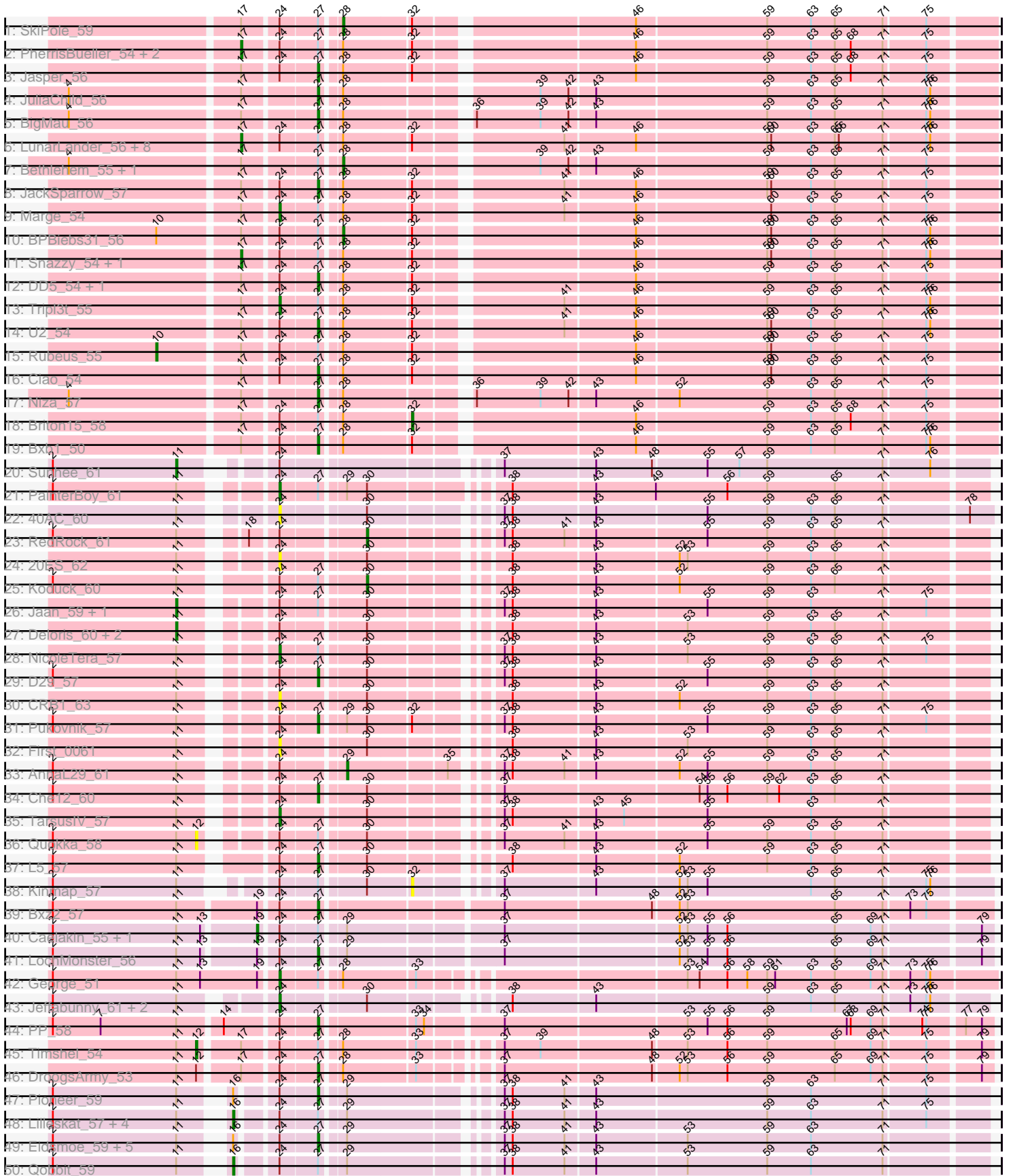
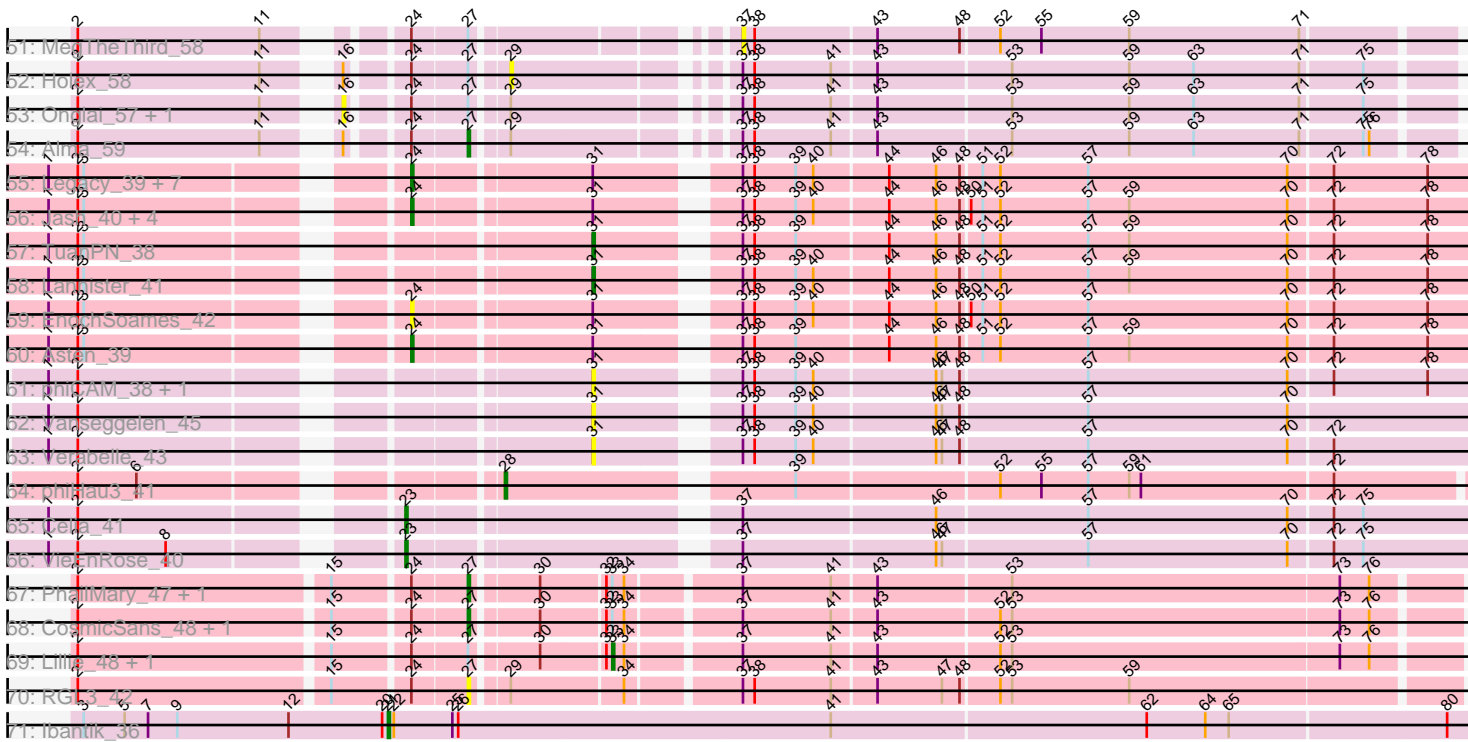


