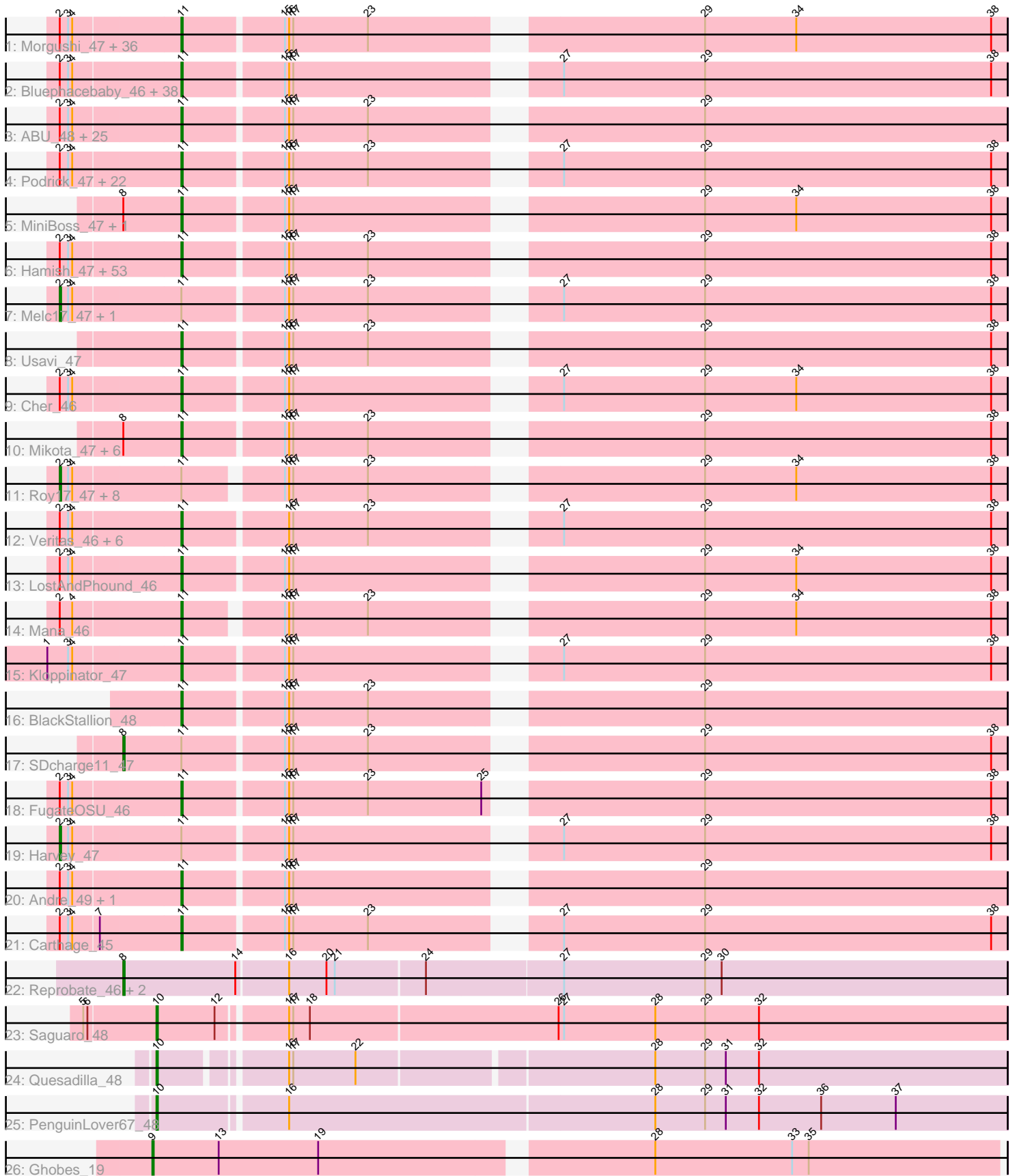


Pham 169694



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 169694 Report

This analysis was run 07/09/24 on database version 566.

Pham number 169694 has 225 members, 13 are drafts.

Phages represented in each track:

- Track 1 : Morgushi_47, Freya_46, Ricotta_47, Grand2040_46, Daffy_47, Beaglebox_46, Kwadwo_46, Sophia_46, Haleema_46, Lumine_46, CamL_47, MrPhizzler_46, Timmi_46, Eugenia_47, Serendipity_47, Brilliant_47, Kahve_46, Simielle_46, QueenBeane_47, TomBombadil_47, Maru_46, PinheadLarry_47, Rimu_49, Longacauda_46, HenryJackson_46, Toni_46, Gareth_46, Dice_49, Hocus_46, Cannibal_47, Dione_46, Orfeu_47, Legolas_47, Samaymay_47, Lasso_47, Phareon_47, LuckyMarjie_46
- Track 2 : Bluephacebaby_46, Altwerkus_46, DonSanchon_46, Potter_46, Robyn_46, Cosmolli16_46, Schadenfreude_46, True_46, SassyCat97_46, MitKao_47, Cobra_47, Mesh1_47, JangoPhett_47, UAch1_47, PhatLouie_47, DelRivs_46, Derpp_46, Zonia_47, YouGoGlencoco_47, Aelin_46, Pinkman_46, Jillium_46, Wallhey_46, Surely_47, TyrionL_46, Chorkpop_47, FriarPreacher_46, Kwksand96_46, Virapocalypse_47, Labeouficaum_46, Zelda_47, Held_47, Thora_47, LemonSlice_47, GeneCoco_47, Zaider_48, Hetaeria_47, Antonia_46, Placalicious_46
- Track 3 : ABU_48, PhrodoBaggins_47, HighStump_47, Morty_48, PG1_48, LasagnaCat_48, RedMaple_47, Katniss_48, Mulan_47, Scoot17C_48, Craff_48, Emiris_48, CampRoach_48, Swish_48, PhatCats2014_48, MelsMeow_47, Inchworm_48, Badfish_48, Yoshand_48, Lego3393_46, Fringe_48, Durga_48, Phamished_48, Pherdinand_48, Adriana_48, Orion_48
- Track 4 : Podrick_47, KLucky39_47, Numberten_47, Piglet_0046, Scrick_47, Dati_47, Etaye_47, Telesworld_46, Charles1_47, Weher20_47, Quisquilliae_47, Lulwa_47, Chunky_47, HSavage_47, Pops_47, Slatt_47, DirtJuice_47, Plmatters_47, JDog_46, Oline_46, Buckeye_47, Frankicide_47, Tooj_47
- Track 5 : MiniBoss_47, AltPhacts_47
- Track 6 : Hamish_47, Chaelin_47, Burr_46, Phunky_47, Suffolk_47, Cornobble_46, Gophee_47, Hartsy_47, Skippy_47, Roscoe_48, Horchata_47, Fozzie_46, Eremos_47, Solosis_46, Duggie_46, AbsoluteMadLad_46, Prickles_47, Keitherie_47, Mutante_46, Crownjwl_47, Iridoclysis_47, MRabcd_46, ProfessorX_47, Spartan300_47, Riggan_47, Omniscient_47, Schueller_47, LeiMonet_48, Kimbrough_47, Daka_48, ShiVal_47, Boehler_47, Squiggle_47, Soile_47, Megamind20_47, Doddsville_47, Jiraiya_48, Bishoperium_46, Windsor_46, Mecca_46, Gwilliam_48, Anderson_47, Virgeve_46, Struggle_46, Childish_46, Haimas_47, EmpTee_47, CharlieGBrown_46, Tomlarah_47, Valjean_47, DaddyDaniels_47, JakeO_46, KingTut_38, Jiminy_46
- Track 7 : Melc17_47, Vaishali24_46
- Track 8 : Usavi_47

- Track 9 : Cher_46
- Track 10 : Mikota_47, BlueHusk_47, Dingo_47, Soto_47, Roliet_47, Sheila_47, KingVeVeVe_47
- Track 11 : Roy17_47, Vaticameos_43, Vortex_47, Murdoc_47, Lulumae_46, Puhltonio_47, Banjo_46, Xavier_46, TallGrassMM_47
- Track 12 : Veritas_46, Kailash_47, Magic8_47, BatteryCK_46, Mag7_46, MichaelPhcott_46, Nicole21_47
- Track 13 : LostAndPhound_46
- Track 14 : Mana_46
- Track 15 : Kloppinator_47
- Track 16 : BlackStallion_48
- Track 17 : SDcharge11_47
- Track 18 : FugateOSU_46
- Track 19 : Harvey_47
- Track 20 : Andre_49, DuchessDung_46
- Track 21 : Carthage_45
- Track 22 : Reprobate_46, Mysterious_47, Phelemich_45
- Track 23 : Saguario_48
- Track 24 : Quesadilla_48
- Track 25 : PenguinLover67_48
- Track 26 : Ghobes_19

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

The start number called the most often in the published annotations is 11, it was called in 193 of the 212 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABU_48, AbsoluteMadLad_46, Adriana_48, Aelin_46, AltPhacts_47, Altwerkus_46, Anderson_47, Andre_49, Antonia_46, Badfish_48, BatteryCK_46, Beaglebox_46, Bishoperium_46, BlackStallion_48, BlueHusk_47, Bluephacebaby_46, Boehler_47, Brilliant_47, Buckeye_47, Burr_46, CamL_47, CampRoach_48, Cannibal_47, Carthage_45, Chaelin_47, Charles1_47, CharlieGBrown_46, Cher_46, Childish_46, Chorkpop_47, Chunky_47, Cobra_47, Cornobble_46, Cosmolli16_46, Craff_48, Crownjwl_47, DaddyDaniels_47, Daffy_47, Daka_48, Dati_47, DelRivs_46, Derpp_46, Dice_49, Dingo_47, Dione_46, DirtJuice_47, Doddsville_47, DonSanchon_46, DuchessDung_46, Duggie_46, Durga_48, Emiris_48, EmpTee_47, Eremos_47, Etaye_47, Eugenia_47, Fozzie_46, Frankicide_47, Freya_46, FriarPreacher_46, Fringe_48, FugateOSU_46, Gareth_46, GeneCoco_47, Gophee_47, Grand2040_46, Gwilliam_48, HSavage_47, Haimas_47, Haleema_46, Hamish_47, Hartsy_47, Held_47, HenryJackson_46, Hetaeria_47, HighStump_47, Hocus_46, Horchata_47, Inchworm_48, Iridoclysis_47, JDog_46, JakeO_46, JangoPhett_47, Jillium_46, Jiminy_46, Jiraiya_48, KLucky39_47, Kahve_46, Kailash_47, Katniss_48, Keitherie_47, Kimbrough_47, KingTut_38, KingVeVeVe_47, Kloppinator_47, Kwadwo_46, Kwksand96_46, Labeouficaum_46, LasagnaCat_48, Lasso_47, Lego3393_46, Legolas_47, LeiMonet_48, LemonSlice_47, Longacauda_46, LostAndPhound_46, LuckyMarjie_46, Lulwa_47, Lumine_46, MRabcd_46, Mag7_46, Magic8_47, Mana_46, Maru_46, Mecca_46, Megamind20_47, MelsMeow_47, Mesh1_47, MichaelPhcott_46, Mikota_47, MiniBoss_47, MitKao_47, Morgushi_47, Morty_48, MrPhizzler_46, Mulan_47,

Mutante_46, Nicole21_47, Numberten_47, Oline_46, Omniscient_47, Orfeu_47, Orion_48, PG1_48, Phamished_48, Phareon_47, PhatCats2014_48, PhatLouie_47, Pherdinand_48, PhrodoBaggins_47, Phunky_47, Piglet_0046, PinheadLarry_47, Pinkman_46, Placalicious_46, Plmatters_47, Podrick_47, Pops_47, Potter_46, Prickles_47, ProfessorX_47, QueenBeane_47, Quisquilliae_47, RedMaple_47, Ricotta_47, Riggan_47, Rimu_49, Robyn_46, Roliet_47, Roscoe_48, Samaymay_47, SassyCat97_46, Schadenfreude_46, Schueller_47, Scoot17C_48, Scrick_47, Serendipity_47, Sheila_47, ShiVal_47, Simielle_46, Skippy_47, Slatt_47, Soile_47, Solosis_46, Sophia_46, Soto_47, Spartan300_47, Squiggle_47, Struggle_46, Suffolk_47, Surely_47, Swish_48, Telesworld_46, Thora_47, Timmi_46, TomBombadil_47, Tomlarah_47, Toni_46, Tooj_47, True_46, TyrionL_46, UAch1_47, Usavi_47, Valjean_47, Veritas_46, Virapocalypse_47, Virgeve_46, Wallhey_46, Weher20_47, Windsor_46, Yoshand_48, YouGoGlencoco_47, Zaider_48, Zelda_47, Zonia_47,

