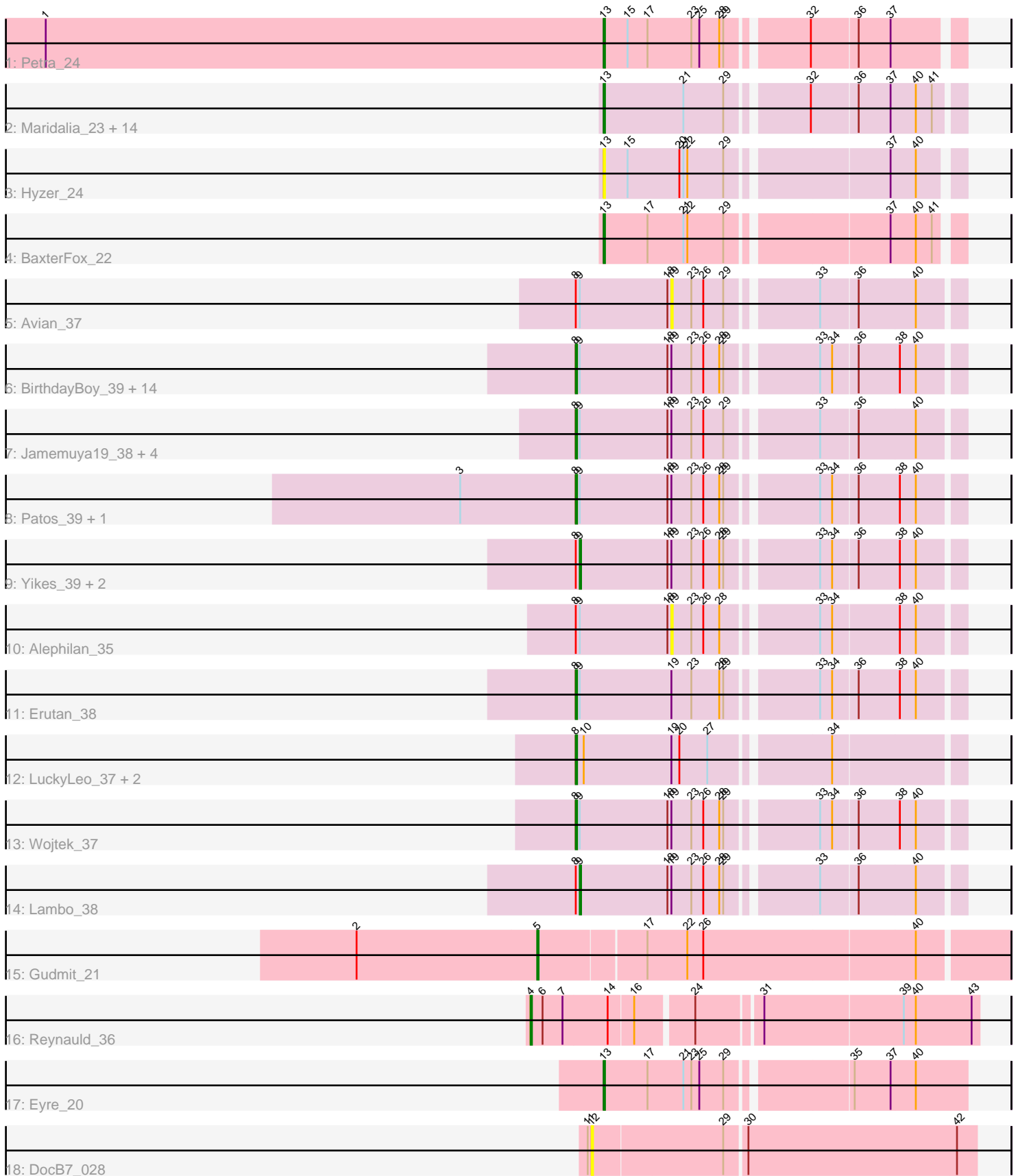


Pham 194053



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 194053 Report

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

Pham number 194053 has 55 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Petra_24
- Track 2 : Maridalia_23, Tayonia_24, Suscepit_24, Eudoria_24, AlumE_23, Neobush_24, Antonio_24, PantheRoc_23, BoyNamedSue_23, Agueybana_23, Yeezy_24, Manasvini_24, Zameen_24, Trumpet_24, Kita_24
- Track 3 : Hyzer_24
- Track 4 : BaxterFox_22
- Track 5 : Avian_37
- Track 6 : BirthdayBoy_39, ParvusTarda_38, OtterstedtS21_38, Jalebi_37, GretelLyn_38, DoobyDoo_37, GOATification_39, Fulcrum_39, Mima20_39, Zany_37, Gibbin_39, Sampudon_38, MoiGyank_40, Lila22_37, Sadboi_39
- Track 7 : Jamemuya19_38, NovaSharks_38, Rumi_38, Genamy16_39, Alyssamiracle_39
- Track 8 : Patos_39, NorManre_39
- Track 9 : Yikes_39, DaviePasture_38, Ranch_38
- Track 10 : Alephilan_35
- Track 11 : Erutan_38
- Track 12 : LuckyLeo_37, Apeppi_35, Tillicus_38
- Track 13 : Wojtek_37
- Track 14 : Lambo_38
- Track 15 : Gudmit_21
- Track 16 : Reynauld_36
- Track 17 : Eyre_20
- Track 18 : DocB7_028

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

The start number called the most often in the published annotations is 8, it was called in 24 of the 48 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alyssamiracle_39, Apeppi_35, BirthdayBoy_39, DoobyDoo_37, Erutan_38, Fulcrum_39, GOATification_39, Genamy16_39, Gibbin_39, GretelLyn_38, Jalebi_37, Jamemuya19_38, Lila22_37, LuckyLeo_37, Mima20_39, MoiGyank_40, NorManre_39, NovaSharks_38, OtterstedtS21_38, ParvusTarda_38, Patos_39,

Rumi_38, Sadboi_39, Sampudon_38, Tillicus_38, Wojtek_37, Zany_37,

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