Pham 304850



Pham 304850



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 304850 Report

This analysis was run 06/08/26 on database version 649.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 304850 has 115 members, 21 are drafts.

Phages represented in each track:

- Track 1 : SkiPole_59
- Track 2 : PherrisBueller_54, Dreamboat_56, Scowl_55
- Track 3 : Jasper_56
- Track 4 : JuliaChild_56
- Track 5 : BigMau_56
- Track 6 : LunarLander_56, Oogway_54, Graduation_58, Puppet_55, Dynamix_56, BeesKnees_57, Wilkins_54, Topgun_54, Cueylyss_56
- Track 7 : Bethlehem_55, KSSJEB_54
- Track 8 : JackSparrow_57
- Track 9 : Marge_54
- Track 10 : BPBiebs31_56
- Track 11 : Snazzy_54, GMonster_52
- Track 12 : DD5_54, Lockley_53
- Track 13 : Tripl3t_55
- Track 14 : U2_54
- Track 15 : Rubeus_55
- Track 16 : Ciao_54
- Track 17 : Niza_57
- Track 18 : Briton15_58
- Track 19 : Bxb1_50
- Track 20 : Sunhee_61
- Track 21 : PainterBoy_61
- Track 22 : 40AC_60
- Track 23 : RedRock_61
- Track 24 : 20ES_62
- Track 25 : Koduck_60
- Track 26 : Jaan_59, IronMan_58
- Track 27 : Deloris_60, VA6_60, AN3_62
- Track 28 : NicoleTera_57
- Track 29 : D29_57
- Track 30 : CRB1_63
- Track 31 : Pukovnik_57
- Track 32 : First_0061

- Track 33 : AnnaL29_61
- Track 34 : Che12_60
- Track 35 : TarsusIV_57
- Track 36 : Quokka_58
- Track 37 : L5_57
- Track 38 : Kinmap_57
- Track 39 : Bxz2_57
- Track 40 : Caelakin_55, Eagle_55
- Track 41 : LochMonster_56
- Track 42 : George_51
- Track 43 : Jeffabunny_61, Blue7_62, Hammer_61
- Track 44 : PP_58
- Track 45 : Timshel_54
- Track 46 : DroogsArmy_53
- Track 47 : Pioneer_59
- Track 48 : Lilleskat_57, Beemo_59, EdogawaKiddo_57, Scherzo_59, Sachima_56
- Track 49 : Eidsmoe_59, PackMan_58, Myxus_59, HortumSL17_59, Conquerage_59, Catalina_60
- Track 50 : Qobbit_59
- Track 51 : MegTheThird_58
- Track 52 : Horex_58
- Track 53 : Onglai_57, Hanray_57
- Track 54 : Alma_59
- Track 55 : Legacy_39, Nerdos_38, Caliburn_39, SunsetPointe_39, Unstoppable_39, Leviticus_39, Aaronocolus_39, Hydra_41
- Track 56 : Jash_40, Izzy_40, BryanRecycles_40, Eddasa_40, Rusticus_40
- Track 57 : TuanPN_38
- Track 58 : Lannister_41
- Track 59 : EnochSoames_42
- Track 60 : Asten_39
- Track 61 : phiCAM_38, Celery_43
- Track 62 : Vanseggelen_45
- Track 63 : Verabelle_43
- Track 64 : phiHau3_41
- Track 65 : Celia_41
- Track 66 : VieEnRose_40
- Track 67 : PhailMary_47, BobbyDazzler_48
- Track 68 : CosmicSans_48, RER2_41
- Track 69 : Lillie_48, Rhodalysa_48
- Track 70 : RGL3_42
- Track 71 : Ibantik_36

