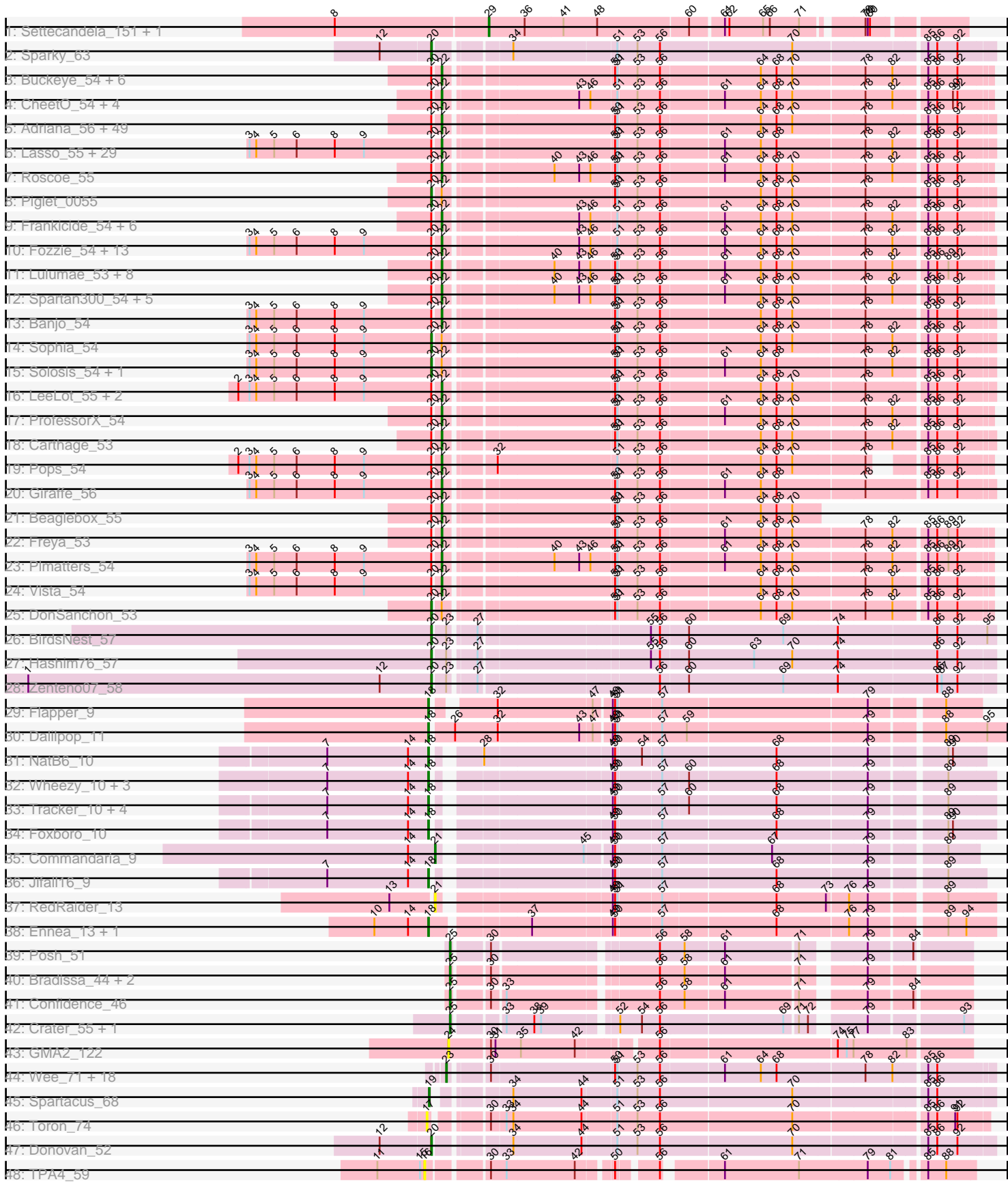


Pham 202694



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 202694 Report

This analysis was run 01/18/25 on database version 583.

Pham number 202694 has 201 members, 12 are drafts.

Phages represented in each track:

- Track 1 : Settecandela_151, Phrappuccino_151
- Track 2 : Sparky_63
- Track 3 : Buckeye_54, SilverBell_54, UncleHowie_54, Murdoc_54, PinheadLarry_56, Matalotodo_54, Pipsqueak_54
- Track 4 : CheetO_54, Schadenfreude_54, KlimbOn_54, Crownjwl_55, AbsoluteMadLad_54
- Track 5 : Adriana_56, Thora_55, Morty_56, Samaymay_55, CamL_55, ABU_56, Serpentine_0055, Soile_56, Hamish_54, Chaelin_56, Mulan_55, Cher_55, Nacho_0056, Bishoperium_55, ThreeOh3D2_56, Brilliant_57, Windsor_55, Mecca_55, Megatron_56, Kahve_55, QueenBeane_55, Usavi_55, Weher20_55, Omniscient_56, Dati_55, Jesabah_55, Eugenia_55, IsaacEli_56, Vaticameos_52, PhatCats2014_56, Lego3393_54, Placalicious_55, Kimbrough_56, Badfish_56, HenryJackson_55, FugateOSU_55, Gareth_55, Oosterbaan_55, Jillium_55, PG1_56, Hertubise_55, Etaye_55, Haimas_54, Waterdiva_55, Bluephacebaby_55, Gwilliam_57, Melc17_55, KingTut_47, Kikipoo_56, Tomlarah_56
- Track 6 : Lasso_55, Squid_55, Daffy_55, Haleema_54, MrPhizzler_56, DaddyDaniels_57, Held_55, Mosaic_54, Grand2040_55, MRabcd_54, Potter_54, SassyCat97_54, Vortex_55, Mana_54, MitKao_55, Timmi_54, Chorkpop_55, Serendipity_55, Childish_55, Puhltonio_55, Cosmolli16_56, TomBombadiil_55, Craff_58, TallGrassMM_55, Maru_55, Khan1_56, Morgushi_55, Surely_55, Cannibal_55, Kwadwo_54
- Track 7 : Roscoe_55
- Track 8 : Piglet_0055
- Track 9 : Frankicide_54, Eremos_54, Basato_55, Horchata_54, Aelin_54, HSavage_54, OliverWalter_54
- Track 10 : Fozzie_54, Harvey_54, Inverness_54, Mesh1_56, UAch1_54, Vaishali24_53, Antonia_54, ElvisPhasley_59, OSmaximus_56, Manad_54, Hetaeria_54, Cornobble_54, Newman_54, Robyn_54
- Track 11 : Lulumae_53, Altwerkus_53, Phunky_54, DoesntMatter_53, Roy17_54, LuckyMarjie_53, Dione_53, Phareon_54, Numberten_54
- Track 12 : Spartan300_54, Valjean_54, Boehler_54, Zaider_55, Olive_54, EmpTee_54
- Track 13 : Banjo_54
- Track 14 : Sophia_54
- Track 15 : Solosis_54, Xavier_54
- Track 16 : LeeLot_55, JDog_54, Zelda_55
- Track 17 : ProfessorX_54

- Track 18 : Carthage_53
- Track 19 : Pops_54
- Track 20 : Giraffe_56
- Track 21 : Beaglebox_55
- Track 22 : Freya_53
- Track 23 : Plmatters_54
- Track 24 : Vista_54
- Track 25 : DonSanchon_53
- Track 26 : BirdsNest_57
- Track 27 : Hashim76_57
- Track 28 : Zenteno07_58
- Track 29 : Flapper_9
- Track 30 : Dalilpop_11
- Track 31 : NatB6_10
- Track 32 : Wheezy_10, Arti_10, GrootJr_12, NovumRegina_10
- Track 33 : Tracker_10, Phomeo_9, Emianna_10, Kurt_10, KidneyBean_10
- Track 34 : Foxboro_10
- Track 35 : Commandaria_9
- Track 36 : Jifall16_9
- Track 37 : RedRaider_13
- Track 38 : Ennea_13, Lollipop1437_12
- Track 39 : Posh_51
- Track 40 : Bradissa_44, EnalisNailo_43, Lilas_46
- Track 41 : Confidence_46
- Track 42 : Crater_55, Apricot_55
- Track 43 : GMA2_122
- Track 44 : Wee_71, WillSterrel_67, Ogopogo_73, TDanisky_73, UncleRicky_65, Doomphist_66, Poenanya_66, Enby_67, Oksu_71, Llij_62, Lorde_66, Fruitloop_61, Tootsieroll_66, DirtMcgirt_65, Phatniss_64, Drago_63, Sparkdehlily_73, IrishSherpFalk_67, Taj_71
- Track 45 : Spartacus_68
- Track 46 : Toron_74
- Track 47 : Donovan_52
- Track 48 : TPA4_59

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

The start number called the most often in the published annotations is 22, it was called in 135 of the 189 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABU_56, AbsoluteMadLad_54, Adriana_56, Aelin_54, Altwerkus_53, Antonia_54, Badfish_56, Banjo_54, Basato_55, Beaglebox_55, Bishoperium_55, Bluephacebaby_55, Boehler_54, Brilliant_57, Buckeye_54, CamL_55, Cannibal_55, Carthage_53, Chaelin_56, CheetO_54, Cher_55, Childish_55, Chorkpop_55, Cornobble_54, Cosmolli16_56, Craff_58, Crownjwl_55, DaddyDaniels_57, Daffy_55, Dati_55, Dione_53, DoesntMatter_53, ElvisPhasley_59, EmpTee_54, Eremos_54, Etaye_55, Eugenia_55, Fozzie_54, Frankicide_54, Freya_53, FugateOSU_55, Gareth_55, Giraffe_56, Grand2040_55, Gwilliam_57, HSavage_54, Haimas_54, Haleema_54, Hamish_54, Harvey_54, Held_55, HenryJackson_55, Hertubise_55,

Hetaeria_54, Horchata_54, Inverness_54, IsaacEli_56, JDog_54, Jesabah_55, Jillium_55, Kahve_55, Khan1_56, Kikipoo_56, Kimbrough_56, KingTut_47, KlimbOn_54, Kwadwo_54, Lasso_55, LeeLot_55, Lego3393_54, LuckyMarjie_53, Lulumae_53, MRabcd_54, Mana_54, Manad_54, Maru_55, Matalotodo_54, Mecca_55, Megatron_56, Melc17_55, Mesh1_56, MitKao_55, Morgushi_55, Morty_56, Mosaic_54, MrPhizzler_56, Mulan_55, Murdoc_54, Nacho_0056, Newman_54, Numberten_54, OSmaximus_56, Olive_54, OliverWalter_54, Omniscient_56, Oosterbaan_55, PG1_56, Phareon_54, PhatCats2014_56, Phunky_54, PinheadLarry_56, Pipsqueak_54, Placalicious_55, Plmatters_54, Pops_54, Potter_54, ProfessorX_54, Puhltonio_55, QueenBeane_55, Robyn_54, Roscoe_55, Roy17_54, Samaymay_55, SassyCat97_54, Schadenfreude_54, Serendipity_55, Serpentine_0055, SilverBell_54, Soile_56, Spartan300_54, Squid_55, Surely_55, TallGrassMM_55, Thora_55, ThreeOh3D2_56, Timmi_54, TomBombadil_55, Tomlarah_56, UAch1_54, UncleHowie_54, Usavi_55, Vaishali24_53, Valjean_54, Vaticameos_52, Vista_54, Vortex_55, Waterdiva_55, Weher20_55, Windsor_55, Zaidler_55, Zelda_55,

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

- DonSanchon_53, Piglet_0055, Solosis_54, Sophia_54, Xavier_54,

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

- Apricot_55, Arti_10, BirdsNest_57, Bradissa_44, Commandaria_9, Confidence_46, Crater_55, Dalilpop_11, DirtMcgirt_65, Donovan_52, Doomphist_66, Drago_63, Emianna_10, EnalisNailo_43, Enby_67, Ennea_13, Flapper_9, Foxboro_10, Fruitloop_61, GMA2_122, GrootJr_12, Hashim76_57, IrishSherpFalk_67, Jifall16_9, KidneyBean_10, Kurt_10, Lilas_46, Llij_62, Lollipop1437_12, Lorde_66, NatB6_10, NovumRegina_10, Ogopogo_73, Oksu_71, Phatniss_64, Phomeo_9, Phrappuccino_151, Poenanya_66, Posh_51, RedRaider_13, Settecandela_151, Sparkdehlily_73, Sparky_63, Spartacus_68, TDanisky_73, TPA4_59, Taj_71, Tootsieroll_66, Toron_74, Tracker_10, UncleRicky_65, Wee_71, Wheezy_10, WillSterrel_67, Zenteno07_58,

Summary by start number:

Start 16:

- Found in 1 of 201 (0.5%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TPA4_59 (singleton),

Start 17:

- Found in 1 of 201 (0.5%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Toron_74 (F6),

Start 18:

- Found in 16 of 201 (8.0%) of genes in pham
- Manual Annotations of this start: 15 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arti_10 (CR2), Dalilpop_11 (CR1), Emianna_10 (CR2), Ennea_13 (CR3), Flapper_9 (CR1), Foxboro_10 (CR2), GrootJr_12 (CR2), Jifall16_9 (CR2), KidneyBean_10 (CR2), Kurt_10 (CR2),

Lollipop1437_12 (CR3), NatB6_10 (CR2), NovumRegina_10 (CR2), Phomeo_9 (CR2), Tracker_10 (CR2), Wheezy_10 (CR2),

Start 19:

- Found in 1 of 201 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Spartacus_68 (F1),

Start 20:

- Found in 151 of 201 (75.1%) of genes in pham
- Manual Annotations of this start: 10 of 189
- Called 6.6% of time when present
- Phage (with cluster) where this start called: BirdsNest_57 (B13), DonSanchon_53 (B1), Donovan_52 (P1), Hashim76_57 (B13), Piglet_0055 (B1), Solosis_54 (B1), Sophia_54 (B1), Sparky_63 (AF), Xavier_54 (B1), Zenteno07_58 (B13),