- Alephilan_35, Avian_37, DaviePasture_38, Lambo_38, Ranch_38, Yikes_39,

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

- Agueybana_23, AlumE_23, Antonio_24, BaxterFox_22, BoyNamedSue_23, DocB7_028, Eudoria_24, Eyre_20, Gudmit_21, Hyzer_24, Kita_24, Manasvini_24, Maridalia_23, Neobush_24, PantheRoc_23, Petra_24, Reynauld_36, Susceptit_24, Tayonia_24, Trumpet_24, Yeezy_24, Zameen_24,

Summary by start number:

Start 4:

- Found in 1 of 55 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 48
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Reynauld_36 (singleton),

Start 5:

- Found in 1 of 55 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 48
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gudmit_21 (singleton),

Start 8:

- Found in 33 of 55 (60.0%) of genes in pham
- Manual Annotations of this start: 24 of 48
- Called 81.8% of time when present
- Phage (with cluster) where this start called: Alyssamiracle_39 (DV), Apeppi_35 (DV), BirthdayBoy_39 (DV), DoobyDoo_37 (DV), Erutan_38 (DV), Fulcrum_39 (DV), GOATification_39 (DV), Genamy16_39 (DV), Gibbin_39 (DV), GretelLyn_38 (DV), Jalebi_37 (DV), Jamemuya19_38 (DV), Lila22_37 (DV), LuckyLeo_37 (DV), Mima20_39 (DV), MoiGyank_40 (DV), NorManre_39 (DV), NovaSharks_38 (DV), OtterstedtS21_38 (DV), ParvusTarda_38 (DV), Patos_39 (DV), Rumi_38 (DV), Sadboi_39 (DV), Sampudon_38 (DV), Tillicus_38 (DV), Wojtek_37 (DV), Zany_37 (DV),

Start 9:

- Found in 30 of 55 (54.5%) of genes in pham
- Manual Annotations of this start: 4 of 48
- Called 13.3% of time when present
- Phage (with cluster) where this start called: DaviePasture_38 (DV), Lambo_38 (DV), Ranch_38 (DV), Yikes_39 (DV),

Start 12:

- Found in 1 of 55 (1.8%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DocB7_028 (singleton),

Start 13:

- Found in 19 of 55 (34.5%) of genes in pham

- Manual Annotations of this start: 18 of 48
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agueybana_23 (CZ1), AlumE_23 (CZ1), Antonio_24 (CZ1), BaxterFox_22 (CZ3), BoyNamedSue_23 (CZ1), Eudoria_24 (CZ1), Eyre_20 (singleton), Hyzer_24 (CZ1), Kita_24 (CZ1), Manasvini_24 (CZ1), Maridalia_23 (CZ1), Neobush_24 (CZ1), PantheRoc_23 (CZ3), Petra_24 (CV), Suscepit_24 (CZ1), Tayonia_24 (CZ1), Trumpet_24 (CZ1), Yeezy_24 (CZ3), Zameen_24 (CZ1),

Start 19:

- Found in 33 of 55 (60.0%) of genes in pham
- No Manual Annotations of this start.
- Called 6.1% of time when present
- Phage (with cluster) where this start called: Alephilan_35 (DV), Avian_37 (DV),

Summary by clusters:

There are 5 clusters represented in this pham: DV, CZ3, singleton, CZ1, CV,

Info for manual annotations of cluster CV:

- Start number 13 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CZ1:

- Start number 13 was manually annotated 13 times for cluster CZ1.

Info for manual annotations of cluster CZ3:

- Start number 13 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster DV:

- Start number 8 was manually annotated 24 times for cluster DV.
- Start number 9 was manually annotated 4 times for cluster DV.

Gene Information:

Gene: Agueybana_23 Start: 21382, Stop: 21633, Start Num: 13

Candidate Starts for Agueybana_23:

(Start: 13 @21382 has 18 MA's), (21, 21442), (29, 21472), (32, 21526), (36, 21559), (37, 21583), (40, 21601), (41, 21613),

Gene: Alephilan_35 Start: 31881, Stop: 32081, Start Num: 19

Candidate Starts for Alephilan_35:

(Start: 8 @31809 has 24 MA's), (Start: 9 @31812 has 4 MA's), (18, 31878), (19, 31881), (23, 31896), (26, 31905), (28, 31917), (33, 31980), (34, 31989), (38, 32037), (40, 32049),

Gene: AlumE_23 Start: 21381, Stop: 21632, Start Num: 13

Candidate Starts for AlumE_23:

(Start: 13 @21381 has 18 MA's), (21, 21441), (29, 21471), (32, 21525), (36, 21558), (37, 21582), (40, 21600), (41, 21612),

Gene: Alyssamiracle_39 Start: 30903, Stop: 31175, Start Num: 8

Candidate Starts for Alyssamiracle_39:

(Start: 8 @30903 has 24 MA's), (Start: 9 @30906 has 4 MA's), (18, 30972), (19, 30975), (23, 30990), (26, 30999), (29, 31014), (33, 31074), (36, 31101), (40, 31143),

Gene: Antonio_24 Start: 21502, Stop: 21753, Start Num: 13

Candidate Starts for Antonio_24:

(Start: 13 @21502 has 18 MA's), (21, 21562), (29, 21592), (32, 21646), (36, 21679), (37, 21703), (40, 21721), (41, 21733),

Gene: Apeppi_35 Start: 31991, Stop: 32263, Start Num: 8

Candidate Starts for Apeppi_35:

(Start: 8 @31991 has 24 MA's), (10, 31997), (19, 32063), (20, 32069), (27, 32090), (34, 32171),

Gene: Avian_37 Start: 30957, Stop: 31157, Start Num: 19

Candidate Starts for Avian_37:

(Start: 8 @30885 has 24 MA's), (Start: 9 @30888 has 4 MA's), (18, 30954), (19, 30957), (23, 30972), (26, 30981), (29, 30996), (33, 31056), (36, 31083), (40, 31125),

Gene: BaxterFox_22 Start: 20708, Stop: 20956, Start Num: 13

Candidate Starts for BaxterFox_22:

(Start: 13 @20708 has 18 MA's), (17, 20741), (21, 20768), (22, 20771), (29, 20798), (37, 20909), (40, 20927), (41, 20939),

Gene: BirthdayBoy_39 Start: 32632, Stop: 32904, Start Num: 8

Candidate Starts for BirthdayBoy_39:

(Start: 8 @32632 has 24 MA's), (Start: 9 @32635 has 4 MA's), (18, 32701), (19, 32704), (23, 32719), (26, 32728), (28, 32740), (29, 32743), (33, 32803), (34, 32812), (36, 32830), (38, 32860), (40, 32872),

