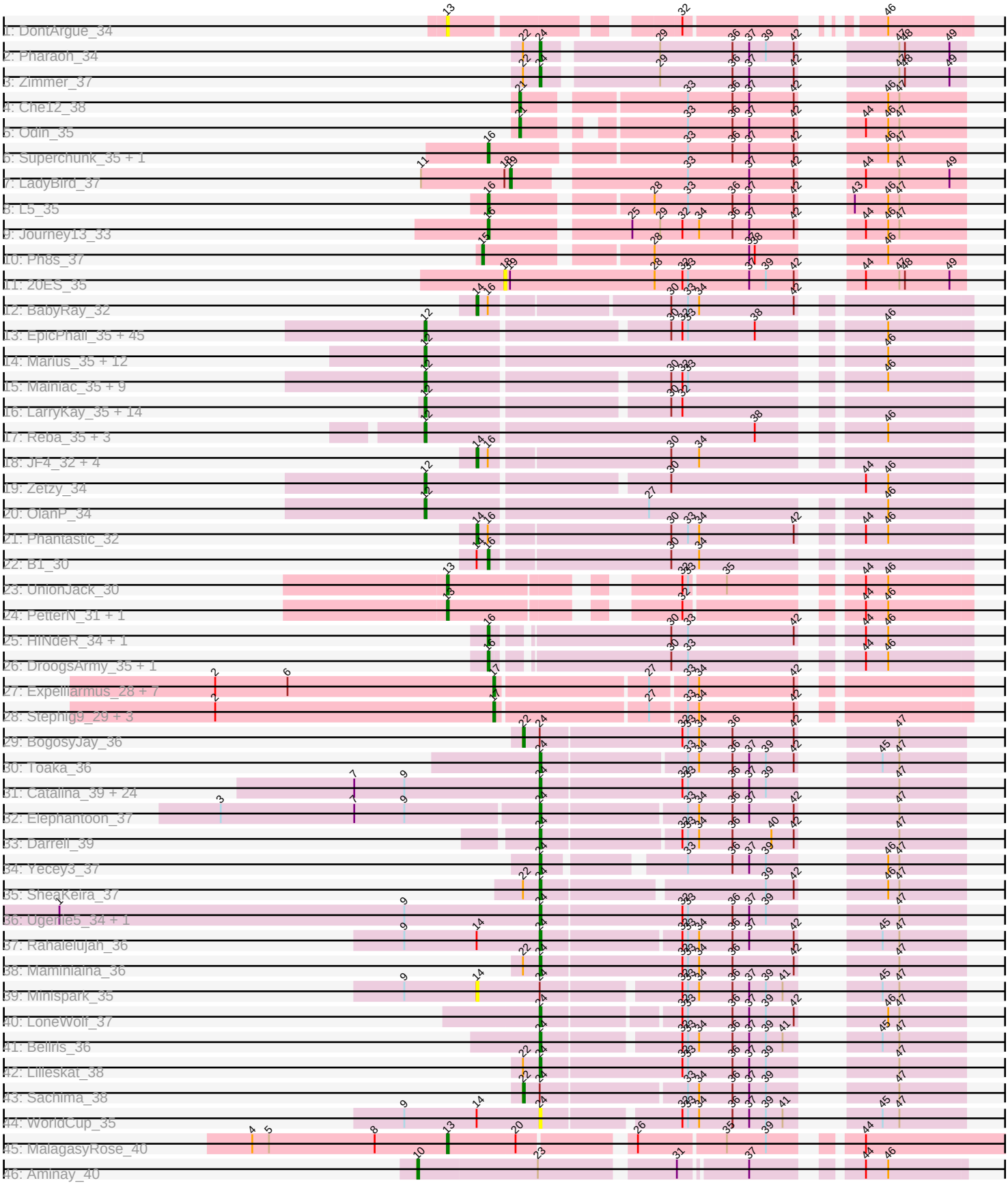
Pham 347309


1: DontArgue_34
2: Pharaoh_34
3: Zimmer_37
4: Che12_38
5: Odin_35
6: Superchunk_35 + 1
7: LadyBird_37
8: L5_35
9: Journey13_33
10: Ph8s_37
11: 20ES_35
12: BabyRay_32
13: EpicPhail_35 + 45
14: Marius_35 + 12
15: Mainiac_35 + 9
16: LarryKay_35 + 14
17: Reba_35 + 3
18: JF4_32 + 4
19: Zetzy_34
20: OlanP_34
21: Phantastic_32
22: B1_30
23: UnionJack_30
24: PetterN_31 + 1
25: HINdeR_34 + 1
26: DroogsArmy_35 + 1
27: Expelliarmus_28 + 7
28: Stephig9_29 + 3
29: BogosyJay_36
30: Toaka_36
31: Catalina_39 + 24
32: Elephantoon_37
33: Darrell_39
34: Yecey3_37
35: SheaKeira_37
36: Ugenie5_34 + 1
37: Rahaleiujah_36
38: Maminiaina_36
39: Minispark_35
40: LoneWolf_37
41: Bellris_36
42: Lilleskat_38
43: Sachima_38
44: WorldCup_35
45: MalagasyRose_40
46: Aminay_40

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 347309 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347309 has 172 members, 6 are drafts.

Phages represented in each track:
- Track 1 : DontArgue_34
- Track 2 : Pharaoh_34
- Track 3 : Zimmer_37
- Track 4 : Che12_38
- Track 5 : Odin_35
- Track 6 : Superchunk_35, Caraxes_35
- Track 7 : LadyBird_37
- Track 8 : L5_35
- Track 9 : Journey13_33
- Track 10 : Ph8s_37
- Track 11 : 20ES_35
- Track 12 : BabyRay_32
- Track 13 : EpicPhail_35, Marie_35, Vix_35, Taurus_35, Grub_35, Watson_35, Dieselweasel_35, LBerry_35, JenCasNa_35, PGHhamlin_37, Croquant_36, Lowa_35, MuchMore_37, PotatoSplit_36, Bigflo_35, Malinsilva_37, Aglet_35, MarQuardt_35, DaHudson_35, Colbster_35, Anubis_37, Phoebe_35, P28Green_35, Grum1_35, AugsMagnumOpus_37, Jobu08_34, Gwennie_35, GingkoMaracino_35, SoYo_35, Ollie_35, Pembroke_35, Cullens_35, JHC117_35, Farber_35, SoilDragon_34, Beauxregard13_35, MoneyMay_35, GtownJaz_35, Wooldri_37, Sabinator_35, Microwolf_35, Fernando_35, Hercules11_35, LugYA_37, Lilith_35, Penny1_35
- Track 14 : Marius_35, ClownCar_34, Kalb97_35, HaveUMetTed_35, Calvinny_34, Groupthink_35, Heliosoles_34, Manu_35, JeppNRM_35, Gemma_34, Pawn_34, Kalnoky_35, PurpleHaze_34
- Track 15 : Mainiac_35, MadMarie_35, StepMih_35, Montavir_34, Tiffany_35, Snickers_35, Sabia_35, BreSam8_35, Grif_35, Stagni_35
- Track 16 : LarryKay_35, TinyPebbles_35, Misomonster_37, KADY_36, BuzzBuzz_34, Phoxy_35, Rummer_35, Spike509_35, Daishi_34, Methuselah_34, Soshari_37, HashRod_36, Louie6_35, AgronaGT15_35, Bxz2_33
- Track 17 : Reba_35, Phranny_35, ACFishhook_34, PhishRPhriends_33
- Track 18 : JF4_32, JF2_32, MK4_32, Isca_32, Rockstar_32
- Track 19 : Zetzy_34
- Track 20 : OlanP_34
- Track 21 : Phantastic_32
- Track 22 : B1_30
- Track 23 : UnionJack_30
- Track 24 : PetterN_31, Chadwick_31