Start 21:

- Found in 2 of 201 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Commandaria_9 (CR2), RedRaider_13 (CR3),

Start 22:

- Found in 146 of 201 (72.6%) of genes in pham
- Manual Annotations of this start: 135 of 189
- Called 96.6% of time when present
- Phage (with cluster) where this start called: ABU_56 (B1), AbsoluteMadLad_54 (B1), Adriana_56 (B1), Aelin_54 (B1), Altwerkus_53 (B1), Antonia_54 (B1), Badfish_56 (B1), Banjo_54 (B1), Basato_55 (B1), Beaglebox_55 (B1), Bishoperium_55 (B1), Bluephacebaby_55 (B1), Boehler_54 (B1), Brilliant_57 (B1), Buckeye_54 (B1), CamL_55 (B1), Cannibal_55 (B1), Carthage_53 (B1), Chaelin_56 (B1), CheetO_54 (B1), Cher_55 (B1), Childish_55 (B1), Chorkpop_55 (B1), Cornobble_54 (B1), Cosmolli16_56 (B1), Craff_58 (B1), Crownjwl_55 (B1), DaddyDaniels_57 (B1), Daffy_55 (B1), Dati_55 (B1), Dione_53 (B1), DoesntMatter_53 (B1), ElvisPhasley_59 (B1), EmpTee_54 (B1), Eremos_54 (B1), Etaye_55 (B1), Eugenia_55 (B1), Fozzie_54 (B1), Frankicide_54 (B1), Freya_53 (B1), FugateOSU_55 (B1), Gareth_55 (B1), Giraffe_56 (B1), Grand2040_55 (B1), Gwilliam_57 (B1), HSavage_54 (B1), Haimas_54 (B1), Haleema_54 (B1), Hamish_54 (B1), Harvey_54 (B1), Held_55 (B1), HenryJackson_55 (B1), Hertubise_55 (B1), Hetaeria_54 (B1), Horchata_54 (B1), Inverness_54 (B1), IsaacEli_56 (B1), JDog_54 (B1), Jesabah_55 (B1), Jillium_55 (B1), Kahve_55 (B1), Khan1_56 (B1), Kikipoo_56 (B1), Kimbrough_56 (B1), KingTut_47 (B1), KlimbOn_54 (B1), Kwadwo_54 (B1), Lasso_55 (B1), LeeLot_55 (B1), Lego3393_54 (B1), LuckyMarjie_53 (B1), Lulumae_53 (B1), MRabcd_54 (B1), Mana_54 (B1), Manad_54 (B1), Maru_55 (B1), Matalotodo_54 (B1), Mecca_55 (B1), Megatron_56 (B1), Melc17_55 (B1), Mesh1_56 (B1), MitKao_55 (B1), Morgushi_55 (B1), Morty_56 (B1), Mosaic_54 (B1), MrPhizzler_56 (B1), Mulan_55 (B1), Murdoc_54 (B1), Nacho_0056 (B1), Newman_54 (B1), Numberten_54 (B1), OSmaximus_56 (B1), Olive_54 (B1), OliverWalter_54 (B1), Omniscient_56 (B1), Oosterbaan_55 (B1), PG1_56 (B1), Phareon_54 (B1), PhatCats2014_56 (B1), Phunky_54 (B1), PinheadLarry_56 (B1), Pipsqueak_54 (B1), Placalicious_55 (B1), Plmatters_54 (B1), Pops_54 (B1), Potter_54 (B1), ProfessorX_54 (B1), Puhltonio_55

(B1), QueenBeane_55 (B1), Robyn_54 (B1), Roscoe_55 (B1), Roy17_54 (B1), Samaymay_55 (B1), SassyCat97_54 (B1), Schadenfreude_54 (B1), Serendipity_55 (B1), Serpentine_0055 (B1), SilverBell_54 (B1), Soile_56 (B1), Spartan300_54 (B1), Squid_55 (B1), Surely_55 (B1), TallGrassMM_55 (B1), Thora_55 (B1), ThreeOh3D2_56 (B1), Timmi_54 (B1), TomBombadil_55 (B1), Tomlarah_56 (B1), UAch1_54 (B1), UncleHowie_54 (B1), Usavi_55 (B1), Vaishali24_53 (B1), Valjean_54 (B1), Vaticameos_52 (B1), Vista_54 (B1), Vortex_55 (B1), Waterdiva_55 (B1), Weher20_55 (B1), Windsor_55 (B1), Zaider_55 (B1), Zelda_55 (B1),

Start 23:

- Found in 22 of 201 (10.9%) of genes in pham
- Manual Annotations of this start: 18 of 189
- Called 86.4% of time when present
- Phage (with cluster) where this start called: DirtMcgirt_65 (F1), Doomphist_66 (F1), Drago_63 (F1), Enby_67 (F1), Fruitloop_61 (F1), IrishSherpFalk_67 (F1), Llij_62 (F1), Lorde_66 (F1), Ogopogo_73 (F1), Oksu_71 (F1), Phatniss_64 (F1), Poenanya_66 (F1), Sparkdehlily_73 (F1), TDanisky_73 (F1), Taj_71 (F1), Tootsieroll_66 (F1), UncleRicky_65 (F1), Wee_71 (F1), WillSterrel_67 (F1),

Start 24:

- Found in 1 of 201 (0.5%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA2_122 (DS),

Start 25:

- Found in 7 of 201 (3.5%) of genes in pham
- Manual Annotations of this start: 7 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apricot_55 (DN3), Bradissa_44 (CY1), Confidence_46 (CY1), Crater_55 (DN3), EnalisNailo_43 (CY1), Lilas_46 (CY1), Posh_51 (CY),

Start 29:

- Found in 2 of 201 (1.0%) of genes in pham
- Manual Annotations of this start: 2 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phrappuccino_151 (AA), Settecandela_151 (AA),

Summary by clusters:

There are 15 clusters represented in this pham: CR2, F1, CY1, CR1, AA, F6, AF, CR3, singleton, CY, P1, B13, DN3, DS, B1,

Info for manual annotations of cluster AA:

- Start number 29 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster AF:

- Start number 20 was manually annotated 1 time for cluster AF.

Info for manual annotations of cluster B1:

- Start number 20 was manually annotated 5 times for cluster B1.

- Start number 22 was manually annotated 135 times for cluster B1.

Info for manual annotations of cluster B13:

- Start number 20 was manually annotated 3 times for cluster B13.

Info for manual annotations of cluster CR1:

- Start number 18 was manually annotated 2 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 18 was manually annotated 11 times for cluster CR2.
- Start number 21 was manually annotated 1 time for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 18 was manually annotated 2 times for cluster CR3.

Info for manual annotations of cluster CY:

- Start number 25 was manually annotated 1 time for cluster CY.

Info for manual annotations of cluster CY1:

- Start number 25 was manually annotated 4 times for cluster CY1.

Info for manual annotations of cluster DN3:

- Start number 25 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster F1:

- Start number 19 was manually annotated 1 time for cluster F1.
- Start number 23 was manually annotated 18 times for cluster F1.

Info for manual annotations of cluster P1:

- Start number 20 was manually annotated 1 time for cluster P1.

Gene Information:

Gene: ABU_56 Start: 48493, Stop: 47813, Start Num: 22

Candidate Starts for ABU_56:

(Start: 20 @48502 has 10 MA's), (Start: 22 @48493 has 135 MA's), (50, 48286), (51, 48283), (53, 48259), (56, 48229), (64, 48103), (68, 48082), (70, 48061), (78, 47971), (85, 47896), (86, 47884), (92, 47857),

Gene: AbsoluteMadLad_54 Start: 48205, Stop: 47528, Start Num: 22

Candidate Starts for AbsoluteMadLad_54:

(Start: 20 @48214 has 10 MA's), (Start: 22 @48205 has 135 MA's), (43, 48043), (46, 48028), (51, 47995), (53, 47971), (56, 47941), (61, 47863), (64, 47815), (68, 47794), (70, 47773), (78, 47683), (82, 47647), (85, 47608), (86, 47596), (90, 47575), (92, 47569),

Gene: Adriana_56 Start: 48490, Stop: 47810, Start Num: 22

Candidate Starts for Adriana_56:

(Start: 20 @48499 has 10 MA's), (Start: 22 @48490 has 135 MA's), (50, 48283), (51, 48280), (53, 48256), (56, 48226), (64, 48100), (68, 48079), (70, 48058), (78, 47968), (85, 47893), (86, 47881), (92,

47854),

Gene: Aelin_54 Start: 47769, Stop: 47092, Start Num: 22

Candidate Starts for Aelin_54:

(Start: 20 @47778 has 10 MA's), (Start: 22 @47769 has 135 MA's), (43, 47607), (46, 47592), (51, 47559), (53, 47535), (56, 47505), (61, 47427), (64, 47379), (68, 47358), (70, 47337), (78, 47247), (82, 47211), (85, 47172), (86, 47160), (92, 47133),

Gene: Altwerkus_53 Start: 47657, Stop: 46980, Start Num: 22

Candidate Starts for Altwerkus_53:

(Start: 20 @47666 has 10 MA's), (Start: 22 @47657 has 135 MA's), (40, 47528), (43, 47495), (46, 47480), (50, 47450), (51, 47447), (53, 47423), (56, 47393), (61, 47315), (64, 47267), (68, 47246), (70, 47225), (78, 47135), (82, 47099), (85, 47060), (86, 47048), (89, 47033), (92, 47021),

Gene: Antonia_54 Start: 47769, Stop: 47092, Start Num: 22

Candidate Starts for Antonia_54:

(3, 48021), (4, 48012), (5, 47988), (6, 47958), (8, 47907), (9, 47868), (Start: 20 @47778 has 10 MA's), (Start: 22 @47769 has 135 MA's), (43, 47607), (46, 47592), (51, 47559), (53, 47535), (56, 47505), (61, 47427), (64, 47379), (68, 47358), (70, 47337), (78, 47247), (82, 47211), (85, 47172), (86, 47160), (92, 47133),

Gene: Apricot_55 Start: 35565, Stop: 36167, Start Num: 25

Candidate Starts for Apricot_55:

(Start: 25 @35565 has 7 MA's), (33, 35622), (38, 35658), (39, 35667), (52, 35751), (54, 35778), (56, 35802), (69, 35958), (71, 35973), (72, 35985), (79, 36042), (93, 36156),

Gene: Arti_10 Start: 5991, Stop: 6665, Start Num: 18

Candidate Starts for Arti_10:

(7, 5856), (14, 5964), (Start: 18 @5991 has 15 MA's), (49, 6192), (50, 6195), (57, 6252), (60, 6285), (68, 6396), (79, 6513), (89, 6603),

Gene: Badfish_56 Start: 48515, Stop: 47835, Start Num: 22

Candidate Starts for Badfish_56:

(Start: 20 @48524 has 10 MA's), (Start: 22 @48515 has 135 MA's), (50, 48308), (51, 48305), (53, 48281), (56, 48251), (64, 48125), (68, 48104), (70, 48083), (78, 47993), (85, 47918), (86, 47906), (92, 47879),

Gene: Banjo_54 Start: 47962, Stop: 47282, Start Num: 22

Candidate Starts for Banjo_54:

(3, 48214), (4, 48205), (5, 48181), (6, 48151), (8, 48100), (9, 48061), (Start: 20 @47971 has 10 MA's), (Start: 22 @47962 has 135 MA's), (50, 47755), (51, 47752), (53, 47728), (56, 47698), (64, 47572), (68, 47551), (70, 47530), (78, 47440), (85, 47365), (86, 47353), (92, 47326),

Gene: Basato_55 Start: 48237, Stop: 47560, Start Num: 22

Candidate Starts for Basato_55:

(Start: 20 @48246 has 10 MA's), (Start: 22 @48237 has 135 MA's), (43, 48075), (46, 48060), (51, 48027), (53, 48003), (56, 47973), (61, 47895), (64, 47847), (68, 47826), (70, 47805), (78, 47715), (82, 47679), (85, 47640), (86, 47628), (92, 47601),

Gene: Beaglebox_55 Start: 48068, Stop: 47601, Start Num: 22

Candidate Starts for Beaglebox_55:

(Start: 20 @48077 has 10 MA's), (Start: 22 @48068 has 135 MA's), (50, 47861), (51, 47858), (53, 47834), (56, 47804), (64, 47678), (68, 47657), (70, 47636),

Gene: BirdsNest_57 Start: 47703, Stop: 46999, Start Num: 20

Candidate Starts for BirdsNest_57:

(Start: 20 @47703 has 10 MA's), (Start: 23 @47688 has 18 MA's), (27, 47658), (55, 47448), (56, 47436), (60, 47400), (69, 47274), (74, 47205), (86, 47076), (92, 47049), (95, 47010),

Gene: Bishoperium_55 Start: 48501, Stop: 47821, Start Num: 22

Candidate Starts for Bishoperium_55:

(Start: 20 @48510 has 10 MA's), (Start: 22 @48501 has 135 MA's), (50, 48294), (51, 48291), (53, 48267), (56, 48237), (64, 48111), (68, 48090), (70, 48069), (78, 47979), (85, 47904), (86, 47892), (92, 47865),

Gene: Bluephacebaby_55 Start: 48504, Stop: 47824, Start Num: 22

Candidate Starts for Bluephacebaby_55:

(Start: 20 @48513 has 10 MA's), (Start: 22 @48504 has 135 MA's), (50, 48297), (51, 48294), (53, 48270), (56, 48240), (64, 48114), (68, 48093), (70, 48072), (78, 47982), (85, 47907), (86, 47895), (92, 47868),