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

The start number called the most often in the published annotations is 27, it was called in 29 of the 94 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alma_59, BigMau_56, BobbyDazzler_48, Bxb1_50, Bxz2_57, Catalina_60, Che12_60, Ciao_54, Conquerage_59, CosmicSans_48, D29_57, DD5_54,

DroogsArmy_53, Eidsmoe_59, HortumSL17_59, JackSparrow_57, Jasper_56, JuliaChild_56, L5_57, LochMonster_56, Lockley_53, Myxus_59, Niza_57, PP_58, PackMan_58, PhailMary_47, Pioneer_59, Pukovnik_57, RER2_41, RGL3_42, U2_54,

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

- BPBiebs31_56, Beemo_59, BeesKnees_57, Bethlehem_55, Briton15_58, Caelakin_55, Cueyllyss_56, Dreamboat_56, Dynamix_56, Eagle_55, EdogawaKiddo_57, GMonster_52, George_51, Graduation_58, Hanray_57, Horex_58, IronMan_58, Jaan_59, KSSJEB_54, Kinmap_57, Koduck_60, Lilleskat_57, Lillie_48, LunarLander_56, Marge_54, MegTheThird_58, NicoleTera_57, Onglai_57, Oogway_54, PainterBoy_61, PherrisBueller_54, Puppet_55, Qobbit_59, Quokka_58, Rhodalysa_48, Rubeus_55, Sachima_56, Scherzo_59, Scowl_55, SkiPole_59, Snazzy_54, Timshel_54, Topgun_54, Tripl3t_55, Wilkins_54,

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

- 20ES_62, 40AC_60, AN3_62, Aaronocolus_39, AnnaL29_61, Asten_39, Blue7_62, BryanRecycles_40, CRB1_63, Caliburn_39, Celery_43, Celia_41, Deloris_60, Eddasa_40, EnochSoames_42, First_0061, Hammer_61, Hydra_41, Ibantik_36, Izzy_40, Jash_40, Jeffabunny_61, Lannister_41, Legacy_39, Leviticus_39, Nerdos_38, RedRock_61, Rusticus_40, Sunhee_61, SunsetPointe_39, TarsusIV_57, TuanPN_38, Unstoppable_39, VA6_60, Vanseggelen_45, Verabelle_43, VieEnRose_40, phiCAM_38, phiHau3_41,

Summary by start number:

Start 10:

- Found in 2 of 115 (1.7%) of genes in pham
- Manual Annotations of this start: 1 of 94
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Rubeus_55 (A1),

Start 11:

- Found in 51 of 115 (44.3%) of genes in pham
- Manual Annotations of this start: 6 of 94
- Called 11.8% of time when present
- Phage (with cluster) where this start called: AN3_62 (A2), Deloris_60 (A2), IronMan_58 (A2), Jaan_59 (A2), Sunhee_61 (A14), VA6_60 (A2),

Start 12:

- Found in 4 of 115 (3.5%) of genes in pham
- Manual Annotations of this start: 1 of 94
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Quokka_58 (A2), Timshel_54 (A7),

Start 16:

- Found in 17 of 115 (14.8%) of genes in pham
- Manual Annotations of this start: 3 of 94
- Called 47.1% of time when present
- Phage (with cluster) where this start called: Beemo_59 (A9), EdogawaKiddo_57 (A9), Hanray_57 (A9), Lilleskat_57 (A9), Onglai_57 (A9), Qobbit_59 (A9), Sachima_56 (A9), Scherzo_59 (A9),

Start 17:

- Found in 34 of 115 (29.6%) of genes in pham
- Manual Annotations of this start: 13 of 94
- Called 41.2% of time when present
- Phage (with cluster) where this start called: BeesKnees_57 (A1), Cueylyss_56 (A1), Dreamboat_56 (A1), Dynamix_56 (A1), GMonster_52 (A1), Graduation_58 (A1), LunarLander_56 (A1), Oogway_54 (A1), PherrisBueller_54 (A1), Puppet_55 (A1), Scowl_55 (A1), Snazzy_54 (A1), Topgun_54 (A1), Wilkins_54 (A1),

Start 19:

- Found in 5 of 115 (4.3%) of genes in pham
- Manual Annotations of this start: 2 of 94
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Caelakin_55 (A4), Eagle_55 (A4),

Start 21:

- Found in 1 of 115 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ibantik_36 (singleton),

Start 23:

- Found in 2 of 115 (1.7%) of genes in pham
- Manual Annotations of this start: 2 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Celia_41 (BD6), VieEnRose_40 (BD6),

Start 24:

- Found in 100 of 115 (87.0%) of genes in pham
- Manual Annotations of this start: 23 of 94
- Called 28.0% of time when present
- Phage (with cluster) where this start called: 20ES_62 (A2), 40AC_60 (A17), Aaronocolus_39 (BD1), Asten_39 (BD1), Blue7_62 (A6), BryanRecycles_40 (BD1), CRB1_63 (A2), Caliburn_39 (BD1), Eddasa_40 (BD1), EnochSoames_42 (BD1), First_0061 (A2), George_51 (A5), Hammer_61 (A6), Hydra_41 (BD1), Izzy_40 (BD1), Jash_40 (BD1), Jeffabunny_61 (A6), Legacy_39 (BD1), Leviticus_39 (BD1), Marge_54 (A1), Nerdos_38 (BD1), NicoleTera_57 (A2), PainterBoy_61 (A16), Rusticus_40 (BD1), SunsetPointe_39 (BD1), TarsusIV_57 (A2), Tripl3t_55 (A1), Unstoppable_39 (BD1),

Start 27:

- Found in 76 of 115 (66.1%) of genes in pham
- Manual Annotations of this start: 29 of 94
- Called 40.8% of time when present
- Phage (with cluster) where this start called: Alma_59 (A9), BigMau_56 (A1), BobbyDazzler_48 (CA), Bxb1_50 (A1), Bxb2_57 (A3), Catalina_60 (A9), Che12_60 (A2), Ciao_54 (A1), Conquerage_59 (A9), CosmicSans_48 (CA), D29_57 (A2), DD5_54 (A1), DroogsArmy_53 (A7), Eidsmoe_59 (A9), HortumSL17_59 (A9), JackSparrow_57 (A1), Jasper_56 (A1), JuliaChild_56 (A1), L5_57 (A2), LochMonster_56 (A4), Lockley_53 (A1), Myxus_59 (A9), Niza_57 (A1), PP_58 (A7), PackMan_58 (A9), PhailMary_47 (CA), Pioneer_59 (A9), Pukovnik_57 (A2), RER2_41 (CA), RGL3_42 (CA), U2_54 (A1),

Start 28:

- Found in 36 of 115 (31.3%) of genes in pham
- Manual Annotations of this start: 5 of 94
- Called 13.9% of time when present
- Phage (with cluster) where this start called: BPBiebs31_56 (A1), Bethlehem_55 (A1), KSSJEB_54 (A1), SkiPole_59 (A1), phiHau3_41 (BD4),

Start 29:

- Found in 24 of 115 (20.9%) of genes in pham
- Manual Annotations of this start: 1 of 94
- Called 8.3% of time when present
- Phage (with cluster) where this start called: AnnaL29_61 (A2), Holecx_58 (A9),

Start 30:

- Found in 29 of 115 (25.2%) of genes in pham
- Manual Annotations of this start: 2 of 94
- Called 6.9% of time when present
- Phage (with cluster) where this start called: Koduck_60 (A2), RedRock_61 (A2),

Start 31:

- Found in 21 of 115 (18.3%) of genes in pham
- Manual Annotations of this start: 2 of 94
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Celery_43 (BD3), Lannister_41 (BD1), TuanPN_38 (BD1), Vanseggelen_45 (BD3), Verabelle_43 (BD3), phiCAM_38 (BD3),

Start 32:

- Found in 35 of 115 (30.4%) of genes in pham
- Manual Annotations of this start: 1 of 94
- Called 5.7% of time when present
- Phage (with cluster) where this start called: Briton15_58 (A1), Kinmap_57 (A21),

Start 33:

- Found in 10 of 115 (8.7%) of genes in pham
- Manual Annotations of this start: 2 of 94
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Lillie_48 (CA), Rhodalysa_48 (CA),

Start 37:

- Found in 68 of 115 (59.1%) of genes in pham
- No Manual Annotations of this start.
- Called 1.5% of time when present
- Phage (with cluster) where this start called: MegTheThird_58 (A9),

Summary by clusters:

There are 18 clusters represented in this pham: A21, singleton, A16, BD3, A14, CA, A17, A1, BD4, A3, A2, BD1, BD6, A7, A6, A9, A5, A4,

Info for manual annotations of cluster A1:

- Start number 10 was manually annotated 1 time for cluster A1.
- Start number 17 was manually annotated 13 times for cluster A1.
- Start number 24 was manually annotated 2 times for cluster A1.
- Start number 27 was manually annotated 10 times for cluster A1.

- Start number 28 was manually annotated 4 times for cluster A1.
- Start number 32 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster A14:

- Start number 11 was manually annotated 1 time for cluster A14.

Info for manual annotations of cluster A16:

- Start number 24 was manually annotated 1 time for cluster A16.

Info for manual annotations of cluster A2:

- Start number 11 was manually annotated 5 times for cluster A2.
- Start number 24 was manually annotated 2 times for cluster A2.
- Start number 27 was manually annotated 4 times for cluster A2.
- Start number 29 was manually annotated 1 time for cluster A2.
- Start number 30 was manually annotated 2 times for cluster A2.

Info for manual annotations of cluster A3:

- Start number 27 was manually annotated 1 time for cluster A3.

Info for manual annotations of cluster A4:

- Start number 19 was manually annotated 2 times for cluster A4.
- Start number 27 was manually annotated 1 time for cluster A4.

Info for manual annotations of cluster A5:

- Start number 24 was manually annotated 1 time for cluster A5.

Info for manual annotations of cluster A6:

- Start number 24 was manually annotated 3 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 12 was manually annotated 1 time for cluster A7.
- Start number 27 was manually annotated 2 times for cluster A7.

Info for manual annotations of cluster A9:

- Start number 16 was manually annotated 3 times for cluster A9.
- Start number 27 was manually annotated 8 times for cluster A9.