Gene: BoyNamedSue_23 Start: 21381, Stop: 21632, Start Num: 13

Candidate Starts for BoyNamedSue_23:

(Start: 13 @21381 has 18 MA's), (21, 21441), (29, 21471), (32, 21525), (36, 21558), (37, 21582), (40, 21600), (41, 21612),

Gene: DaviePasture_38 Start: 32439, Stop: 32708, Start Num: 9

Candidate Starts for DaviePasture_38:

(Start: 8 @32436 has 24 MA's), (Start: 9 @32439 has 4 MA's), (18, 32505), (19, 32508), (23, 32523), (26, 32532), (28, 32544), (29, 32547), (33, 32607), (34, 32616), (36, 32634), (38, 32664), (40, 32676),

Gene: DocB7_028 Start: 33620, Stop: 33901, Start Num: 12

Candidate Starts for DocB7_028:

(11, 33617), (12, 33620), (29, 33716), (30, 33731), (42, 33887),

Gene: DoobyDoo_37 Start: 31583, Stop: 31855, Start Num: 8

Candidate Starts for DoobyDoo_37:

(Start: 8 @31583 has 24 MA's), (Start: 9 @31586 has 4 MA's), (18, 31652), (19, 31655), (23, 31670), (26, 31679), (28, 31691), (29, 31694), (33, 31754), (34, 31763), (36, 31781), (38, 31811), (40, 31823),

Gene: Erutan_38 Start: 32091, Stop: 32363, Start Num: 8

Candidate Starts for Erutan_38:

(Start: 8 @32091 has 24 MA's), (Start: 9 @32094 has 4 MA's), (19, 32163), (23, 32178), (28, 32199), (29, 32202), (33, 32262), (34, 32271), (36, 32289), (38, 32319), (40, 32331),

Gene: Eudoria_24 Start: 21502, Stop: 21753, Start Num: 13

Candidate Starts for Eudoria_24:

(Start: 13 @21502 has 18 MA's), (21, 21562), (29, 21592), (32, 21646), (36, 21679), (37, 21703), (40, 21721), (41, 21733),

Gene: Eyre_20 Start: 18730, Stop: 18987, Start Num: 13

Candidate Starts for Eyre_20:

(Start: 13 @18730 has 18 MA's), (17, 18763), (21, 18790), (23, 18796), (25, 18802), (29, 18820), (35, 18904), (37, 18931), (40, 18949),

Gene: Fulcrum_39 Start: 32612, Stop: 32884, Start Num: 8

Candidate Starts for Fulcrum_39:

(Start: 8 @32612 has 24 MA's), (Start: 9 @32615 has 4 MA's), (18, 32681), (19, 32684), (23, 32699), (26, 32708), (28, 32720), (29, 32723), (33, 32783), (34, 32792), (36, 32810), (38, 32840), (40, 32852),

Gene: GOATification_39 Start: 32612, Stop: 32884, Start Num: 8

Candidate Starts for GOATification_39:

(Start: 8 @32612 has 24 MA's), (Start: 9 @32615 has 4 MA's), (18, 32681), (19, 32684), (23, 32699), (26, 32708), (28, 32720), (29, 32723), (33, 32783), (34, 32792), (36, 32810), (38, 32840), (40, 32852),

Gene: Genamy16_39 Start: 30903, Stop: 31175, Start Num: 8

Candidate Starts for Genamy16_39:

(Start: 8 @30903 has 24 MA's), (Start: 9 @30906 has 4 MA's), (18, 30972), (19, 30975), (23, 30990), (26, 30999), (29, 31014), (33, 31074), (36, 31101), (40, 31143),

Gene: Gibbin_39 Start: 32710, Stop: 32982, Start Num: 8

Candidate Starts for Gibbin_39:

(Start: 8 @32710 has 24 MA's), (Start: 9 @32713 has 4 MA's), (18, 32779), (19, 32782), (23, 32797), (26, 32806), (28, 32818), (29, 32821), (33, 32881), (34, 32890), (36, 32908), (38, 32938), (40, 32950),