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

- Banjo_46, Harvey_47, Lulumae_46, Melc17_47, Murdoc_47, Puhltonio_47, Roy17_47, SDcharge11_47, TallGrassMM_47, Vaishali24_46, Vaticameos_43, Vortex_47, Xavier_46,

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

- Ghobes_19, Mysterious_47, PenguinLover67_48, Phelemich_45, Quesadilla_48, Reprobate_46, Saguario_48,

Summary by start number:

Start 2:

- Found in 205 of 225 (91.1%) of genes in pham
- Manual Annotations of this start: 12 of 212
- Called 5.9% of time when present
- Phage (with cluster) where this start called: Banjo_46 (B1), Harvey_47 (B1), Lulumae_46 (B1), Melc17_47 (B1), Murdoc_47 (B1), Puhltonio_47 (B1), Roy17_47 (B1), TallGrassMM_47 (B1), Vaishali24_46 (B1), Vaticameos_43 (B1), Vortex_47 (B1), Xavier_46 (B1),

Start 8:

- Found in 13 of 225 (5.8%) of genes in pham
- Manual Annotations of this start: 3 of 212
- Called 30.8% of time when present
- Phage (with cluster) where this start called: Mysterious_47 (B5), Phelemich_45 (B5), Reprobate_46 (B5), SDcharge11_47 (B1),

Start 9:

- Found in 1 of 225 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 212
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ghobes_19 (DA),

Start 10:

- Found in 3 of 225 (1.3%) of genes in pham
- Manual Annotations of this start: 3 of 212
- Called 100.0% of time when present

- Phage (with cluster) where this start called: PenguinLover67_48 (B9), Quesadilla_48 (B9), Saguaro_48 (B7),

Start 11:

- Found in 218 of 225 (96.9%) of genes in pham
- Manual Annotations of this start: 193 of 212
- Called 94.0% of time when present
- Phage (with cluster) where this start called: ABU_48 (B1), AbsoluteMadLad_46 (B1), Adriana_48 (B1), Aelin_46 (B1), AltPhacts_47 (B1), Altwerkus_46 (B1), Anderson_47 (B1), Andre_49 (B1), Antonia_46 (B1), Badfish_48 (B1), BatteryCK_46 (B1), Beaglebox_46 (B1), Bishoperium_46 (B1), BlackStallion_48 (B1), BlueHusk_47 (B1), Bluephacebaby_46 (B1), Boehler_47 (B1), Brilliant_47 (B1), Buckeye_47 (B1), Burr_46 (B1), CamL_47 (B1), CampRoach_48 (B1), Cannibal_47 (B1), Carthage_45 (B1), Chaelin_47 (B1), Charles1_47 (B1), CharlieGBrown_46 (B1), Cher_46 (B1), Childish_46 (B1), Chorkpop_47 (B1), Chunky_47 (B1), Cobra_47 (B1), Cornobble_46 (B1), Cosmolli16_46 (B1), Craff_48 (B1), Crownjwl_47 (B1), DaddyDaniels_47 (B1), Daffy_47 (B1), Daka_48 (B1), Dati_47 (B1), DelRivs_46 (B1), Derpp_46 (B1), Dice_49 (B1), Dingo_47 (B1), Dione_46 (B1), DirtJuice_47 (B1), Doddsville_47 (B1), DonSanchon_46 (B1), DuchessDung_46 (B1), Duggie_46 (B1), Durga_48 (B1), Emiris_48 (B1), EmpTee_47 (B1), Eremos_47 (B1), Etaye_47 (B1), Eugenia_47 (B1), Fozzie_46 (B1), Frankicide_47 (B1), Freya_46 (B1), FriarPreacher_46 (B1), Fringe_48 (B1), FugateOSU_46 (B1), Gareth_46 (B1), GeneCoco_47 (B1), Gophee_47 (B1), Grand2040_46 (B1), Gwilliam_48 (B1), HSavage_47 (B1), Haimas_47 (B1), Haleema_46 (B1), Hamish_47 (B1), Hartsy_47 (B1), Held_47 (B1), HenryJackson_46 (B1), Hetaeria_47 (B1), HighStump_47 (B1), Hocus_46 (B1), Horchata_47 (B1), Inchworm_48 (B1), Iridoclysis_47 (B1), JDog_46 (B1), JakeO_46 (B1), JangoPhett_47 (B1), Jillium_46 (B1), Jiminy_46 (B1), Jiraiya_48 (B1), KLucky39_47 (B1), Kahve_46 (B1), Kailash_47 (B1), Katniss_48 (B1), Keitherie_47 (B1), Kimbrough_47 (B1), KingTut_38 (B1), KingVeVeVe_47 (B1), Kloppinator_47 (B1), Kwadwo_46 (B1), Kwksand96_46 (B1), Labeouficaum_46 (B1), LasagnaCat_48 (B1), Lasso_47 (B1), Lego3393_46 (B1), Legolas_47 (B1), LeiMonet_48 (B1), LemonSlice_47 (B1), Longacauda_46 (B1), LostAndPhound_46 (B1), LuckyMarjie_46 (B1), Lulwa_47 (B1), Lumine_46 (B1), MRabcd_46 (B1), Mag7_46 (B1), Magic8_47 (B1), Mana_46 (B1), Maru_46 (B1), Mecca_46 (B1), Megamind20_47 (B1), MelsMeow_47 (B1), Mesh1_47 (B1), MichaelPhcott_46 (B1), Mikota_47 (B1), MiniBoss_47 (B1), MitKao_47 (B1), Morgushi_47 (B1), Morty_48 (B1), MrPhizzler_46 (B1), Mulan_47 (B1), Mutante_46 (B1), Nicole21_47 (B1), Numberten_47 (B1), Oline_46 (B1), Omniscient_47 (B1), Orfeu_47 (B1), Orion_48 (B1), PG1_48 (B1), Phamished_48 (B1), Phareon_47 (B1), PhatCats2014_48 (B1), PhatLouie_47 (B1), Pherdinand_48 (B1), PhrodoBaggins_47 (B1), Phunky_47 (B1), Piglet_0046 (B1), PinheadLarry_47 (B1), Pinkman_46 (B1), Placalicious_46 (B1), Plmatters_47 (B1), Podrick_47 (B1), Pops_47 (B1), Potter_46 (B1), Prickles_47 (B1), ProfessorX_47 (B1), QueenBeane_47 (B1), Quisquiliae_47 (B1), RedMaple_47 (B1), Ricotta_47 (B1), Riggan_47 (B1), Rimu_49 (B1), Robyn_46 (B1), Roliet_47 (B1), Roscoe_48 (B1), Samaymay_47 (B1), SassyCat97_46 (B1), Schadenfreude_46 (B1), Schueller_47 (B1), Scoot17C_48 (B1), Scrick_47 (B1), Serendipity_47 (B1), Sheila_47 (B1), ShiVal_47 (B1), Simielle_46 (B1), Skippy_47 (B1), Slatt_47 (B1), Soile_47 (B1), Solosis_46 (B1), Sophia_46 (B1), Soto_47 (B1), Spartan300_47 (B1), Squiggle_47 (B1), Struggle_46 (B1), Suffolk_47 (B1), Surely_47 (B1), Swish_48 (B1), Telesworld_46 (B1), Thora_47 (B1), Timmi_46 (B1), TomBombadil_47 (B1), Tomlarah_47 (B1), Toni_46 (B1), Tooj_47 (B1), True_46 (B1), TyrionL_46 (B1), UAch1_47 (B1), Usavi_47 (B1), Valjean_47 (B1), Veritas_46 (B1), Virapocalypse_47 (B1), Virgeve_46 (B1), Wallhey_46 (B1), Weher20_47 (B1), Windsor_46 (B1),

Yoshand_48 (B1), YouGoGlencoco_47 (B1), Zaider_48 (B1), Zelda_47 (B1), Zonia_47 (B1),

Summary by clusters:

There are 5 clusters represented in this pham: B5, B7, B9, B1, DA,

Info for manual annotations of cluster B1:

- Start number 2 was manually annotated 12 times for cluster B1.
- Start number 8 was manually annotated 1 time for cluster B1.
- Start number 11 was manually annotated 193 times for cluster B1.

Info for manual annotations of cluster B5:

- Start number 8 was manually annotated 2 times for cluster B5.

Info for manual annotations of cluster B7:

- Start number 10 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B9:

- Start number 10 was manually annotated 2 times for cluster B9.

Info for manual annotations of cluster DA:

- Start number 9 was manually annotated 1 time for cluster DA.

Gene Information:

Gene: ABU_48 Start: 40410, Stop: 39850, Start Num: 11

Candidate Starts for ABU_48:

(Start: 2 @40494 has 12 MA's), (3, 40488), (4, 40485), (Start: 11 @40410 has 193 MA's), (15, 40341), (16, 40338), (17, 40335), (23, 40281), (29, 40068),

Gene: AbsoluteMadLad_46 Start: 40287, Stop: 39727, Start Num: 11

Candidate Starts for AbsoluteMadLad_46:

(Start: 2 @40371 has 12 MA's), (3, 40365), (4, 40362), (Start: 11 @40287 has 193 MA's), (15, 40218), (16, 40215), (17, 40212), (23, 40158), (29, 39945), (38, 39738),

Gene: Adriana_48 Start: 40408, Stop: 39848, Start Num: 11

Candidate Starts for Adriana_48:

(Start: 2 @40492 has 12 MA's), (3, 40486), (4, 40483), (Start: 11 @40408 has 193 MA's), (15, 40339), (16, 40336), (17, 40333), (23, 40279), (29, 40066),

Gene: Aelin_46 Start: 39839, Stop: 39279, Start Num: 11

Candidate Starts for Aelin_46:

(Start: 2 @39923 has 12 MA's), (3, 39917), (4, 39914), (Start: 11 @39839 has 193 MA's), (15, 39770), (16, 39767), (17, 39764), (27, 39599), (29, 39497), (38, 39290),

Gene: AltPhacts_47 Start: 40259, Stop: 39699, Start Num: 11

Candidate Starts for AltPhacts_47:

(Start: 8 @40301 has 3 MA's), (Start: 11 @40259 has 193 MA's), (15, 40190), (16, 40187), (17, 40184), (29, 39917), (34, 39851), (38, 39710),

Gene: Altwerkus_46 Start: 39966, Stop: 39406, Start Num: 11
Candidate Starts for Altwerkus_46:
(Start: 2 @40050 has 12 MA's), (3, 40044), (4, 40041), (Start: 11 @39966 has 193 MA's), (15, 39897),
(16, 39894), (17, 39891), (27, 39726), (29, 39624), (38, 39417),

Gene: Anderson_47 Start: 40265, Stop: 39705, Start Num: 11
Candidate Starts for Anderson_47:
(Start: 2 @40349 has 12 MA's), (3, 40343), (4, 40340), (Start: 11 @40265 has 193 MA's), (15, 40196),
(16, 40193), (17, 40190), (23, 40136), (29, 39923), (38, 39716),

Gene: Andre_49 Start: 40402, Stop: 39842, Start Num: 11
Candidate Starts for Andre_49:
(Start: 2 @40486 has 12 MA's), (3, 40480), (4, 40477), (Start: 11 @40402 has 193 MA's), (15, 40333),
(16, 40330), (17, 40327), (29, 40060),

Gene: Antonia_46 Start: 39839, Stop: 39279, Start Num: 11
Candidate Starts for Antonia_46:
(Start: 2 @39923 has 12 MA's), (3, 39917), (4, 39914), (Start: 11 @39839 has 193 MA's), (15, 39770),
(16, 39767), (17, 39764), (27, 39599), (29, 39497), (38, 39290),

Gene: Badfish_48 Start: 40433, Stop: 39873, Start Num: 11
Candidate Starts for Badfish_48:
(Start: 2 @40517 has 12 MA's), (3, 40511), (4, 40508), (Start: 11 @40433 has 193 MA's), (15, 40364),
(16, 40361), (17, 40358), (23, 40304), (29, 40091),

Gene: Banjo_46 Start: 40048, Stop: 39410, Start Num: 2
Candidate Starts for Banjo_46:
(Start: 2 @40048 has 12 MA's), (3, 40042), (4, 40039), (Start: 11 @39964 has 193 MA's), (15, 39901),
(16, 39898), (17, 39895), (23, 39841), (29, 39628), (34, 39562), (38, 39421),

Gene: BatteryCK_46 Start: 39892, Stop: 39332, Start Num: 11
Candidate Starts for BatteryCK_46:
(Start: 2 @39976 has 12 MA's), (3, 39970), (4, 39967), (Start: 11 @39892 has 193 MA's), (16, 39820),
(17, 39817), (23, 39763), (27, 39652), (29, 39550), (38, 39343),