Info for manual annotations of cluster BD1:

- Start number 24 was manually annotated 14 times for cluster BD1.
- Start number 31 was manually annotated 2 times for cluster BD1.

Info for manual annotations of cluster BD4:

- Start number 28 was manually annotated 1 time for cluster BD4.

Info for manual annotations of cluster BD6:

- Start number 23 was manually annotated 2 times for cluster BD6.

Info for manual annotations of cluster CA:

- Start number 27 was manually annotated 3 times for cluster CA.
- Start number 33 was manually annotated 2 times for cluster CA.

Gene Information:

Gene: 20ES_62 Start: 39206, Stop: 38721, Start Num: 24

Candidate Starts for 20ES_62:

(Start: 11 @39260 has 6 MA's), (Start: 24 @39206 has 23 MA's), (Start: 30 @39149 has 2 MA's), (38, 39065), (43, 39005), (52, 38945), (53, 38939), (59, 38879), (63, 38846), (65, 38828), (71, 38792),

Gene: 40AC_60 Start: 40016, Stop: 39528, Start Num: 24

Candidate Starts for 40AC_60:

(Start: 11 @40070 has 6 MA's), (Start: 24 @40016 has 23 MA's), (Start: 30 @39959 has 2 MA's), (37, 39881), (38, 39875), (43, 39815), (55, 39734), (59, 39689), (63, 39656), (65, 39638), (71, 39602), (78, 39545),

Gene: AN3_62 Start: 37975, Stop: 37436, Start Num: 11

Candidate Starts for AN3_62:

(Start: 11 @37975 has 6 MA's), (Start: 24 @37921 has 23 MA's), (Start: 30 @37864 has 2 MA's), (38, 37780), (43, 37720), (53, 37654), (59, 37594), (63, 37561), (65, 37543), (71, 37507),

Gene: Aaronocolus_39 Start: 27976, Stop: 28482, Start Num: 24

Candidate Starts for Aaronocolus_39:

(1, 27817), (2, 27832), (3, 27835), (Start: 24 @27976 has 23 MA's), (Start: 31 @28060 has 2 MA's), (37, 28117), (38, 28123), (39, 28144), (40, 28153), (44, 28189), (46, 28213), (48, 28225), (51, 28234), (52, 28243), (57, 28288), (70, 28390), (72, 28411), (78, 28459),

Gene: Alma_59 Start: 38989, Stop: 38528, Start Num: 27

Candidate Starts for Alma_59:

(2, 39157), (Start: 11 @39064 has 6 MA's), (Start: 16 @39040 has 3 MA's), (Start: 24 @39016 has 23 MA's), (Start: 27 @38989 has 29 MA's), (Start: 29 @38974 has 1 MA's), (37, 38878), (38, 38872), (41, 38833), (43, 38812), (53, 38746), (59, 38686), (63, 38653), (71, 38599), (75, 38569), (76, 38566),

Gene: AnnaL29_61 Start: 39576, Stop: 39133, Start Num: 29

Candidate Starts for AnnaL29_61:

(2, 39765), (Start: 11 @39672 has 6 MA's), (Start: 24 @39618 has 23 MA's), (Start: 29 @39576 has 1 MA's), (35, 39507), (37, 39483), (38, 39477), (41, 39438), (43, 39417), (52, 39357), (55, 39336), (59, 39291), (63, 39258), (65, 39240), (71, 39204),

Gene: Asten_39 Start: 28338, Stop: 28844, Start Num: 24

Candidate Starts for Asten_39:

(1, 28179), (2, 28194), (3, 28197), (Start: 24 @28338 has 23 MA's), (Start: 31 @28422 has 2 MA's), (37, 28479), (38, 28485), (39, 28506), (44, 28551), (46, 28575), (48, 28587), (51, 28596), (52, 28605), (57, 28650), (59, 28671), (70, 28752), (72, 28773), (78, 28821),

Gene: BPBiabs31_56 Start: 39985, Stop: 39524, Start Num: 28

Candidate Starts for BPBiabs31_56:

(Start: 10 @40105 has 1 MA's), (Start: 17 @40048 has 13 MA's), (Start: 24 @40024 has 23 MA's), (Start: 27 @39997 has 29 MA's), (Start: 28 @39985 has 5 MA's), (Start: 32 @39937 has 1 MA's), (46, 39787), (59, 39691), (60, 39688), (63, 39658), (65, 39640), (71, 39604), (75, 39571), (76, 39568),

Gene: Beemo_59 Start: 38835, Stop: 38323, Start Num: 16

Candidate Starts for Beemo_59:

(2, 38952), (Start: 11 @38859 has 6 MA's), (Start: 16 @38835 has 3 MA's), (Start: 24 @38811 has 23 MA's), (Start: 27 @38784 has 29 MA's), (Start: 29 @38769 has 1 MA's), (37, 38673), (38, 38667), (41, 38628), (43, 38607), (59, 38481), (63, 38448), (71, 38394), (75, 38364),

Gene: BeesKnees_57 Start: 39132, Stop: 38611, Start Num: 17

Candidate Starts for BeesKnees_57:

(Start: 17 @39132 has 13 MA's), (Start: 24 @39108 has 23 MA's), (Start: 27 @39081 has 29 MA's), (Start: 28 @39069 has 5 MA's), (Start: 32 @39021 has 1 MA's), (41, 38922), (46, 38871), (59, 38775), (60, 38772), (63, 38742), (65, 38724), (66, 38721), (71, 38688), (75, 38658), (76, 38655),