• Track 25 : HINdeR_34, Sheen_35
• Track 26 : DroogsArmy_35, Timshel_35
• Track 27 : Expelliarmus_28, Smeadley_29, NearlyHeadless_29, Groundhog_28, Phillis_29, Astro_29, Danforth_28, Saintus_29
• Track 28 : Stephig9_29, Dixon_29, Caitlin_29, Roary_29
• Track 29 : BogosyJay_36
• Track 30 : Toaka_36
• Track 31 : Catalina_39, EdogawaKiddo_38, Jiawan_38, PackMan_37, Conquerage_38, RyeScarlet_38, Phaeder_38, Aliter_38, Onglai_37, EmyBug_37, Fayely_38, Myxus_38, Hanray_38, Tubs_38, Pioneer_38, Holex_38, Spouty_38, Ayanochan_37, Priya_38, Eidsmoe_38, Phonnegut_38, HortumSL17_38, Qobbit_38, Beemo_38, ExplosioNervosa_38
• Track 32 : Elephantoon_37
• Track 33 : Darrell_39
• Track 34 : Yecey3_37
• Track 35 : SheaKeira_37
• Track 36 : Ugenie5_34, Scherzo_37
• Track 37 : Rahalelujah_36
• Track 38 : Maminiaina_36
• Track 39 : Minispark_35
• Track 40 : LoneWolf_37
• Track 41 : Bellris_36
• Track 42 : Lilleskat_38
• Track 43 : Sachima_38
• Track 44 : WorldCup_35
• Track 45 : MalagasyRose_40
• Track 46 : Aminay_40

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

The start number called the most often in the published annotations is 12, it was called in 88 of the 166 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ACFishhook_34, Aglet_35, AgronaGT15_35, Anubis_37, AugsMagnumOpus_37, Beauxregard13_35, Bigflo_35, BreSam8_35, BuzzBuzz_34, Bxz2_33, Calvinny_34, ClownCar_34, Colbster_35, Croquant_36, Cullens_35, DaHudson_35, Daishi_34, Dieselweasel_35, EpicPhail_35, Farber_35, Fernando_35, Gemma_34, GingkoMaracino_35, Grif_35, Groupthink_35, Grub_35, Grum1_35, GtownJaz_35, Gwennie_35, HashRod_36, HaveUMetTed_35, Heliosoles_34, Hercules11_35, JHC117_35, JenCasNa_35, JeppNRM_35, Jobu08_34, KADY_36, Kalb97_35, Kalnoky_35, LBerry_35, LarryKay_35, Lilith_35, Louie6_35, Lowa_35, LugYA_37, MadMarie_35, Mainiac_35, Malinsilva_37, Manu_35, MarQuardt_35, Marie_35, Marius_35, Methuselah_34, Microwolf_35, Misomonster_37, MoneyMay_35, Montavir_34, MuchMore_37, OlanP_34, Ollie_35, P28Green_35, PGHhamlin_37, Pawn_34, Pembroke_35, Penny1_35, PhishRPhriends_33, Phoebe_35, Phoxy_35, Phranny_35, PotatoSplit_36, PurpleHaze_34, Reba_35, Rummer_35, Sabia_35, Sabinator_35, Snickers_35, SoYo_35, SoilDragon_34, Soshari_37, Spike509_35, Stagni_35, StepMih_35, Taurus_35, Tiffany_35, TinyPebbles_35, Vix_35, Watson_35, Wooldri_37, Zetzy_34,

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

Genes that do not have the "Most Annotated" start:
• 20ES_35, Aliter_38, Aminay_40, Astro_29, Ayanochan_37, B1_30, BabyRay_32, Beemo_38, Bellris_36, BogosyJay_36, Caitlin_29, Caraxes_35, Catalina_39, Chadwick_31, Che12_38, Conquerage_38, Danforth_28, Darrell_39, Dixon_29, DontArgue_34, DroogsArmy_35, EdogawaKiddo_38, Eidsmoe_38, Elephantoon_37, EmyBug_37, Expelliarmus_28, ExplosioNervosa_38, Fayely_38, Groundhog_28, HINdeR_34, Hanray_38, Holex_38, HortumSL17_38, Isca_32, JF2_32, JF4_32, Jiawan_38, Journey13_33, L5_35, LadyBird_37, Lilleskat_38, LoneWolf_37, MK4_32, MalagasyRose_40, Maminiaina_36, Minispark_35, Myxus_38, NearlyHeadless_29, Odin_35, Onglai_37, PackMan_37, PetterN_31, Ph8s_37, Phaeder_38, Phantastic_32, Pharaoh_34, Phillis_29, Phonnegut_38, Pioneer_38, Priya_38, Qobbit_38, Rahalelujah_36, Roary_29, Rockstar_32, RyeScarlet_38, Sachima_38, Saintus_29, Scherzo_37, SheaKeira_37, Sheen_35, Smeadley_29, Spouty_38, Stephig9_29, Superchunk_35, Timshel_35, Toaka_36, Tubs_38, Ugenie5_34, UnionJack_30, WorldCup_35, Yecey3_37, Zimmer_37,

Summary by start number:

Start 10:
• Found in 1 of 172 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 166
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aminay_40 (K7),

Start 12:
• Found in 90 of 172 (52.3%) of genes in pham
• Manual Annotations of this start: 88 of 166
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ACFishhook_34 (A3), Aglet_35 (A3), AgronaGT15_35 (A3), Anubis_37 (A3), AugsMagnumOpus_37 (A3), Beauxregard13_35 (A3), Bigflo_35 (A3), BreSam8_35 (A3), BuzzBuzz_34 (A3), Bxz2_33 (A3), Calvinny_34 (A3), ClownCar_34 (A3), Colbster_35 (A3), Croquant_36 (A3), Cullens_35 (A3), DaHudson_35 (A3), Daishi_34 (A3), Dieselweasel_35 (A3), EpicPhail_35 (A3), Farber_35 (A3), Fernando_35 (A3), Gemma_34 (A3), GingkoMaracino_35 (A3), Grif_35 (A3), Groupthink_35 (A3), Grub_35 (A3), Grum1_35 (A3), GtownJaz_35 (A3), Gwennie_35 (A3), HashRod_36 (A3), HaveUMetTed_35 (A3), Heliosoles_34 (A3), Hercules11_35 (A3), JHC117_35 (A3), JenCasNa_35 (A3), JeppNRM_35 (A3), Jobu08_34 (A3), KADY_36 (A3), Kalb97_35 (A3), Kalnoky_35 (A3), LBerry_35 (A3), LarryKay_35 (A3), Lilith_35 (A3), Louie6_35 (A3), Lowa_35 (A3), LugYA_37 (A3), MadMarie_35 (A3), Mainiac_35 (A3), Malinsilva_37 (A3), Manu_35 (A3), MarQuardt_35 (A3), Marie_35 (A3), Marius_35 (A3), Methuselah_34 (A3), Microwolf_35 (A3), Misomonster_37 (A3), MoneyMay_35 (A3), Montavir_34 (A3), MuchMore_37 (A3), OlanP_34 (A3), Ollie_35 (A3), P28Green_35 (A3), PGHhamlin_37 (A3), Pawn_34 (A3), Pembroke_35 (A3), Penny1_35 (A3), PhishRPhriends_33 (A3), Phoebe_35 (A3), Phoxy_35 (A3), Phranny_35 (A3), PotatoSplit_36 (A3), PurpleHaze_34 (A3), Reba_35 (A3), Rummer_35 (A3), Sabia_35 (A3), Sabinator_35 (A3), Snickers_35 (A3), SoYo_35 (A3), SoilDragon_34 (A3), Soshari_37 (A3), Spike509_35 (A3), Stagni_35 (A3), StepMih_35 (A3), Taurus_35 (A3), Tiffany_35 (A3), TinyPebbles_35 (A3), Vix_35

(A3), Watson_35 (A3), Wooldri_37 (A3), Zetzy_34 (A3),

Start 13:
• Found in 5 of 172 (2.9%) of genes in pham
• Manual Annotations of this start: 4 of 166
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Chadwick_31 (A5), DontArgue_34 (A10), MalagasyRose_40 (AG), PetterN_31 (A5), UnionJack_30 (A5),

Start 14:
• Found in 11 of 172 (6.4%) of genes in pham
• Manual Annotations of this start: 7 of 166
• Called 72.7% of time when present
• Phage (with cluster) where this start called: BabyRay_32 (A3), Isca_32 (A3), JF2_32 (A3), JF4_32 (A3), MK4_32 (A3), Minispark_35 (A9), Phantastic_32 (A3), Rockstar_32 (A3),

Start 15:
• Found in 1 of 172 (0.6%) of genes in pham
• Manual Annotations of this start: 1 of 166
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ph8s_37 (A2),

Start 16:
• Found in 16 of 172 (9.3%) of genes in pham
• Manual Annotations of this start: 9 of 166
• Called 56.2% of time when present
• Phage (with cluster) where this start called: B1_30 (A3), Caraxes_35 (A2), DroogsArmy_35 (A7), HINdeR_34 (A7), Journey13_33 (A2), L5_35 (A2), Sheen_35 (A7), Superchunk_35 (A2), Timshel_35 (A7),