Gene: Beaglebox_46 Start: 39985, Stop: 39431, Start Num: 11
Candidate Starts for Beaglebox_46:
(Start: 2 @40069 has 12 MA's), (3, 40063), (4, 40060), (Start: 11 @39985 has 193 MA's), (15, 39922),
(16, 39919), (17, 39916), (23, 39862), (29, 39649), (34, 39583), (38, 39442),

Gene: Bishoperium_46 Start: 39979, Stop: 39419, Start Num: 11
Candidate Starts for Bishoperium_46:
(Start: 2 @40063 has 12 MA's), (3, 40057), (4, 40054), (Start: 11 @39979 has 193 MA's), (15, 39910),
(16, 39907), (17, 39904), (23, 39850), (29, 39637), (38, 39430),

Gene: BlackStallion_48 Start: 40419, Stop: 39859, Start Num: 11
Candidate Starts for BlackStallion_48:
(Start: 11 @40419 has 193 MA's), (15, 40350), (16, 40347), (17, 40344), (23, 40290), (29, 40077),

Gene: BlueHusk_47 Start: 39784, Stop: 39224, Start Num: 11
Candidate Starts for BlueHusk_47:
(Start: 8 @39826 has 3 MA's), (Start: 11 @39784 has 193 MA's), (15, 39715), (16, 39712), (17,
39709), (23, 39655), (29, 39442), (38, 39235),

Gene: Bluephacebaby_46 Start: 39982, Stop: 39422, Start Num: 11

Candidate Starts for Bluephacebaby_46:

(Start: 2 @40066 has 12 MA's), (3, 40060), (4, 40057), (Start: 11 @39982 has 193 MA's), (15, 39913), (16, 39910), (17, 39907), (27, 39742), (29, 39640), (38, 39433),

Gene: Boehler_47 Start: 40288, Stop: 39728, Start Num: 11

Candidate Starts for Boehler_47:

(Start: 2 @40372 has 12 MA's), (3, 40366), (4, 40363), (Start: 11 @40288 has 193 MA's), (15, 40219), (16, 40216), (17, 40213), (23, 40159), (29, 39946), (38, 39739),

Gene: Brilliant_47 Start: 39981, Stop: 39427, Start Num: 11

Candidate Starts for Brilliant_47:

(Start: 2 @40065 has 12 MA's), (3, 40059), (4, 40056), (Start: 11 @39981 has 193 MA's), (15, 39918), (16, 39915), (17, 39912), (23, 39858), (29, 39645), (34, 39579), (38, 39438),

Gene: Buckeye_47 Start: 40302, Stop: 39742, Start Num: 11

Candidate Starts for Buckeye_47:

(Start: 2 @40386 has 12 MA's), (3, 40380), (4, 40377), (Start: 11 @40302 has 193 MA's), (15, 40233), (16, 40230), (17, 40227), (23, 40173), (27, 40062), (29, 39960), (38, 39753),

Gene: Burr_46 Start: 39976, Stop: 39416, Start Num: 11

Candidate Starts for Burr_46:

(Start: 2 @40060 has 12 MA's), (3, 40054), (4, 40051), (Start: 11 @39976 has 193 MA's), (15, 39907), (16, 39904), (17, 39901), (23, 39847), (29, 39634), (38, 39427),

Gene: CamL_47 Start: 40271, Stop: 39717, Start Num: 11

Candidate Starts for CamL_47:

(Start: 2 @40355 has 12 MA's), (3, 40349), (4, 40346), (Start: 11 @40271 has 193 MA's), (15, 40208), (16, 40205), (17, 40202), (23, 40148), (29, 39935), (34, 39869), (38, 39728),

Gene: CampRoach_48 Start: 40405, Stop: 39845, Start Num: 11

Candidate Starts for CampRoach_48:

(Start: 2 @40489 has 12 MA's), (3, 40483), (4, 40480), (Start: 11 @40405 has 193 MA's), (15, 40336), (16, 40333), (17, 40330), (23, 40276), (29, 40063),

Gene: Cannibal_47 Start: 40254, Stop: 39700, Start Num: 11

Candidate Starts for Cannibal_47:

(Start: 2 @40338 has 12 MA's), (3, 40332), (4, 40329), (Start: 11 @40254 has 193 MA's), (15, 40191), (16, 40188), (17, 40185), (23, 40131), (29, 39918), (34, 39852), (38, 39711),

Gene: Carthage_45 Start: 39189, Stop: 38629, Start Num: 11

Candidate Starts for Carthage_45:

(Start: 2 @39273 has 12 MA's), (3, 39267), (4, 39264), (7, 39246), (Start: 11 @39189 has 193 MA's), (15, 39120), (16, 39117), (17, 39114), (23, 39060), (27, 38949), (29, 38847), (38, 38640),

Gene: Chaelin_47 Start: 39977, Stop: 39417, Start Num: 11

Candidate Starts for Chaelin_47:

(Start: 2 @40061 has 12 MA's), (3, 40055), (4, 40052), (Start: 11 @39977 has 193 MA's), (15, 39908), (16, 39905), (17, 39902), (23, 39848), (29, 39635), (38, 39428),

Gene: Charles1_47 Start: 40262, Stop: 39702, Start Num: 11

Candidate Starts for Charles1_47:

(Start: 2 @40346 has 12 MA's), (3, 40340), (4, 40337), (Start: 11 @40262 has 193 MA's), (15, 40193), (16, 40190), (17, 40187), (23, 40133), (27, 40022), (29, 39920), (38, 39713),

Gene: CharlieGBrown_46 Start: 39852, Stop: 39292, Start Num: 11

Candidate Starts for CharlieGBrown_46:

(Start: 2 @39936 has 12 MA's), (3, 39930), (4, 39927), (Start: 11 @39852 has 193 MA's), (15, 39783), (16, 39780), (17, 39777), (23, 39723), (29, 39510), (38, 39303),

Gene: Cher_46 Start: 39999, Stop: 39439, Start Num: 11

Candidate Starts for Cher_46:

(Start: 2 @40083 has 12 MA's), (3, 40077), (4, 40074), (Start: 11 @39999 has 193 MA's), (15, 39930), (16, 39927), (17, 39924), (27, 39759), (29, 39657), (34, 39591), (38, 39450),

Gene: Childish_46 Start: 40002, Stop: 39442, Start Num: 11

Candidate Starts for Childish_46:

(Start: 2 @40086 has 12 MA's), (3, 40080), (4, 40077), (Start: 11 @40002 has 193 MA's), (15, 39933), (16, 39930), (17, 39927), (23, 39873), (29, 39660), (38, 39453),

Gene: Chorkpop_47 Start: 39998, Stop: 39438, Start Num: 11

Candidate Starts for Chorkpop_47:

(Start: 2 @40082 has 12 MA's), (3, 40076), (4, 40073), (Start: 11 @39998 has 193 MA's), (15, 39929), (16, 39926), (17, 39923), (27, 39758), (29, 39656), (38, 39449),

Gene: Chunky_47 Start: 40285, Stop: 39725, Start Num: 11

Candidate Starts for Chunky_47:

(Start: 2 @40369 has 12 MA's), (3, 40363), (4, 40360), (Start: 11 @40285 has 193 MA's), (15, 40216), (16, 40213), (17, 40210), (23, 40156), (27, 40045), (29, 39943), (38, 39736),

Gene: Cobra_47 Start: 40283, Stop: 39723, Start Num: 11

Candidate Starts for Cobra_47:

(Start: 2 @40367 has 12 MA's), (3, 40361), (4, 40358), (Start: 11 @40283 has 193 MA's), (15, 40214), (16, 40211), (17, 40208), (27, 40043), (29, 39941), (38, 39734),

Gene: Cornobble_46 Start: 39840, Stop: 39280, Start Num: 11

Candidate Starts for Cornobble_46:

(Start: 2 @39924 has 12 MA's), (3, 39918), (4, 39915), (Start: 11 @39840 has 193 MA's), (15, 39771), (16, 39768), (17, 39765), (23, 39711), (29, 39498), (38, 39291),

Gene: Cosmolli16_46 Start: 39990, Stop: 39430, Start Num: 11

Candidate Starts for Cosmolli16_46:

(Start: 2 @40074 has 12 MA's), (3, 40068), (4, 40065), (Start: 11 @39990 has 193 MA's), (15, 39921), (16, 39918), (17, 39915), (27, 39750), (29, 39648), (38, 39441),

Gene: Craff_48 Start: 40418, Stop: 39858, Start Num: 11

Candidate Starts for Craff_48:

(Start: 2 @40502 has 12 MA's), (3, 40496), (4, 40493), (Start: 11 @40418 has 193 MA's), (15, 40349), (16, 40346), (17, 40343), (23, 40289), (29, 40076),

Gene: Crownjwl_47 Start: 40059, Stop: 39499, Start Num: 11

Candidate Starts for Crownjwl_47:

(Start: 2 @40143 has 12 MA's), (3, 40137), (4, 40134), (Start: 11 @40059 has 193 MA's), (15, 39990), (16, 39987), (17, 39984), (23, 39930), (29, 39717), (38, 39510),

Gene: DaddyDaniels_47 Start: 39971, Stop: 39411, Start Num: 11

Candidate Starts for DaddyDaniels_47:

(Start: 2 @40055 has 12 MA's), (3, 40049), (4, 40046), (Start: 11 @39971 has 193 MA's), (15, 39902), (16, 39899), (17, 39896), (23, 39842), (29, 39629), (38, 39422),

Gene: Daffy_47 Start: 39996, Stop: 39442, Start Num: 11

Candidate Starts for Daffy_47:

(Start: 2 @40080 has 12 MA's), (3, 40074), (4, 40071), (Start: 11 @39996 has 193 MA's), (15, 39933), (16, 39930), (17, 39927), (23, 39873), (29, 39660), (34, 39594), (38, 39453),

Gene: Daka_48 Start: 40275, Stop: 39715, Start Num: 11

Candidate Starts for Daka_48:

(Start: 2 @40359 has 12 MA's), (3, 40353), (4, 40350), (Start: 11 @40275 has 193 MA's), (15, 40206), (16, 40203), (17, 40200), (23, 40146), (29, 39933), (38, 39726),

Gene: Dati_47 Start: 39999, Stop: 39439, Start Num: 11

Candidate Starts for Dati_47:

(Start: 2 @40083 has 12 MA's), (3, 40077), (4, 40074), (Start: 11 @39999 has 193 MA's), (15, 39930), (16, 39927), (17, 39924), (23, 39870), (27, 39759), (29, 39657), (38, 39450),

Gene: DelRivs_46 Start: 40003, Stop: 39443, Start Num: 11

Candidate Starts for DelRivs_46:

(Start: 2 @40087 has 12 MA's), (3, 40081), (4, 40078), (Start: 11 @40003 has 193 MA's), (15, 39934), (16, 39931), (17, 39928), (27, 39763), (29, 39661), (38, 39454),

Gene: Derpp_46 Start: 39841, Stop: 39281, Start Num: 11

Candidate Starts for Derpp_46:

(Start: 2 @39925 has 12 MA's), (3, 39919), (4, 39916), (Start: 11 @39841 has 193 MA's), (15, 39772), (16, 39769), (17, 39766), (27, 39601), (29, 39499), (38, 39292),

Gene: Dice_49 Start: 39967, Stop: 39413, Start Num: 11

Candidate Starts for Dice_49:

(Start: 2 @40051 has 12 MA's), (3, 40045), (4, 40042), (Start: 11 @39967 has 193 MA's), (15, 39904), (16, 39901), (17, 39898), (23, 39844), (29, 39631), (34, 39565), (38, 39424),

Gene: Dingo_47 Start: 40265, Stop: 39705, Start Num: 11

Candidate Starts for Dingo_47:

(Start: 8 @40307 has 3 MA's), (Start: 11 @40265 has 193 MA's), (15, 40196), (16, 40193), (17, 40190), (23, 40136), (29, 39923), (38, 39716),

Gene: Dione_46 Start: 39975, Stop: 39421, Start Num: 11

Candidate Starts for Dione_46:

(Start: 2 @40059 has 12 MA's), (3, 40053), (4, 40050), (Start: 11 @39975 has 193 MA's), (15, 39912), (16, 39909), (17, 39906), (23, 39852), (29, 39639), (34, 39573), (38, 39432),

Gene: DirtJuice_47 Start: 40265, Stop: 39705, Start Num: 11

Candidate Starts for DirtJuice_47:

(Start: 2 @40349 has 12 MA's), (3, 40343), (4, 40340), (Start: 11 @40265 has 193 MA's), (15, 40196), (16, 40193), (17, 40190), (23, 40136), (27, 40025), (29, 39923), (38, 39716),

Gene: Doddsville_47 Start: 39995, Stop: 39435, Start Num: 11

Candidate Starts for Doddsville_47:

(Start: 2 @40079 has 12 MA's), (3, 40073), (4, 40070), (Start: 11 @39995 has 193 MA's), (15, 39926), (16, 39923), (17, 39920), (23, 39866), (29, 39653), (38, 39446),

Gene: DonSanchon_46 Start: 39978, Stop: 39418, Start Num: 11

Candidate Starts for DonSanchon_46:

(Start: 2 @40062 has 12 MA's), (3, 40056), (4, 40053), (Start: 11 @39978 has 193 MA's), (15, 39909), (16, 39906), (17, 39903), (27, 39738), (29, 39636), (38, 39429),

Gene: DuchessDung_46 Start: 39267, Stop: 38707, Start Num: 11

Candidate Starts for DuchessDung_46:

(Start: 2 @39351 has 12 MA's), (3, 39345), (4, 39342), (Start: 11 @39267 has 193 MA's), (15, 39198), (16, 39195), (17, 39192), (29, 38925),

Gene: Duggie_46 Start: 39997, Stop: 39437, Start Num: 11

Candidate Starts for Duggie_46:

(Start: 2 @40081 has 12 MA's), (3, 40075), (4, 40072), (Start: 11 @39997 has 193 MA's), (15, 39928), (16, 39925), (17, 39922), (23, 39868), (29, 39655), (38, 39448),

Gene: Durga_48 Start: 40433, Stop: 39873, Start Num: 11

Candidate Starts for Durga_48:

(Start: 2 @40517 has 12 MA's), (3, 40511), (4, 40508), (Start: 11 @40433 has 193 MA's), (15, 40364), (16, 40361), (17, 40358), (23, 40304), (29, 40091),

Gene: Emiris_48 Start: 40401, Stop: 39841, Start Num: 11

Candidate Starts for Emiris_48:

(Start: 2 @40485 has 12 MA's), (3, 40479), (4, 40476), (Start: 11 @40401 has 193 MA's), (15, 40332), (16, 40329), (17, 40326), (23, 40272), (29, 40059),

Gene: EmpTee_47 Start: 40281, Stop: 39721, Start Num: 11

Candidate Starts for EmpTee_47:

(Start: 2 @40365 has 12 MA's), (3, 40359), (4, 40356), (Start: 11 @40281 has 193 MA's), (15, 40212), (16, 40209), (17, 40206), (23, 40152), (29, 39939), (38, 39732),

Gene: Eremos_47 Start: 40274, Stop: 39714, Start Num: 11

Candidate Starts for Eremos_47:

(Start: 2 @40358 has 12 MA's), (3, 40352), (4, 40349), (Start: 11 @40274 has 193 MA's), (15, 40205), (16, 40202), (17, 40199), (23, 40145), (29, 39932), (38, 39725),

Gene: Etaye_47 Start: 40268, Stop: 39708, Start Num: 11

Candidate Starts for Etaye_47:

(Start: 2 @40352 has 12 MA's), (3, 40346), (4, 40343), (Start: 11 @40268 has 193 MA's), (15, 40199), (16, 40196), (17, 40193), (23, 40139), (27, 40028), (29, 39926), (38, 39719),

Gene: Eugenia_47 Start: 40278, Stop: 39724, Start Num: 11

Candidate Starts for Eugenia_47:

(Start: 2 @40362 has 12 MA's), (3, 40356), (4, 40353), (Start: 11 @40278 has 193 MA's), (15, 40215), (16, 40212), (17, 40209), (23, 40155), (29, 39942), (34, 39876), (38, 39735),

Gene: Fozzie_46 Start: 40303, Stop: 39743, Start Num: 11

Candidate Starts for Fozzie_46:

(Start: 2 @40387 has 12 MA's), (3, 40381), (4, 40378), (Start: 11 @40303 has 193 MA's), (15, 40234), (16, 40231), (17, 40228), (23, 40174), (29, 39961), (38, 39754),

Gene: Frankicide_47 Start: 40293, Stop: 39733, Start Num: 11

Candidate Starts for Frankicide_47:

(Start: 2 @40377 has 12 MA's), (3, 40371), (4, 40368), (Start: 11 @40293 has 193 MA's), (15, 40224), (16, 40221), (17, 40218), (23, 40164), (27, 40053), (29, 39951), (38, 39744),

Gene: Freya_46 Start: 39966, Stop: 39412, Start Num: 11

Candidate Starts for Freya_46:

(Start: 2 @40050 has 12 MA's), (3, 40044), (4, 40041), (Start: 11 @39966 has 193 MA's), (15, 39903), (16, 39900), (17, 39897), (23, 39843), (29, 39630), (34, 39564), (38, 39423),

Gene: FriarPreacher_46 Start: 40305, Stop: 39745, Start Num: 11

Candidate Starts for FriarPreacher_46:

(Start: 2 @40389 has 12 MA's), (3, 40383), (4, 40380), (Start: 11 @40305 has 193 MA's), (15, 40236), (16, 40233), (17, 40230), (27, 40065), (29, 39963), (38, 39756),

Gene: Fringe_48 Start: 40402, Stop: 39842, Start Num: 11

Candidate Starts for Fringe_48:

(Start: 2 @40486 has 12 MA's), (3, 40480), (4, 40477), (Start: 11 @40402 has 193 MA's), (15, 40333), (16, 40330), (17, 40327), (23, 40273), (29, 40060),

Gene: FugateOSU_46 Start: 39980, Stop: 39420, Start Num: 11

Candidate Starts for FugateOSU_46:

(Start: 2 @40064 has 12 MA's), (3, 40058), (4, 40055), (Start: 11 @39980 has 193 MA's), (15, 39911), (16, 39908), (17, 39905), (23, 39851), (25, 39770), (29, 39638), (38, 39431),

Gene: Gareth_46 Start: 39974, Stop: 39420, Start Num: 11

Candidate Starts for Gareth_46:

(Start: 2 @40058 has 12 MA's), (3, 40052), (4, 40049), (Start: 11 @39974 has 193 MA's), (15, 39911), (16, 39908), (17, 39905), (23, 39851), (29, 39638), (34, 39572), (38, 39431),

Gene: GeneCoco_47 Start: 40289, Stop: 39729, Start Num: 11

Candidate Starts for GeneCoco_47:

(Start: 2 @40373 has 12 MA's), (3, 40367), (4, 40364), (Start: 11 @40289 has 193 MA's), (15, 40220), (16, 40217), (17, 40214), (27, 40049), (29, 39947), (38, 39740),

Gene: Ghobes_19 Start: 17373, Stop: 16780, Start Num: 9

Candidate Starts for Ghobes_19:

(Start: 9 @17373 has 1 MA's), (13, 17325), (19, 17253), (28, 17028), (33, 16929), (35, 16917),

Gene: Gophee_47 Start: 40272, Stop: 39712, Start Num: 11

Candidate Starts for Gophee_47:

(Start: 2 @40356 has 12 MA's), (3, 40350), (4, 40347), (Start: 11 @40272 has 193 MA's), (15, 40203), (16, 40200), (17, 40197), (23, 40143), (29, 39930), (38, 39723),

Gene: Grand2040_46 Start: 39992, Stop: 39438, Start Num: 11

Candidate Starts for Grand2040_46:

(Start: 2 @40076 has 12 MA's), (3, 40070), (4, 40067), (Start: 11 @39992 has 193 MA's), (15, 39929), (16, 39926), (17, 39923), (23, 39869), (29, 39656), (34, 39590), (38, 39449),

Gene: Gwilliam_48 Start: 40278, Stop: 39718, Start Num: 11

Candidate Starts for Gwilliam_48:

(Start: 2 @40362 has 12 MA's), (3, 40356), (4, 40353), (Start: 11 @40278 has 193 MA's), (15, 40209), (16, 40206), (17, 40203), (23, 40149), (29, 39936), (38, 39729),

Gene: HSavage_47 Start: 40284, Stop: 39724, Start Num: 11

Candidate Starts for HSavage_47:

(Start: 2 @40368 has 12 MA's), (3, 40362), (4, 40359), (Start: 11 @40284 has 193 MA's), (15, 40215), (16, 40212), (17, 40209), (23, 40155), (27, 40044), (29, 39942), (38, 39735),

Gene: Haimas_47 Start: 40278, Stop: 39718, Start Num: 11

Candidate Starts for Haimas_47:

(Start: 2 @40362 has 12 MA's), (3, 40356), (4, 40353), (Start: 11 @40278 has 193 MA's), (15, 40209), (16, 40206), (17, 40203), (23, 40149), (29, 39936), (38, 39729),

Gene: Haleema_46 Start: 39992, Stop: 39438, Start Num: 11

Candidate Starts for Haleema_46:

(Start: 2 @40076 has 12 MA's), (3, 40070), (4, 40067), (Start: 11 @39992 has 193 MA's), (15, 39929), (16, 39926), (17, 39923), (23, 39869), (29, 39656), (34, 39590), (38, 39449),

Gene: Hamish_47 Start: 40270, Stop: 39710, Start Num: 11

Candidate Starts for Hamish_47:

(Start: 2 @40354 has 12 MA's), (3, 40348), (4, 40345), (Start: 11 @40270 has 193 MA's), (15, 40201), (16, 40198), (17, 40195), (23, 40141), (29, 39928), (38, 39721),

Gene: Hartsy_47 Start: 40321, Stop: 39761, Start Num: 11

Candidate Starts for Hartsy_47:

(Start: 2 @40405 has 12 MA's), (3, 40399), (4, 40396), (Start: 11 @40321 has 193 MA's), (15, 40252), (16, 40249), (17, 40246), (23, 40192), (29, 39979), (38, 39772),

Gene: Harvey_47 Start: 40380, Stop: 39736, Start Num: 2

Candidate Starts for Harvey_47:

(Start: 2 @40380 has 12 MA's), (3, 40374), (4, 40371), (Start: 11 @40296 has 193 MA's), (15, 40227), (16, 40224), (17, 40221), (27, 40056), (29, 39954), (38, 39747),

Gene: Held_47 Start: 39982, Stop: 39422, Start Num: 11

Candidate Starts for Held_47:

(Start: 2 @40066 has 12 MA's), (3, 40060), (4, 40057), (Start: 11 @39982 has 193 MA's), (15, 39913), (16, 39910), (17, 39907), (27, 39742), (29, 39640), (38, 39433),

Gene: HenryJackson_46 Start: 39992, Stop: 39438, Start Num: 11

Candidate Starts for HenryJackson_46:

(Start: 2 @40076 has 12 MA's), (3, 40070), (4, 40067), (Start: 11 @39992 has 193 MA's), (15, 39929), (16, 39926), (17, 39923), (23, 39869), (29, 39656), (34, 39590), (38, 39449),

Gene: Hetaeria_47 Start: 40294, Stop: 39734, Start Num: 11

Candidate Starts for Hetaeria_47:

(Start: 2 @40378 has 12 MA's), (3, 40372), (4, 40369), (Start: 11 @40294 has 193 MA's), (15, 40225), (16, 40222), (17, 40219), (27, 40054), (29, 39952), (38, 39745),

Gene: HighStump_47 Start: 40119, Stop: 39559, Start Num: 11

Candidate Starts for HighStump_47:

(Start: 2 @40203 has 12 MA's), (3, 40197), (4, 40194), (Start: 11 @40119 has 193 MA's), (15, 40050), (16, 40047), (17, 40044), (23, 39990), (29, 39777),

Gene: Hocus_46 Start: 39981, Stop: 39427, Start Num: 11

Candidate Starts for Hocus_46:

(Start: 2 @40065 has 12 MA's), (3, 40059), (4, 40056), (Start: 11 @39981 has 193 MA's), (15, 39918), (16, 39915), (17, 39912), (23, 39858), (29, 39645), (34, 39579), (38, 39438),

Gene: Horchata_47 Start: 40272, Stop: 39712, Start Num: 11

Candidate Starts for Horchata_47:

(Start: 2 @40356 has 12 MA's), (3, 40350), (4, 40347), (Start: 11 @40272 has 193 MA's), (15, 40203), (16, 40200), (17, 40197), (23, 40143), (29, 39930), (38, 39723),

Gene: Inchworm_48 Start: 40405, Stop: 39845, Start Num: 11

Candidate Starts for Inchworm_48:

(Start: 2 @40489 has 12 MA's), (3, 40483), (4, 40480), (Start: 11 @40405 has 193 MA's), (15, 40336), (16, 40333), (17, 40330), (23, 40276), (29, 40063),

Gene: Iridoclysis_47 Start: 40264, Stop: 39704, Start Num: 11

Candidate Starts for Iridoclysis_47:

(Start: 2 @40348 has 12 MA's), (3, 40342), (4, 40339), (Start: 11 @40264 has 193 MA's), (15, 40195), (16, 40192), (17, 40189), (23, 40135), (29, 39922), (38, 39715),

