65, 43672), (71, 43687), (77, 43729), (83, 43747), (102, 43840), (105, 43855),

Gene: MarkPhew_2 Start: 323, Stop: 568, Start Num: 43

Candidate Starts for MarkPhew_2:

(Start: 43 @323 has 2 MA's), (70, 359), (79, 410), (97, 461), (108, 521),

Gene: Marshawn_2 Start: 329, Stop: 583, Start Num: 52

Candidate Starts for Marshawn_2:

(19, 125), (22, 149), (Start: 52 @329 has 19 MA's), (64, 344), (67, 353), (97, 464), (112, 548),

Gene: McMater_3 Start: 469, Stop: 732, Start Num: 55

Candidate Starts for McMater_3:

(1, 1), (2, 7), (5, 91), (8, 154), (31, 331), (Start: 55 @469 has 3 MA's), (79, 556), (97, 607), (112, 691),

Gene: MeaningOfLife_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for MeaningOfLife_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (108, 656), (112, 677),

Gene: Megiddo_67 Start: 44801, Stop: 45055, Start Num: 57

Candidate Starts for Megiddo_67:

(42, 44738), (Start: 57 @44801 has 122 MA's), (65, 44822), (71, 44837), (77, 44879), (83, 44897), (102, 44990), (105, 45005),

Gene: Megsy_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for Megsy_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (108, 656), (112, 677),

Gene: Miryou_2 Start: 275, Stop: 520, Start Num: 63

Candidate Starts for Miryou_2:

(Start: 63 @275 has 44 MA's), (79, 347), (83, 353), (86, 359), (94, 395), (96, 407), (100, 428), (101, 434), (102, 446), (112, 491),

Gene: MissDaisy_2 Start: 251, Stop: 427, Start Num: 63

Candidate Starts for MissDaisy_2:

(Start: 63 @251 has 44 MA's), (92, 302), (93, 311), (96, 326), (97, 329), (98, 338), (104, 368), (115, 419),

Gene: Mitti_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Mitti_2:

(Start: 63 @251 has 44 MA's), (92, 356), (93, 365), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: Murucutumbu_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for Murucutumbu_3:

(15, 206), (17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (95, 590), (96, 593), (99, 611), (100, 614), (102, 632), (108, 656), (112, 677),

Gene: Mynx_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for Mynx_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (93, 578), (96, 593), (99, 611), (100, 614), (102, 632), (108, 656), (112, 677),

Gene: Nazo_70 Start: 44643, Stop: 44897, Start Num: 57

Candidate Starts for Nazo_70:

(18, 44427), (20, 44436), (33, 44517), (42, 44583), (53, 44634), (Start: 57 @44643 has 122 MA's), (65, 44664), (77, 44721), (83, 44739), (105, 44847),

Gene: Necropolis_65 Start: 42235, Stop: 42489, Start Num: 57

Candidate Starts for Necropolis_65:

(30, 42094), (38, 42145), (Start: 57 @42235 has 122 MA's), (65, 42256), (71, 42271), (77, 42313), (83, 42331),

Gene: Nibb_2 Start: 333, Stop: 605, Start Num: 44

Candidate Starts for Nibb_2:

(Start: 44 @333 has 1 MA's), (72, 393), (102, 513), (104, 525), (110, 540),

Gene: Niklas_3 Start: 469, Stop: 732, Start Num: 55

Candidate Starts for Niklas_3:

(1, 1), (2, 7), (5, 91), (8, 154), (31, 331), (Start: 55 @469 has 3 MA's), (79, 556), (97, 607), (112, 691),

Gene: November_3 Start: 424, Stop: 687, Start Num: 52

Candidate Starts for November_3:

(Start: 52 @424 has 19 MA's), (79, 511), (100, 580), (112, 646),

Gene: OkiRoe_2 Start: 275, Stop: 520, Start Num: 63

Candidate Starts for OkiRoe_2:

(Start: 63 @275 has 44 MA's), (69, 293), (79, 347), (83, 353), (86, 359), (94, 395), (96, 407), (100, 428), (101, 434), (102, 446), (112, 491),

Gene: OmniCritical_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for OmniCritical_2:

(Start: 63 @251 has 44 MA's), (92, 356), (93, 365), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: Omnicron_2 Start: 241, Stop: 486, Start Num: 63

Candidate Starts for Omnicron_2:

(Start: 63 @241 has 44 MA's), (79, 313), (83, 319), (86, 325), (96, 373), (100, 394), (102, 412), (108, 436),

Gene: Oscar_2 Start: 346, Stop: 612, Start Num: 51

Candidate Starts for Oscar_2:

(Start: 51 @346 has 4 MA's), (97, 487), (102, 523), (105, 538),

Gene: PYPDinur_101 Start: 61956, Stop: 62237, Start Num: 58

Candidate Starts for PYPDinur_101:

(53, 61944), (Start: 57 @61953 has 122 MA's), (Start: 58 @61956 has 3 MA's), (95, 62100), (100, 62124), (109, 62166), (114, 62196),

Gene: Pace1224_68 Start: 44266, Stop: 44490, Start Num: 59

Candidate Starts for Pace1224_68:

(10, 43984), (14, 44005), (16, 44026), (25, 44077), (37, 44161), (47, 44233), (48, 44236), (Start: 59 @44266 has 2 MA's), (96, 44410),

Gene: Padfoot_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Padfoot_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Padpat_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Padpat_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Paito_66 Start: 41579, Stop: 41797, Start Num: 62

Candidate Starts for Paito_66:

(Start: 62 @41579 has 4 MA's), (83, 41660), (89, 41675), (96, 41717), (103, 41765), (107, 41777),

Gene: Paola_2 Start: 275, Stop: 520, Start Num: 63

Candidate Starts for Paola_2:

(Start: 63 @275 has 44 MA's), (79, 347), (83, 353), (86, 359), (94, 395), (96, 407), (100, 428), (101, 434), (102, 446), (112, 491),

Gene: Patt_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Patt_2:

(Start: 63 @251 has 44 MA's), (92, 356), (93, 365), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: Peanam_3 Start: 469, Stop: 732, Start Num: 55

Candidate Starts for Peanam_3:

(31, 331), (Start: 55 @469 has 3 MA's), (79, 556), (97, 607), (112, 691),

Gene: Peel_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Peel_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Phalm_68 Start: 44231, Stop: 44485, Start Num: 57

Candidate Starts for Phalm_68:

(42, 44168), (Start: 57 @44231 has 122 MA's), (65, 44252), (71, 44267), (77, 44309), (83, 44327), (102, 44420), (105, 44435),

Gene: Pharb_89 Start: 56013, Stop: 56249, Start Num: 66

Candidate Starts for Pharb_89:

(Start: 56 @56001 has 1 MA's), (Start: 66 @56013 has 1 MA's), (68, 56016), (80, 56079), (84, 56085), (95, 56124), (100, 56148), (105, 56181), (112, 56214),

Gene: Phegasus_70 Start: 43618, Stop: 43872, Start Num: 57

Candidate Starts for Phegasus_70:

(38, 43528), (Start: 57 @43618 has 122 MA's), (65, 43639), (71, 43654), (77, 43696), (83, 43714), (102, 43807), (105, 43822),

Gene: PhelpsODU_2 Start: 389, Stop: 649, Start Num: 52

Candidate Starts for PhelpsODU_2:

(26, 242), (Start: 52 @389 has 19 MA's),

Gene: Phineas_68 Start: 43203, Stop: 43457, Start Num: 57

Candidate Starts for Phineas_68:

(30, 43062), (38, 43113), (Start: 57 @43203 has 122 MA's), (65, 43224), (71, 43239), (77, 43281), (83, 43299),

Gene: Phrank_2 Start: 394, Stop: 654, Start Num: 52

Candidate Starts for Phrank_2:

(26, 247), (Start: 52 @394 has 19 MA's), (79, 478), (97, 529),

Gene: Piatt_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Piatt_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Pisa1_3 Start: 442, Stop: 696, Start Num: 55

Candidate Starts for Pisa1_3:

(31, 310), (Start: 55 @442 has 3 MA's), (94, 556), (112, 655),

Gene: Pisa4_3 Start: 442, Stop: 696, Start Num: 55

Candidate Starts for Pisa4_3:

(31, 310), (Start: 55 @442 has 3 MA's), (94, 556), (112, 655),

Gene: Pixie_88 Start: 55789, Stop: 56052, Start Num: 60

Candidate Starts for Pixie_88:

(Start: 60 @55789 has 13 MA's), (71, 55819), (72, 55837), (76, 55855), (78, 55861), (90, 55888), (94, 55912), (95, 55921), (96, 55924), (101, 55948), (102, 55960), (108, 55984), (112, 56011), (115, 56029),

Gene: Pokerus_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for Pokerus_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (96, 593), (99, 611), (100, 614), (102, 632), (108, 656), (112, 677),

Gene: Prithvi_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for Prithvi_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (108, 656), (112, 677),

Gene: Psycho_2 Start: 300, Stop: 545, Start Num: 63

Candidate Starts for Psycho_2:

(Start: 63 @300 has 44 MA's), (79, 372), (83, 378), (86, 384), (94, 420), (96, 432), (100, 453), (101, 459), (102, 471),

Gene: Pygmy_71 Start: 44585, Stop: 44839, Start Num: 57

Candidate Starts for Pygmy_71:

(29, 44441), (32, 44450), (38, 44495), (Start: 57 @44585 has 122 MA's), (65, 44606), (71, 44621), (83, 44681), (105, 44789),

Gene: Qhanda_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Qhanda_2:

(Start: 63 @251 has 44 MA's), (92, 356), (93, 365), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: Quby_101 Start: 61285, Stop: 61566, Start Num: 58

Candidate Starts for Quby_101:

(53, 61273), (Start: 57 @61282 has 122 MA's), (Start: 58 @61285 has 3 MA's), (72, 61339), (95, 61429), (100, 61453), (109, 61495), (114, 61525),

Gene: QuincyRose_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for QuincyRose_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (104, 644), (108, 656), (112, 677),

Gene: Ramen_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Ramen_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Rando14_2 Start: 304, Stop: 549, Start Num: 63

Candidate Starts for Rando14_2:

(Start: 63 @304 has 44 MA's), (67, 316), (83, 382), (86, 388), (96, 436), (100, 457), (102, 475), (105, 490), (111, 505), (114, 529),

Gene: Rapunzel97_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Rapunzel97_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Reptar3000_2 Start: 250, Stop: 480, Start Num: 63

Candidate Starts for Reptar3000_2:

(Start: 63 @250 has 44 MA's), (92, 355), (93, 364), (96, 379), (97, 382), (98, 391), (104, 421), (115, 472), (116, 475),

Gene: Richo_3 Start: 469, Stop: 732, Start Num: 55

Candidate Starts for Richo_3:

(1, 1), (2, 7), (5, 91), (8, 154), (31, 331), (Start: 55 @469 has 3 MA's), (79, 556), (97, 607), (112, 691),

Gene: Rosmarinus_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Rosmarinus_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Ruthiejr_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Ruthiejr_2:

(Start: 63 @251 has 44 MA's), (65, 260), (92, 356), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: SamScheppers_2 Start: 250, Stop: 480, Start Num: 63

Candidate Starts for SamScheppers_2:

(Start: 63 @250 has 44 MA's), (92, 355), (93, 364), (96, 379), (97, 382), (98, 391), (104, 421), (115, 472),

Gene: SamuelLPlaqson_3 Start: 440, Stop: 694, Start Num: 57

Candidate Starts for SamuelLPlaqson_3:

(17, 215), (35, 314), (Start: 57 @440 has 122 MA's), (67, 461), (73, 500), (83, 527), (86, 533), (96, 581), (99, 599), (102, 620), (104, 632), (112, 665),

Gene: Sbash_80 Start: 51476, Stop: 51787, Start Num: 40

Candidate Starts for Sbash_80:

(Start: 40 @51476 has 1 MA's), (Start: 57 @51536 has 122 MA's), (Start: 62 @51545 has 4 MA's), (77, 51611), (83, 51629), (88, 51635), (102, 51722),

Gene: Scarlett_2 Start: 346, Stop: 612, Start Num: 51

Candidate Starts for Scarlett_2:

(22, 187), (Start: 51 @346 has 4 MA's), (97, 487), (102, 523), (105, 538),

Gene: Shadow1_2 Start: 396, Stop: 665, Start Num: 52

Candidate Starts for Shadow1_2:

(Start: 39 @330 has 1 MA's), (Start: 52 @396 has 19 MA's),

Gene: Shaobing_3 Start: 469, Stop: 732, Start Num: 55

Candidate Starts for Shaobing_3:

(1, 1), (2, 7), (5, 91), (8, 154), (31, 331), (Start: 55 @469 has 3 MA's), (79, 556), (97, 607), (112, 691),

Gene: ShedlockHolmes_91 Start: 56212, Stop: 56475, Start Num: 60

Candidate Starts for ShedlockHolmes_91:

(Start: 60 @56212 has 13 MA's), (71, 56242), (76, 56278), (78, 56284), (90, 56311), (94, 56335), (96, 56347), (101, 56371), (102, 56383), (108, 56407), (112, 56434), (115, 56452),

Gene: Sheng711_102 Start: 61477, Stop: 61761, Start Num: 57

Candidate Starts for Sheng711_102:

(53, 61468), (Start: 57 @61477 has 122 MA's), (Start: 58 @61480 has 3 MA's), (72, 61534), (95, 61624), (100, 61648), (109, 61690), (114, 61720),

Gene: ShiaSurprise_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for ShiaSurprise_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Shipwreck_70 Start: 44643, Stop: 44897, Start Num: 57

Candidate Starts for Shipwreck_70:

(30, 44502), (38, 44553), (Start: 57 @44643 has 122 MA's), (65, 44664), (71, 44679), (77, 44721), (83, 44739),

Gene: SirPhilip_3 Start: 468, Stop: 731, Start Num: 52

Candidate Starts for SirPhilip_3:

(Start: 52 @468 has 19 MA's), (54, 471), (97, 606), (102, 642), (105, 657), (112, 690),

Gene: Slarp_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Slarp_2:

(Start: 63 @251 has 44 MA's), (92, 356), (93, 365), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: Slimphazie_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Slimphazie_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: SoSeph_2 Start: 296, Stop: 541, Start Num: 63

Candidate Starts for SoSeph_2:

(Start: 63 @296 has 44 MA's), (79, 368), (83, 374), (86, 380), (94, 416), (96, 428), (100, 449), (101, 455), (102, 467), (112, 512),

Gene: Sonah_68 Start: 42340, Stop: 42594, Start Num: 57

Candidate Starts for Sonah_68:

(30, 42199), (38, 42250), (Start: 57 @42340 has 122 MA's), (65, 42361), (71, 42376), (77, 42418), (83, 42436),

Gene: Spock_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Spock_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Stinson_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for Stinson_3:

(13, 197), (17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (73, 512), (83, 539), (96, 593), (100, 614), (102, 632), (111, 662), (112, 677),

Gene: StressBall_67 Start: 43933, Stop: 44187, Start Num: 57

Candidate Starts for StressBall_67:

(42, 43870), (Start: 57 @43933 has 122 MA's), (65, 43954), (71, 43969), (77, 44011), (83, 44029), (102, 44122), (105, 44137),

Gene: Stuck_76 Start: 50755, Stop: 51048, Start Num: 45

Candidate Starts for Stuck_76:

(Start: 45 @50755 has 1 MA's), (Start: 57 @50794 has 122 MA's), (65, 50815), (71, 50830), (77, 50872), (83, 50890), (88, 50896), (102, 50983), (105, 50998),

Gene: Sulley_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Sulley_3:

(23, 278), (35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Sunflower1121_2 Start: 329, Stop: 664, Start Num: 39

Candidate Starts for Sunflower1121_2:

(Start: 39 @329 has 1 MA's), (Start: 52 @395 has 19 MA's),

Gene: Syra333_3 Start: 509, Stop: 769, Start Num: 52

Candidate Starts for Syra333_3:

(Start: 52 @509 has 19 MA's), (79, 593), (97, 644), (112, 728),

Gene: TBond007_85 Start: 55787, Stop: 56050, Start Num: 60

Candidate Starts for TBond007_85:

(Start: 60 @55787 has 13 MA's), (71, 55817), (72, 55835), (76, 55853), (78, 55859), (90, 55886), (94, 55910), (95, 55919), (96, 55922), (101, 55946), (102, 55958), (108, 55982), (112, 56009), (115, 56027),

Gene: TClif_2 Start: 240, Stop: 494, Start Num: 63

Candidate Starts for TClif_2:

(Start: 63 @240 has 44 MA's), (82, 318), (85, 324), (90, 339), (94, 363), (97, 378), (103, 420), (108, 435), (112, 453),

Gene: Tachez_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for Tachez_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (93, 578), (96, 593), (99, 611), (100, 614), (102, 632), (104, 644), (108, 656), (112, 677),

Gene: Taheera_60 Start: 40724, Stop: 40945, Start Num: 59

Candidate Starts for Taheera_60:

(Start: 59 @40724 has 2 MA's), (83, 40808), (89, 40823), (96, 40865), (107, 40925),

Gene: TaiwanKao_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for TaiwanKao_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (108, 656), (112, 677),

Gene: Taquito_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Taquito_2:

(Start: 63 @251 has 44 MA's), (92, 356), (93, 365), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: Techage_68 Start: 43134, Stop: 43388, Start Num: 57

Candidate Starts for Techage_68:

(29, 42990), (32, 42999), (38, 43044), (Start: 57 @43134 has 122 MA's), (65, 43155), (71, 43170), (83, 43230), (105, 43338),

Gene: Terror_60 Start: 40724, Stop: 40945, Start Num: 59

Candidate Starts for Terror_60:

(Start: 59 @40724 has 2 MA's), (83, 40808), (89, 40823), (96, 40865), (107, 40925),

Gene: ThulaThula_78 Start: 49203, Stop: 49487, Start Num: 60

Candidate Starts for ThulaThula_78:

(Start: 60 @49203 has 13 MA's), (93, 49329), (112, 49431), (114, 49440),

Gene: Thyatira_2 Start: 275, Stop: 520, Start Num: 63

Candidate Starts for Thyatira_2:

(Start: 63 @275 has 44 MA's), (79, 347), (83, 353), (86, 359), (94, 395), (96, 407), (100, 428), (101, 434), (102, 446), (112, 491),

Gene: Tierra_2 Start: 395, Stop: 655, Start Num: 52

Candidate Starts for Tierra_2:

(26, 248), (Start: 52 @395 has 19 MA's), (79, 479), (97, 530),

Gene: Tigress9_3 Start: 500, Stop: 760, Start Num: 52

Candidate Starts for Tigress9_3:

(Start: 52 @500 has 19 MA's), (79, 584), (97, 635), (112, 719),

Gene: TingHuaYa_3 Start: 447, Stop: 701, Start Num: 57

Candidate Starts for TingHuaYa_3:

(17, 225), (35, 321), (Start: 57 @447 has 122 MA's), (67, 468), (79, 528), (83, 534), (86, 540), (96, 588), (99, 606), (100, 609), (102, 627),

Gene: TiniBug_3 Start: 440, Stop: 694, Start Num: 57

Candidate Starts for TiniBug_3:

(17, 215), (35, 314), (Start: 57 @440 has 122 MA's), (67, 461), (73, 500), (83, 527), (86, 533), (96, 581), (99, 599), (102, 620), (104, 632), (112, 665),

Gene: Tiri_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for Tiri_3:

(Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (93, 578), (96, 593), (99, 611), (100, 614), (102, 632), (104, 644), (108, 656), (112, 677),

Gene: Topper_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Topper_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: TreyKay_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for TreyKay_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (108, 656), (112, 677),

Gene: TribbleTrouble_91 Start: 58049, Stop: 58294, Start Num: 56

Candidate Starts for TribbleTrouble_91:

(Start: 56 @58049 has 1 MA's), (Start: 66 @58061 has 1 MA's), (80, 58124), (100, 58193), (105, 58226), (112, 58259),

Gene: TruffulaTree_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for TruffulaTree_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Twitch_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Twitch_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (73, 536), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Unicorn_2 Start: 389, Stop: 649, Start Num: 52