Gene: Gretellyn_38 Start: 32976, Stop: 33248, Start Num: 8

Candidate Starts for Gretellyn_38:

(Start: 8 @32976 has 24 MA's), (Start: 9 @32979 has 4 MA's), (18, 33045), (19, 33048), (23, 33063), (26, 33072), (28, 33084), (29, 33087), (33, 33147), (34, 33156), (36, 33174), (38, 33204), (40, 33216),

Gene: Gudmit_21 Start: 18691, Stop: 19032, Start Num: 5

Candidate Starts for Gudmit_21:

(2, 18556), (Start: 5 @18691 has 1 MA's), (17, 18769), (22, 18799), (26, 18811), (40, 18967),

Gene: Hyzer_24 Start: 22048, Stop: 22296, Start Num: 13

Candidate Starts for Hyzer_24:

(Start: 13 @22048 has 18 MA's), (15, 22066), (20, 22105), (21, 22108), (22, 22111), (29, 22138), (37, 22249), (40, 22267),

Gene: Jalebi_37 Start: 33145, Stop: 33417, Start Num: 8

Candidate Starts for Jalebi_37:

(Start: 8 @33145 has 24 MA's), (Start: 9 @33148 has 4 MA's), (18, 33214), (19, 33217), (23, 33232), (26, 33241), (28, 33253), (29, 33256), (33, 33316), (34, 33325), (36, 33343), (38, 33373), (40, 33385),

Gene: Jamemuya19_38 Start: 30493, Stop: 30765, Start Num: 8

Candidate Starts for Jamemuya19_38:

(Start: 8 @30493 has 24 MA's), (Start: 9 @30496 has 4 MA's), (18, 30562), (19, 30565), (23, 30580), (26, 30589), (29, 30604), (33, 30664), (36, 30691), (40, 30733),

Gene: Kita_24 Start: 21502, Stop: 21753, Start Num: 13

Candidate Starts for Kita_24:

(Start: 13 @21502 has 18 MA's), (21, 21562), (29, 21592), (32, 21646), (36, 21679), (37, 21703), (40, 21721), (41, 21733),

Gene: Lambo_38 Start: 32633, Stop: 32902, Start Num: 9

Candidate Starts for Lambo_38:

(Start: 8 @32630 has 24 MA's), (Start: 9 @32633 has 4 MA's), (18, 32699), (19, 32702), (23, 32717), (26, 32726), (28, 32738), (29, 32741), (33, 32801), (36, 32828), (40, 32870),

Gene: Lila22_37 Start: 32585, Stop: 32857, Start Num: 8

Candidate Starts for Lila22_37:

(Start: 8 @32585 has 24 MA's), (Start: 9 @32588 has 4 MA's), (18, 32654), (19, 32657), (23, 32672), (26, 32681), (28, 32693), (29, 32696), (33, 32756), (34, 32765), (36, 32783), (38, 32813), (40, 32825),

Gene: LuckyLeo_37 Start: 31991, Stop: 32263, Start Num: 8

Candidate Starts for LuckyLeo_37:

(Start: 8 @31991 has 24 MA's), (10, 31997), (19, 32063), (20, 32069), (27, 32090), (34, 32171),

Gene: Manasvini_24 Start: 21502, Stop: 21753, Start Num: 13

Candidate Starts for Manasvini_24:

(Start: 13 @21502 has 18 MA's), (21, 21562), (29, 21592), (32, 21646), (36, 21679), (37, 21703), (40, 21721), (41, 21733),

Gene: Maridalia_23 Start: 21502, Stop: 21753, Start Num: 13

Candidate Starts for Maridalia_23:

(Start: 13 @21502 has 18 MA's), (21, 21562), (29, 21592), (32, 21646), (36, 21679), (37, 21703), (40, 21721), (41, 21733),

Gene: Mima20_39 Start: 32334, Stop: 32606, Start Num: 8

Candidate Starts for Mima20_39:

(Start: 8 @32334 has 24 MA's), (Start: 9 @32337 has 4 MA's), (18, 32403), (19, 32406), (23, 32421), (26, 32430), (28, 32442), (29, 32445), (33, 32505), (34, 32514), (36, 32532), (38, 32562), (40, 32574),