Gene: Bethlehem_55 Start: 40567, Stop: 40109, Start Num: 28

Candidate Starts for Bethlehem_55:

(4, 40753), (Start: 17 @40630 has 13 MA's), (Start: 27 @40579 has 29 MA's), (Start: 28 @40567 has 5 MA's), (39, 40438), (42, 40417), (43, 40399), (59, 40273), (63, 40240), (65, 40222), (71, 40186), (75, 40156),

Gene: BigMau_56 Start: 38450, Stop: 37977, Start Num: 27

Candidate Starts for BigMau_56:

(4, 38624), (Start: 17 @38501 has 13 MA's), (Start: 27 @38450 has 29 MA's), (Start: 28 @38438 has 5 MA's), (36, 38357), (39, 38309), (42, 38288), (43, 38270), (59, 38144), (63, 38111), (65, 38093), (71, 38057), (75, 38024), (76, 38021),

Gene: Blue7_62 Start: 37782, Stop: 37297, Start Num: 24

Candidate Starts for Blue7_62:

(2, 37929), (Start: 11 @37836 has 6 MA's), (Start: 24 @37782 has 23 MA's), (Start: 30 @37725 has 2 MA's), (38, 37641), (43, 37581), (59, 37455), (63, 37422), (65, 37404), (71, 37368), (73, 37350), (75, 37338), (76, 37335),

Gene: BobbyDazzler_48 Start: 35140, Stop: 34667, Start Num: 27

Candidate Starts for BobbyDazzler_48:

(2, 35326), (15, 35203), (Start: 24 @35167 has 23 MA's), (Start: 27 @35140 has 29 MA's), (Start: 30 @35110 has 2 MA's), (Start: 32 @35080 has 1 MA's), (Start: 33 @35077 has 2 MA's), (34, 35071), (37, 35020), (41, 34975), (43, 34954), (53, 34888), (73, 34723), (76, 34708),

Gene: Briton15_58 Start: 39343, Stop: 38933, Start Num: 32

Candidate Starts for Briton15_58:

(Start: 17 @39454 has 13 MA's), (Start: 24 @39430 has 23 MA's), (Start: 27 @39403 has 29 MA's), (Start: 28 @39391 has 5 MA's), (Start: 32 @39343 has 1 MA's), (46, 39193), (59, 39097), (63, 39064), (65, 39046), (68, 39034), (71, 39010), (75, 38980),

Gene: BryanRecycles_40 Start: 28336, Stop: 28842, Start Num: 24

Candidate Starts for BryanRecycles_40:

(1, 28177), (2, 28192), (3, 28195), (Start: 24 @28336 has 23 MA's), (Start: 31 @28420 has 2 MA's), (37, 28477), (38, 28483), (39, 28504), (40, 28513), (44, 28549), (46, 28573), (48, 28585), (50, 28588), (51, 28594), (52, 28603), (57, 28648), (59, 28669), (70, 28750), (72, 28771), (78, 28819),

Gene: Bxb1_50 Start: 37984, Stop: 37511, Start Num: 27

Candidate Starts for Bxb1_50:

(Start: 17 @38035 has 13 MA's), (Start: 24 @38011 has 23 MA's), (Start: 27 @37984 has 29 MA's), (Start: 28 @37972 has 5 MA's), (Start: 32 @37924 has 1 MA's), (46, 37774), (59, 37678), (63, 37645), (65, 37627), (71, 37591), (75, 37558), (76, 37555),

Gene: Bxz2_57 Start: 38747, Stop: 38274, Start Num: 27

Candidate Starts for Bxz2_57:

(2, 38933), (Start: 11 @38840 has 6 MA's), (Start: 19 @38786 has 2 MA's), (Start: 24 @38774 has 23 MA's), (Start: 27 @38747 has 29 MA's), (37, 38627), (48, 38519), (52, 38501), (53, 38495), (65, 38384), (71, 38348), (73, 38330), (75, 38318),

Gene: CRB1_63 Start: 39723, Stop: 39238, Start Num: 24

Candidate Starts for CRB1_63:

(Start: 11 @39777 has 6 MA's), (Start: 24 @39723 has 23 MA's), (Start: 30 @39666 has 2 MA's), (38, 39582), (43, 39522), (52, 39462), (59, 39396), (63, 39363), (65, 39345), (71, 39309),

Gene: Caelakin_55 Start: 37992, Stop: 37480, Start Num: 19

Candidate Starts for Caelakin_55:

(2, 38139), (Start: 11 @38046 has 6 MA's), (13, 38028), (Start: 19 @37992 has 2 MA's), (Start: 24 @37980 has 23 MA's), (Start: 27 @37953 has 29 MA's), (Start: 29 @37938 has 1 MA's), (37, 37833), (52, 37707), (53, 37701), (55, 37686), (56, 37671), (65, 37590), (69, 37563), (71, 37554), (79, 37488),

Gene: Caliburn_39 Start: 27959, Stop: 28465, Start Num: 24

Candidate Starts for Caliburn_39:

(1, 27800), (2, 27815), (3, 27818), (Start: 24 @27959 has 23 MA's), (Start: 31 @28043 has 2 MA's), (37, 28100), (38, 28106), (39, 28127), (40, 28136), (44, 28172), (46, 28196), (48, 28208), (51, 28217), (52, 28226), (57, 28271), (70, 28373), (72, 28394), (78, 28442),