Gene: Boehler_54 Start: 47946, Stop: 47269, Start Num: 22

Candidate Starts for Boehler_54:

(Start: 20 @47955 has 10 MA's), (Start: 22 @47946 has 135 MA's), (40, 47817), (43, 47784), (46, 47769), (50, 47739), (51, 47736), (53, 47712), (56, 47682), (61, 47604), (64, 47556), (68, 47535), (70, 47514), (78, 47424), (82, 47388), (85, 47349), (86, 47337), (92, 47310),

Gene: Bradissa_44 Start: 36341, Stop: 36946, Start Num: 25

Candidate Starts for Bradissa_44:

(Start: 25 @36341 has 7 MA's), (30, 36383), (56, 36578), (58, 36611), (61, 36659), (71, 36752), (79, 36821),

Gene: Brilliant_57 Start: 48504, Stop: 47824, Start Num: 22

Candidate Starts for Brilliant_57:

(Start: 20 @48513 has 10 MA's), (Start: 22 @48504 has 135 MA's), (50, 48297), (51, 48294), (53, 48270), (56, 48240), (64, 48114), (68, 48093), (70, 48072), (78, 47982), (85, 47907), (86, 47895), (92, 47868),

Gene: Buckeye_54 Start: 48015, Stop: 47338, Start Num: 22

Candidate Starts for Buckeye_54:

(Start: 20 @48024 has 10 MA's), (Start: 22 @48015 has 135 MA's), (50, 47808), (51, 47805), (53, 47781), (56, 47751), (64, 47625), (68, 47604), (70, 47583), (78, 47493), (82, 47457), (85, 47418), (86, 47406), (92, 47379),

Gene: CamL_55 Start: 48269, Stop: 47589, Start Num: 22

Candidate Starts for CamL_55:

(Start: 20 @48278 has 10 MA's), (Start: 22 @48269 has 135 MA's), (50, 48062), (51, 48059), (53, 48035), (56, 48005), (64, 47879), (68, 47858), (70, 47837), (78, 47747), (85, 47672), (86, 47660), (92, 47633),

Gene: Cannibal_55 Start: 48252, Stop: 47572, Start Num: 22

Candidate Starts for Cannibal_55:

(3, 48504), (4, 48495), (5, 48471), (6, 48441), (8, 48390), (9, 48351), (Start: 20 @48261 has 10 MA's), (Start: 22 @48252 has 135 MA's), (50, 48045), (51, 48042), (53, 48018), (56, 47988), (61, 47910), (64, 47862), (68, 47841), (78, 47730), (82, 47694), (85, 47655), (86, 47643), (92, 47616),

Gene: Carthage_53 Start: 47247, Stop: 46567, Start Num: 22

Candidate Starts for Carthage_53:

(Start: 20 @47256 has 10 MA's), (Start: 22 @47247 has 135 MA's), (50, 47040), (51, 47037), (53, 47013), (56, 46983), (64, 46857), (68, 46836), (70, 46815), (78, 46725), (82, 46689), (85, 46650), (86, 46638), (92, 46611),

Gene: Chaelin_56 Start: 48499, Stop: 47819, Start Num: 22

Candidate Starts for Chaelin_56:

(Start: 20 @48508 has 10 MA's), (Start: 22 @48499 has 135 MA's), (50, 48292), (51, 48289), (53, 48265), (56, 48235), (64, 48109), (68, 48088), (70, 48067), (78, 47977), (85, 47902), (86, 47890), (92, 47863),

Gene: CheetO_54 Start: 47985, Stop: 47308, Start Num: 22

Candidate Starts for CheetO_54:

(Start: 20 @47994 has 10 MA's), (Start: 22 @47985 has 135 MA's), (43, 47823), (46, 47808), (51, 47775), (53, 47751), (56, 47721), (61, 47643), (64, 47595), (68, 47574), (70, 47553), (78, 47463), (82, 47427), (85, 47388), (86, 47376), (90, 47355), (92, 47349),

Gene: Cher_55 Start: 48521, Stop: 47841, Start Num: 22

Candidate Starts for Cher_55:

(Start: 20 @48530 has 10 MA's), (Start: 22 @48521 has 135 MA's), (50, 48314), (51, 48311), (53, 48287), (56, 48257), (64, 48131), (68, 48110), (70, 48089), (78, 47999), (85, 47924), (86, 47912), (92, 47885),

Gene: Childish_55 Start: 48531, Stop: 47851, Start Num: 22

Candidate Starts for Childish_55:

(3, 48783), (4, 48774), (5, 48750), (6, 48720), (8, 48669), (9, 48630), (Start: 20 @48540 has 10 MA's), (Start: 22 @48531 has 135 MA's), (50, 48324), (51, 48321), (53, 48297), (56, 48267), (61, 48189), (64, 48141), (68, 48120), (78, 48009), (82, 47973), (85, 47934), (86, 47922), (92, 47895),

Gene: Chorkpop_55 Start: 48008, Stop: 47328, Start Num: 22

Candidate Starts for Chorkpop_55:

(3, 48260), (4, 48251), (5, 48227), (6, 48197), (8, 48146), (9, 48107), (Start: 20 @48017 has 10 MA's), (Start: 22 @48008 has 135 MA's), (50, 47801), (51, 47798), (53, 47774), (56, 47744), (61, 47666), (64, 47618), (68, 47597), (78, 47486), (82, 47450), (85, 47411), (86, 47399), (92, 47372),

Gene: Commandaria_9 Start: 5029, Stop: 5676, Start Num: 21

Candidate Starts for Commandaria_9:

(14, 4993), (Start: 21 @5029 has 1 MA's), (45, 5200), (49, 5227), (50, 5230), (57, 5287), (67, 5425), (79, 5548), (89, 5638),

Gene: Confidence_46 Start: 34232, Stop: 34837, Start Num: 25

Candidate Starts for Confidence_46:

(Start: 25 @34232 has 7 MA's), (30, 34274), (33, 34289), (56, 34469), (58, 34502), (61, 34550), (71, 34643), (79, 34712), (84, 34766),

Gene: Cornobble_54 Start: 47922, Stop: 47242, Start Num: 22

Candidate Starts for Cornobble_54:

(3, 48174), (4, 48165), (5, 48141), (6, 48111), (8, 48060), (9, 48021), (Start: 20 @47931 has 10 MA's), (Start: 22 @47922 has 135 MA's), (43, 47760), (46, 47745), (51, 47712), (53, 47688), (56, 47658), (61, 47580), (64, 47532), (68, 47511), (70, 47490), (78, 47400), (82, 47364), (85, 47325), (86, 47313), (92, 47286),

Gene: Cosmolli16_56 Start: 48711, Stop: 48031, Start Num: 22

Candidate Starts for Cosmolli16_56:

(3, 48963), (4, 48954), (5, 48930), (6, 48900), (8, 48849), (9, 48810), (Start: 20 @48720 has 10 MA's), (Start: 22 @48711 has 135 MA's), (50, 48504), (51, 48501), (53, 48477), (56, 48447), (61, 48369), (64, 48321), (68, 48300), (78, 48189), (82, 48153), (85, 48114), (86, 48102), (92, 48075),

Gene: Craff_58 Start: 48956, Stop: 48276, Start Num: 22

Candidate Starts for Craff_58:

(3, 49208), (4, 49199), (5, 49175), (6, 49145), (8, 49094), (9, 49055), (Start: 20 @48965 has 10 MA's), (Start: 22 @48956 has 135 MA's), (50, 48749), (51, 48746), (53, 48722), (56, 48692), (61, 48614), (64, 48566), (68, 48545), (78, 48434), (82, 48398), (85, 48359), (86, 48347), (92, 48320),

Gene: Crater_55 Start: 35960, Stop: 36562, Start Num: 25

Candidate Starts for Crater_55:

(Start: 25 @35960 has 7 MA's), (33, 36017), (38, 36053), (39, 36062), (52, 36146), (54, 36173), (56, 36197), (69, 36353), (71, 36368), (72, 36380), (79, 36437), (93, 36551),

Gene: Crownjwl_55 Start: 47988, Stop: 47311, Start Num: 22

Candidate Starts for Crownjwl_55:

(Start: 20 @47997 has 10 MA's), (Start: 22 @47988 has 135 MA's), (43, 47826), (46, 47811), (51, 47778), (53, 47754), (56, 47724), (61, 47646), (64, 47598), (68, 47577), (70, 47556), (78, 47466), (82, 47430), (85, 47391), (86, 47379), (90, 47358), (92, 47352),

Gene: DaddyDaniels_57 Start: 48488, Stop: 47808, Start Num: 22

Candidate Starts for DaddyDaniels_57:

(3, 48740), (4, 48731), (5, 48707), (6, 48677), (8, 48626), (9, 48587), (Start: 20 @48497 has 10 MA's), (Start: 22 @48488 has 135 MA's), (50, 48281), (51, 48278), (53, 48254), (56, 48224), (61, 48146), (64, 48098), (68, 48077), (78, 47966), (82, 47930), (85, 47891), (86, 47879), (92, 47852),

Gene: Daffy_55 Start: 47994, Stop: 47314, Start Num: 22

Candidate Starts for Daffy_55:

(3, 48246), (4, 48237), (5, 48213), (6, 48183), (8, 48132), (9, 48093), (Start: 20 @48003 has 10 MA's), (Start: 22 @47994 has 135 MA's), (50, 47787), (51, 47784), (53, 47760), (56, 47730), (61, 47652), (64, 47604), (68, 47583), (78, 47472), (82, 47436), (85, 47397), (86, 47385), (92, 47358),

Gene: Dalilpop_11 Start: 6087, Stop: 6800, Start Num: 18

Candidate Starts for Dalilpop_11:

(Start: 18 @6087 has 15 MA's), (26, 6114), (32, 6171), (43, 6276), (47, 6291), (49, 6309), (50, 6312), (51, 6315), (57, 6369), (59, 6402), (79, 6633), (88, 6720), (95, 6774),

Gene: Dati_55 Start: 48526, Stop: 47846, Start Num: 22

Candidate Starts for Dati_55:

(Start: 20 @48535 has 10 MA's), (Start: 22 @48526 has 135 MA's), (50, 48319), (51, 48316), (53, 48292), (56, 48262), (64, 48136), (68, 48115), (70, 48094), (78, 48004), (85, 47929), (86, 47917), (92, 47890),

Gene: Dione_53 Start: 47666, Stop: 46989, Start Num: 22

Candidate Starts for Dione_53:

(Start: 20 @47675 has 10 MA's), (Start: 22 @47666 has 135 MA's), (40, 47537), (43, 47504), (46, 47489), (50, 47459), (51, 47456), (53, 47432), (56, 47402), (61, 47324), (64, 47276), (68, 47255), (70, 47234), (78, 47144), (82, 47108), (85, 47069), (86, 47057), (89, 47042), (92, 47030),

Gene: DirtMcgirt_65 Start: 40913, Stop: 41590, Start Num: 23

Candidate Starts for DirtMcgirt_65:

(Start: 23 @40913 has 18 MA's), (30, 40955), (50, 41114), (51, 41117), (53, 41141), (56, 41171), (61, 41249), (64, 41297), (68, 41318), (78, 41429), (82, 41465), (85, 41504), (86, 41516),

Gene: DoesntMatter_53 Start: 47959, Stop: 47282, Start Num: 22

Candidate Starts for DoesntMatter_53:

(Start: 20 @47968 has 10 MA's), (Start: 22 @47959 has 135 MA's), (40, 47830), (43, 47797), (46, 47782), (50, 47752), (51, 47749), (53, 47725), (56, 47695), (61, 47617), (64, 47569), (68, 47548), (70, 47527), (78, 47437), (82, 47401), (85, 47362), (86, 47350), (89, 47335), (92, 47323),

Gene: DonSanchon_53 Start: 47700, Stop: 47014, Start Num: 20

Candidate Starts for DonSanchon_53:

(Start: 20 @47700 has 10 MA's), (Start: 22 @47691 has 135 MA's), (50, 47484), (51, 47481), (53, 47457), (56, 47427), (64, 47301), (68, 47280), (70, 47259), (78, 47169), (82, 47133), (85, 47094), (86, 47082), (92, 47055),

Gene: Donovan_52 Start: 35711, Stop: 36400, Start Num: 20

Candidate Starts for Donovan_52:

(12, 35645), (Start: 20 @35711 has 10 MA's), (34, 35795), (44, 35885), (51, 35927), (53, 35951), (56, 35981), (70, 36152), (85, 36314), (86, 36326), (92, 36353),

Gene: Doomphist_66 Start: 43323, Stop: 44000, Start Num: 23

Candidate Starts for Doomphist_66:

(Start: 23 @43323 has 18 MA's), (30, 43365), (50, 43524), (51, 43527), (53, 43551), (56, 43581), (61, 43659), (64, 43707), (68, 43728), (78, 43839), (82, 43875), (85, 43914), (86, 43926),

Gene: Drago_63 Start: 40916, Stop: 41593, Start Num: 23

Candidate Starts for Drago_63:

(Start: 23 @40916 has 18 MA's), (30, 40958), (50, 41117), (51, 41120), (53, 41144), (56, 41174), (61, 41252), (64, 41300), (68, 41321), (78, 41432), (82, 41468), (85, 41507), (86, 41519),

Gene: ElvisPhasley_59 Start: 48537, Stop: 47857, Start Num: 22

Candidate Starts for ElvisPhasley_59:

(3, 48789), (4, 48780), (5, 48756), (6, 48726), (8, 48675), (9, 48636), (Start: 20 @48546 has 10 MA's), (Start: 22 @48537 has 135 MA's), (43, 48375), (46, 48360), (51, 48327), (53, 48303), (56, 48273), (61, 48195), (64, 48147), (68, 48126), (70, 48105), (78, 48015), (82, 47979), (85, 47940), (86, 47928), (92, 47901),