Gene: MoiGyank_40 Start: 33015, Stop: 33287, Start Num: 8

Candidate Starts for MoiGyank_40:

(Start: 8 @33015 has 24 MA's), (Start: 9 @33018 has 4 MA's), (18, 33084), (19, 33087), (23, 33102), (26, 33111), (28, 33123), (29, 33126), (33, 33186), (34, 33195), (36, 33213), (38, 33243), (40, 33255),

Gene: Neobush_24 Start: 21502, Stop: 21753, Start Num: 13

Candidate Starts for Neobush_24:

(Start: 13 @21502 has 18 MA's), (21, 21562), (29, 21592), (32, 21646), (36, 21679), (37, 21703), (40, 21721), (41, 21733),

Gene: NorManre_39 Start: 32221, Stop: 32493, Start Num: 8

Candidate Starts for NorManre_39:

(3, 32134), (Start: 8 @32221 has 24 MA's), (Start: 9 @32224 has 4 MA's), (18, 32290), (19, 32293), (23, 32308), (26, 32317), (28, 32329), (29, 32332), (33, 32392), (34, 32401), (36, 32419), (38, 32449), (40, 32461),

Gene: NovaSharks_38 Start: 30493, Stop: 30765, Start Num: 8

Candidate Starts for NovaSharks_38:

(Start: 8 @30493 has 24 MA's), (Start: 9 @30496 has 4 MA's), (18, 30562), (19, 30565), (23, 30580), (26, 30589), (29, 30604), (33, 30664), (36, 30691), (40, 30733),

Gene: OtterstedtS21_38 Start: 32292, Stop: 32564, Start Num: 8

Candidate Starts for OtterstedtS21_38:

(Start: 8 @32292 has 24 MA's), (Start: 9 @32295 has 4 MA's), (18, 32361), (19, 32364), (23, 32379), (26, 32388), (28, 32400), (29, 32403), (33, 32463), (34, 32472), (36, 32490), (38, 32520), (40, 32532),

Gene: PantheRoc_23 Start: 20700, Stop: 20951, Start Num: 13

Candidate Starts for PantheRoc_23:

(Start: 13 @20700 has 18 MA's), (21, 20760), (29, 20790), (32, 20844), (36, 20877), (37, 20901), (40, 20919), (41, 20931),

Gene: ParvusTarda_38 Start: 31760, Stop: 32032, Start Num: 8

Candidate Starts for ParvusTarda_38:

(Start: 8 @31760 has 24 MA's), (Start: 9 @31763 has 4 MA's), (18, 31829), (19, 31832), (23, 31847), (26, 31856), (28, 31868), (29, 31871), (33, 31931), (34, 31940), (36, 31958), (38, 31988), (40, 32000),

Gene: Patos_39 Start: 32221, Stop: 32493, Start Num: 8

Candidate Starts for Patos_39:

(3, 32134), (Start: 8 @32221 has 24 MA's), (Start: 9 @32224 has 4 MA's), (18, 32290), (19, 32293), (23, 32308), (26, 32317), (28, 32329), (29, 32332), (33, 32392), (34, 32401), (36, 32419), (38, 32449), (40, 32461),

Gene: Petra_24 Start: 20354, Stop: 20602, Start Num: 13

Candidate Starts for Petra_24:

(1, 19934), (Start: 13 @20354 has 18 MA's), (15, 20372), (17, 20387), (23, 20420), (25, 20426), (28, 20441), (29, 20444), (32, 20498), (36, 20531), (37, 20555),

Gene: Ranch_38 Start: 31121, Stop: 31390, Start Num: 9

Candidate Starts for Ranch_38:

(Start: 8 @31118 has 24 MA's), (Start: 9 @31121 has 4 MA's), (18, 31187), (19, 31190), (23, 31205), (26, 31214), (28, 31226), (29, 31229), (33, 31289), (34, 31298), (36, 31316), (38, 31346), (40, 31358),

Gene: Reynauld_36 Start: 37401, Stop: 37718, Start Num: 4

Candidate Starts for Reynauld_36:

(Start: 4 @37401 has 1 MA's), (6, 37410), (7, 37425), (14, 37458), (16, 37476), (24, 37515), (31, 37560), (39, 37662), (40, 37671), (43, 37713),