Start 17:
• Found in 12 of 172 (7.0%) of genes in pham
• Manual Annotations of this start: 12 of 166
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Astro_29 (A8), Caitlin_29 (A8), Danforth_28 (A8), Dixon_29 (A8), Expelliarmus_28 (A8), Groundhog_28 (A8), NearlyHeadless_29 (A8), Phillis_29 (A8), Roary_29 (A8), Saintus_29 (A8), Smeadley_29 (A8), Stephig9_29 (A8),

Start 18:
• Found in 2 of 172 (1.2%) of genes in pham
• No Manual Annotations of this start.
• Called 50.0% of time when present
• Phage (with cluster) where this start called: 20ES_35 (A2),

Start 19:
• Found in 2 of 172 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 166
• Called 50.0% of time when present
• Phage (with cluster) where this start called: LadyBird_37 (A2),

Start 21:

• Found in 2 of 172 (1.2%) of genes in pham
• Manual Annotations of this start: 2 of 166
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Che12_38 (A2), Odin_35 (A2),

Start 22:
• Found in 7 of 172 (4.1%) of genes in pham
• Manual Annotations of this start: 2 of 166
• Called 28.6% of time when present
• Phage (with cluster) where this start called: BogosyJay_36 (A9), Sachima_38 (A9),

Start 24:
• Found in 43 of 172 (25.0%) of genes in pham
• Manual Annotations of this start: 39 of 166
• Called 93.0% of time when present
• Phage (with cluster) where this start called: Aliter_38 (A9), Ayanochan_37 (A9), Beemo_38 (A9), Bellris_36 (A9), Catalina_39 (A9), Conquerage_38 (A9), Darrell_39 (A9), EdogawaKiddo_38 (A9), Eidsmoe_38 (A9), Elephantoon_37 (A9), EmyBug_37 (A9), ExplosioNervosa_38 (A9), Fayely_38 (A9), Hanray_38 (A9), Holex_38 (A9), HortumSL17_38 (A9), Jiawan_38 (A9), Lilleskat_38 (A9), LoneWolf_37 (A9), Maminiaina_36 (A9), Myxus_38 (A9), Onglai_37 (A9), PackMan_37 (A9), Phaeder_38 (A9), Pharaoh_34 (A12), Phonnegut_38 (A9), Pioneer_38 (A9), Priya_38 (A9), Qobbit_38 (A9), Rahalelujah_36 (A9), RyeScarlet_38 (A9), Scherzo_37 (A9), SheaKeira_37 (A9), Spouty_38 (A9), Toaka_36 (A9), Tubs_38 (A9), Ugenie5_34 (A9), WorldCup_35 (A9), Yecey3_37 (A9), Zimmer_37 (A12),

Summary by clusters:

There are 10 clusters represented in this pham: A10, AG, A12, K7, A3, A2, A5, A7, A9, A8,

Info for manual annotations of cluster A12:
•Start number 24 was manually annotated 2 times for cluster A12.

Info for manual annotations of cluster A2:
•Start number 15 was manually annotated 1 time for cluster A2.
•Start number 16 was manually annotated 4 times for cluster A2.
•Start number 19 was manually annotated 1 time for cluster A2.
•Start number 21 was manually annotated 2 times for cluster A2.

Info for manual annotations of cluster A3:
•Start number 12 was manually annotated 88 times for cluster A3.
•Start number 14 was manually annotated 7 times for cluster A3.
•Start number 16 was manually annotated 1 time for cluster A3.

Info for manual annotations of cluster A5:
•Start number 13 was manually annotated 3 times for cluster A5.

Info for manual annotations of cluster A7:
•Start number 16 was manually annotated 4 times for cluster A7.

Info for manual annotations of cluster A8:

•Start number 17 was manually annotated 12 times for cluster A8.

Info for manual annotations of cluster A9:
•Start number 22 was manually annotated 2 times for cluster A9.
•Start number 24 was manually annotated 37 times for cluster A9.

Info for manual annotations of cluster AG:
•Start number 13 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster K7:
•Start number 10 was manually annotated 1 time for cluster K7.

Gene Information:

Gene: 20ES_35 Start: 26963, Stop: 27184, Start Num: 18
Candidate Starts for 20ES_35:
(18, 26963), (Start: 19 @26966 has 1 MA's), (28, 27044), (32, 27059), (33, 27062), (37, 27095), (39, 27104), (42, 27119), (44, 27131), (47, 27149), (48, 27152), (49, 27176),

Gene: ACFishhook_34 Start: 25582, Stop: 25310, Start Num: 12
Candidate Starts for ACFishhook_34:
(Start: 12 @25582 has 88 MA's), (38, 25408), (46, 25354),

Gene: Aglet_35 Start: 25649, Stop: 25383, Start Num: 12
Candidate Starts for Aglet_35:
(Start: 12 @25649 has 88 MA's), (30, 25526), (32, 25520), (33, 25517), (38, 25481), (46, 25427),

Gene: AgronaGT15_35 Start: 25544, Stop: 25278, Start Num: 12
Candidate Starts for AgronaGT15_35:
(Start: 12 @25544 has 88 MA's), (30, 25421), (32, 25415),

Gene: Aliter_38 Start: 28128, Stop: 27928, Start Num: 24
Candidate Starts for Aliter_38:
(7, 28227), (9, 28200), (Start: 24 @28128 has 39 MA's), (32, 28053), (33, 28050), (36, 28026), (37, 28017), (39, 28008), (47, 27963),

Gene: Aminay_40 Start: 32095, Stop: 32355, Start Num: 10
Candidate Starts for Aminay_40:
(Start: 10 @32095 has 1 MA's), (23, 32158), (31, 32224), (37, 32257), (44, 32302), (46, 32314),

Gene: Anubis_37 Start: 25534, Stop: 25268, Start Num: 12
Candidate Starts for Anubis_37:
(Start: 12 @25534 has 88 MA's), (30, 25411), (32, 25405), (33, 25402), (38, 25366), (46, 25312),

Gene: Astro_29 Start: 23519, Stop: 23289, Start Num: 17
Candidate Starts for Astro_29:
(2, 23669), (6, 23630), (Start: 17 @23519 has 12 MA's), (27, 23441), (33, 23423), (34, 23417), (42, 23366),

Gene: AugsMagnumOpus_37 Start: 25640, Stop: 25374, Start Num: 12
Candidate Starts for AugsMagnumOpus_37:

(Start: 12 @25640 has 88 MA's), (30, 25517), (32, 25511), (33, 25508), (38, 25472), (46, 25418),

Gene: Ayanochan_37 Start: 28255, Stop: 28055, Start Num: 24
Candidate Starts for Ayanochan_37:
(7, 28354), (9, 28327), (Start: 24 @28255 has 39 MA's), (32, 28180), (33, 28177), (36, 28153), (37, 28144), (39, 28135), (47, 28090),

Gene: B1_30 Start: 24676, Stop: 24440, Start Num: 16
Candidate Starts for B1_30:
(Start: 14 @24682 has 7 MA's), (Start: 16 @24676 has 9 MA's), (30, 24583), (34, 24568),

Gene: BabyRay_32 Start: 25239, Stop: 25000, Start Num: 14
Candidate Starts for BabyRay_32:
(Start: 14 @25239 has 7 MA's), (Start: 16 @25233 has 9 MA's), (30, 25143), (33, 25134), (34, 25128), (42, 25077),

Gene: Beauxregard13_35 Start: 25648, Stop: 25382, Start Num: 12
Candidate Starts for Beauxregard13_35:
(Start: 12 @25648 has 88 MA's), (30, 25525), (32, 25519), (33, 25516), (38, 25480), (46, 25426),

Gene: Beemo_38 Start: 28256, Stop: 28056, Start Num: 24
Candidate Starts for Beemo_38:
(7, 28355), (9, 28328), (Start: 24 @28256 has 39 MA's), (32, 28181), (33, 28178), (36, 28154), (37, 28145), (39, 28136), (47, 28091),

Gene: Bellris_36 Start: 27289, Stop: 27095, Start Num: 24
Candidate Starts for Bellris_36:
(Start: 24 @27289 has 39 MA's), (32, 27220), (33, 27217), (34, 27211), (36, 27193), (37, 27184), (39, 27175), (41, 27166), (45, 27139), (47, 27130),