Gene: JDog_46 Start: 40001, Stop: 39441, Start Num: 11

Candidate Starts for JDog_46:

(Start: 2 @40085 has 12 MA's), (3, 40079), (4, 40076), (Start: 11 @40001 has 193 MA's), (15, 39932), (16, 39929), (17, 39926), (23, 39872), (27, 39761), (29, 39659), (38, 39452),

Gene: JakeO_46 Start: 40000, Stop: 39440, Start Num: 11

Candidate Starts for JakeO_46:

(Start: 2 @40084 has 12 MA's), (3, 40078), (4, 40075), (Start: 11 @40000 has 193 MA's), (15, 39931), (16, 39928), (17, 39925), (23, 39871), (29, 39658), (38, 39451),

Gene: JangoPhett_47 Start: 40275, Stop: 39715, Start Num: 11

Candidate Starts for JangoPhett_47:

(Start: 2 @40359 has 12 MA's), (3, 40353), (4, 40350), (Start: 11 @40275 has 193 MA's), (15, 40206), (16, 40203), (17, 40200), (27, 40035), (29, 39933), (38, 39726),

Gene: Jillium_46 Start: 39994, Stop: 39434, Start Num: 11

Candidate Starts for Jillium_46:

(Start: 2 @40078 has 12 MA's), (3, 40072), (4, 40069), (Start: 11 @39994 has 193 MA's), (15, 39925), (16, 39922), (17, 39919), (27, 39754), (29, 39652), (38, 39445),

Gene: Jiminy_46 Start: 39835, Stop: 39275, Start Num: 11

Candidate Starts for Jiminy_46:

(Start: 2 @39919 has 12 MA's), (3, 39913), (4, 39910), (Start: 11 @39835 has 193 MA's), (15, 39766), (16, 39763), (17, 39760), (23, 39706), (29, 39493), (38, 39286),

Gene: Jiraiya_48 Start: 39988, Stop: 39428, Start Num: 11

Candidate Starts for Jiraiya_48:

(Start: 2 @40072 has 12 MA's), (3, 40066), (4, 40063), (Start: 11 @39988 has 193 MA's), (15, 39919), (16, 39916), (17, 39913), (23, 39859), (29, 39646), (38, 39439),

Gene: KLucky39_47 Start: 40279, Stop: 39719, Start Num: 11

Candidate Starts for KLucky39_47:

(Start: 2 @40363 has 12 MA's), (3, 40357), (4, 40354), (Start: 11 @40279 has 193 MA's), (15, 40210), (16, 40207), (17, 40204), (23, 40150), (27, 40039), (29, 39937), (38, 39730),

Gene: Kahve_46 Start: 39989, Stop: 39435, Start Num: 11

Candidate Starts for Kahve_46:

(Start: 2 @40073 has 12 MA's), (3, 40067), (4, 40064), (Start: 11 @39989 has 193 MA's), (15, 39926), (16, 39923), (17, 39920), (23, 39866), (29, 39653), (34, 39587), (38, 39446),

Gene: Kailash_47 Start: 40336, Stop: 39776, Start Num: 11

Candidate Starts for Kailash_47:

(Start: 2 @40420 has 12 MA's), (3, 40414), (4, 40411), (Start: 11 @40336 has 193 MA's), (16, 40264), (17, 40261), (23, 40207), (27, 40096), (29, 39994), (38, 39787),

Gene: Katniss_48 Start: 40432, Stop: 39872, Start Num: 11

Candidate Starts for Katniss_48:

(Start: 2 @40516 has 12 MA's), (3, 40510), (4, 40507), (Start: 11 @40432 has 193 MA's), (15, 40363), (16, 40360), (17, 40357), (23, 40303), (29, 40090),

Gene: Keitherie_47 Start: 40335, Stop: 39775, Start Num: 11

Candidate Starts for Keitherie_47:

(Start: 2 @40419 has 12 MA's), (3, 40413), (4, 40410), (Start: 11 @40335 has 193 MA's), (15, 40266), (16, 40263), (17, 40260), (23, 40206), (29, 39993), (38, 39786),

Gene: Kimbrough_47 Start: 39996, Stop: 39436, Start Num: 11

Candidate Starts for Kimbrough_47:

(Start: 2 @40080 has 12 MA's), (3, 40074), (4, 40071), (Start: 11 @39996 has 193 MA's), (15, 39927), (16, 39924), (17, 39921), (23, 39867), (29, 39654), (38, 39447),

Gene: KingTut_38 Start: 35659, Stop: 35099, Start Num: 11

Candidate Starts for KingTut_38:

(Start: 2 @35743 has 12 MA's), (3, 35737), (4, 35734), (Start: 11 @35659 has 193 MA's), (15, 35590), (16, 35587), (17, 35584), (23, 35530), (29, 35317), (38, 35110),

Gene: KingVeVeVe_47 Start: 40266, Stop: 39706, Start Num: 11

Candidate Starts for KingVeVeVe_47:

(Start: 8 @40308 has 3 MA's), (Start: 11 @40266 has 193 MA's), (15, 40197), (16, 40194), (17, 40191), (23, 40137), (29, 39924), (38, 39717),

Gene: Kloppinator_47 Start: 40299, Stop: 39739, Start Num: 11

Candidate Starts for Kloppinator_47:

(1, 40392), (3, 40377), (4, 40374), (Start: 11 @40299 has 193 MA's), (15, 40230), (16, 40227), (17, 40224), (27, 40059), (29, 39957), (38, 39750),

Gene: Kwadwo_46 Start: 39971, Stop: 39417, Start Num: 11

Candidate Starts for Kwadwo_46:

(Start: 2 @40055 has 12 MA's), (3, 40049), (4, 40046), (Start: 11 @39971 has 193 MA's), (15, 39908), (16, 39905), (17, 39902), (23, 39848), (29, 39635), (34, 39569), (38, 39428),

Gene: Kwksand96_46 Start: 39846, Stop: 39286, Start Num: 11

Candidate Starts for Kwksand96_46:

(Start: 2 @39930 has 12 MA's), (3, 39924), (4, 39921), (Start: 11 @39846 has 193 MA's), (15, 39777), (16, 39774), (17, 39771), (27, 39606), (29, 39504), (38, 39297),

Gene: Labeouficaum_46 Start: 39841, Stop: 39281, Start Num: 11

Candidate Starts for Labeouficaum_46:

(Start: 2 @39925 has 12 MA's), (3, 39919), (4, 39916), (Start: 11 @39841 has 193 MA's), (15, 39772), (16, 39769), (17, 39766), (27, 39601), (29, 39499), (38, 39292),

Gene: LasagnaCat_48 Start: 40417, Stop: 39857, Start Num: 11

Candidate Starts for LasagnaCat_48:

(Start: 2 @40501 has 12 MA's), (3, 40495), (4, 40492), (Start: 11 @40417 has 193 MA's), (15, 40348), (16, 40345), (17, 40342), (23, 40288), (29, 40075),

Gene: Lasso_47 Start: 40246, Stop: 39692, Start Num: 11

Candidate Starts for Lasso_47:

(Start: 2 @40330 has 12 MA's), (3, 40324), (4, 40321), (Start: 11 @40246 has 193 MA's), (15, 40183), (16, 40180), (17, 40177), (23, 40123), (29, 39910), (34, 39844), (38, 39703),

Gene: Lego3393_46 Start: 40426, Stop: 39866, Start Num: 11

Candidate Starts for Lego3393_46:

(Start: 2 @40510 has 12 MA's), (3, 40504), (4, 40501), (Start: 11 @40426 has 193 MA's), (15, 40357), (16, 40354), (17, 40351), (23, 40297), (29, 40084),

Gene: Legolas_47 Start: 40016, Stop: 39462, Start Num: 11

Candidate Starts for Legolas_47:

(Start: 2 @40100 has 12 MA's), (3, 40094), (4, 40091), (Start: 11 @40016 has 193 MA's), (15, 39953), (16, 39950), (17, 39947), (23, 39893), (29, 39680), (34, 39614), (38, 39473),

Gene: LeiMonet_48 Start: 39978, Stop: 39424, Start Num: 11

Candidate Starts for LeiMonet_48:

(Start: 2 @40062 has 12 MA's), (3, 40056), (4, 40053), (Start: 11 @39978 has 193 MA's), (15, 39915), (16, 39912), (17, 39909), (23, 39855), (29, 39642), (38, 39435),

Gene: LemonSlice_47 Start: 39983, Stop: 39423, Start Num: 11

Candidate Starts for LemonSlice_47:

(Start: 2 @40067 has 12 MA's), (3, 40061), (4, 40058), (Start: 11 @39983 has 193 MA's), (15, 39914), (16, 39911), (17, 39908), (27, 39743), (29, 39641), (38, 39434),

Gene: Longacauda_46 Start: 39979, Stop: 39425, Start Num: 11

Candidate Starts for Longacauda_46:

(Start: 2 @40063 has 12 MA's), (3, 40057), (4, 40054), (Start: 11 @39979 has 193 MA's), (15, 39916), (16, 39913), (17, 39910), (23, 39856), (29, 39643), (34, 39577), (38, 39436),

Gene: LostAndPhound_46 Start: 39986, Stop: 39426, Start Num: 11

Candidate Starts for LostAndPhound_46:

(Start: 2 @40070 has 12 MA's), (3, 40064), (4, 40061), (Start: 11 @39986 has 193 MA's), (15, 39917), (16, 39914), (17, 39911), (29, 39644), (34, 39578), (38, 39437),

Gene: LuckyMarjie_46 Start: 39986, Stop: 39432, Start Num: 11

Candidate Starts for LuckyMarjie_46:

(Start: 2 @40070 has 12 MA's), (3, 40064), (4, 40061), (Start: 11 @39986 has 193 MA's), (15, 39923), (16, 39920), (17, 39917), (23, 39863), (29, 39650), (34, 39584), (38, 39443),

Gene: Lulumae_46 Start: 40055, Stop: 39417, Start Num: 2

Candidate Starts for Lulumae_46:

(Start: 2 @40055 has 12 MA's), (3, 40049), (4, 40046), (Start: 11 @39971 has 193 MA's), (15, 39908), (16, 39905), (17, 39902), (23, 39848), (29, 39635), (34, 39569), (38, 39428),

Gene: Lulwa_47 Start: 40264, Stop: 39704, Start Num: 11

Candidate Starts for Lulwa_47:

(Start: 2 @40348 has 12 MA's), (3, 40342), (4, 40339), (Start: 11 @40264 has 193 MA's), (15, 40195), (16, 40192), (17, 40189), (23, 40135), (27, 40024), (29, 39922), (38, 39715),

Gene: Lumine_46 Start: 39967, Stop: 39413, Start Num: 11

Candidate Starts for Lumine_46:

(Start: 2 @40051 has 12 MA's), (3, 40045), (4, 40042), (Start: 11 @39967 has 193 MA's), (15, 39904), (16, 39901), (17, 39898), (23, 39844), (29, 39631), (34, 39565), (38, 39424),

Gene: MRabcd_46 Start: 39977, Stop: 39417, Start Num: 11

Candidate Starts for MRabcd_46:

(Start: 2 @40061 has 12 MA's), (3, 40055), (4, 40052), (Start: 11 @39977 has 193 MA's), (15, 39908), (16, 39905), (17, 39902), (23, 39848), (29, 39635), (38, 39428),

Gene: Mag7_46 Start: 39886, Stop: 39326, Start Num: 11

Candidate Starts for Mag7_46:

(Start: 2 @39970 has 12 MA's), (3, 39964), (4, 39961), (Start: 11 @39886 has 193 MA's), (16, 39814), (17, 39811), (23, 39757), (27, 39646), (29, 39544), (38, 39337),

Gene: Magic8_47 Start: 40321, Stop: 39761, Start Num: 11

Candidate Starts for Magic8_47:

(Start: 2 @40405 has 12 MA's), (3, 40399), (4, 40396), (Start: 11 @40321 has 193 MA's), (16, 40249), (17, 40246), (23, 40192), (27, 40081), (29, 39979), (38, 39772),

Gene: Mana_46 Start: 39986, Stop: 39432, Start Num: 11

Candidate Starts for Mana_46:

(Start: 2 @40070 has 12 MA's), (4, 40061), (Start: 11 @39986 has 193 MA's), (15, 39923), (16, 39920), (17, 39917), (23, 39863), (29, 39650), (34, 39584), (38, 39443),

Gene: Maru_46 Start: 39929, Stop: 39375, Start Num: 11

Candidate Starts for Maru_46:

(Start: 2 @40013 has 12 MA's), (3, 40007), (4, 40004), (Start: 11 @39929 has 193 MA's), (15, 39866), (16, 39863), (17, 39860), (23, 39806), (29, 39593), (34, 39527), (38, 39386),