Gene: Emianna_10 Start: 5953, Stop: 6612, Start Num: 18

Candidate Starts for Emianna_10:

(7, 5818), (14, 5926), (Start: 18 @5953 has 15 MA's), (49, 6154), (50, 6157), (57, 6214), (60, 6247), (68, 6358), (79, 6475), (89, 6565),

Gene: EmpTee_54 Start: 47972, Stop: 47295, Start Num: 22

Candidate Starts for EmpTee_54:

(Start: 20 @47981 has 10 MA's), (Start: 22 @47972 has 135 MA's), (40, 47843), (43, 47810), (46, 47795), (50, 47765), (51, 47762), (53, 47738), (56, 47708), (61, 47630), (64, 47582), (68, 47561), (70, 47540), (78, 47450), (82, 47414), (85, 47375), (86, 47363), (92, 47336),

Gene: EnalisNailo_43 Start: 35875, Stop: 36480, Start Num: 25

Candidate Starts for EnalisNailo_43:

(Start: 25 @35875 has 7 MA's), (30, 35917), (56, 36112), (58, 36145), (61, 36193), (71, 36286), (79, 36355),

Gene: Enby_67 Start: 41192, Stop: 41869, Start Num: 23

Candidate Starts for Enby_67:

(Start: 23 @41192 has 18 MA's), (30, 41234), (50, 41393), (51, 41396), (53, 41420), (56, 41450), (61, 41528), (64, 41576), (68, 41597), (78, 41708), (82, 41744), (85, 41783), (86, 41795),

Gene: Ennea_13 Start: 6764, Stop: 7453, Start Num: 18

Candidate Starts for Ennea_13:

(10, 6692), (14, 6737), (Start: 18 @6764 has 15 MA's), (37, 6881), (49, 6980), (50, 6983), (57, 7040), (68, 7184), (76, 7277), (79, 7301), (89, 7391), (94, 7415),

Gene: Eremos_54 Start: 47965, Stop: 47288, Start Num: 22

Candidate Starts for Eremos_54:

(Start: 20 @47974 has 10 MA's), (Start: 22 @47965 has 135 MA's), (43, 47803), (46, 47788), (51, 47755), (53, 47731), (56, 47701), (61, 47623), (64, 47575), (68, 47554), (70, 47533), (78, 47443), (82, 47407), (85, 47368), (86, 47356), (92, 47329),

Gene: Etaye_55 Start: 48795, Stop: 48115, Start Num: 22

Candidate Starts for Etaye_55:

(Start: 20 @48804 has 10 MA's), (Start: 22 @48795 has 135 MA's), (50, 48588), (51, 48585), (53, 48561), (56, 48531), (64, 48405), (68, 48384), (70, 48363), (78, 48273), (85, 48198), (86, 48186), (92, 48159),

Gene: Eugenia_55 Start: 48360, Stop: 47680, Start Num: 22

Candidate Starts for Eugenia_55:

(Start: 20 @48369 has 10 MA's), (Start: 22 @48360 has 135 MA's), (50, 48153), (51, 48150), (53, 48126), (56, 48096), (64, 47970), (68, 47949), (70, 47928), (78, 47838), (85, 47763), (86, 47751), (92, 47724),

Gene: Flapper_9 Start: 4974, Stop: 5633, Start Num: 18

Candidate Starts for Flapper_9:

(Start: 18 @4974 has 15 MA's), (32, 5037), (47, 5157), (49, 5175), (50, 5178), (51, 5181), (57, 5235), (79, 5499), (88, 5586),

Gene: Foxboro_10 Start: 5964, Stop: 6641, Start Num: 18

Candidate Starts for Foxboro_10:

(7, 5829), (14, 5937), (Start: 18 @5964 has 15 MA's), (49, 6165), (50, 6168), (57, 6225), (68, 6372), (79, 6489), (89, 6579), (90, 6585),

Gene: Fozzie_54 Start: 48298, Stop: 47618, Start Num: 22

Candidate Starts for Fozzie_54:

(3, 48550), (4, 48541), (5, 48517), (6, 48487), (8, 48436), (9, 48397), (Start: 20 @48307 has 10 MA's), (Start: 22 @48298 has 135 MA's), (43, 48136), (46, 48121), (51, 48088), (53, 48064), (56, 48034), (61, 47956), (64, 47908), (68, 47887), (70, 47866), (78, 47776), (82, 47740), (85, 47701), (86, 47689), (92, 47662),

Gene: Frankicide_54 Start: 47996, Stop: 47319, Start Num: 22

Candidate Starts for Frankicide_54:

(Start: 20 @48005 has 10 MA's), (Start: 22 @47996 has 135 MA's), (43, 47834), (46, 47819), (51, 47786), (53, 47762), (56, 47732), (61, 47654), (64, 47606), (68, 47585), (70, 47564), (78, 47474), (82, 47438), (85, 47399), (86, 47387), (92, 47360),

Gene: Freya_53 Start: 47657, Stop: 46980, Start Num: 22

Candidate Starts for Freya_53:

(Start: 20 @47666 has 10 MA's), (Start: 22 @47657 has 135 MA's), (50, 47450), (51, 47447), (53, 47423), (56, 47393), (61, 47315), (64, 47267), (68, 47246), (70, 47225), (78, 47135), (82, 47099), (85, 47060), (86, 47048), (89, 47033), (92, 47021),

Gene: Fruitloop_61 Start: 42550, Stop: 43227, Start Num: 23

Candidate Starts for Fruitloop_61:

(Start: 23 @42550 has 18 MA's), (30, 42592), (50, 42751), (51, 42754), (53, 42778), (56, 42808), (61, 42886), (64, 42934), (68, 42955), (78, 43066), (82, 43102), (85, 43141), (86, 43153),

Gene: FugateOSU_55 Start: 48502, Stop: 47822, Start Num: 22

Candidate Starts for FugateOSU_55:

(Start: 20 @48511 has 10 MA's), (Start: 22 @48502 has 135 MA's), (50, 48295), (51, 48292), (53, 48268), (56, 48238), (64, 48112), (68, 48091), (70, 48070), (78, 47980), (85, 47905), (86, 47893), (92, 47866),

Gene: GMA2_122 Start: 101578, Stop: 100931, Start Num: 24

Candidate Starts for GMA2_122:

(24, 101578), (30, 101527), (31, 101521), (35, 101488), (42, 101416), (56, 101323), (74, 101098), (75, 101086), (77, 101077), (83, 101011),

Gene: Gareth_55 Start: 48496, Stop: 47816, Start Num: 22

Candidate Starts for Gareth_55:

(Start: 20 @48505 has 10 MA's), (Start: 22 @48496 has 135 MA's), (50, 48289), (51, 48286), (53, 48262), (56, 48232), (64, 48106), (68, 48085), (70, 48064), (78, 47974), (85, 47899), (86, 47887), (92, 47860),

Gene: Giraffe_56 Start: 48492, Stop: 47812, Start Num: 22

Candidate Starts for Giraffe_56:

(3, 48744), (4, 48735), (5, 48711), (6, 48681), (8, 48630), (9, 48591), (Start: 20 @48501 has 10 MA's), (Start: 22 @48492 has 135 MA's), (50, 48285), (51, 48282), (53, 48258), (56, 48228), (61, 48150), (64, 48102), (68, 48081), (78, 47970), (85, 47895), (86, 47883), (92, 47856),

Gene: Grand2040_55 Start: 48486, Stop: 47806, Start Num: 22

Candidate Starts for Grand2040_55:

(3, 48738), (4, 48729), (5, 48705), (6, 48675), (8, 48624), (9, 48585), (Start: 20 @48495 has 10 MA's), (Start: 22 @48486 has 135 MA's), (50, 48279), (51, 48276), (53, 48252), (56, 48222), (61, 48144), (64, 48096), (68, 48075), (78, 47964), (82, 47928), (85, 47889), (86, 47877), (92, 47850),

Gene: GrootJr_12 Start: 6386, Stop: 7060, Start Num: 18

Candidate Starts for GrootJr_12:

(7, 6251), (14, 6359), (Start: 18 @6386 has 15 MA's), (49, 6587), (50, 6590), (57, 6647), (60, 6680), (68, 6791), (79, 6908), (89, 6998),

Gene: Gwilliam_57 Start: 48849, Stop: 48169, Start Num: 22

Candidate Starts for Gwilliam_57:

(Start: 20 @48858 has 10 MA's), (Start: 22 @48849 has 135 MA's), (50, 48642), (51, 48639), (53, 48615), (56, 48585), (64, 48459), (68, 48438), (70, 48417), (78, 48327), (85, 48252), (86, 48240), (92, 48213),

Gene: HSavage_54 Start: 47975, Stop: 47298, Start Num: 22

Candidate Starts for HSavage_54:

(Start: 20 @47984 has 10 MA's), (Start: 22 @47975 has 135 MA's), (43, 47813), (46, 47798), (51, 47765), (53, 47741), (56, 47711), (61, 47633), (64, 47585), (68, 47564), (70, 47543), (78, 47453), (82, 47417), (85, 47378), (86, 47366), (92, 47339),

Gene: Haimas_54 Start: 47991, Stop: 47314, Start Num: 22

Candidate Starts for Haimas_54:

(Start: 20 @48000 has 10 MA's), (Start: 22 @47991 has 135 MA's), (50, 47784), (51, 47781), (53, 47757), (56, 47727), (64, 47601), (68, 47580), (70, 47559), (78, 47469), (85, 47394), (86, 47382), (92, 47355),

Gene: Haleema_54 Start: 47990, Stop: 47310, Start Num: 22

Candidate Starts for Haleema_54:

(3, 48242), (4, 48233), (5, 48209), (6, 48179), (8, 48128), (9, 48089), (Start: 20 @47999 has 10 MA's), (Start: 22 @47990 has 135 MA's), (50, 47783), (51, 47780), (53, 47756), (56, 47726), (61, 47648), (64, 47600), (68, 47579), (78, 47468), (82, 47432), (85, 47393), (86, 47381), (92, 47354),

Gene: Hamish_54 Start: 47984, Stop: 47307, Start Num: 22

Candidate Starts for Hamish_54:

(Start: 20 @47993 has 10 MA's), (Start: 22 @47984 has 135 MA's), (50, 47777), (51, 47774), (53, 47750), (56, 47720), (64, 47594), (68, 47573), (70, 47552), (78, 47462), (85, 47387), (86, 47375), (92, 47348),

Gene: Harvey_54 Start: 48021, Stop: 47344, Start Num: 22

Candidate Starts for Harvey_54:

(3, 48273), (4, 48264), (5, 48240), (6, 48210), (8, 48159), (9, 48120), (Start: 20 @48030 has 10 MA's), (Start: 22 @48021 has 135 MA's), (43, 47859), (46, 47844), (51, 47811), (53, 47787), (56, 47757), (61, 47679), (64, 47631), (68, 47610), (70, 47589), (78, 47499), (82, 47463), (85, 47424), (86, 47412), (92, 47385),

Gene: Hashim76_57 Start: 48273, Stop: 47572, Start Num: 20

Candidate Starts for Hashim76_57:

(Start: 20 @48273 has 10 MA's), (Start: 23 @48258 has 18 MA's), (27, 48228), (55, 48018), (56, 48006), (60, 47970), (63, 47883), (70, 47832), (74, 47775), (86, 47646), (92, 47619),

Gene: Held_55 Start: 47995, Stop: 47315, Start Num: 22

Candidate Starts for Held_55:

(3, 48247), (4, 48238), (5, 48214), (6, 48184), (8, 48133), (9, 48094), (Start: 20 @48004 has 10 MA's), (Start: 22 @47995 has 135 MA's), (50, 47788), (51, 47785), (53, 47761), (56, 47731), (61, 47653), (64, 47605), (68, 47584), (78, 47473), (82, 47437), (85, 47398), (86, 47386), (92, 47359),

Gene: HenryJackson_55 Start: 48520, Stop: 47840, Start Num: 22

Candidate Starts for HenryJackson_55:

(Start: 20 @48529 has 10 MA's), (Start: 22 @48520 has 135 MA's), (50, 48313), (51, 48310), (53, 48286), (56, 48256), (64, 48130), (68, 48109), (70, 48088), (78, 47998), (85, 47923), (86, 47911), (92, 47884),

Gene: Hertubise_55 Start: 48287, Stop: 47607, Start Num: 22

Candidate Starts for Hertubise_55:

(Start: 20 @48296 has 10 MA's), (Start: 22 @48287 has 135 MA's), (50, 48080), (51, 48077), (53, 48053), (56, 48023), (64, 47897), (68, 47876), (70, 47855), (78, 47765), (85, 47690), (86, 47678), (92, 47651),

Gene: Hetaeria_54 Start: 48022, Stop: 47345, Start Num: 22

Candidate Starts for Hetaeria_54:

(3, 48274), (4, 48265), (5, 48241), (6, 48211), (8, 48160), (9, 48121), (Start: 20 @48031 has 10 MA's), (Start: 22 @48022 has 135 MA's), (43, 47860), (46, 47845), (51, 47812), (53, 47788), (56, 47758), (61, 47680), (64, 47632), (68, 47611), (70, 47590), (78, 47500), (82, 47464), (85, 47425), (86, 47413), (92, 47386),

Gene: Horchata_54 Start: 47975, Stop: 47298, Start Num: 22

Candidate Starts for Horchata_54:

(Start: 20 @47984 has 10 MA's), (Start: 22 @47975 has 135 MA's), (43, 47813), (46, 47798), (51, 47765), (53, 47741), (56, 47711), (61, 47633), (64, 47585), (68, 47564), (70, 47543), (78, 47453), (82, 47417), (85, 47378), (86, 47366), (92, 47339),