Gene: Bigflo_35 Start: 25647, Stop: 25381, Start Num: 12
Candidate Starts for Bigflo_35:
(Start: 12 @25647 has 88 MA's), (30, 25524), (32, 25518), (33, 25515), (38, 25479), (46, 25425),

Gene: BogosyJay_36 Start: 27810, Stop: 27601, Start Num: 22
Candidate Starts for BogosyJay_36:
(Start: 22 @27810 has 2 MA's), (Start: 24 @27801 has 39 MA's), (32, 27726), (33, 27723), (34, 27717), (36, 27699), (42, 27666), (47, 27636),

Gene: BreSam8_35 Start: 25641, Stop: 25375, Start Num: 12
Candidate Starts for BreSam8_35:
(Start: 12 @25641 has 88 MA's), (30, 25518), (32, 25512), (33, 25509), (46, 25419),

Gene: BuzzBuzz_34 Start: 25723, Stop: 25457, Start Num: 12
Candidate Starts for BuzzBuzz_34:
(Start: 12 @25723 has 88 MA's), (30, 25600), (32, 25594),

Gene: Bxz2_33 Start: 25730, Stop: 25464, Start Num: 12
Candidate Starts for Bxz2_33:
(Start: 12 @25730 has 88 MA's), (30, 25607), (32, 25601),

Gene: Caitlin_29 Start: 23512, Stop: 23282, Start Num: 17
Candidate Starts for Caitlin_29:

(2, 23662), (Start: 17 @23512 has 12 MA's), (27, 23434), (33, 23416), (34, 23410), (42, 23359),

Gene: Calvinny_34 Start: 25501, Stop: 25229, Start Num: 12
Candidate Starts for Calvinny_34:
(Start: 12 @25501 has 88 MA's), (46, 25273),

Gene: Caraxes_35 Start: 26208, Stop: 25990, Start Num: 16
Candidate Starts for Caraxes_35:
(Start: 16 @26208 has 9 MA's), (33, 26112), (36, 26088), (37, 26079), (42, 26055), (46, 26031), (47, 26025),

Gene: Catalina_39 Start: 28201, Stop: 28001, Start Num: 24
Candidate Starts for Catalina_39:
(7, 28300), (9, 28273), (Start: 24 @28201 has 39 MA's), (32, 28126), (33, 28123), (36, 28099), (37, 28090), (39, 28081), (47, 28036),

Gene: Chadwick_31 Start: 23833, Stop: 23600, Start Num: 13
Candidate Starts for Chadwick_31:
(Start: 13 @23833 has 4 MA's), (32, 23734), (44, 23656), (46, 23644),

Gene: Che12_38 Start: 26571, Stop: 26371, Start Num: 21
Candidate Starts for Che12_38:
(Start: 21 @26571 has 2 MA's), (33, 26493), (36, 26469), (37, 26460), (42, 26436), (46, 26412), (47, 26406),

Gene: ClownCar_34 Start: 25493, Stop: 25221, Start Num: 12
Candidate Starts for ClownCar_34:
(Start: 12 @25493 has 88 MA's), (46, 25265),

Gene: Colbster_35 Start: 25648, Stop: 25382, Start Num: 12
Candidate Starts for Colbster_35:
(Start: 12 @25648 has 88 MA's), (30, 25525), (32, 25519), (33, 25516), (38, 25480), (46, 25426),

Gene: Conquerage_38 Start: 28230, Stop: 28030, Start Num: 24
Candidate Starts for Conquerage_38:
(7, 28329), (9, 28302), (Start: 24 @28230 has 39 MA's), (32, 28155), (33, 28152), (36, 28128), (37, 28119), (39, 28110), (47, 28065),

Gene: Croquant_36 Start: 25646, Stop: 25380, Start Num: 12
Candidate Starts for Croquant_36:
(Start: 12 @25646 has 88 MA's), (30, 25523), (32, 25517), (33, 25514), (38, 25478), (46, 25424),

Gene: Cullens_35 Start: 25647, Stop: 25381, Start Num: 12
Candidate Starts for Cullens_35:
(Start: 12 @25647 has 88 MA's), (30, 25524), (32, 25518), (33, 25515), (38, 25479), (46, 25425),

Gene: DaHudson_35 Start: 25640, Stop: 25374, Start Num: 12
Candidate Starts for DaHudson_35:
(Start: 12 @25640 has 88 MA's), (30, 25517), (32, 25511), (33, 25508), (38, 25472), (46, 25418),

Gene: Daishi_34 Start: 24564, Stop: 24298, Start Num: 12
Candidate Starts for Daishi_34:
(Start: 12 @24564 has 88 MA's), (30, 24441), (32, 24435),

Gene: Danforth_28 Start: 23494, Stop: 23264, Start Num: 17
Candidate Starts for Danforth_28:
(2, 23644), (6, 23605), (Start: 17 @23494 has 12 MA's), (27, 23416), (33, 23398), (34, 23392), (42, 23341),

Gene: Darrell_39 Start: 28636, Stop: 28439, Start Num: 24
Candidate Starts for Darrell_39:
(Start: 24 @28636 has 39 MA's), (32, 28564), (33, 28561), (34, 28555), (36, 28537), (40, 28516), (42, 28504), (47, 28474),

Gene: Dieselweasel_35 Start: 25650, Stop: 25384, Start Num: 12
Candidate Starts for Dieselweasel_35:
(Start: 12 @25650 has 88 MA's), (30, 25527), (32, 25521), (33, 25518), (38, 25482), (46, 25428),

Gene: Dixon_29 Start: 23513, Stop: 23283, Start Num: 17
Candidate Starts for Dixon_29:
(2, 23663), (Start: 17 @23513 has 12 MA's), (27, 23435), (33, 23417), (34, 23411), (42, 23360),

Gene: DontArgue_34 Start: 26315, Stop: 26091, Start Num: 13
Candidate Starts for DontArgue_34:
(Start: 13 @26315 has 4 MA's), (32, 26216), (46, 26135),

Gene: DroogsArmy_35 Start: 29491, Stop: 29261, Start Num: 16
Candidate Starts for DroogsArmy_35:
(Start: 16 @29491 has 9 MA's), (30, 29404), (33, 29395), (44, 29317), (46, 29305),

Gene: EdogawaKiddo_38 Start: 28207, Stop: 28007, Start Num: 24
Candidate Starts for EdogawaKiddo_38:
(7, 28306), (9, 28279), (Start: 24 @28207 has 39 MA's), (32, 28132), (33, 28129), (36, 28105), (37, 28096), (39, 28087), (47, 28042),

Gene: Eidsmoe_38 Start: 28264, Stop: 28064, Start Num: 24
Candidate Starts for Eidsmoe_38:
(7, 28363), (9, 28336), (Start: 24 @28264 has 39 MA's), (32, 28189), (33, 28186), (36, 28162), (37, 28153), (39, 28144), (47, 28099),

Gene: Elephantoon_37 Start: 27631, Stop: 27434, Start Num: 24
Candidate Starts for Elephantoon_37:
(3, 27799), (7, 27727), (9, 27700), (Start: 24 @27631 has 39 MA's), (33, 27556), (34, 27550), (36, 27532), (37, 27523), (42, 27499), (47, 27469),

Gene: EmyBug_37 Start: 28266, Stop: 28066, Start Num: 24
Candidate Starts for EmyBug_37:
(7, 28365), (9, 28338), (Start: 24 @28266 has 39 MA's), (32, 28191), (33, 28188), (36, 28164), (37, 28155), (39, 28146), (47, 28101),

Gene: EpicPhail_35 Start: 25648, Stop: 25382, Start Num: 12
Candidate Starts for EpicPhail_35:
(Start: 12 @25648 has 88 MA's), (30, 25525), (32, 25519), (33, 25516), (38, 25480), (46, 25426),

Gene: Expelliarmus_28 Start: 23480, Stop: 23250, Start Num: 17
Candidate Starts for Expelliarmus_28:

(2, 23630), (6, 23591), (Start: 17 @23480 has 12 MA's), (27, 23402), (33, 23384), (34, 23378), (42, 23327),

Gene: ExplosioNervosa_38 Start: 28290, Stop: 28090, Start Num: 24
Candidate Starts for ExplosioNervosa_38:
(7, 28389), (9, 28362), (Start: 24 @28290 has 39 MA's), (32, 28215), (33, 28212), (36, 28188), (37, 28179), (39, 28170), (47, 28125),