Candidate Starts for Unicorn_2:

(26, 242), (Start: 52 @389 has 19 MA's),

Gene: Urkel_3 Start: 440, Stop: 694, Start Num: 57

Candidate Starts for Urkel_3:

(17, 215), (35, 314), (Start: 57 @440 has 122 MA's), (67, 461), (73, 500), (83, 527), (86, 533), (96, 581), (99, 599), (102, 620), (104, 632), (112, 665),

Gene: Validus_4 Start: 682, Stop: 942, Start Num: 50

Candidate Starts for Validus_4:

(Start: 50 @682 has 1 MA's), (72, 736), (94, 802), (97, 817), (112, 901),

Gene: Veliki_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Veliki_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (100, 638), (102, 656), (108, 680), (112, 701),

Gene: Venti_65 Start: 41542, Stop: 41796, Start Num: 57

Candidate Starts for Venti_65:

(29, 41398), (32, 41407), (38, 41452), (Start: 57 @41542 has 122 MA's), (65, 41563), (71, 41578), (83, 41638), (105, 41746),

Gene: Waterfoul_2 Start: 296, Stop: 541, Start Num: 63

Candidate Starts for Waterfoul_2:

(Start: 63 @296 has 44 MA's), (79, 368), (83, 374), (86, 380), (94, 416), (96, 428), (100, 449), (101, 455), (102, 467), (112, 512),

Gene: Willsammy_69 Start: 44417, Stop: 44671, Start Num: 57

Candidate Starts for Willsammy_69:

(42, 44354), (Start: 57 @44417 has 122 MA's), (65, 44438), (71, 44453), (77, 44495), (83, 44513), (102, 44606), (105, 44621),

Gene: Wintermute_2 Start: 250, Stop: 480, Start Num: 63

Candidate Starts for Wintermute_2:

(Start: 63 @250 has 44 MA's), (65, 259), (92, 355), (96, 379), (97, 382), (98, 391), (104, 421), (115, 472),

Gene: Ximenita_3 Start: 509, Stop: 769, Start Num: 52

Candidate Starts for Ximenita_3:

(Start: 52 @509 has 19 MA's), (67, 533), (79, 593), (97, 644), (112, 728),

Gene: Y10_02 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Y10_02:

(Start: 63 @251 has 44 MA's), (65, 260), (92, 356), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: Y2_02 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for Y2_02:

(Start: 63 @251 has 44 MA's), (65, 260), (92, 356), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: YasnayaPolyana_2 Start: 251, Stop: 481, Start Num: 63

Candidate Starts for YasnayaPolyana_2:

(Start: 63 @251 has 44 MA's), (65, 260), (92, 356), (96, 380), (97, 383), (98, 392), (104, 422), (115, 473),

Gene: YoureAdopted_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for YoureAdopted_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (108, 656), (112, 677),

Gene: Yuna_3 Start: 525, Stop: 797, Start Num: 52

Candidate Starts for Yuna_3:

(7, 201), (27, 378), (Start: 52 @525 has 19 MA's), (83, 627), (94, 657), (112, 756),

Gene: Yunkel11_3 Start: 445, Stop: 702, Start Num: 57

Candidate Starts for Yunkel11_3:

(35, 325), (Start: 57 @445 has 122 MA's), (67, 466), (73, 505), (83, 532), (86, 538), (93, 571), (96, 586), (99, 604), (100, 607), (102, 625), (112, 673),

Gene: Zabiza_3 Start: 476, Stop: 730, Start Num: 57

Candidate Starts for Zabiza_3:

(35, 350), (Start: 57 @476 has 122 MA's), (67, 497), (75, 545), (83, 563), (86, 569), (96, 617), (99, 635), (100, 638), (102, 656), (104, 668), (108, 680), (112, 701),

Gene: Zavala_3 Start: 452, Stop: 706, Start Num: 57

Candidate Starts for Zavala_3:

(17, 227), (35, 326), (Start: 57 @452 has 122 MA's), (67, 473), (75, 521), (83, 539), (86, 545), (96, 593), (99, 611), (100, 614), (102, 632), (104, 644), (108, 656), (112, 677),