Gene: Inverness_54 Start: 47984, Stop: 47307, Start Num: 22

Candidate Starts for Inverness_54:

(3, 48236), (4, 48227), (5, 48203), (6, 48173), (8, 48122), (9, 48083), (Start: 20 @47993 has 10 MA's), (Start: 22 @47984 has 135 MA's), (43, 47822), (46, 47807), (51, 47774), (53, 47750), (56, 47720), (61, 47642), (64, 47594), (68, 47573), (70, 47552), (78, 47462), (82, 47426), (85, 47387), (86, 47375), (92, 47348),

Gene: IrishSherpFalk_67 Start: 43906, Stop: 44583, Start Num: 23

Candidate Starts for IrishSherpFalk_67:

(Start: 23 @43906 has 18 MA's), (30, 43948), (50, 44107), (51, 44110), (53, 44134), (56, 44164), (61, 44242), (64, 44290), (68, 44311), (78, 44422), (82, 44458), (85, 44497), (86, 44509),

Gene: IsaacEli_56 Start: 48508, Stop: 47828, Start Num: 22

Candidate Starts for IsaacEli_56:

(Start: 20 @48517 has 10 MA's), (Start: 22 @48508 has 135 MA's), (50, 48301), (51, 48298), (53, 48274), (56, 48244), (64, 48118), (68, 48097), (70, 48076), (78, 47986), (85, 47911), (86, 47899), (92, 47872),

Gene: JDog_54 Start: 48524, Stop: 47844, Start Num: 22

Candidate Starts for JDog_54:

(2, 48791), (3, 48776), (4, 48767), (5, 48743), (6, 48713), (8, 48662), (9, 48623), (Start: 20 @48533 has 10 MA's), (Start: 22 @48524 has 135 MA's), (50, 48317), (51, 48314), (53, 48290), (56, 48260), (64, 48134), (68, 48113), (70, 48092), (78, 48002), (85, 47927), (86, 47915), (92, 47888),

Gene: Jesabah_55 Start: 48525, Stop: 47845, Start Num: 22

Candidate Starts for Jesabah_55:

(Start: 20 @48534 has 10 MA's), (Start: 22 @48525 has 135 MA's), (50, 48318), (51, 48315), (53, 48291), (56, 48261), (64, 48135), (68, 48114), (70, 48093), (78, 48003), (85, 47928), (86, 47916), (92, 47889),

Gene: Jifall16_9 Start: 5425, Stop: 6087, Start Num: 18

Candidate Starts for Jifall16_9:

(7, 5290), (14, 5398), (Start: 18 @5425 has 15 MA's), (49, 5626), (50, 5629), (57, 5686), (68, 5833), (79, 5950), (89, 6040),

Gene: Jillium_55 Start: 48516, Stop: 47836, Start Num: 22

Candidate Starts for Jillium_55:

(Start: 20 @48525 has 10 MA's), (Start: 22 @48516 has 135 MA's), (50, 48309), (51, 48306), (53, 48282), (56, 48252), (64, 48126), (68, 48105), (70, 48084), (78, 47994), (85, 47919), (86, 47907), (92, 47880),

Gene: Kahve_55 Start: 48517, Stop: 47837, Start Num: 22

Candidate Starts for Kahve_55:

(Start: 20 @48526 has 10 MA's), (Start: 22 @48517 has 135 MA's), (50, 48310), (51, 48307), (53, 48283), (56, 48253), (64, 48127), (68, 48106), (70, 48085), (78, 47995), (85, 47920), (86, 47908), (92, 47881),

Gene: Khan1_56 Start: 48473, Stop: 47793, Start Num: 22

Candidate Starts for Khan1_56:

(3, 48725), (4, 48716), (5, 48692), (6, 48662), (8, 48611), (9, 48572), (Start: 20 @48482 has 10 MA's), (Start: 22 @48473 has 135 MA's), (50, 48266), (51, 48263), (53, 48239), (56, 48209), (61, 48131), (64, 48083), (68, 48062), (78, 47951), (82, 47915), (85, 47876), (86, 47864), (92, 47837),

Gene: KidneyBean_10 Start: 5770, Stop: 6429, Start Num: 18

Candidate Starts for KidneyBean_10:

(7, 5635), (14, 5743), (Start: 18 @5770 has 15 MA's), (49, 5971), (50, 5974), (57, 6031), (60, 6064), (68, 6175), (79, 6292), (89, 6382),

Gene: Kikipoo_56 Start: 48508, Stop: 47828, Start Num: 22

Candidate Starts for Kikipoo_56:

(Start: 20 @48517 has 10 MA's), (Start: 22 @48508 has 135 MA's), (50, 48301), (51, 48298), (53, 48274), (56, 48244), (64, 48118), (68, 48097), (70, 48076), (78, 47986), (85, 47911), (86, 47899), (92, 47872),

Gene: Kimbrough_56 Start: 48517, Stop: 47837, Start Num: 22

Candidate Starts for Kimbrough_56:

(Start: 20 @48526 has 10 MA's), (Start: 22 @48517 has 135 MA's), (50, 48310), (51, 48307), (53, 48283), (56, 48253), (64, 48127), (68, 48106), (70, 48085), (78, 47995), (85, 47920), (86, 47908), (92, 47881),

Gene: KingTut_47 Start: 44181, Stop: 43501, Start Num: 22

Candidate Starts for KingTut_47:

(Start: 20 @44190 has 10 MA's), (Start: 22 @44181 has 135 MA's), (50, 43974), (51, 43971), (53, 43947), (56, 43917), (64, 43791), (68, 43770), (70, 43749), (78, 43659), (85, 43584), (86, 43572), (92, 43545),

Gene: KlimbOn_54 Start: 47976, Stop: 47299, Start Num: 22

Candidate Starts for KlimbOn_54:

(Start: 20 @47985 has 10 MA's), (Start: 22 @47976 has 135 MA's), (43, 47814), (46, 47799), (51, 47766), (53, 47742), (56, 47712), (61, 47634), (64, 47586), (68, 47565), (70, 47544), (78, 47454), (82, 47418), (85, 47379), (86, 47367), (90, 47346), (92, 47340),

Gene: Kurt_10 Start: 5953, Stop: 6612, Start Num: 18

Candidate Starts for Kurt_10:

(7, 5818), (14, 5926), (Start: 18 @5953 has 15 MA's), (49, 6154), (50, 6157), (57, 6214), (60, 6247), (68, 6358), (79, 6475), (89, 6565),

Gene: Kwadwo_54 Start: 47969, Stop: 47289, Start Num: 22

Candidate Starts for Kwadwo_54:

(3, 48221), (4, 48212), (5, 48188), (6, 48158), (8, 48107), (9, 48068), (Start: 20 @47978 has 10 MA's), (Start: 22 @47969 has 135 MA's), (50, 47762), (51, 47759), (53, 47735), (56, 47705), (61, 47627), (64, 47579), (68, 47558), (78, 47447), (82, 47411), (85, 47372), (86, 47360), (92, 47333),

Gene: Lasso_55 Start: 48244, Stop: 47564, Start Num: 22

Candidate Starts for Lasso_55:

(3, 48496), (4, 48487), (5, 48463), (6, 48433), (8, 48382), (9, 48343), (Start: 20 @48253 has 10 MA's), (Start: 22 @48244 has 135 MA's), (50, 48037), (51, 48034), (53, 48010), (56, 47980), (61, 47902), (64, 47854), (68, 47833), (78, 47722), (82, 47686), (85, 47647), (86, 47635), (92, 47608),

Gene: LeeLot_55 Start: 48296, Stop: 47616, Start Num: 22

Candidate Starts for LeeLot_55:

(2, 48563), (3, 48548), (4, 48539), (5, 48515), (6, 48485), (8, 48434), (9, 48395), (Start: 20 @48305 has 10 MA's), (Start: 22 @48296 has 135 MA's), (50, 48089), (51, 48086), (53, 48062), (56, 48032), (64, 47906), (68, 47885), (70, 47864), (78, 47774), (85, 47699), (86, 47687), (92, 47660),

Gene: Lego3393_54 Start: 48508, Stop: 47828, Start Num: 22

Candidate Starts for Lego3393_54:

(Start: 20 @48517 has 10 MA's), (Start: 22 @48508 has 135 MA's), (50, 48301), (51, 48298), (53, 48274), (56, 48244), (64, 48118), (68, 48097), (70, 48076), (78, 47986), (85, 47911), (86, 47899), (92, 47872),

Gene: Lilas_46 Start: 37586, Stop: 38191, Start Num: 25

Candidate Starts for Lilas_46:

(Start: 25 @37586 has 7 MA's), (30, 37628), (56, 37823), (58, 37856), (61, 37904), (71, 37997), (79, 38066),

Gene: Llij_62 Start: 41070, Stop: 41747, Start Num: 23

Candidate Starts for Llij_62:

(Start: 23 @41070 has 18 MA's), (30, 41112), (50, 41271), (51, 41274), (53, 41298), (56, 41328), (61, 41406), (64, 41454), (68, 41475), (78, 41586), (82, 41622), (85, 41661), (86, 41673),

Gene: Lollipop1437_12 Start: 6752, Stop: 7441, Start Num: 18

Candidate Starts for Lollipop1437_12:

(10, 6680), (14, 6725), (Start: 18 @6752 has 15 MA's), (37, 6869), (49, 6968), (50, 6971), (57, 7028), (68, 7172), (76, 7265), (79, 7289), (89, 7379), (94, 7403),

Gene: Lorde_66 Start: 40357, Stop: 41034, Start Num: 23

Candidate Starts for Lorde_66:

(Start: 23 @40357 has 18 MA's), (30, 40399), (50, 40558), (51, 40561), (53, 40585), (56, 40615), (61, 40693), (64, 40741), (68, 40762), (78, 40873), (82, 40909), (85, 40948), (86, 40960),

Gene: LuckyMarjie_53 Start: 47677, Stop: 47000, Start Num: 22

Candidate Starts for LuckyMarjie_53:

(Start: 20 @47686 has 10 MA's), (Start: 22 @47677 has 135 MA's), (40, 47548), (43, 47515), (46, 47500), (50, 47470), (51, 47467), (53, 47443), (56, 47413), (61, 47335), (64, 47287), (68, 47266), (70, 47245), (78, 47155), (82, 47119), (85, 47080), (86, 47068), (89, 47053), (92, 47041),

Gene: Lulumae_53 Start: 47662, Stop: 46985, Start Num: 22

Candidate Starts for Lulumae_53:

(Start: 20 @47671 has 10 MA's), (Start: 22 @47662 has 135 MA's), (40, 47533), (43, 47500), (46, 47485), (50, 47455), (51, 47452), (53, 47428), (56, 47398), (61, 47320), (64, 47272), (68, 47251), (70, 47230), (78, 47140), (82, 47104), (85, 47065), (86, 47053), (89, 47038), (92, 47026),

Gene: MRabcd_54 Start: 48059, Stop: 47379, Start Num: 22

Candidate Starts for MRabcd_54:

(3, 48311), (4, 48302), (5, 48278), (6, 48248), (8, 48197), (9, 48158), (Start: 20 @48068 has 10 MA's), (Start: 22 @48059 has 135 MA's), (50, 47852), (51, 47849), (53, 47825), (56, 47795), (61, 47717), (64,

47669), (68, 47648), (78, 47537), (82, 47501), (85, 47462), (86, 47450), (92, 47423),

Gene: Mana_54 Start: 47984, Stop: 47304, Start Num: 22

Candidate Starts for Mana_54:

(3, 48236), (4, 48227), (5, 48203), (6, 48173), (8, 48122), (9, 48083), (Start: 20 @47993 has 10 MA's), (Start: 22 @47984 has 135 MA's), (50, 47777), (51, 47774), (53, 47750), (56, 47720), (61, 47642), (64, 47594), (68, 47573), (78, 47462), (82, 47426), (85, 47387), (86, 47375), (92, 47348),

Gene: Manad_54 Start: 47959, Stop: 47282, Start Num: 22

Candidate Starts for Manad_54:

(3, 48211), (4, 48202), (5, 48178), (6, 48148), (8, 48097), (9, 48058), (Start: 20 @47968 has 10 MA's), (Start: 22 @47959 has 135 MA's), (43, 47797), (46, 47782), (51, 47749), (53, 47725), (56, 47695), (61, 47617), (64, 47569), (68, 47548), (70, 47527), (78, 47437), (82, 47401), (85, 47362), (86, 47350), (92, 47323),

Gene: Maru_55 Start: 48423, Stop: 47743, Start Num: 22

Candidate Starts for Maru_55:

(3, 48675), (4, 48666), (5, 48642), (6, 48612), (8, 48561), (9, 48522), (Start: 20 @48432 has 10 MA's), (Start: 22 @48423 has 135 MA's), (50, 48216), (51, 48213), (53, 48189), (56, 48159), (61, 48081), (64, 48033), (68, 48012), (78, 47901), (82, 47865), (85, 47826), (86, 47814), (92, 47787),

Gene: Matalotodo_54 Start: 47994, Stop: 47317, Start Num: 22

Candidate Starts for Matalotodo_54:

(Start: 20 @48003 has 10 MA's), (Start: 22 @47994 has 135 MA's), (50, 47787), (51, 47784), (53, 47760), (56, 47730), (64, 47604), (68, 47583), (70, 47562), (78, 47472), (82, 47436), (85, 47397), (86, 47385), (92, 47358),

Gene: Mecca_55 Start: 48505, Stop: 47825, Start Num: 22

Candidate Starts for Mecca_55:

(Start: 20 @48514 has 10 MA's), (Start: 22 @48505 has 135 MA's), (50, 48298), (51, 48295), (53, 48271), (56, 48241), (64, 48115), (68, 48094), (70, 48073), (78, 47983), (85, 47908), (86, 47896), (92, 47869),