Gene: Farber_35 Start: 25641, Stop: 25375, Start Num: 12
Candidate Starts for Farber_35:
(Start: 12 @25641 has 88 MA's), (30, 25518), (32, 25512), (33, 25509), (38, 25473), (46, 25419),

Gene: Fayely_38 Start: 28233, Stop: 28033, Start Num: 24
Candidate Starts for Fayely_38:
(7, 28332), (9, 28305), (Start: 24 @28233 has 39 MA's), (32, 28158), (33, 28155), (36, 28131), (37, 28122), (39, 28113), (47, 28068),

Gene: Fernando_35 Start: 25647, Stop: 25381, Start Num: 12
Candidate Starts for Fernando_35:
(Start: 12 @25647 has 88 MA's), (30, 25524), (32, 25518), (33, 25515), (38, 25479), (46, 25425),

Gene: Gemma_34 Start: 25497, Stop: 25225, Start Num: 12
Candidate Starts for Gemma_34:
(Start: 12 @25497 has 88 MA's), (46, 25269),

Gene: GingkoMaracino_35 Start: 25534, Stop: 25268, Start Num: 12
Candidate Starts for GingkoMaracino_35:
(Start: 12 @25534 has 88 MA's), (30, 25411), (32, 25405), (33, 25402), (38, 25366), (46, 25312),

Gene: Grif_35 Start: 25722, Stop: 25456, Start Num: 12
Candidate Starts for Grif_35:
(Start: 12 @25722 has 88 MA's), (30, 25599), (32, 25593), (33, 25590), (46, 25500),

Gene: Groundhog_28 Start: 23481, Stop: 23251, Start Num: 17
Candidate Starts for Groundhog_28:
(2, 23631), (6, 23592), (Start: 17 @23481 has 12 MA's), (27, 23403), (33, 23385), (34, 23379), (42, 23328),

Gene: Groupthink_35 Start: 25501, Stop: 25229, Start Num: 12
Candidate Starts for Groupthink_35:
(Start: 12 @25501 has 88 MA's), (46, 25273),

Gene: Grub_35 Start: 25640, Stop: 25374, Start Num: 12
Candidate Starts for Grub_35:
(Start: 12 @25640 has 88 MA's), (30, 25517), (32, 25511), (33, 25508), (38, 25472), (46, 25418),

Gene: Grum1_35 Start: 25647, Stop: 25381, Start Num: 12
Candidate Starts for Grum1_35:
(Start: 12 @25647 has 88 MA's), (30, 25524), (32, 25518), (33, 25515), (38, 25479), (46, 25425),

Gene: GtownJaz_35 Start: 25649, Stop: 25383, Start Num: 12
Candidate Starts for GtownJaz_35:
(Start: 12 @25649 has 88 MA's), (30, 25526), (32, 25520), (33, 25517), (38, 25481), (46, 25427),

Gene: Gwennie_35 Start: 25648, Stop: 25382, Start Num: 12
Candidate Starts for Gwennie_35:
(Start: 12 @25648 has 88 MA's), (30, 25525), (32, 25519), (33, 25516), (38, 25480), (46, 25426),

Gene: HINdeR_34 Start: 29552, Stop: 29322, Start Num: 16
Candidate Starts for HINdeR_34:
(Start: 16 @29552 has 9 MA's), (30, 29465), (33, 29456), (42, 29399), (44, 29378), (46, 29366),

Gene: Hanray_38 Start: 28211, Stop: 28011, Start Num: 24
Candidate Starts for Hanray_38:
(7, 28310), (9, 28283), (Start: 24 @28211 has 39 MA's), (32, 28136), (33, 28133), (36, 28109), (37, 28100), (39, 28091), (47, 28046),

Gene: HashRod_36 Start: 25723, Stop: 25457, Start Num: 12
Candidate Starts for HashRod_36:
(Start: 12 @25723 has 88 MA's), (30, 25600), (32, 25594),

Gene: HaveUMetTed_35 Start: 25494, Stop: 25222, Start Num: 12
Candidate Starts for HaveUMetTed_35:
(Start: 12 @25494 has 88 MA's), (46, 25266),

Gene: Heliosoles_34 Start: 25501, Stop: 25229, Start Num: 12
Candidate Starts for Heliosoles_34:
(Start: 12 @25501 has 88 MA's), (46, 25273),

Gene: Hercules11_35 Start: 25656, Stop: 25390, Start Num: 12
Candidate Starts for Hercules11_35:
(Start: 12 @25656 has 88 MA's), (30, 25533), (32, 25527), (33, 25524), (38, 25488), (46, 25434),

Gene: Holex_38 Start: 28224, Stop: 28024, Start Num: 24
Candidate Starts for Holex_38:
(7, 28323), (9, 28296), (Start: 24 @28224 has 39 MA's), (32, 28149), (33, 28146), (36, 28122), (37, 28113), (39, 28104), (47, 28059),

Gene: HortumSL17_38 Start: 28200, Stop: 28000, Start Num: 24
Candidate Starts for HortumSL17_38:
(7, 28299), (9, 28272), (Start: 24 @28200 has 39 MA's), (32, 28125), (33, 28122), (36, 28098), (37, 28089), (39, 28080), (47, 28035),

Gene: Isca_32 Start: 24932, Stop: 24690, Start Num: 14
Candidate Starts for Isca_32:
(Start: 14 @24932 has 7 MA's), (Start: 16 @24926 has 9 MA's), (30, 24833), (34, 24818),

Gene: JF2_32 Start: 24682, Stop: 24440, Start Num: 14
Candidate Starts for JF2_32:
(Start: 14 @24682 has 7 MA's), (Start: 16 @24676 has 9 MA's), (30, 24583), (34, 24568),

Gene: JF4_32 Start: 24682, Stop: 24440, Start Num: 14
Candidate Starts for JF4_32:
(Start: 14 @24682 has 7 MA's), (Start: 16 @24676 has 9 MA's), (30, 24583), (34, 24568),

Gene: JHC117_35 Start: 25646, Stop: 25380, Start Num: 12

Candidate Starts for JHC117_35:
(Start: 12 @25646 has 88 MA's), (30, 25523), (32, 25517), (33, 25514), (38, 25478), (46, 25424),

Gene: JenCasNa_35 Start: 25647, Stop: 25381, Start Num: 12
Candidate Starts for JenCasNa_35:
(Start: 12 @25647 has 88 MA's), (30, 25524), (32, 25518), (33, 25515), (38, 25479), (46, 25425),

Gene: JeppNRM_35 Start: 25500, Stop: 25228, Start Num: 12
Candidate Starts for JeppNRM_35:
(Start: 12 @25500 has 88 MA's), (46, 25272),

Gene: Jiawan_38 Start: 28243, Stop: 28043, Start Num: 24
Candidate Starts for Jiawan_38:
(7, 28342), (9, 28315), (Start: 24 @28243 has 39 MA's), (32, 28168), (33, 28165), (36, 28141), (37, 28132), (39, 28123), (47, 28078),

Gene: Jobu08_34 Start: 25478, Stop: 25212, Start Num: 12
Candidate Starts for Jobu08_34:
(Start: 12 @25478 has 88 MA's), (30, 25355), (32, 25349), (33, 25346), (38, 25310), (46, 25256),

Gene: Journey13_33 Start: 26731, Stop: 26510, Start Num: 16
Candidate Starts for Journey13_33:
(Start: 16 @26731 has 9 MA's), (25, 26662), (29, 26647), (32, 26635), (34, 26626), (36, 26608), (37, 26599), (42, 26575), (44, 26563), (46, 26551), (47, 26545),

Gene: KADY_36 Start: 25723, Stop: 25457, Start Num: 12
Candidate Starts for KADY_36:
(Start: 12 @25723 has 88 MA's), (30, 25600), (32, 25594),

Gene: Kalb97_35 Start: 25500, Stop: 25228, Start Num: 12
Candidate Starts for Kalb97_35:
(Start: 12 @25500 has 88 MA's), (46, 25272),

Gene: Kalnoky_35 Start: 25501, Stop: 25229, Start Num: 12
Candidate Starts for Kalnoky_35:
(Start: 12 @25501 has 88 MA's), (46, 25273),

Gene: L5_35 Start: 26547, Stop: 26329, Start Num: 16
Candidate Starts for L5_35:
(Start: 16 @26547 has 9 MA's), (28, 26469), (33, 26451), (36, 26427), (37, 26418), (42, 26394), (43, 26388), (46, 26370), (47, 26364),