Gene: Rumi_38 Start: 30496, Stop: 30768, Start Num: 8

Candidate Starts for Rumi_38:

(Start: 8 @30496 has 24 MA's), (Start: 9 @30499 has 4 MA's), (18, 30565), (19, 30568), (23, 30583), (26, 30592), (29, 30607), (33, 30667), (36, 30694), (40, 30736),

Gene: Sadboi_39 Start: 32977, Stop: 33249, Start Num: 8

Candidate Starts for Sadboi_39:

(Start: 8 @32977 has 24 MA's), (Start: 9 @32980 has 4 MA's), (18, 33046), (19, 33049), (23, 33064), (26, 33073), (28, 33085), (29, 33088), (33, 33148), (34, 33157), (36, 33175), (38, 33205), (40, 33217),

Gene: Sampudon_38 Start: 33145, Stop: 33417, Start Num: 8

Candidate Starts for Sampudon_38:

(Start: 8 @33145 has 24 MA's), (Start: 9 @33148 has 4 MA's), (18, 33214), (19, 33217), (23, 33232), (26, 33241), (28, 33253), (29, 33256), (33, 33316), (34, 33325), (36, 33343), (38, 33373), (40, 33385),

Gene: Suscepit_24 Start: 21502, Stop: 21753, Start Num: 13

Candidate Starts for Suscepit_24:

(Start: 13 @21502 has 18 MA's), (21, 21562), (29, 21592), (32, 21646), (36, 21679), (37, 21703), (40, 21721), (41, 21733),

Gene: Tayonia_24 Start: 21502, Stop: 21753, Start Num: 13

Candidate Starts for Tayonia_24:

(Start: 13 @21502 has 18 MA's), (21, 21562), (29, 21592), (32, 21646), (36, 21679), (37, 21703), (40, 21721), (41, 21733),

Gene: Tillicus_38 Start: 31585, Stop: 31857, Start Num: 8

Candidate Starts for Tillicus_38:

(Start: 8 @31585 has 24 MA's), (10, 31591), (19, 31657), (20, 31663), (27, 31684), (34, 31765),

Gene: Trumpet_24 Start: 21502, Stop: 21753, Start Num: 13

Candidate Starts for Trumpet_24:

(Start: 13 @21502 has 18 MA's), (21, 21562), (29, 21592), (32, 21646), (36, 21679), (37, 21703), (40, 21721), (41, 21733),

Gene: Wojtek_37 Start: 31844, Stop: 32116, Start Num: 8

Candidate Starts for Wojtek_37:

(Start: 8 @31844 has 24 MA's), (Start: 9 @31847 has 4 MA's), (18, 31913), (19, 31916), (23, 31931), (26, 31940), (28, 31952), (29, 31955), (33, 32015), (34, 32024), (36, 32042), (38, 32072), (40, 32084),

Gene: Yeezy_24 Start: 20724, Stop: 20975, Start Num: 13

Candidate Starts for Yeezy_24:

(Start: 13 @20724 has 18 MA's), (21, 20784), (29, 20814), (32, 20868), (36, 20901), (37, 20925), (40, 20943), (41, 20955),

Gene: Yikes_39 Start: 33227, Stop: 33496, Start Num: 9

Candidate Starts for Yikes_39:

(Start: 8 @33224 has 24 MA's), (Start: 9 @33227 has 4 MA's), (18, 33293), (19, 33296), (23, 33311), (26, 33320), (28, 33332), (29, 33335), (33, 33395), (34, 33404), (36, 33422), (38, 33452), (40, 33464),

Gene: Zameen_24 Start: 21502, Stop: 21753, Start Num: 13

Candidate Starts for Zameen_24:

(Start: 13 @21502 has 18 MA's), (21, 21562), (29, 21592), (32, 21646), (36, 21679), (37, 21703), (40, 21721), (41, 21733),

Gene: Zany_37 Start: 32749, Stop: 33021, Start Num: 8

Candidate Starts for Zany_37:

(Start: 8 @32749 has 24 MA's), (Start: 9 @32752 has 4 MA's), (18, 32818), (19, 32821), (23, 32836), (26, 32845), (28, 32857), (29, 32860), (33, 32920), (34, 32929), (36, 32947), (38, 32977), (40, 32989),