Gene: Mecca_46 Start: 39984, Stop: 39424, Start Num: 11

Candidate Starts for Mecca_46:

(Start: 2 @40068 has 12 MA's), (3, 40062), (4, 40059), (Start: 11 @39984 has 193 MA's), (15, 39915), (16, 39912), (17, 39909), (23, 39855), (29, 39642), (38, 39435),

Gene: Megamind20_47 Start: 40006, Stop: 39446, Start Num: 11

Candidate Starts for Megamind20_47:

(Start: 2 @40090 has 12 MA's), (3, 40084), (4, 40081), (Start: 11 @40006 has 193 MA's), (15, 39937), (16, 39934), (17, 39931), (23, 39877), (29, 39664), (38, 39457),

Gene: Melc17_47 Start: 40360, Stop: 39716, Start Num: 2

Candidate Starts for Melc17_47:

(Start: 2 @40360 has 12 MA's), (3, 40354), (4, 40351), (Start: 11 @40276 has 193 MA's), (15, 40207), (16, 40204), (17, 40201), (23, 40147), (27, 40036), (29, 39934), (38, 39727),

Gene: MelsMeow_47 Start: 40017, Stop: 39457, Start Num: 11

Candidate Starts for MelsMeow_47:

(Start: 2 @40101 has 12 MA's), (3, 40095), (4, 40092), (Start: 11 @40017 has 193 MA's), (15, 39948), (16, 39945), (17, 39942), (23, 39888), (29, 39675),

Gene: Mesh1_47 Start: 40293, Stop: 39733, Start Num: 11

Candidate Starts for Mesh1_47:

(Start: 2 @40377 has 12 MA's), (3, 40371), (4, 40368), (Start: 11 @40293 has 193 MA's), (15, 40224), (16, 40221), (17, 40218), (27, 40053), (29, 39951), (38, 39744),

Gene: MichaelPhcott_46 Start: 39883, Stop: 39323, Start Num: 11

Candidate Starts for MichaelPhcott_46:

(Start: 2 @39967 has 12 MA's), (3, 39961), (4, 39958), (Start: 11 @39883 has 193 MA's), (16, 39811), (17, 39808), (23, 39754), (27, 39643), (29, 39541), (38, 39334),

Gene: Mikota_47 Start: 40263, Stop: 39703, Start Num: 11

Candidate Starts for Mikota_47:

(Start: 8 @40305 has 3 MA's), (Start: 11 @40263 has 193 MA's), (15, 40194), (16, 40191), (17, 40188), (23, 40134), (29, 39921), (38, 39714),

Gene: MiniBoss_47 Start: 40269, Stop: 39709, Start Num: 11

Candidate Starts for MiniBoss_47:

(Start: 8 @40311 has 3 MA's), (Start: 11 @40269 has 193 MA's), (15, 40200), (16, 40197), (17, 40194), (29, 39927), (34, 39861), (38, 39720),

Gene: MitKao_47 Start: 39984, Stop: 39424, Start Num: 11

Candidate Starts for MitKao_47:

(Start: 2 @40068 has 12 MA's), (3, 40062), (4, 40059), (Start: 11 @39984 has 193 MA's), (15, 39915), (16, 39912), (17, 39909), (27, 39744), (29, 39642), (38, 39435),

Gene: Morgushi_47 Start: 39985, Stop: 39425, Start Num: 11

Candidate Starts for Morgushi_47:

(Start: 2 @40069 has 12 MA's), (3, 40063), (4, 40060), (Start: 11 @39985 has 193 MA's), (15, 39916), (16, 39913), (17, 39910), (23, 39856), (29, 39643), (34, 39577), (38, 39436),

Gene: Morty_48 Start: 40423, Stop: 39863, Start Num: 11

Candidate Starts for Morty_48:

(Start: 2 @40507 has 12 MA's), (3, 40501), (4, 40498), (Start: 11 @40423 has 193 MA's), (15, 40354), (16, 40351), (17, 40348), (23, 40294), (29, 40081),

Gene: MrPhizzler_46 Start: 39987, Stop: 39433, Start Num: 11

Candidate Starts for MrPhizzler_46:

(Start: 2 @40071 has 12 MA's), (3, 40065), (4, 40062), (Start: 11 @39987 has 193 MA's), (15, 39924), (16, 39921), (17, 39918), (23, 39864), (29, 39651), (34, 39585), (38, 39444),

Gene: Mulan_47 Start: 40140, Stop: 39580, Start Num: 11

Candidate Starts for Mulan_47:

(Start: 2 @40224 has 12 MA's), (3, 40218), (4, 40215), (Start: 11 @40140 has 193 MA's), (15, 40071), (16, 40068), (17, 40065), (23, 40011), (29, 39798),

Gene: Murdoc_47 Start: 40355, Stop: 39717, Start Num: 2

Candidate Starts for Murdoc_47:

(Start: 2 @40355 has 12 MA's), (3, 40349), (4, 40346), (Start: 11 @40271 has 193 MA's), (15, 40208), (16, 40205), (17, 40202), (23, 40148), (29, 39935), (34, 39869), (38, 39728),

Gene: Mutante_46 Start: 39990, Stop: 39430, Start Num: 11

Candidate Starts for Mutante_46:

(Start: 2 @40074 has 12 MA's), (3, 40068), (4, 40065), (Start: 11 @39990 has 193 MA's), (15, 39921), (16, 39918), (17, 39915), (23, 39861), (29, 39648), (38, 39441),

Gene: Mysterious_47 Start: 41019, Stop: 40390, Start Num: 8

Candidate Starts for Mysterious_47:

(Start: 8 @41019 has 3 MA's), (14, 40938), (16, 40902), (20, 40875), (21, 40869), (24, 40806), (27, 40710), (29, 40608), (30, 40596),

Gene: Nicole21_47 Start: 40277, Stop: 39717, Start Num: 11

Candidate Starts for Nicole21_47:

(Start: 2 @40361 has 12 MA's), (3, 40355), (4, 40352), (Start: 11 @40277 has 193 MA's), (16, 40205), (17, 40202), (23, 40148), (27, 40037), (29, 39935), (38, 39728),

Gene: Numberten_47 Start: 40283, Stop: 39723, Start Num: 11

Candidate Starts for Numberten_47:

(Start: 2 @40367 has 12 MA's), (3, 40361), (4, 40358), (Start: 11 @40283 has 193 MA's), (15, 40214), (16, 40211), (17, 40208), (23, 40154), (27, 40043), (29, 39941), (38, 39734),

Gene: Oline_46 Start: 39845, Stop: 39285, Start Num: 11

Candidate Starts for Oline_46:

(Start: 2 @39929 has 12 MA's), (3, 39923), (4, 39920), (Start: 11 @39845 has 193 MA's), (15, 39776), (16, 39773), (17, 39770), (23, 39716), (27, 39605), (29, 39503), (38, 39296),

Gene: Omniscient_47 Start: 40291, Stop: 39731, Start Num: 11

Candidate Starts for Omniscient_47:

(Start: 2 @40375 has 12 MA's), (3, 40369), (4, 40366), (Start: 11 @40291 has 193 MA's), (15, 40222), (16, 40219), (17, 40216), (23, 40162), (29, 39949), (38, 39742),

Gene: Orfeu_47 Start: 39978, Stop: 39424, Start Num: 11

Candidate Starts for Orfeu_47:

(Start: 2 @40062 has 12 MA's), (3, 40056), (4, 40053), (Start: 11 @39978 has 193 MA's), (15, 39915), (16, 39912), (17, 39909), (23, 39855), (29, 39642), (34, 39576), (38, 39435),

Gene: Orion_48 Start: 40412, Stop: 39852, Start Num: 11

Candidate Starts for Orion_48:

(Start: 2 @40496 has 12 MA's), (3, 40490), (4, 40487), (Start: 11 @40412 has 193 MA's), (15, 40343), (16, 40340), (17, 40337), (23, 40283), (29, 40070),

Gene: PG1_48 Start: 40425, Stop: 39865, Start Num: 11

Candidate Starts for PG1_48:

(Start: 2 @40509 has 12 MA's), (3, 40503), (4, 40500), (Start: 11 @40425 has 193 MA's), (15, 40356), (16, 40353), (17, 40350), (23, 40296), (29, 40083),

Gene: PenguinLover67_48 Start: 42106, Stop: 41504, Start Num: 10

Candidate Starts for PenguinLover67_48:

(Start: 10 @42106 has 3 MA's), (16, 42019), (28, 41758), (29, 41722), (31, 41707), (32, 41683), (36, 41638), (37, 41584),

Gene: Phamished_48 Start: 40420, Stop: 39860, Start Num: 11

Candidate Starts for Phamished_48:

(Start: 2 @40504 has 12 MA's), (3, 40498), (4, 40495), (Start: 11 @40420 has 193 MA's), (15, 40351), (16, 40348), (17, 40345), (23, 40291), (29, 40078),

Gene: Phareon_47 Start: 39980, Stop: 39426, Start Num: 11

Candidate Starts for Phareon_47:

(Start: 2 @40064 has 12 MA's), (3, 40058), (4, 40055), (Start: 11 @39980 has 193 MA's), (15, 39917), (16, 39914), (17, 39911), (23, 39857), (29, 39644), (34, 39578), (38, 39437),

Gene: PhatCats2014_48 Start: 40429, Stop: 39869, Start Num: 11

Candidate Starts for PhatCats2014_48:

(Start: 2 @40513 has 12 MA's), (3, 40507), (4, 40504), (Start: 11 @40429 has 193 MA's), (15, 40360), (16, 40357), (17, 40354), (23, 40300), (29, 40087),

Gene: PhatLouie_47 Start: 40283, Stop: 39723, Start Num: 11

Candidate Starts for PhatLouie_47:

(Start: 2 @40367 has 12 MA's), (3, 40361), (4, 40358), (Start: 11 @40283 has 193 MA's), (15, 40214), (16, 40211), (17, 40208), (27, 40043), (29, 39941), (38, 39734),

Gene: Phelemich_45 Start: 41018, Stop: 40389, Start Num: 8

Candidate Starts for Phelemich_45:

(Start: 8 @41018 has 3 MA's), (14, 40937), (16, 40901), (20, 40874), (21, 40868), (24, 40805), (27, 40709), (29, 40607), (30, 40595),

Gene: Pherdinand_48 Start: 40420, Stop: 39860, Start Num: 11

Candidate Starts for Pherdinand_48:

(Start: 2 @40504 has 12 MA's), (3, 40498), (4, 40495), (Start: 11 @40420 has 193 MA's), (15, 40351), (16, 40348), (17, 40345), (23, 40291), (29, 40078),

Gene: PhrodoBaggins_47 Start: 40408, Stop: 39848, Start Num: 11

Candidate Starts for PhrodoBaggins_47:

(Start: 2 @40492 has 12 MA's), (3, 40486), (4, 40483), (Start: 11 @40408 has 193 MA's), (15, 40339), (16, 40336), (17, 40333), (23, 40279), (29, 40066),

Gene: Phunky_47 Start: 40277, Stop: 39723, Start Num: 11

Candidate Starts for Phunky_47:

(Start: 2 @40361 has 12 MA's), (3, 40355), (4, 40352), (Start: 11 @40277 has 193 MA's), (15, 40214), (16, 40211), (17, 40208), (23, 40154), (29, 39941), (38, 39734),

Gene: Piglet_0046 Start: 40390, Stop: 39830, Start Num: 11

Candidate Starts for Piglet_0046:

(Start: 2 @40474 has 12 MA's), (3, 40468), (4, 40465), (Start: 11 @40390 has 193 MA's), (15, 40321), (16, 40318), (17, 40315), (23, 40261), (27, 40150), (29, 40048), (38, 39841),

Gene: PinheadLarry_47 Start: 39990, Stop: 39436, Start Num: 11

Candidate Starts for PinheadLarry_47:

(Start: 2 @40074 has 12 MA's), (3, 40068), (4, 40065), (Start: 11 @39990 has 193 MA's), (15, 39927), (16, 39924), (17, 39921), (23, 39867), (29, 39654), (34, 39588), (38, 39447),

Gene: Pinkman_46 Start: 39839, Stop: 39279, Start Num: 11

Candidate Starts for Pinkman_46:

(Start: 2 @39923 has 12 MA's), (3, 39917), (4, 39914), (Start: 11 @39839 has 193 MA's), (15, 39770), (16, 39767), (17, 39764), (27, 39599), (29, 39497), (38, 39290),

Gene: Placalicious_46 Start: 39977, Stop: 39417, Start Num: 11

Candidate Starts for Placalicious_46:

(Start: 2 @40061 has 12 MA's), (3, 40055), (4, 40052), (Start: 11 @39977 has 193 MA's), (15, 39908), (16, 39905), (17, 39902), (27, 39737), (29, 39635), (38, 39428),