Gene: LBerry_35 Start: 25648, Stop: 25382, Start Num: 12
Candidate Starts for LBerry_35:
(Start: 12 @25648 has 88 MA's), (30, 25525), (32, 25519), (33, 25516), (38, 25480), (46, 25426),

Gene: LadyBird_37 Start: 27424, Stop: 27630, Start Num: 19
Candidate Starts for LadyBird_37:
(11, 27376), (18, 27421), (Start: 19 @27424 has 1 MA's), (33, 27508), (37, 27541), (42, 27565), (44, 27577), (47, 27595), (49, 27622),

Gene: LarryKay_35 Start: 25725, Stop: 25459, Start Num: 12
Candidate Starts for LarryKay_35:

(Start: 12 @25725 has 88 MA's), (30, 25602), (32, 25596),

Gene: Lilith_35 Start: 25641, Stop: 25375, Start Num: 12
Candidate Starts for Lilith_35:
(Start: 12 @25641 has 88 MA's), (30, 25518), (32, 25512), (33, 25509), (38, 25473), (46, 25419),

Gene: Lilleskat_38 Start: 28219, Stop: 28019, Start Num: 24
Candidate Starts for Lilleskat_38:
(Start: 22 @28228 has 2 MA's), (Start: 24 @28219 has 39 MA's), (32, 28144), (33, 28141), (36, 28117), (37, 28108), (39, 28099), (47, 28054),

Gene: LoneWolf_37 Start: 27789, Stop: 27595, Start Num: 24
Candidate Starts for LoneWolf_37:
(Start: 24 @27789 has 39 MA's), (32, 27720), (33, 27717), (36, 27693), (37, 27684), (39, 27675), (42, 27660), (46, 27636), (47, 27630),

Gene: Louie6_35 Start: 25724, Stop: 25458, Start Num: 12
Candidate Starts for Louie6_35:
(Start: 12 @25724 has 88 MA's), (30, 25601), (32, 25595),

Gene: Lowa_35 Start: 25640, Stop: 25374, Start Num: 12
Candidate Starts for Lowa_35:
(Start: 12 @25640 has 88 MA's), (30, 25517), (32, 25511), (33, 25508), (38, 25472), (46, 25418),

Gene: LugYA_37 Start: 25648, Stop: 25382, Start Num: 12
Candidate Starts for LugYA_37:
(Start: 12 @25648 has 88 MA's), (30, 25525), (32, 25519), (33, 25516), (38, 25480), (46, 25426),

Gene: MK4_32 Start: 24916, Stop: 24674, Start Num: 14
Candidate Starts for MK4_32:
(Start: 14 @24916 has 7 MA's), (Start: 16 @24910 has 9 MA's), (30, 24817), (34, 24802),

Gene: MadMarie_35 Start: 25650, Stop: 25384, Start Num: 12
Candidate Starts for MadMarie_35:
(Start: 12 @25650 has 88 MA's), (30, 25527), (32, 25521), (33, 25518), (46, 25428),

Gene: Mainiac_35 Start: 25641, Stop: 25375, Start Num: 12
Candidate Starts for Mainiac_35:
(Start: 12 @25641 has 88 MA's), (30, 25518), (32, 25512), (33, 25509), (46, 25419),

Gene: MalagasyRose_40 Start: 30812, Stop: 30543, Start Num: 13
Candidate Starts for MalagasyRose_40:
(4, 30917), (5, 30908), (8, 30851), (Start: 13 @30812 has 4 MA's), (20, 30776), (26, 30722), (35, 30677), (39, 30656), (44, 30620),

Gene: Malinsilva_37 Start: 25640, Stop: 25374, Start Num: 12
Candidate Starts for Malinsilva_37:
(Start: 12 @25640 has 88 MA's), (30, 25517), (32, 25511), (33, 25508), (38, 25472), (46, 25418),

Gene: Maminiaina_36 Start: 27783, Stop: 27583, Start Num: 24
Candidate Starts for Maminiaina_36:
(Start: 22 @27792 has 2 MA's), (Start: 24 @27783 has 39 MA's), (32, 27708), (33, 27705), (34, 27699), (36, 27681), (42, 27648), (47, 27618),

Gene: Manu_35 Start: 25501, Stop: 25229, Start Num: 12
Candidate Starts for Manu_35:
(Start: 12 @25501 has 88 MA's), (46, 25273),

Gene: MarQuardt_35 Start: 25649, Stop: 25383, Start Num: 12
Candidate Starts for MarQuardt_35:
(Start: 12 @25649 has 88 MA's), (30, 25526), (32, 25520), (33, 25517), (38, 25481), (46, 25427),

Gene: Marie_35 Start: 25647, Stop: 25381, Start Num: 12
Candidate Starts for Marie_35:
(Start: 12 @25647 has 88 MA's), (30, 25524), (32, 25518), (33, 25515), (38, 25479), (46, 25425),

Gene: Marius_35 Start: 25501, Stop: 25229, Start Num: 12
Candidate Starts for Marius_35:
(Start: 12 @25501 has 88 MA's), (46, 25273),

Gene: Methuselah_34 Start: 25719, Stop: 25453, Start Num: 12
Candidate Starts for Methuselah_34:
(Start: 12 @25719 has 88 MA's), (30, 25596), (32, 25590),

Gene: Microwolf_35 Start: 25649, Stop: 25383, Start Num: 12
Candidate Starts for Microwolf_35:
(Start: 12 @25649 has 88 MA's), (30, 25526), (32, 25520), (33, 25517), (38, 25481), (46, 25427),

Gene: Minispark_35 Start: 27322, Stop: 27095, Start Num: 14
Candidate Starts for Minispark_35:
(9, 27361), (Start: 14 @27322 has 7 MA's), (Start: 24 @27289 has 39 MA's), (32, 27220), (33, 27217), (34, 27211), (36, 27193), (37, 27184), (39, 27175), (41, 27166), (45, 27139), (47, 27130),

Gene: Misomonster_37 Start: 25722, Stop: 25456, Start Num: 12
Candidate Starts for Misomonster_37:
(Start: 12 @25722 has 88 MA's), (30, 25599), (32, 25593),

Gene: MoneyMay_35 Start: 25647, Stop: 25381, Start Num: 12
Candidate Starts for MoneyMay_35:
(Start: 12 @25647 has 88 MA's), (30, 25524), (32, 25518), (33, 25515), (38, 25479), (46, 25425),

Gene: Montavir_34 Start: 25648, Stop: 25382, Start Num: 12
Candidate Starts for Montavir_34:
(Start: 12 @25648 has 88 MA's), (30, 25525), (32, 25519), (33, 25516), (46, 25426),

Gene: MuchMore_37 Start: 25640, Stop: 25374, Start Num: 12
Candidate Starts for MuchMore_37:
(Start: 12 @25640 has 88 MA's), (30, 25517), (32, 25511), (33, 25508), (38, 25472), (46, 25418),

Gene: Myxus_38 Start: 28200, Stop: 28000, Start Num: 24
Candidate Starts for Myxus_38:
(7, 28299), (9, 28272), (Start: 24 @28200 has 39 MA's), (32, 28125), (33, 28122), (36, 28098), (37, 28089), (39, 28080), (47, 28035),

Gene: NearlyHeadless_29 Start: 23533, Stop: 23303, Start Num: 17
Candidate Starts for NearlyHeadless_29:

(2, 23683), (6, 23644), (Start: 17 @23533 has 12 MA's), (27, 23455), (33, 23437), (34, 23431), (42, 23380),

Gene: Odin_35 Start: 26375, Stop: 26184, Start Num: 21
Candidate Starts for Odin_35:
(Start: 21 @26375 has 2 MA's), (33, 26306), (36, 26282), (37, 26273), (42, 26249), (44, 26237), (46, 26225), (47, 26219),

Gene: OlanP_34 Start: 25682, Stop: 25410, Start Num: 12
Candidate Starts for OlanP_34:
(Start: 12 @25682 has 88 MA's), (27, 25565), (46, 25454),

Gene: Ollie_35 Start: 25518, Stop: 25252, Start Num: 12
Candidate Starts for Ollie_35:
(Start: 12 @25518 has 88 MA's), (30, 25395), (32, 25389), (33, 25386), (38, 25350), (46, 25296),