Gene: Megatron_56 Start: 48496, Stop: 47816, Start Num: 22

Candidate Starts for Megatron_56:

(Start: 20 @48505 has 10 MA's), (Start: 22 @48496 has 135 MA's), (50, 48289), (51, 48286), (53, 48262), (56, 48232), (64, 48106), (68, 48085), (70, 48064), (78, 47974), (85, 47899), (86, 47887), (92, 47860),

Gene: Melc17_55 Start: 48814, Stop: 48134, Start Num: 22

Candidate Starts for Melc17_55:

(Start: 20 @48823 has 10 MA's), (Start: 22 @48814 has 135 MA's), (50, 48607), (51, 48604), (53, 48580), (56, 48550), (64, 48424), (68, 48403), (70, 48382), (78, 48292), (85, 48217), (86, 48205), (92, 48178),

Gene: Mesh1_56 Start: 48516, Stop: 47836, Start Num: 22

Candidate Starts for Mesh1_56:

(3, 48768), (4, 48759), (5, 48735), (6, 48705), (8, 48654), (9, 48615), (Start: 20 @48525 has 10 MA's), (Start: 22 @48516 has 135 MA's), (43, 48354), (46, 48339), (51, 48306), (53, 48282), (56, 48252), (61, 48174), (64, 48126), (68, 48105), (70, 48084), (78, 47994), (82, 47958), (85, 47919), (86, 47907), (92, 47880),

Gene: MitKao_55 Start: 47994, Stop: 47314, Start Num: 22

Candidate Starts for MitKao_55:

(3, 48246), (4, 48237), (5, 48213), (6, 48183), (8, 48132), (9, 48093), (Start: 20 @48003 has 10 MA's), (Start: 22 @47994 has 135 MA's), (50, 47787), (51, 47784), (53, 47760), (56, 47730), (61, 47652), (64, 47604), (68, 47583), (78, 47472), (82, 47436), (85, 47397), (86, 47385), (92, 47358),

Gene: Morgushi_55 Start: 47983, Stop: 47303, Start Num: 22

Candidate Starts for Morgushi_55:

(3, 48235), (4, 48226), (5, 48202), (6, 48172), (8, 48121), (9, 48082), (Start: 20 @47992 has 10 MA's), (Start: 22 @47983 has 135 MA's), (50, 47776), (51, 47773), (53, 47749), (56, 47719), (61, 47641), (64, 47593), (68, 47572), (78, 47461), (82, 47425), (85, 47386), (86, 47374), (92, 47347),

Gene: Morty_56 Start: 48505, Stop: 47825, Start Num: 22

Candidate Starts for Morty_56:

(Start: 20 @48514 has 10 MA's), (Start: 22 @48505 has 135 MA's), (50, 48298), (51, 48295), (53, 48271), (56, 48241), (64, 48115), (68, 48094), (70, 48073), (78, 47983), (85, 47908), (86, 47896), (92, 47869),

Gene: Mosaic_54 Start: 47988, Stop: 47308, Start Num: 22

Candidate Starts for Mosaic_54:

(3, 48240), (4, 48231), (5, 48207), (6, 48177), (8, 48126), (9, 48087), (Start: 20 @47997 has 10 MA's), (Start: 22 @47988 has 135 MA's), (50, 47781), (51, 47778), (53, 47754), (56, 47724), (61, 47646), (64, 47598), (68, 47577), (78, 47466), (82, 47430), (85, 47391), (86, 47379), (92, 47352),

Gene: MrPhizzler_56 Start: 48450, Stop: 47770, Start Num: 22

Candidate Starts for MrPhizzler_56:

(3, 48702), (4, 48693), (5, 48669), (6, 48639), (8, 48588), (9, 48549), (Start: 20 @48459 has 10 MA's), (Start: 22 @48450 has 135 MA's), (50, 48243), (51, 48240), (53, 48216), (56, 48186), (61, 48108), (64, 48060), (68, 48039), (78, 47928), (82, 47892), (85, 47853), (86, 47841), (92, 47814),

Gene: Mulan_55 Start: 48222, Stop: 47542, Start Num: 22

Candidate Starts for Mulan_55:

(Start: 20 @48231 has 10 MA's), (Start: 22 @48222 has 135 MA's), (50, 48015), (51, 48012), (53, 47988), (56, 47958), (64, 47832), (68, 47811), (70, 47790), (78, 47700), (85, 47625), (86, 47613), (92, 47586),

Gene: Murdoc_54 Start: 47984, Stop: 47307, Start Num: 22

Candidate Starts for Murdoc_54:

(Start: 20 @47993 has 10 MA's), (Start: 22 @47984 has 135 MA's), (50, 47777), (51, 47774), (53, 47750), (56, 47720), (64, 47594), (68, 47573), (70, 47552), (78, 47462), (82, 47426), (85, 47387), (86, 47375), (92, 47348),

Gene: Nacho_0056 Start: 48499, Stop: 47819, Start Num: 22

Candidate Starts for Nacho_0056:

(Start: 20 @48508 has 10 MA's), (Start: 22 @48499 has 135 MA's), (50, 48292), (51, 48289), (53, 48265), (56, 48235), (64, 48109), (68, 48088), (70, 48067), (78, 47977), (85, 47902), (86, 47890), (92, 47863),

Gene: NatB6_10 Start: 6032, Stop: 6694, Start Num: 18

Candidate Starts for NatB6_10:

(7, 5897), (14, 6005), (Start: 18 @6032 has 15 MA's), (28, 6074), (49, 6233), (50, 6236), (54, 6269), (57, 6293), (68, 6440), (79, 6557), (89, 6647), (90, 6653),

Gene: Newman_54 Start: 47979, Stop: 47302, Start Num: 22

Candidate Starts for Newman_54:

(3, 48231), (4, 48222), (5, 48198), (6, 48168), (8, 48117), (9, 48078), (Start: 20 @47988 has 10 MA's), (Start: 22 @47979 has 135 MA's), (43, 47817), (46, 47802), (51, 47769), (53, 47745), (56, 47715), (61, 47637), (64, 47589), (68, 47568), (70, 47547), (78, 47457), (82, 47421), (85, 47382), (86, 47370), (92, 47343),

Gene: NovumRegina_10 Start: 6385, Stop: 7059, Start Num: 18

Candidate Starts for NovumRegina_10:

(7, 6250), (14, 6358), (Start: 18 @6385 has 15 MA's), (49, 6586), (50, 6589), (57, 6646), (60, 6679), (68, 6790), (79, 6907), (89, 6997),

Gene: Numberten_54 Start: 47974, Stop: 47297, Start Num: 22

Candidate Starts for Numberten_54:

(Start: 20 @47983 has 10 MA's), (Start: 22 @47974 has 135 MA's), (40, 47845), (43, 47812), (46, 47797), (50, 47767), (51, 47764), (53, 47740), (56, 47710), (61, 47632), (64, 47584), (68, 47563), (70, 47542), (78, 47452), (82, 47416), (85, 47377), (86, 47365), (89, 47350), (92, 47338),

Gene: OSmaximus_56 Start: 48538, Stop: 47858, Start Num: 22

Candidate Starts for OSmaximus_56:

(3, 48790), (4, 48781), (5, 48757), (6, 48727), (8, 48676), (9, 48637), (Start: 20 @48547 has 10 MA's), (Start: 22 @48538 has 135 MA's), (43, 48376), (46, 48361), (51, 48328), (53, 48304), (56, 48274), (61, 48196), (64, 48148), (68, 48127), (70, 48106), (78, 48016), (82, 47980), (85, 47941), (86, 47929), (92, 47902),

Gene: Ogopogo_73 Start: 43850, Stop: 44527, Start Num: 23

Candidate Starts for Ogopogo_73:

(Start: 23 @43850 has 18 MA's), (30, 43892), (50, 44051), (51, 44054), (53, 44078), (56, 44108), (61, 44186), (64, 44234), (68, 44255), (78, 44366), (82, 44402), (85, 44441), (86, 44453),

Gene: Oksu_71 Start: 46299, Stop: 46976, Start Num: 23

Candidate Starts for Oksu_71:

(Start: 23 @46299 has 18 MA's), (30, 46341), (50, 46500), (51, 46503), (53, 46527), (56, 46557), (61, 46635), (64, 46683), (68, 46704), (78, 46815), (82, 46851), (85, 46890), (86, 46902),

Gene: Olive_54 Start: 47964, Stop: 47287, Start Num: 22

Candidate Starts for Olive_54:

(Start: 20 @47973 has 10 MA's), (Start: 22 @47964 has 135 MA's), (40, 47835), (43, 47802), (46, 47787), (50, 47757), (51, 47754), (53, 47730), (56, 47700), (61, 47622), (64, 47574), (68, 47553), (70, 47532), (78, 47442), (82, 47406), (85, 47367), (86, 47355), (92, 47328),

Gene: OliverWalter_54 Start: 47985, Stop: 47308, Start Num: 22

Candidate Starts for OliverWalter_54:

(Start: 20 @47994 has 10 MA's), (Start: 22 @47985 has 135 MA's), (43, 47823), (46, 47808), (51, 47775), (53, 47751), (56, 47721), (61, 47643), (64, 47595), (68, 47574), (70, 47553), (78, 47463), (82, 47427), (85, 47388), (86, 47376), (92, 47349),

Gene: Omniscient_56 Start: 48812, Stop: 48132, Start Num: 22

Candidate Starts for Omniscient_56:

(Start: 20 @48821 has 10 MA's), (Start: 22 @48812 has 135 MA's), (50, 48605), (51, 48602), (53, 48578), (56, 48548), (64, 48422), (68, 48401), (70, 48380), (78, 48290), (85, 48215), (86, 48203), (92, 48176),

Gene: Oosterbaan_55 Start: 48274, Stop: 47594, Start Num: 22

Candidate Starts for Oosterbaan_55:

(Start: 20 @48283 has 10 MA's), (Start: 22 @48274 has 135 MA's), (50, 48067), (51, 48064), (53, 48040), (56, 48010), (64, 47884), (68, 47863), (70, 47842), (78, 47752), (85, 47677), (86, 47665), (92, 47638),

Gene: PG1_56 Start: 48507, Stop: 47827, Start Num: 22

Candidate Starts for PG1_56:

(Start: 20 @48516 has 10 MA's), (Start: 22 @48507 has 135 MA's), (50, 48300), (51, 48297), (53, 48273), (56, 48243), (64, 48117), (68, 48096), (70, 48075), (78, 47985), (85, 47910), (86, 47898), (92, 47871),

Gene: Phareon_54 Start: 47671, Stop: 46994, Start Num: 22

Candidate Starts for Phareon_54:

(Start: 20 @47680 has 10 MA's), (Start: 22 @47671 has 135 MA's), (40, 47542), (43, 47509), (46, 47494), (50, 47464), (51, 47461), (53, 47437), (56, 47407), (61, 47329), (64, 47281), (68, 47260), (70, 47239), (78, 47149), (82, 47113), (85, 47074), (86, 47062), (89, 47047), (92, 47035),

Gene: PhatCats2014_56 Start: 48511, Stop: 47831, Start Num: 22

Candidate Starts for PhatCats2014_56:

(Start: 20 @48520 has 10 MA's), (Start: 22 @48511 has 135 MA's), (50, 48304), (51, 48301), (53, 48277), (56, 48247), (64, 48121), (68, 48100), (70, 48079), (78, 47989), (85, 47914), (86, 47902), (92, 47875),

Gene: Phatniss_64 Start: 42165, Stop: 42842, Start Num: 23

Candidate Starts for Phatniss_64:

(Start: 23 @42165 has 18 MA's), (30, 42207), (50, 42366), (51, 42369), (53, 42393), (56, 42423), (61, 42501), (64, 42549), (68, 42570), (78, 42681), (82, 42717), (85, 42756), (86, 42768),

Gene: Phomeo_9 Start: 5606, Stop: 6265, Start Num: 18

Candidate Starts for Phomeo_9:

(7, 5471), (14, 5579), (Start: 18 @5606 has 15 MA's), (49, 5807), (50, 5810), (57, 5867), (60, 5900), (68, 6011), (79, 6128), (89, 6218),

Gene: Phrappuccino_151 Start: 104613, Stop: 105200, Start Num: 29

Candidate Starts for Phrappuccino_151:

(8, 104412), (Start: 29 @104613 has 2 MA's), (36, 104661), (41, 104712), (48, 104757), (60, 104874), (61, 104913), (62, 104919), (65, 104964), (66, 104973), (71, 105012), (78, 105081), (79, 105084), (80, 105087),

Gene: Phunky_54 Start: 47968, Stop: 47291, Start Num: 22

Candidate Starts for Phunky_54:

(Start: 20 @47977 has 10 MA's), (Start: 22 @47968 has 135 MA's), (40, 47839), (43, 47806), (46, 47791), (50, 47761), (51, 47758), (53, 47734), (56, 47704), (61, 47626), (64, 47578), (68, 47557), (70, 47536), (78, 47446), (82, 47410), (85, 47371), (86, 47359), (89, 47344), (92, 47332),

Gene: Piglet_0055 Start: 48493, Stop: 47804, Start Num: 20

Candidate Starts for Piglet_0055:

(Start: 20 @48493 has 10 MA's), (Start: 22 @48484 has 135 MA's), (50, 48277), (51, 48274), (53, 48250), (56, 48220), (64, 48094), (68, 48073), (70, 48052), (78, 47962), (85, 47887), (86, 47875), (92, 47848),

Gene: PinheadLarry_56 Start: 48509, Stop: 47829, Start Num: 22

Candidate Starts for PinheadLarry_56:

(Start: 20 @48518 has 10 MA's), (Start: 22 @48509 has 135 MA's), (50, 48302), (51, 48299), (53, 48275), (56, 48245), (64, 48119), (68, 48098), (70, 48077), (78, 47987), (82, 47951), (85, 47912), (86, 47900), (92, 47873),