Gene: Plmatters_47 Start: 40280, Stop: 39720, Start Num: 11

Candidate Starts for Plmatters_47:

(Start: 2 @40364 has 12 MA's), (3, 40358), (4, 40355), (Start: 11 @40280 has 193 MA's), (15, 40211), (16, 40208), (17, 40205), (23, 40151), (27, 40040), (29, 39938), (38, 39731),

Gene: Podrick_47 Start: 40271, Stop: 39711, Start Num: 11

Candidate Starts for Podrick_47:

(Start: 2 @40355 has 12 MA's), (3, 40349), (4, 40346), (Start: 11 @40271 has 193 MA's), (15, 40202), (16, 40199), (17, 40196), (23, 40142), (27, 40031), (29, 39929), (38, 39722),

Gene: Pops_47 Start: 40295, Stop: 39735, Start Num: 11

Candidate Starts for Pops_47:

(Start: 2 @40379 has 12 MA's), (3, 40373), (4, 40370), (Start: 11 @40295 has 193 MA's), (15, 40226), (16, 40223), (17, 40220), (23, 40166), (27, 40055), (29, 39953), (38, 39746),

Gene: Potter_46 Start: 39995, Stop: 39435, Start Num: 11

Candidate Starts for Potter_46:

(Start: 2 @40079 has 12 MA's), (3, 40073), (4, 40070), (Start: 11 @39995 has 193 MA's), (15, 39926), (16, 39923), (17, 39920), (27, 39755), (29, 39653), (38, 39446),

Gene: Prickles_47 Start: 40271, Stop: 39711, Start Num: 11

Candidate Starts for Prickles_47:

(Start: 2 @40355 has 12 MA's), (3, 40349), (4, 40346), (Start: 11 @40271 has 193 MA's), (15, 40202), (16, 40199), (17, 40196), (23, 40142), (29, 39929), (38, 39722),

Gene: ProfessorX_47 Start: 40272, Stop: 39712, Start Num: 11

Candidate Starts for ProfessorX_47:

(Start: 2 @40356 has 12 MA's), (3, 40350), (4, 40347), (Start: 11 @40272 has 193 MA's), (15, 40203), (16, 40200), (17, 40197), (23, 40143), (29, 39930), (38, 39723),

Gene: Puhltonio_47 Start: 40365, Stop: 39727, Start Num: 2

Candidate Starts for Puhltonio_47:

(Start: 2 @40365 has 12 MA's), (3, 40359), (4, 40356), (Start: 11 @40281 has 193 MA's), (15, 40218), (16, 40215), (17, 40212), (23, 40158), (29, 39945), (34, 39879), (38, 39738),

Gene: QueenBeane_47 Start: 40271, Stop: 39717, Start Num: 11

Candidate Starts for QueenBeane_47:

(Start: 2 @40355 has 12 MA's), (3, 40349), (4, 40346), (Start: 11 @40271 has 193 MA's), (15, 40208), (16, 40205), (17, 40202), (23, 40148), (29, 39935), (34, 39869), (38, 39728),

Gene: Quesadilla_48 Start: 42077, Stop: 41490, Start Num: 10

Candidate Starts for Quesadilla_48:

(Start: 10 @42077 has 3 MA's), (16, 41996), (17, 41993), (22, 41948), (28, 41744), (29, 41708), (31, 41693), (32, 41669),

Gene: Quisquilliae_47 Start: 40308, Stop: 39748, Start Num: 11

Candidate Starts for Quisquilliae_47:

(Start: 2 @40392 has 12 MA's), (3, 40386), (4, 40383), (Start: 11 @40308 has 193 MA's), (15, 40239), (16, 40236), (17, 40233), (23, 40179), (27, 40068), (29, 39966), (38, 39759),

Gene: RedMaple_47 Start: 40422, Stop: 39862, Start Num: 11

Candidate Starts for RedMaple_47:

(Start: 2 @40506 has 12 MA's), (3, 40500), (4, 40497), (Start: 11 @40422 has 193 MA's), (15, 40353), (16, 40350), (17, 40347), (23, 40293), (29, 40080),

Gene: Reprobate_46 Start: 41023, Stop: 40394, Start Num: 8

Candidate Starts for Reprobate_46:

(Start: 8 @41023 has 3 MA's), (14, 40942), (16, 40906), (20, 40879), (21, 40873), (24, 40810), (27, 40714), (29, 40612), (30, 40600),

Gene: Ricotta_47 Start: 39994, Stop: 39440, Start Num: 11

Candidate Starts for Ricotta_47:

(Start: 2 @40078 has 12 MA's), (3, 40072), (4, 40069), (Start: 11 @39994 has 193 MA's), (15, 39931), (16, 39928), (17, 39925), (23, 39871), (29, 39658), (34, 39592), (38, 39451),

Gene: Riggan_47 Start: 40267, Stop: 39707, Start Num: 11

Candidate Starts for Riggan_47:

(Start: 2 @40351 has 12 MA's), (3, 40345), (4, 40342), (Start: 11 @40267 has 193 MA's), (15, 40198), (16, 40195), (17, 40192), (23, 40138), (29, 39925), (38, 39718),

Gene: Rimu_49 Start: 40007, Stop: 39453, Start Num: 11

Candidate Starts for Rimu_49:

(Start: 2 @40091 has 12 MA's), (3, 40085), (4, 40082), (Start: 11 @40007 has 193 MA's), (15, 39944), (16, 39941), (17, 39938), (23, 39884), (29, 39671), (34, 39605), (38, 39464),

Gene: Robyn_46 Start: 39851, Stop: 39291, Start Num: 11

Candidate Starts for Robyn_46:

(Start: 2 @39935 has 12 MA's), (3, 39929), (4, 39926), (Start: 11 @39851 has 193 MA's), (15, 39782), (16, 39779), (17, 39776), (27, 39611), (29, 39509), (38, 39302),

Gene: Roliet_47 Start: 40279, Stop: 39719, Start Num: 11

Candidate Starts for Roliet_47:

(Start: 8 @40321 has 3 MA's), (Start: 11 @40279 has 193 MA's), (15, 40210), (16, 40207), (17, 40204), (23, 40150), (29, 39937), (38, 39730),

Gene: Roscoe_48 Start: 40517, Stop: 39957, Start Num: 11

Candidate Starts for Roscoe_48:

(Start: 2 @40601 has 12 MA's), (3, 40595), (4, 40592), (Start: 11 @40517 has 193 MA's), (15, 40448), (16, 40445), (17, 40442), (23, 40388), (29, 40175), (38, 39968),

Gene: Roy17_47 Start: 40055, Stop: 39417, Start Num: 2

Candidate Starts for Roy17_47:

(Start: 2 @40055 has 12 MA's), (3, 40049), (4, 40046), (Start: 11 @39971 has 193 MA's), (15, 39908), (16, 39905), (17, 39902), (23, 39848), (29, 39635), (34, 39569), (38, 39428),

Gene: SDcharge11_47 Start: 40299, Stop: 39697, Start Num: 8

Candidate Starts for SDcharge11_47:

(Start: 8 @40299 has 3 MA's), (Start: 11 @40257 has 193 MA's), (15, 40188), (16, 40185), (17, 40182), (23, 40128), (29, 39915), (38, 39708),

Gene: Saguaro_48 Start: 41742, Stop: 41140, Start Num: 10

Candidate Starts for Saguaro_48:

(5, 41793), (6, 41790), (Start: 10 @41742 has 3 MA's), (12, 41700), (16, 41655), (17, 41652), (18, 41640), (26, 41463), (27, 41460), (28, 41394), (29, 41358), (32, 41319),

Gene: Samaymay_47 Start: 40271, Stop: 39717, Start Num: 11

Candidate Starts for Samaymay_47:

(Start: 2 @40355 has 12 MA's), (3, 40349), (4, 40346), (Start: 11 @40271 has 193 MA's), (15, 40208), (16, 40205), (17, 40202), (23, 40148), (29, 39935), (34, 39869), (38, 39728),

Gene: SassyCat97_46 Start: 39983, Stop: 39423, Start Num: 11

Candidate Starts for SassyCat97_46:

(Start: 2 @40067 has 12 MA's), (3, 40061), (4, 40058), (Start: 11 @39983 has 193 MA's), (15, 39914), (16, 39911), (17, 39908), (27, 39743), (29, 39641), (38, 39434),

Gene: Schadenfreude_46 Start: 39825, Stop: 39265, Start Num: 11

Candidate Starts for Schadenfreude_46:

(Start: 2 @39909 has 12 MA's), (3, 39903), (4, 39900), (Start: 11 @39825 has 193 MA's), (15, 39756), (16, 39753), (17, 39750), (27, 39585), (29, 39483), (38, 39276),

Gene: Schueller_47 Start: 39996, Stop: 39436, Start Num: 11

Candidate Starts for Schueller_47:

(Start: 2 @40080 has 12 MA's), (3, 40074), (4, 40071), (Start: 11 @39996 has 193 MA's), (15, 39927), (16, 39924), (17, 39921), (23, 39867), (29, 39654), (38, 39447),

Gene: Scoot17C_48 Start: 40414, Stop: 39854, Start Num: 11

Candidate Starts for Scoot17C_48:

(Start: 2 @40498 has 12 MA's), (3, 40492), (4, 40489), (Start: 11 @40414 has 193 MA's), (15, 40345), (16, 40342), (17, 40339), (23, 40285), (29, 40072),

Gene: Scrick_47 Start: 40007, Stop: 39447, Start Num: 11

Candidate Starts for Scrick_47:

(Start: 2 @40091 has 12 MA's), (3, 40085), (4, 40082), (Start: 11 @40007 has 193 MA's), (15, 39938), (16, 39935), (17, 39932), (23, 39878), (27, 39767), (29, 39665), (38, 39458),

Gene: Serendipity_47 Start: 40295, Stop: 39741, Start Num: 11

Candidate Starts for Serendipity_47:

(Start: 2 @40379 has 12 MA's), (3, 40373), (4, 40370), (Start: 11 @40295 has 193 MA's), (15, 40232), (16, 40229), (17, 40226), (23, 40172), (29, 39959), (34, 39893), (38, 39752),

Gene: Sheila_47 Start: 40319, Stop: 39759, Start Num: 11

Candidate Starts for Sheila_47:

(Start: 8 @40361 has 3 MA's), (Start: 11 @40319 has 193 MA's), (15, 40250), (16, 40247), (17, 40244), (23, 40190), (29, 39977), (38, 39770),

Gene: ShiVal_47 Start: 40281, Stop: 39721, Start Num: 11

Candidate Starts for ShiVal_47:

(Start: 2 @40365 has 12 MA's), (3, 40359), (4, 40356), (Start: 11 @40281 has 193 MA's), (15, 40212), (16, 40209), (17, 40206), (23, 40152), (29, 39939), (38, 39732),

Gene: Simielle_46 Start: 39964, Stop: 39410, Start Num: 11

Candidate Starts for Simielle_46:

(Start: 2 @40048 has 12 MA's), (3, 40042), (4, 40039), (Start: 11 @39964 has 193 MA's), (15, 39901), (16, 39898), (17, 39895), (23, 39841), (29, 39628), (34, 39562), (38, 39421),

Gene: Skippy_47 Start: 40265, Stop: 39705, Start Num: 11

Candidate Starts for Skippy_47:

(Start: 2 @40349 has 12 MA's), (3, 40343), (4, 40340), (Start: 11 @40265 has 193 MA's), (15, 40196), (16, 40193), (17, 40190), (23, 40136), (29, 39923), (38, 39716),

Gene: Slatt_47 Start: 40291, Stop: 39731, Start Num: 11

Candidate Starts for Slatt_47:

(Start: 2 @40375 has 12 MA's), (3, 40369), (4, 40366), (Start: 11 @40291 has 193 MA's), (15, 40222), (16, 40219), (17, 40216), (23, 40162), (27, 40051), (29, 39949), (38, 39742),

Gene: Soile_47 Start: 39994, Stop: 39434, Start Num: 11

Candidate Starts for Soile_47:

(Start: 2 @40078 has 12 MA's), (3, 40072), (4, 40069), (Start: 11 @39994 has 193 MA's), (15, 39925), (16, 39922), (17, 39919), (23, 39865), (29, 39652), (38, 39445),

Gene: Solosis_46 Start: 39992, Stop: 39432, Start Num: 11

Candidate Starts for Solosis_46:

(Start: 2 @40076 has 12 MA's), (3, 40070), (4, 40067), (Start: 11 @39992 has 193 MA's), (15, 39923), (16, 39920), (17, 39917), (23, 39863), (29, 39650), (38, 39443),

Gene: Sophia_46 Start: 39986, Stop: 39432, Start Num: 11

Candidate Starts for Sophia_46:

(Start: 2 @40070 has 12 MA's), (3, 40064), (4, 40061), (Start: 11 @39986 has 193 MA's), (15, 39923), (16, 39920), (17, 39917), (23, 39863), (29, 39650), (34, 39584), (38, 39443),

Gene: Soto_47 Start: 40291, Stop: 39731, Start Num: 11

Candidate Starts for Soto_47:

(Start: 8 @40333 has 3 MA's), (Start: 11 @40291 has 193 MA's), (15, 40222), (16, 40219), (17, 40216), (23, 40162), (29, 39949), (38, 39742),

Gene: Spartan300_47 Start: 40277, Stop: 39717, Start Num: 11

Candidate Starts for Spartan300_47:

(Start: 2 @40361 has 12 MA's), (3, 40355), (4, 40352), (Start: 11 @40277 has 193 MA's), (15, 40208), (16, 40205), (17, 40202), (23, 40148), (29, 39935), (38, 39728),

Gene: Squiggle_47 Start: 40001, Stop: 39441, Start Num: 11

Candidate Starts for Squiggle_47:

(Start: 2 @40085 has 12 MA's), (3, 40079), (4, 40076), (Start: 11 @40001 has 193 MA's), (15, 39932), (16, 39929), (17, 39926), (23, 39872), (29, 39659), (38, 39452),

Gene: Struggle_46 Start: 39833, Stop: 39273, Start Num: 11

Candidate Starts for Struggle_46:

(Start: 2 @39917 has 12 MA's), (3, 39911), (4, 39908), (Start: 11 @39833 has 193 MA's), (15, 39764), (16, 39761), (17, 39758), (23, 39704), (29, 39491), (38, 39284),

Gene: Suffolk_47 Start: 40282, Stop: 39722, Start Num: 11

Candidate Starts for Suffolk_47:

(Start: 2 @40366 has 12 MA's), (3, 40360), (4, 40357), (Start: 11 @40282 has 193 MA's), (15, 40213), (16, 40210), (17, 40207), (23, 40153), (29, 39940), (38, 39733),

Gene: Surely_47 Start: 40288, Stop: 39728, Start Num: 11

Candidate Starts for Surely_47:

(Start: 2 @40372 has 12 MA's), (3, 40366), (4, 40363), (Start: 11 @40288 has 193 MA's), (15, 40219), (16, 40216), (17, 40213), (27, 40048), (29, 39946), (38, 39739),

Gene: Swish_48 Start: 40406, Stop: 39846, Start Num: 11

Candidate Starts for Swish_48:

(Start: 2 @40490 has 12 MA's), (3, 40484), (4, 40481), (Start: 11 @40406 has 193 MA's), (15, 40337), (16, 40334), (17, 40331), (23, 40277), (29, 40064),

Gene: TallGrassMM_47 Start: 39985, Stop: 39347, Start Num: 2

Candidate Starts for TallGrassMM_47:

(Start: 2 @39985 has 12 MA's), (3, 39979), (4, 39976), (Start: 11 @39901 has 193 MA's), (15, 39838), (16, 39835), (17, 39832), (23, 39778), (29, 39565), (34, 39499), (38, 39358),

Gene: Telesworld_46 Start: 39980, Stop: 39420, Start Num: 11

Candidate Starts for Telesworld_46:

(Start: 2 @40064 has 12 MA's), (3, 40058), (4, 40055), (Start: 11 @39980 has 193 MA's), (15, 39911), (16, 39908), (17, 39905), (23, 39851), (27, 39740), (29, 39638), (38, 39431),

Gene: Thora_47 Start: 40287, Stop: 39727, Start Num: 11

Candidate Starts for Thora_47:

(Start: 2 @40371 has 12 MA's), (3, 40365), (4, 40362), (Start: 11 @40287 has 193 MA's), (15, 40218), (16, 40215), (17, 40212), (27, 40047), (29, 39945), (38, 39738),

Gene: Timmi_46 Start: 39987, Stop: 39433, Start Num: 11

Candidate Starts for Timmi_46:

(Start: 2 @40071 has 12 MA's), (3, 40065), (4, 40062), (Start: 11 @39987 has 193 MA's), (15, 39924), (16, 39921), (17, 39918), (23, 39864), (29, 39651), (34, 39585), (38, 39444),

Gene: TomBombadil_47 Start: 40272, Stop: 39718, Start Num: 11

Candidate Starts for TomBombadil_47:

(Start: 2 @40356 has 12 MA's), (3, 40350), (4, 40347), (Start: 11 @40272 has 193 MA's), (15, 40209), (16, 40206), (17, 40203), (23, 40149), (29, 39936), (34, 39870), (38, 39729),

Gene: Tomlarah_47 Start: 40275, Stop: 39715, Start Num: 11

Candidate Starts for Tomlarah_47:

(Start: 2 @40359 has 12 MA's), (3, 40353), (4, 40350), (Start: 11 @40275 has 193 MA's), (15, 40206), (16, 40203), (17, 40200), (23, 40146), (29, 39933), (38, 39726),

Gene: Toni_46 Start: 39979, Stop: 39425, Start Num: 11

Candidate Starts for Toni_46:

(Start: 2 @40063 has 12 MA's), (3, 40057), (4, 40054), (Start: 11 @39979 has 193 MA's), (15, 39916), (16, 39913), (17, 39910), (23, 39856), (29, 39643), (34, 39577), (38, 39436),

Gene: Tooj_47 Start: 40342, Stop: 39782, Start Num: 11

Candidate Starts for Tooj_47:

(Start: 2 @40426 has 12 MA's), (3, 40420), (4, 40417), (Start: 11 @40342 has 193 MA's), (15, 40273), (16, 40270), (17, 40267), (23, 40213), (27, 40102), (29, 40000), (38, 39793),

Gene: True_46 Start: 39985, Stop: 39425, Start Num: 11

Candidate Starts for True_46:

(Start: 2 @40069 has 12 MA's), (3, 40063), (4, 40060), (Start: 11 @39985 has 193 MA's), (15, 39916), (16, 39913), (17, 39910), (27, 39745), (29, 39643), (38, 39436),

Gene: TyrionL_46 Start: 39841, Stop: 39281, Start Num: 11

Candidate Starts for TyrionL_46:

(Start: 2 @39925 has 12 MA's), (3, 39919), (4, 39916), (Start: 11 @39841 has 193 MA's), (15, 39772), (16, 39769), (17, 39766), (27, 39601), (29, 39499), (38, 39292),

Gene: UAch1_47 Start: 40294, Stop: 39734, Start Num: 11

Candidate Starts for UAch1_47:

(Start: 2 @40378 has 12 MA's), (3, 40372), (4, 40369), (Start: 11 @40294 has 193 MA's), (15, 40225), (16, 40222), (17, 40219), (27, 40054), (29, 39952), (38, 39745),

Gene: Usavi_47 Start: 40282, Stop: 39722, Start Num: 11

Candidate Starts for Usavi_47:

(Start: 11 @40282 has 193 MA's), (15, 40213), (16, 40210), (17, 40207), (23, 40153), (29, 39940), (38, 39733),

Gene: Vaishali24_46 Start: 40027, Stop: 39383, Start Num: 2

Candidate Starts for Vaishali24_46:

(Start: 2 @40027 has 12 MA's), (3, 40021), (4, 40018), (Start: 11 @39943 has 193 MA's), (15, 39874), (16, 39871), (17, 39868), (23, 39814), (27, 39703), (29, 39601), (38, 39394),

Gene: Valjean_47 Start: 40280, Stop: 39720, Start Num: 11

Candidate Starts for Valjean_47:

(Start: 2 @40364 has 12 MA's), (3, 40358), (4, 40355), (Start: 11 @40280 has 193 MA's), (15, 40211), (16, 40208), (17, 40205), (23, 40151), (29, 39938), (38, 39731),

Gene: Vaticameos_43 Start: 38050, Stop: 37412, Start Num: 2

Candidate Starts for Vaticameos_43:

(Start: 2 @38050 has 12 MA's), (3, 38044), (4, 38041), (Start: 11 @37966 has 193 MA's), (15, 37903), (16, 37900), (17, 37897), (23, 37843), (29, 37630), (34, 37564), (38, 37423),

Gene: Veritas_46 Start: 39847, Stop: 39287, Start Num: 11

Candidate Starts for Veritas_46:

(Start: 2 @39931 has 12 MA's), (3, 39925), (4, 39922), (Start: 11 @39847 has 193 MA's), (16, 39775), (17, 39772), (23, 39718), (27, 39607), (29, 39505), (38, 39298),

Gene: Virapocalypse_47 Start: 40275, Stop: 39715, Start Num: 11

Candidate Starts for Virapocalypse_47:

(Start: 2 @40359 has 12 MA's), (3, 40353), (4, 40350), (Start: 11 @40275 has 193 MA's), (15, 40206), (16, 40203), (17, 40200), (27, 40035), (29, 39933), (38, 39726),

Gene: Virgeve_46 Start: 40052, Stop: 39492, Start Num: 11

Candidate Starts for Virgeve_46:

(Start: 2 @40136 has 12 MA's), (3, 40130), (4, 40127), (Start: 11 @40052 has 193 MA's), (15, 39983), (16, 39980), (17, 39977), (23, 39923), (29, 39710), (38, 39503),

Gene: Vortex_47 Start: 40066, Stop: 39428, Start Num: 2

Candidate Starts for Vortex_47:

(Start: 2 @40066 has 12 MA's), (3, 40060), (4, 40057), (Start: 11 @39982 has 193 MA's), (15, 39919), (16, 39916), (17, 39913), (23, 39859), (29, 39646), (34, 39580), (38, 39439),

Gene: Wallhey_46 Start: 39845, Stop: 39285, Start Num: 11

Candidate Starts for Wallhey_46:

(Start: 2 @39929 has 12 MA's), (3, 39923), (4, 39920), (Start: 11 @39845 has 193 MA's), (15, 39776), (16, 39773), (17, 39770), (27, 39605), (29, 39503), (38, 39296),

Gene: Weher20_47 Start: 40276, Stop: 39716, Start Num: 11

Candidate Starts for Weher20_47:

(Start: 2 @40360 has 12 MA's), (3, 40354), (4, 40351), (Start: 11 @40276 has 193 MA's), (15, 40207), (16, 40204), (17, 40201), (23, 40147), (27, 40036), (29, 39934), (38, 39727),

Gene: Windsor_46 Start: 39981, Stop: 39421, Start Num: 11

Candidate Starts for Windsor_46:

(Start: 2 @40065 has 12 MA's), (3, 40059), (4, 40056), (Start: 11 @39981 has 193 MA's), (15, 39912), (16, 39909), (17, 39906), (23, 39852), (29, 39639), (38, 39432),

Gene: Xavier_46 Start: 40073, Stop: 39435, Start Num: 2

Candidate Starts for Xavier_46:

(Start: 2 @40073 has 12 MA's), (3, 40067), (4, 40064), (Start: 11 @39989 has 193 MA's), (15, 39926), (16, 39923), (17, 39920), (23, 39866), (29, 39653), (34, 39587), (38, 39446),

Gene: Yoshand_48 Start: 40419, Stop: 39859, Start Num: 11

Candidate Starts for Yoshand_48:

(Start: 2 @40503 has 12 MA's), (3, 40497), (4, 40494), (Start: 11 @40419 has 193 MA's), (15, 40350), (16, 40347), (17, 40344), (23, 40290), (29, 40077),

Gene: YouGoGlencoco_47 Start: 40279, Stop: 39719, Start Num: 11

Candidate Starts for YouGoGlencoco_47:

(Start: 2 @40363 has 12 MA's), (3, 40357), (4, 40354), (Start: 11 @40279 has 193 MA's), (15, 40210), (16, 40207), (17, 40204), (27, 40039), (29, 39937), (38, 39730),

Gene: Zaider_48 Start: 40509, Stop: 39949, Start Num: 11

Candidate Starts for Zaider_48:

(Start: 2 @40593 has 12 MA's), (3, 40587), (4, 40584), (Start: 11 @40509 has 193 MA's), (15, 40440), (16, 40437), (17, 40434), (27, 40269), (29, 40167), (38, 39960),

Gene: Zelda_47 Start: 40326, Stop: 39766, Start Num: 11

Candidate Starts for Zelda_47:

(Start: 2 @40410 has 12 MA's), (3, 40404), (4, 40401), (Start: 11 @40326 has 193 MA's), (15, 40257), (16, 40254), (17, 40251), (27, 40086), (29, 39984), (38, 39777),

Gene: Zonia_47 Start: 40296, Stop: 39736, Start Num: 11

Candidate Starts for Zonia_47:

(Start: 2 @40380 has 12 MA's), (3, 40374), (4, 40371), (Start: 11 @40296 has 193 MA's), (15, 40227), (16, 40224), (17, 40221), (27, 40056), (29, 39954), (38, 39747),