Gene: Onglai_37 Start: 26541, Stop: 26341, Start Num: 24
Candidate Starts for Onglai_37:
(7, 26640), (9, 26613), (Start: 24 @26541 has 39 MA's), (32, 26466), (33, 26463), (36, 26439), (37, 26430), (39, 26421), (47, 26376),

Gene: P28Green_35 Start: 25650, Stop: 25384, Start Num: 12
Candidate Starts for P28Green_35:
(Start: 12 @25650 has 88 MA's), (30, 25527), (32, 25521), (33, 25518), (38, 25482), (46, 25428),

Gene: PGHhamlin_37 Start: 25640, Stop: 25374, Start Num: 12
Candidate Starts for PGHhamlin_37:
(Start: 12 @25640 has 88 MA's), (30, 25517), (32, 25511), (33, 25508), (38, 25472), (46, 25418),

Gene: PackMan_37 Start: 28200, Stop: 28000, Start Num: 24
Candidate Starts for PackMan_37:
(7, 28299), (9, 28272), (Start: 24 @28200 has 39 MA's), (32, 28125), (33, 28122), (36, 28098), (37, 28089), (39, 28080), (47, 28035),

Gene: Pawn_34 Start: 25502, Stop: 25230, Start Num: 12
Candidate Starts for Pawn_34:
(Start: 12 @25502 has 88 MA's), (46, 25274),

Gene: Pembroke_35 Start: 25649, Stop: 25383, Start Num: 12
Candidate Starts for Pembroke_35:
(Start: 12 @25649 has 88 MA's), (30, 25526), (32, 25520), (33, 25517), (38, 25481), (46, 25427),

Gene: Penny1_35 Start: 25648, Stop: 25382, Start Num: 12
Candidate Starts for Penny1_35:
(Start: 12 @25648 has 88 MA's), (30, 25525), (32, 25519), (33, 25516), (38, 25480), (46, 25426),

Gene: PetterN_31 Start: 23833, Stop: 23600, Start Num: 13
Candidate Starts for PetterN_31:
(Start: 13 @23833 has 4 MA's), (32, 23734), (44, 23656), (46, 23644),

Gene: Ph8s_37 Start: 26625, Stop: 26404, Start Num: 15
Candidate Starts for Ph8s_37:
(Start: 15 @26625 has 1 MA's), (28, 26544), (37, 26493), (38, 26490), (46, 26445),

Gene: Phaeder_38 Start: 28200, Stop: 28000, Start Num: 24
Candidate Starts for Phaeder_38:
(7, 28299), (9, 28272), (Start: 24 @28200 has 39 MA's), (32, 28125), (33, 28122), (36, 28098), (37, 28089), (39, 28080), (47, 28035),

Gene: Phantastic_32 Start: 24954, Stop: 24712, Start Num: 14
Candidate Starts for Phantastic_32:
(Start: 14 @24954 has 7 MA's), (Start: 16 @24948 has 9 MA's), (30, 24855), (33, 24846), (34, 24840), (42, 24789), (44, 24768), (46, 24756),

Gene: Pharaoh_34 Start: 28121, Stop: 27927, Start Num: 24
Candidate Starts for Pharaoh_34:
(Start: 22 @28130 has 2 MA's), (Start: 24 @28121 has 39 MA's), (29, 28064), (36, 28025), (37, 28016), (39, 28007), (42, 27992), (47, 27962), (48, 27959), (49, 27935),

Gene: Phillis_29 Start: 23579, Stop: 23349, Start Num: 17
Candidate Starts for Phillis_29:
(2, 23729), (6, 23690), (Start: 17 @23579 has 12 MA's), (27, 23501), (33, 23483), (34, 23477), (42, 23426),

Gene: PhishRPhriends_33 Start: 24685, Stop: 24413, Start Num: 12
Candidate Starts for PhishRPhriends_33:
(Start: 12 @24685 has 88 MA's), (38, 24511), (46, 24457),

Gene: Phoebe_35 Start: 25640, Stop: 25380, Start Num: 12
Candidate Starts for Phoebe_35:
(Start: 12 @25640 has 88 MA's), (30, 25523), (32, 25517), (33, 25514), (38, 25478), (46, 25424),

Gene: Phonnegut_38 Start: 28255, Stop: 28055, Start Num: 24
Candidate Starts for Phonnegut_38:
(7, 28354), (9, 28327), (Start: 24 @28255 has 39 MA's), (32, 28180), (33, 28177), (36, 28153), (37, 28144), (39, 28135), (47, 28090),

Gene: Phoxy_35 Start: 25720, Stop: 25454, Start Num: 12
Candidate Starts for Phoxy_35:
(Start: 12 @25720 has 88 MA's), (30, 25597), (32, 25591),

Gene: Phranny_35 Start: 25493, Stop: 25221, Start Num: 12
Candidate Starts for Phranny_35:
(Start: 12 @25493 has 88 MA's), (38, 25319), (46, 25265),

Gene: Pioneer_38 Start: 28255, Stop: 28055, Start Num: 24
Candidate Starts for Pioneer_38:
(7, 28354), (9, 28327), (Start: 24 @28255 has 39 MA's), (32, 28180), (33, 28177), (36, 28153), (37, 28144), (39, 28135), (47, 28090),

Gene: PotatoSplit_36 Start: 25648, Stop: 25382, Start Num: 12
Candidate Starts for PotatoSplit_36:
(Start: 12 @25648 has 88 MA's), (30, 25525), (32, 25519), (33, 25516), (38, 25480), (46, 25426),

Gene: Priya_38 Start: 28267, Stop: 28067, Start Num: 24
Candidate Starts for Priya_38:

(7, 28366), (9, 28339), (Start: 24 @28267 has 39 MA's), (32, 28192), (33, 28189), (36, 28165), (37, 28156), (39, 28147), (47, 28102),

Gene: PurpleHaze_34 Start: 25500, Stop: 25228, Start Num: 12
Candidate Starts for PurpleHaze_34:
(Start: 12 @25500 has 88 MA's), (46, 25272),

Gene: Qobbit_38 Start: 28229, Stop: 28029, Start Num: 24
Candidate Starts for Qobbit_38:
(7, 28328), (9, 28301), (Start: 24 @28229 has 39 MA's), (32, 28154), (33, 28151), (36, 28127), (37, 28118), (39, 28109), (47, 28064),

Gene: Rahalelujah_36 Start: 27292, Stop: 27095, Start Num: 24
Candidate Starts for Rahalelujah_36:
(9, 27364), (Start: 14 @27325 has 7 MA's), (Start: 24 @27292 has 39 MA's), (32, 27220), (33, 27217), (34, 27211), (36, 27193), (37, 27184), (42, 27160), (45, 27139), (47, 27130),

Gene: Reba_35 Start: 25166, Stop: 24894, Start Num: 12
Candidate Starts for Reba_35:
(Start: 12 @25166 has 88 MA's), (38, 24992), (46, 24938),

Gene: Roary_29 Start: 23479, Stop: 23249, Start Num: 17
Candidate Starts for Roary_29:
(2, 23629), (Start: 17 @23479 has 12 MA's), (27, 23401), (33, 23383), (34, 23377), (42, 23326),

Gene: Rockstar_32 Start: 24924, Stop: 24682, Start Num: 14
Candidate Starts for Rockstar_32:
(Start: 14 @24924 has 7 MA's), (Start: 16 @24918 has 9 MA's), (30, 24825), (34, 24810),

Gene: Rummer_35 Start: 25720, Stop: 25454, Start Num: 12
Candidate Starts for Rummer_35:
(Start: 12 @25720 has 88 MA's), (30, 25597), (32, 25591),

Gene: RyeScarlet_38 Start: 28224, Stop: 28024, Start Num: 24
Candidate Starts for RyeScarlet_38:
(7, 28323), (9, 28296), (Start: 24 @28224 has 39 MA's), (32, 28149), (33, 28146), (36, 28122), (37, 28113), (39, 28104), (47, 28059),

Gene: Sabia_35 Start: 25641, Stop: 25375, Start Num: 12
Candidate Starts for Sabia_35:
(Start: 12 @25641 has 88 MA's), (30, 25518), (32, 25512), (33, 25509), (46, 25419),

Gene: Sabinator_35 Start: 25646, Stop: 25380, Start Num: 12
Candidate Starts for Sabinator_35:
(Start: 12 @25646 has 88 MA's), (30, 25523), (32, 25517), (33, 25514), (38, 25478), (46, 25424),