Gene: Pipsqueak_54 Start: 47997, Stop: 47320, Start Num: 22

Candidate Starts for Pipsqueak_54:

(Start: 20 @48006 has 10 MA's), (Start: 22 @47997 has 135 MA's), (50, 47790), (51, 47787), (53, 47763), (56, 47733), (64, 47607), (68, 47586), (70, 47565), (78, 47475), (82, 47439), (85, 47400), (86, 47388), (92, 47361),

Gene: Placalicious_55 Start: 48499, Stop: 47819, Start Num: 22

Candidate Starts for Placalicious_55:

(Start: 20 @48508 has 10 MA's), (Start: 22 @48499 has 135 MA's), (50, 48292), (51, 48289), (53, 48265), (56, 48235), (64, 48109), (68, 48088), (70, 48067), (78, 47977), (85, 47902), (86, 47890), (92, 47863),

Gene: Plmatters_54 Start: 47971, Stop: 47294, Start Num: 22

Candidate Starts for Plmatters_54:

(3, 48223), (4, 48214), (5, 48190), (6, 48160), (8, 48109), (9, 48070), (Start: 20 @47980 has 10 MA's), (Start: 22 @47971 has 135 MA's), (40, 47842), (43, 47809), (46, 47794), (50, 47764), (51, 47761), (53, 47737), (56, 47707), (61, 47629), (64, 47581), (68, 47560), (70, 47539), (78, 47449), (82, 47413), (85, 47374), (86, 47362), (89, 47347), (92, 47335),

Gene: Poenanya_66 Start: 43323, Stop: 44000, Start Num: 23

Candidate Starts for Poenanya_66:

(Start: 23 @43323 has 18 MA's), (30, 43365), (50, 43524), (51, 43527), (53, 43551), (56, 43581), (61, 43659), (64, 43707), (68, 43728), (78, 43839), (82, 43875), (85, 43914), (86, 43926),

Gene: Pops_54 Start: 47956, Stop: 47309, Start Num: 22

Candidate Starts for Pops_54:

(2, 48223), (3, 48208), (4, 48199), (5, 48175), (6, 48145), (8, 48094), (9, 48055), (Start: 20 @47965 has 10 MA's), (Start: 22 @47956 has 135 MA's), (32, 47899), (51, 47746), (53, 47722), (56, 47692), (64, 47566), (68, 47545), (70, 47524), (78, 47434), (85, 47389), (86, 47377), (92, 47350),

Gene: Posh_51 Start: 37991, Stop: 38596, Start Num: 25

Candidate Starts for Posh_51:

(Start: 25 @37991 has 7 MA's), (30, 38033), (56, 38228), (58, 38261), (61, 38309), (71, 38402), (79, 38471), (84, 38525),

Gene: Potter_54 Start: 48005, Stop: 47325, Start Num: 22

Candidate Starts for Potter_54:

(3, 48257), (4, 48248), (5, 48224), (6, 48194), (8, 48143), (9, 48104), (Start: 20 @48014 has 10 MA's), (Start: 22 @48005 has 135 MA's), (50, 47798), (51, 47795), (53, 47771), (56, 47741), (61, 47663), (64, 47615), (68, 47594), (78, 47483), (82, 47447), (85, 47408), (86, 47396), (92, 47369),

Gene: ProfessorX_54 Start: 47963, Stop: 47286, Start Num: 22

Candidate Starts for ProfessorX_54:

(Start: 20 @47972 has 10 MA's), (Start: 22 @47963 has 135 MA's), (50, 47756), (51, 47753), (53, 47729), (56, 47699), (61, 47621), (64, 47573), (68, 47552), (70, 47531), (78, 47441), (82, 47405), (85, 47366), (86, 47354), (92, 47327),

Gene: Puhltonio_55 Start: 48279, Stop: 47599, Start Num: 22

Candidate Starts for Puhltonio_55:

(3, 48531), (4, 48522), (5, 48498), (6, 48468), (8, 48417), (9, 48378), (Start: 20 @48288 has 10 MA's), (Start: 22 @48279 has 135 MA's), (50, 48072), (51, 48069), (53, 48045), (56, 48015), (61, 47937), (64, 47889), (68, 47868), (78, 47757), (82, 47721), (85, 47682), (86, 47670), (92, 47643),

Gene: QueenBeane_55 Start: 48269, Stop: 47589, Start Num: 22

Candidate Starts for QueenBeane_55:

(Start: 20 @48278 has 10 MA's), (Start: 22 @48269 has 135 MA's), (50, 48062), (51, 48059), (53, 48035), (56, 48005), (64, 47879), (68, 47858), (70, 47837), (78, 47747), (85, 47672), (86, 47660), (92, 47633),

Gene: RedRaider_13 Start: 6700, Stop: 7374, Start Num: 21

Candidate Starts for RedRaider_13:

(13, 6646), (Start: 21 @6700 has 1 MA's), (49, 6901), (50, 6904), (51, 6907), (57, 6961), (68, 7105), (73, 7171), (76, 7198), (79, 7222), (89, 7312),

Gene: Robyn_54 Start: 47908, Stop: 47228, Start Num: 22

Candidate Starts for Robyn_54:

(3, 48160), (4, 48151), (5, 48127), (6, 48097), (8, 48046), (9, 48007), (Start: 20 @47917 has 10 MA's), (Start: 22 @47908 has 135 MA's), (43, 47746), (46, 47731), (51, 47698), (53, 47674), (56, 47644), (61, 47566), (64, 47518), (68, 47497), (70, 47476), (78, 47386), (82, 47350), (85, 47311), (86, 47299), (92, 47272),

Gene: Roscoe_55 Start: 48208, Stop: 47531, Start Num: 22

Candidate Starts for Roscoe_55:

(Start: 20 @48217 has 10 MA's), (Start: 22 @48208 has 135 MA's), (40, 48079), (43, 48046), (46, 48031), (50, 48001), (51, 47998), (53, 47974), (56, 47944), (61, 47866), (64, 47818), (68, 47797), (70, 47776), (78, 47686), (82, 47650), (85, 47611), (86, 47599), (92, 47572),

Gene: Roy17_54 Start: 47662, Stop: 46985, Start Num: 22

Candidate Starts for Roy17_54:

(Start: 20 @47671 has 10 MA's), (Start: 22 @47662 has 135 MA's), (40, 47533), (43, 47500), (46, 47485), (50, 47455), (51, 47452), (53, 47428), (56, 47398), (61, 47320), (64, 47272), (68, 47251), (70, 47230), (78, 47140), (82, 47104), (85, 47065), (86, 47053), (89, 47038), (92, 47026),

Gene: Samaymay_55 Start: 48269, Stop: 47589, Start Num: 22

Candidate Starts for Samaymay_55:

(Start: 20 @48278 has 10 MA's), (Start: 22 @48269 has 135 MA's), (50, 48062), (51, 48059), (53, 48035), (56, 48005), (64, 47879), (68, 47858), (70, 47837), (78, 47747), (85, 47672), (86, 47660), (92, 47633),

Gene: SassyCat97_54 Start: 47996, Stop: 47316, Start Num: 22

Candidate Starts for SassyCat97_54:

(3, 48248), (4, 48239), (5, 48215), (6, 48185), (8, 48134), (9, 48095), (Start: 20 @48005 has 10 MA's), (Start: 22 @47996 has 135 MA's), (50, 47789), (51, 47786), (53, 47762), (56, 47732), (61, 47654), (64, 47606), (68, 47585), (78, 47474), (82, 47438), (85, 47399), (86, 47387), (92, 47360),

Gene: Schadenfreude_54 Start: 47755, Stop: 47078, Start Num: 22

Candidate Starts for Schadenfreude_54:

(Start: 20 @47764 has 10 MA's), (Start: 22 @47755 has 135 MA's), (43, 47593), (46, 47578), (51, 47545), (53, 47521), (56, 47491), (61, 47413), (64, 47365), (68, 47344), (70, 47323), (78, 47233), (82, 47197), (85, 47158), (86, 47146), (90, 47125), (92, 47119),

Gene: Serendipity_55 Start: 48293, Stop: 47613, Start Num: 22

Candidate Starts for Serendipity_55:

(3, 48545), (4, 48536), (5, 48512), (6, 48482), (8, 48431), (9, 48392), (Start: 20 @48302 has 10 MA's), (Start: 22 @48293 has 135 MA's), (50, 48086), (51, 48083), (53, 48059), (56, 48029), (61, 47951), (64, 47903), (68, 47882), (78, 47771), (82, 47735), (85, 47696), (86, 47684), (92, 47657),

Gene: Serpentine_0055 Start: 48376, Stop: 47696, Start Num: 22

Candidate Starts for Serpentine_0055:

(Start: 20 @48385 has 10 MA's), (Start: 22 @48376 has 135 MA's), (50, 48169), (51, 48166), (53, 48142), (56, 48112), (64, 47986), (68, 47965), (70, 47944), (78, 47854), (85, 47779), (86, 47767), (92, 47740),

Gene: Settecandela_151 Start: 104613, Stop: 105200, Start Num: 29

Candidate Starts for Settecandela_151:

(8, 104412), (Start: 29 @104613 has 2 MA's), (36, 104661), (41, 104712), (48, 104757), (60, 104874), (61, 104913), (62, 104919), (65, 104964), (66, 104973), (71, 105012), (78, 105081), (79, 105084), (80, 105087),

Gene: SilverBell_54 Start: 48014, Stop: 47337, Start Num: 22

Candidate Starts for SilverBell_54:

(Start: 20 @48023 has 10 MA's), (Start: 22 @48014 has 135 MA's), (50, 47807), (51, 47804), (53, 47780), (56, 47750), (64, 47624), (68, 47603), (70, 47582), (78, 47492), (82, 47456), (85, 47417), (86, 47405), (92, 47378),

Gene: Soile_56 Start: 48517, Stop: 47837, Start Num: 22

Candidate Starts for Soile_56:

(Start: 20 @48526 has 10 MA's), (Start: 22 @48517 has 135 MA's), (50, 48310), (51, 48307), (53, 48283), (56, 48253), (64, 48127), (68, 48106), (70, 48085), (78, 47995), (85, 47920), (86, 47908), (92, 47881),

Gene: Solosis_54 Start: 47999, Stop: 47310, Start Num: 20

Candidate Starts for Solosis_54:

(3, 48242), (4, 48233), (5, 48209), (6, 48179), (8, 48128), (9, 48089), (Start: 20 @47999 has 10 MA's), (Start: 22 @47990 has 135 MA's), (50, 47783), (51, 47780), (53, 47756), (56, 47726), (61, 47648), (64, 47600), (68, 47579), (78, 47468), (82, 47432), (85, 47393), (86, 47381), (92, 47354),

Gene: Sophia_54 Start: 47993, Stop: 47304, Start Num: 20

Candidate Starts for Sophia_54:

(3, 48236), (4, 48227), (5, 48203), (6, 48173), (8, 48122), (9, 48083), (Start: 20 @47993 has 10 MA's), (Start: 22 @47984 has 135 MA's), (50, 47777), (51, 47774), (53, 47750), (56, 47720), (64, 47594), (68, 47573), (70, 47552), (78, 47462), (82, 47426), (85, 47387), (86, 47375), (92, 47348),

Gene: Sparkdehlily_73 Start: 43625, Stop: 44299, Start Num: 23

Candidate Starts for Sparkdehlily_73:

(Start: 23 @43625 has 18 MA's), (30, 43667), (50, 43826), (51, 43829), (53, 43853), (56, 43883), (61, 43961), (64, 44009), (68, 44030), (78, 44141), (82, 44177), (85, 44216), (86, 44228),

Gene: Sparky_63 Start: 43334, Stop: 44023, Start Num: 20

Candidate Starts for Sparky_63:

(12, 43268), (Start: 20 @43334 has 10 MA's), (34, 43418), (51, 43550), (53, 43574), (56, 43604), (70, 43775), (85, 43937), (86, 43949), (92, 43976),

Gene: Spartacus_68 Start: 42822, Stop: 43505, Start Num: 19

Candidate Starts for Spartacus_68:

(Start: 19 @42822 has 1 MA's), (34, 42900), (44, 42990), (51, 43032), (53, 43056), (56, 43086), (70, 43257), (85, 43419), (86, 43431),

Gene: Spartan300_54 Start: 47968, Stop: 47291, Start Num: 22

Candidate Starts for Spartan300_54:

(Start: 20 @47977 has 10 MA's), (Start: 22 @47968 has 135 MA's), (40, 47839), (43, 47806), (46, 47791), (50, 47761), (51, 47758), (53, 47734), (56, 47704), (61, 47626), (64, 47578), (68, 47557), (70, 47536), (78, 47446), (82, 47410), (85, 47371), (86, 47359), (92, 47332),

Gene: Squid_55 Start: 47996, Stop: 47316, Start Num: 22

Candidate Starts for Squid_55:

(3, 48248), (4, 48239), (5, 48215), (6, 48185), (8, 48134), (9, 48095), (Start: 20 @48005 has 10 MA's), (Start: 22 @47996 has 135 MA's), (50, 47789), (51, 47786), (53, 47762), (56, 47732), (61, 47654), (64, 47606), (68, 47585), (78, 47474), (82, 47438), (85, 47399), (86, 47387), (92, 47360),

Gene: Surely_55 Start: 48286, Stop: 47606, Start Num: 22

Candidate Starts for Surely_55:

(3, 48538), (4, 48529), (5, 48505), (6, 48475), (8, 48424), (9, 48385), (Start: 20 @48295 has 10 MA's), (Start: 22 @48286 has 135 MA's), (50, 48079), (51, 48076), (53, 48052), (56, 48022), (61, 47944), (64, 47896), (68, 47875), (78, 47764), (82, 47728), (85, 47689), (86, 47677), (92, 47650),