Gene: Sachima_38 Start: 28205, Stop: 27999, Start Num: 22
Candidate Starts for Sachima_38:
(Start: 22 @28205 has 2 MA's), (Start: 24 @28196 has 39 MA's), (33, 28121), (34, 28115), (36, 28097), (37, 28088), (39, 28079), (47, 28034),

Gene: Saintus_29 Start: 23499, Stop: 23269, Start Num: 17
Candidate Starts for Saintus_29:

(2, 23649), (6, 23610), (Start: 17 @23499 has 12 MA's), (27, 23421), (33, 23403), (34, 23397), (42, 23346),

Gene: Scherzo_37 Start: 28212, Stop: 28012, Start Num: 24
Candidate Starts for Scherzo_37:
(1, 28470), (9, 28284), (Start: 24 @28212 has 39 MA's), (32, 28137), (33, 28134), (36, 28110), (37, 28101), (39, 28092), (47, 28047),

Gene: SheaKeira_37 Start: 27624, Stop: 27430, Start Num: 24
Candidate Starts for SheaKeira_37:
(Start: 22 @27633 has 2 MA's), (Start: 24 @27624 has 39 MA's), (39, 27510), (42, 27495), (46, 27471), (47, 27465),

Gene: Sheen_35 Start: 29301, Stop: 29071, Start Num: 16
Candidate Starts for Sheen_35:
(Start: 16 @29301 has 9 MA's), (30, 29214), (33, 29205), (42, 29148), (44, 29127), (46, 29115),

Gene: Smeadley_29 Start: 23512, Stop: 23282, Start Num: 17
Candidate Starts for Smeadley_29:
(2, 23662), (6, 23623), (Start: 17 @23512 has 12 MA's), (27, 23434), (33, 23416), (34, 23410), (42, 23359),

Gene: Snickers_35 Start: 25621, Stop: 25355, Start Num: 12
Candidate Starts for Snickers_35:
(Start: 12 @25621 has 88 MA's), (30, 25498), (32, 25492), (33, 25489), (46, 25399),

Gene: SoYo_35 Start: 25559, Stop: 25293, Start Num: 12
Candidate Starts for SoYo_35:
(Start: 12 @25559 has 88 MA's), (30, 25436), (32, 25430), (33, 25427), (38, 25391), (46, 25337),

Gene: SoilDragon_34 Start: 25094, Stop: 24828, Start Num: 12
Candidate Starts for SoilDragon_34:
(Start: 12 @25094 has 88 MA's), (30, 24971), (32, 24965), (33, 24962), (38, 24926), (46, 24872),

Gene: Soshari_37 Start: 25719, Stop: 25453, Start Num: 12
Candidate Starts for Soshari_37:
(Start: 12 @25719 has 88 MA's), (30, 25596), (32, 25590),

Gene: Spike509_35 Start: 25720, Stop: 25454, Start Num: 12
Candidate Starts for Spike509_35:
(Start: 12 @25720 has 88 MA's), (30, 25597), (32, 25591),

Gene: Spouty_38 Start: 28266, Stop: 28066, Start Num: 24
Candidate Starts for Spouty_38:
(7, 28365), (9, 28338), (Start: 24 @28266 has 39 MA's), (32, 28191), (33, 28188), (36, 28164), (37, 28155), (39, 28146), (47, 28101),

Gene: Stagni_35 Start: 25650, Stop: 25384, Start Num: 12
Candidate Starts for Stagni_35:
(Start: 12 @25650 has 88 MA's), (30, 25527), (32, 25521), (33, 25518), (46, 25428),

Gene: StepMih_35 Start: 25641, Stop: 25375, Start Num: 12
Candidate Starts for StepMih_35:

(Start: 12 @25641 has 88 MA's), (30, 25518), (32, 25512), (33, 25509), (46, 25419),

Gene: Stephig9_29 Start: 23494, Stop: 23264, Start Num: 17
Candidate Starts for Stephig9_29:
(2, 23644), (Start: 17 @23494 has 12 MA's), (27, 23416), (33, 23398), (34, 23392), (42, 23341),

Gene: Superchunk_35 Start: 26208, Stop: 25990, Start Num: 16
Candidate Starts for Superchunk_35:
(Start: 16 @26208 has 9 MA's), (33, 26112), (36, 26088), (37, 26079), (42, 26055), (46, 26031), (47, 26025),

Gene: Taurus_35 Start: 25647, Stop: 25381, Start Num: 12
Candidate Starts for Taurus_35:
(Start: 12 @25647 has 88 MA's), (30, 25524), (32, 25518), (33, 25515), (38, 25479), (46, 25425),

Gene: Tiffany_35 Start: 25533, Stop: 25267, Start Num: 12
Candidate Starts for Tiffany_35:
(Start: 12 @25533 has 88 MA's), (30, 25410), (32, 25404), (33, 25401), (46, 25311),

Gene: Timshel_35 Start: 29722, Stop: 29492, Start Num: 16
Candidate Starts for Timshel_35:
(Start: 16 @29722 has 9 MA's), (30, 29635), (33, 29626), (44, 29548), (46, 29536),

Gene: TinyPebbles_35 Start: 25725, Stop: 25459, Start Num: 12
Candidate Starts for TinyPebbles_35:
(Start: 12 @25725 has 88 MA's), (30, 25602), (32, 25596),

Gene: Toaka_36 Start: 27486, Stop: 27289, Start Num: 24
Candidate Starts for Toaka_36:
(Start: 24 @27486 has 39 MA's), (33, 27411), (34, 27405), (36, 27387), (37, 27378), (39, 27369), (42, 27354), (45, 27333), (47, 27324),

Gene: Tubs_38 Start: 28200, Stop: 28000, Start Num: 24
Candidate Starts for Tubs_38:
(7, 28299), (9, 28272), (Start: 24 @28200 has 39 MA's), (32, 28125), (33, 28122), (36, 28098), (37, 28089), (39, 28080), (47, 28035),

Gene: Ugenie5_34 Start: 28211, Stop: 28011, Start Num: 24
Candidate Starts for Ugenie5_34:
(1, 28469), (9, 28283), (Start: 24 @28211 has 39 MA's), (32, 28136), (33, 28133), (36, 28109), (37, 28100), (39, 28091), (47, 28046),

Gene: UnionJack_30 Start: 23572, Stop: 23339, Start Num: 13
Candidate Starts for UnionJack_30:
(Start: 13 @23572 has 4 MA's), (32, 23473), (33, 23470), (35, 23452), (44, 23395), (46, 23383),

Gene: Vix_35 Start: 25730, Stop: 25464, Start Num: 12
Candidate Starts for Vix_35:
(Start: 12 @25730 has 88 MA's), (30, 25607), (32, 25601), (33, 25598), (38, 25562), (46, 25508),

Gene: Watson_35 Start: 25640, Stop: 25374, Start Num: 12
Candidate Starts for Watson_35:
(Start: 12 @25640 has 88 MA's), (30, 25517), (32, 25511), (33, 25508), (38, 25472), (46, 25418),

Gene: Wooldri_37 Start: 25559, Stop: 25293, Start Num: 12
Candidate Starts for Wooldri_37:
(Start: 12 @25559 has 88 MA's), (30, 25436), (32, 25430), (33, 25427), (38, 25391), (46, 25337),

Gene: WorldCup_35 Start: 27289, Stop: 27095, Start Num: 24
Candidate Starts for WorldCup_35:
(9, 27361), (Start: 14 @27322 has 7 MA's), (Start: 24 @27289 has 39 MA's), (32, 27220), (33, 27217), (34, 27211), (36, 27193), (37, 27184), (39, 27175), (41, 27166), (45, 27139), (47, 27130),

Gene: Yecey3_37 Start: 27443, Stop: 27255, Start Num: 24
Candidate Starts for Yecey3_37:
(Start: 24 @27443 has 39 MA's), (33, 27377), (36, 27353), (37, 27344), (39, 27335), (46, 27296), (47, 27290),

Gene: Zetzy_34 Start: 25205, Stop: 24921, Start Num: 12
Candidate Starts for Zetzy_34:
(Start: 12 @25205 has 88 MA's), (30, 25082), (44, 24977), (46, 24965),

Gene: Zimmer_37 Start: 29288, Stop: 29094, Start Num: 24
Candidate Starts for Zimmer_37:
(Start: 22 @29297 has 2 MA's), (Start: 24 @29288 has 39 MA's), (29, 29231), (36, 29192), (37, 29183), (42, 29159), (47, 29129), (48, 29126), (49, 29102),