Gene: TDanisky_73 Start: 43625, Stop: 44299, Start Num: 23

Candidate Starts for TDanisky_73:

(Start: 23 @43625 has 18 MA's), (30, 43667), (50, 43826), (51, 43829), (53, 43853), (56, 43883), (61, 43961), (64, 44009), (68, 44030), (78, 44141), (82, 44177), (85, 44216), (86, 44228),

Gene: TPA4_59 Start: 41974, Stop: 42615, Start Num: 16

Candidate Starts for TPA4_59:

(11, 41911), (15, 41968), (16, 41974), (30, 42043), (33, 42064), (42, 42154), (50, 42193), (56, 42238), (61, 42301), (71, 42400), (79, 42490), (81, 42520), (85, 42553), (88, 42577),

Gene: Taj_71 Start: 44380, Stop: 45054, Start Num: 23

Candidate Starts for Taj_71:

(Start: 23 @44380 has 18 MA's), (30, 44422), (50, 44581), (51, 44584), (53, 44608), (56, 44638), (61, 44716), (64, 44764), (68, 44785), (78, 44896), (82, 44932), (85, 44971), (86, 44983),

Gene: TallGrassMM_55 Start: 47900, Stop: 47220, Start Num: 22

Candidate Starts for TallGrassMM_55:

(3, 48152), (4, 48143), (5, 48119), (6, 48089), (8, 48038), (9, 47999), (Start: 20 @47909 has 10 MA's), (Start: 22 @47900 has 135 MA's), (50, 47693), (51, 47690), (53, 47666), (56, 47636), (61, 47558), (64, 47510), (68, 47489), (78, 47378), (82, 47342), (85, 47303), (86, 47291), (92, 47264),

Gene: Thora_55 Start: 48282, Stop: 47602, Start Num: 22

Candidate Starts for Thora_55:

(Start: 20 @48291 has 10 MA's), (Start: 22 @48282 has 135 MA's), (50, 48075), (51, 48072), (53, 48048), (56, 48018), (64, 47892), (68, 47871), (70, 47850), (78, 47760), (85, 47685), (86, 47673), (92, 47646),

Gene: ThreeOh3D2_56 Start: 48502, Stop: 47822, Start Num: 22

Candidate Starts for ThreeOh3D2_56:

(Start: 20 @48511 has 10 MA's), (Start: 22 @48502 has 135 MA's), (50, 48295), (51, 48292), (53, 48268), (56, 48238), (64, 48112), (68, 48091), (70, 48070), (78, 47980), (85, 47905), (86, 47893), (92, 47866),

Gene: Timmi_54 Start: 47985, Stop: 47305, Start Num: 22

Candidate Starts for Timmi_54:

(3, 48237), (4, 48228), (5, 48204), (6, 48174), (8, 48123), (9, 48084), (Start: 20 @47994 has 10 MA's), (Start: 22 @47985 has 135 MA's), (50, 47778), (51, 47775), (53, 47751), (56, 47721), (61, 47643), (64, 47595), (68, 47574), (78, 47463), (82, 47427), (85, 47388), (86, 47376), (92, 47349),

Gene: TomBombadil_55 Start: 48270, Stop: 47590, Start Num: 22

Candidate Starts for TomBombadil_55:

(3, 48522), (4, 48513), (5, 48489), (6, 48459), (8, 48408), (9, 48369), (Start: 20 @48279 has 10 MA's), (Start: 22 @48270 has 135 MA's), (50, 48063), (51, 48060), (53, 48036), (56, 48006), (61, 47928), (64, 47880), (68, 47859), (78, 47748), (82, 47712), (85, 47673), (86, 47661), (92, 47634),

Gene: Tomlarah_56 Start: 48797, Stop: 48117, Start Num: 22

Candidate Starts for Tomlarah_56:

(Start: 20 @48806 has 10 MA's), (Start: 22 @48797 has 135 MA's), (50, 48590), (51, 48587), (53, 48563), (56, 48533), (64, 48407), (68, 48386), (70, 48365), (78, 48275), (85, 48200), (86, 48188), (92, 48161),

Gene: Tootsieroll_66 Start: 42088, Stop: 42765, Start Num: 23

Candidate Starts for Tootsieroll_66:

(Start: 23 @42088 has 18 MA's), (30, 42130), (50, 42289), (51, 42292), (53, 42316), (56, 42346), (61, 42424), (64, 42472), (68, 42493), (78, 42604), (82, 42640), (85, 42679), (86, 42691),

Gene: Toron_74 Start: 45951, Stop: 46631, Start Num: 17

Candidate Starts for Toron_74:

(17, 45951), (30, 46008), (33, 46026), (34, 46035), (44, 46125), (51, 46167), (53, 46191), (56, 46221), (70, 46392), (85, 46554), (86, 46566), (91, 46590), (92, 46593),

Gene: Tracker_10 Start: 5745, Stop: 6419, Start Num: 18

Candidate Starts for Tracker_10:

(7, 5610), (14, 5718), (Start: 18 @5745 has 15 MA's), (49, 5946), (50, 5949), (57, 6006), (60, 6039), (68, 6150), (79, 6267), (89, 6357),

Gene: UAch1_54 Start: 48022, Stop: 47345, Start Num: 22

Candidate Starts for UAch1_54:

(3, 48274), (4, 48265), (5, 48241), (6, 48211), (8, 48160), (9, 48121), (Start: 20 @48031 has 10 MA's), (Start: 22 @48022 has 135 MA's), (43, 47860), (46, 47845), (51, 47812), (53, 47788), (56, 47758), (61, 47680), (64, 47632), (68, 47611), (70, 47590), (78, 47500), (82, 47464), (85, 47425), (86, 47413), (92, 47386),

Gene: UncleHowie_54 Start: 47697, Stop: 47020, Start Num: 22

Candidate Starts for UncleHowie_54:

(Start: 20 @47706 has 10 MA's), (Start: 22 @47697 has 135 MA's), (50, 47490), (51, 47487), (53, 47463), (56, 47433), (64, 47307), (68, 47286), (70, 47265), (78, 47175), (82, 47139), (85, 47100), (86, 47088), (92, 47061),

Gene: UncleRicky_65 Start: 42413, Stop: 43090, Start Num: 23

Candidate Starts for UncleRicky_65:

(Start: 23 @42413 has 18 MA's), (30, 42455), (50, 42614), (51, 42617), (53, 42641), (56, 42671), (61, 42749), (64, 42797), (68, 42818), (78, 42929), (82, 42965), (85, 43004), (86, 43016),

Gene: Usavi_55 Start: 48365, Stop: 47685, Start Num: 22

Candidate Starts for Usavi_55:

(Start: 20 @48374 has 10 MA's), (Start: 22 @48365 has 135 MA's), (50, 48158), (51, 48155), (53, 48131), (56, 48101), (64, 47975), (68, 47954), (70, 47933), (78, 47843), (85, 47768), (86, 47756), (92, 47729),

Gene: Vaishali24_53 Start: 47657, Stop: 46980, Start Num: 22

Candidate Starts for Vaishali24_53:

(3, 47909), (4, 47900), (5, 47876), (6, 47846), (8, 47795), (9, 47756), (Start: 20 @47666 has 10 MA's), (Start: 22 @47657 has 135 MA's), (43, 47495), (46, 47480), (51, 47447), (53, 47423), (56, 47393), (61, 47315), (64, 47267), (68, 47246), (70, 47225), (78, 47135), (82, 47099), (85, 47060), (86, 47048), (92, 47021),

Gene: Valjean_54 Start: 47978, Stop: 47301, Start Num: 22

Candidate Starts for Valjean_54:

(Start: 20 @47987 has 10 MA's), (Start: 22 @47978 has 135 MA's), (40, 47849), (43, 47816), (46, 47801), (50, 47771), (51, 47768), (53, 47744), (56, 47714), (61, 47636), (64, 47588), (68, 47567), (70, 47546), (78, 47456), (82, 47420), (85, 47381), (86, 47369), (92, 47342),

Gene: Vaticameos_52 Start: 46488, Stop: 45808, Start Num: 22

Candidate Starts for Vaticameos_52:

(Start: 20 @46497 has 10 MA's), (Start: 22 @46488 has 135 MA's), (50, 46281), (51, 46278), (53, 46254), (56, 46224), (64, 46098), (68, 46077), (70, 46056), (78, 45966), (85, 45891), (86, 45879), (92, 45852),

Gene: Vista_54 Start: 47998, Stop: 47321, Start Num: 22

Candidate Starts for Vista_54:

(3, 48250), (4, 48241), (5, 48217), (6, 48187), (8, 48136), (9, 48097), (Start: 20 @48007 has 10 MA's), (Start: 22 @47998 has 135 MA's), (50, 47791), (51, 47788), (53, 47764), (56, 47734), (64, 47608), (68, 47587), (70, 47566), (78, 47476), (82, 47440), (85, 47401), (86, 47389), (92, 47362),

Gene: Vortex_55 Start: 47980, Stop: 47300, Start Num: 22

Candidate Starts for Vortex_55:

(3, 48232), (4, 48223), (5, 48199), (6, 48169), (8, 48118), (9, 48079), (Start: 20 @47989 has 10 MA's), (Start: 22 @47980 has 135 MA's), (50, 47773), (51, 47770), (53, 47746), (56, 47716), (61, 47638), (64, 47590), (68, 47569), (78, 47458), (82, 47422), (85, 47383), (86, 47371), (92, 47344),

Gene: Waterdiva_55 Start: 48359, Stop: 47679, Start Num: 22

Candidate Starts for Waterdiva_55:

(Start: 20 @48368 has 10 MA's), (Start: 22 @48359 has 135 MA's), (50, 48152), (51, 48149), (53, 48125), (56, 48095), (64, 47969), (68, 47948), (70, 47927), (78, 47837), (85, 47762), (86, 47750), (92, 47723),

Gene: Wee_71 Start: 44456, Stop: 45130, Start Num: 23

Candidate Starts for Wee_71:

(Start: 23 @44456 has 18 MA's), (30, 44498), (50, 44657), (51, 44660), (53, 44684), (56, 44714), (61, 44792), (64, 44840), (68, 44861), (78, 44972), (82, 45008), (85, 45047), (86, 45059),

Gene: Weher20_55 Start: 48803, Stop: 48123, Start Num: 22

Candidate Starts for Weher20_55:

(Start: 20 @48812 has 10 MA's), (Start: 22 @48803 has 135 MA's), (50, 48596), (51, 48593), (53, 48569), (56, 48539), (64, 48413), (68, 48392), (70, 48371), (78, 48281), (85, 48206), (86, 48194), (92, 48167),

Gene: Wheezy_10 Start: 6003, Stop: 6677, Start Num: 18

Candidate Starts for Wheezy_10:

(7, 5868), (14, 5976), (Start: 18 @6003 has 15 MA's), (49, 6204), (50, 6207), (57, 6264), (60, 6297), (68, 6408), (79, 6525), (89, 6615),

Gene: WillSterrel_67 Start: 43939, Stop: 44616, Start Num: 23

Candidate Starts for WillSterrel_67:

(Start: 23 @43939 has 18 MA's), (30, 43981), (50, 44140), (51, 44143), (53, 44167), (56, 44197), (61, 44275), (64, 44323), (68, 44344), (78, 44455), (82, 44491), (85, 44530), (86, 44542),

Gene: Windsor_55 Start: 48503, Stop: 47823, Start Num: 22

Candidate Starts for Windsor_55:

(Start: 20 @48512 has 10 MA's), (Start: 22 @48503 has 135 MA's), (50, 48296), (51, 48293), (53, 48269), (56, 48239), (64, 48113), (68, 48092), (70, 48071), (78, 47981), (85, 47906), (86, 47894), (92, 47867),

Gene: Xavier_54 Start: 47996, Stop: 47307, Start Num: 20

Candidate Starts for Xavier_54:

(3, 48239), (4, 48230), (5, 48206), (6, 48176), (8, 48125), (9, 48086), (Start: 20 @47996 has 10 MA's), (Start: 22 @47987 has 135 MA's), (50, 47780), (51, 47777), (53, 47753), (56, 47723), (61, 47645), (64, 47597), (68, 47576), (78, 47465), (82, 47429), (85, 47390), (86, 47378), (92, 47351),

Gene: Zaider_55 Start: 48222, Stop: 47545, Start Num: 22

Candidate Starts for Zaider_55:

(Start: 20 @48231 has 10 MA's), (Start: 22 @48222 has 135 MA's), (40, 48093), (43, 48060), (46, 48045), (50, 48015), (51, 48012), (53, 47988), (56, 47958), (61, 47880), (64, 47832), (68, 47811), (70, 47790), (78, 47700), (82, 47664), (85, 47625), (86, 47613), (92, 47586),

Gene: Zelda_55 Start: 48324, Stop: 47644, Start Num: 22

Candidate Starts for Zelda_55:

(2, 48591), (3, 48576), (4, 48567), (5, 48543), (6, 48513), (8, 48462), (9, 48423), (Start: 20 @48333 has 10 MA's), (Start: 22 @48324 has 135 MA's), (50, 48117), (51, 48114), (53, 48090), (56, 48060), (64, 47934), (68, 47913), (70, 47892), (78, 47802), (85, 47727), (86, 47715), (92, 47688),

Gene: Zenteno07_58 Start: 47935, Stop: 47234, Start Num: 20

Candidate Starts for Zenteno07_58:

(1, 48472), (12, 48004), (Start: 20 @47935 has 10 MA's), (Start: 23 @47920 has 18 MA's), (27, 47890), (56, 47668), (60, 47632), (69, 47506), (74, 47437), (86, 47308), (87, 47302), (92, 47281),