Gene: Catalina_60 Start: 38687, Stop: 38226, Start Num: 27

Candidate Starts for Catalina_60:

(2, 38855), (Start: 11 @38762 has 6 MA's), (Start: 16 @38738 has 3 MA's), (Start: 24 @38714 has 23 MA's), (Start: 27 @38687 has 29 MA's), (Start: 29 @38672 has 1 MA's), (37, 38576), (38, 38570), (41, 38531), (43, 38510), (53, 38444), (59, 38384), (63, 38351), (71, 38297),

Gene: Celery_43 Start: 29883, Stop: 30305, Start Num: 31

Candidate Starts for Celery_43:

(1, 29640), (2, 29655), (Start: 31 @29883 has 2 MA's), (37, 29940), (38, 29946), (39, 29967), (40, 29976), (46, 30036), (47, 30039), (48, 30048), (57, 30111), (70, 30213), (72, 30234), (78, 30282),

Gene: Celia_41 Start: 28888, Stop: 29397, Start Num: 23

Candidate Starts for Celia_41:

(1, 28732), (2, 28747), (Start: 23 @28888 has 2 MA's), (37, 29032), (46, 29128), (57, 29203), (70, 29305), (72, 29326), (75, 29341),

Gene: Che12_60 Start: 37843, Stop: 37385, Start Num: 27

Candidate Starts for Che12_60:

(2, 38017), (Start: 11 @37924 has 6 MA's), (Start: 24 @37870 has 23 MA's), (Start: 27 @37843 has 29 MA's), (Start: 30 @37813 has 2 MA's), (37, 37735), (54, 37594), (55, 37588), (56, 37573), (59, 37543), (62, 37534), (63, 37510), (65, 37492), (71, 37456),

Gene: Ciao_54 Start: 38691, Stop: 38221, Start Num: 27

Candidate Starts for Ciao_54:

(Start: 17 @38742 has 13 MA's), (Start: 24 @38718 has 23 MA's), (Start: 27 @38691 has 29 MA's), (Start: 28 @38679 has 5 MA's), (Start: 32 @38631 has 1 MA's), (46, 38481), (59, 38385), (60, 38382), (63, 38352), (65, 38334), (71, 38298), (75, 38268),

Gene: Conquerage_59 Start: 38758, Stop: 38297, Start Num: 27

Candidate Starts for Conquerage_59:

(2, 38926), (Start: 11 @38833 has 6 MA's), (Start: 16 @38809 has 3 MA's), (Start: 24 @38785 has 23 MA's), (Start: 27 @38758 has 29 MA's), (Start: 29 @38743 has 1 MA's), (37, 38647), (38, 38641), (41, 38602), (43, 38581), (53, 38515), (59, 38455), (63, 38422), (71, 38368),

Gene: CosmicSans_48 Start: 35094, Stop: 34621, Start Num: 27

Candidate Starts for CosmicSans_48:

(2, 35280), (15, 35157), (Start: 24 @35121 has 23 MA's), (Start: 27 @35094 has 29 MA's), (Start: 30 @35064 has 2 MA's), (Start: 32 @35034 has 1 MA's), (Start: 33 @35031 has 2 MA's), (34, 35025), (37, 34974), (41, 34929), (43, 34908), (52, 34848), (53, 34842), (73, 34677), (76, 34662),

Gene: Cueyllyss_56 Start: 40373, Stop: 39852, Start Num: 17

Candidate Starts for Cueyllyss_56:

(Start: 17 @40373 has 13 MA's), (Start: 24 @40349 has 23 MA's), (Start: 27 @40322 has 29 MA's), (Start: 28 @40310 has 5 MA's), (Start: 32 @40262 has 1 MA's), (41, 40163), (46, 40112), (59, 40016), (60, 40013), (63, 39983), (65, 39965), (66, 39962), (71, 39929), (75, 39899), (76, 39896),

Gene: D29_57 Start: 38727, Stop: 38269, Start Num: 27

Candidate Starts for D29_57:

(2, 38901), (Start: 11 @38808 has 6 MA's), (Start: 24 @38754 has 23 MA's), (Start: 27 @38727 has 29 MA's), (Start: 30 @38697 has 2 MA's), (37, 38619), (38, 38613), (43, 38553), (55, 38472), (59, 38427), (63, 38394), (65, 38376), (71, 38340),

Gene: DD5_54 Start: 39472, Stop: 39002, Start Num: 27

Candidate Starts for DD5_54:

(Start: 17 @39523 has 13 MA's), (Start: 24 @39499 has 23 MA's), (Start: 27 @39472 has 29 MA's), (Start: 28 @39460 has 5 MA's), (Start: 32 @39412 has 1 MA's), (46, 39262), (59, 39166), (63, 39133), (65, 39115), (71, 39079), (75, 39049),

Gene: Deloris_60 Start: 38927, Stop: 38388, Start Num: 11

Candidate Starts for Deloris_60:

(Start: 11 @38927 has 6 MA's), (Start: 24 @38873 has 23 MA's), (Start: 30 @38816 has 2 MA's), (38, 38732), (43, 38672), (53, 38606), (59, 38546), (63, 38513), (65, 38495), (71, 38459),

Gene: Dreamboat_56 Start: 38344, Stop: 37823, Start Num: 17

Candidate Starts for Dreamboat_56:

(Start: 17 @38344 has 13 MA's), (Start: 24 @38320 has 23 MA's), (Start: 27 @38293 has 29 MA's), (Start: 28 @38281 has 5 MA's), (Start: 32 @38233 has 1 MA's), (46, 38083), (59, 37987), (63, 37954), (65, 37936), (68, 37924), (71, 37900), (75, 37870),

Gene: DroogsArmy_53 Start: 39870, Stop: 39409, Start Num: 27

Candidate Starts for DroogsArmy_53:

(Start: 11 @39963 has 6 MA's), (Start: 12 @39948 has 1 MA's), (Start: 17 @39921 has 13 MA's), (Start: 24 @39897 has 23 MA's), (Start: 27 @39870 has 29 MA's), (Start: 28 @39858 has 5 MA's), (Start: 33 @39807 has 2 MA's), (37, 39762), (48, 39654), (52, 39636), (53, 39630), (56, 39600), (59, 39570), (65, 39519), (69, 39492), (71, 39483), (75, 39453), (79, 39417),

Gene: Dynamix_56 Start: 38930, Stop: 38409, Start Num: 17

Candidate Starts for Dynamix_56:

(Start: 17 @38930 has 13 MA's), (Start: 24 @38906 has 23 MA's), (Start: 27 @38879 has 29 MA's), (Start: 28 @38867 has 5 MA's), (Start: 32 @38819 has 1 MA's), (41, 38720), (46, 38669), (59, 38573), (60, 38570), (63, 38540), (65, 38522), (66, 38519), (71, 38486), (75, 38456), (76, 38453),

Gene: Eagle_55 Start: 38017, Stop: 37505, Start Num: 19

Candidate Starts for Eagle_55:

(2, 38164), (Start: 11 @38071 has 6 MA's), (13, 38053), (Start: 19 @38017 has 2 MA's), (Start: 24 @38005 has 23 MA's), (Start: 27 @37978 has 29 MA's), (Start: 29 @37963 has 1 MA's), (37, 37858), (52, 37732), (53, 37726), (55, 37711), (56, 37696), (65, 37615), (69, 37588), (71, 37579), (79, 37513),

Gene: Eddasa_40 Start: 28336, Stop: 28842, Start Num: 24

Candidate Starts for Eddasa_40:

(1, 28177), (2, 28192), (3, 28195), (Start: 24 @28336 has 23 MA's), (Start: 31 @28420 has 2 MA's), (37, 28477), (38, 28483), (39, 28504), (40, 28513), (44, 28549), (46, 28573), (48, 28585), (50, 28588), (51, 28594), (52, 28603), (57, 28648), (59, 28669), (70, 28750), (72, 28771), (78, 28819),

Gene: EdogawaKiddo_57 Start: 38786, Stop: 38274, Start Num: 16

Candidate Starts for EdogawaKiddo_57:

(2, 38903), (Start: 11 @38810 has 6 MA's), (Start: 16 @38786 has 3 MA's), (Start: 24 @38762 has 23 MA's), (Start: 27 @38735 has 29 MA's), (Start: 29 @38720 has 1 MA's), (37, 38624), (38, 38618), (41, 38579), (43, 38558), (59, 38432), (63, 38399), (71, 38345), (75, 38315),

Gene: Eidsmoe_59 Start: 38750, Stop: 38289, Start Num: 27

Candidate Starts for Eidsmoe_59:

(2, 38918), (Start: 11 @38825 has 6 MA's), (Start: 16 @38801 has 3 MA's), (Start: 24 @38777 has 23 MA's), (Start: 27 @38750 has 29 MA's), (Start: 29 @38735 has 1 MA's), (37, 38639), (38, 38633), (41, 38594), (43, 38573), (53, 38507), (59, 38447), (63, 38414), (71, 38360),

Gene: EnochSoames_42 Start: 28331, Stop: 28837, Start Num: 24

Candidate Starts for EnochSoames_42:

(1, 28172), (2, 28187), (3, 28190), (Start: 24 @28331 has 23 MA's), (Start: 31 @28415 has 2 MA's), (37, 28472), (38, 28478), (39, 28499), (40, 28508), (44, 28544), (46, 28568), (48, 28580), (50, 28583), (51, 28589), (52, 28598), (57, 28643), (70, 28745), (72, 28766), (78, 28814),

Gene: First_0061 Start: 39106, Stop: 38621, Start Num: 24

Candidate Starts for First_0061:

(Start: 11 @39160 has 6 MA's), (Start: 24 @39106 has 23 MA's), (Start: 30 @39049 has 2 MA's), (38, 38965), (43, 38905), (53, 38839), (59, 38779), (63, 38746), (65, 38728), (71, 38692),

Gene: GMonster_52 Start: 37727, Stop: 37203, Start Num: 17

Candidate Starts for GMonster_52:

(Start: 17 @37727 has 13 MA's), (Start: 24 @37703 has 23 MA's), (Start: 27 @37676 has 29 MA's), (Start: 28 @37664 has 5 MA's), (Start: 32 @37616 has 1 MA's), (46, 37466), (59, 37370), (60, 37367), (63, 37337), (65, 37319), (71, 37283), (75, 37253), (76, 37250),

Gene: George_51 Start: 38308, Stop: 37814, Start Num: 24

Candidate Starts for George_51:

(2, 38473), (Start: 11 @38380 has 6 MA's), (13, 38362), (Start: 19 @38320 has 2 MA's), (Start: 24 @38308 has 23 MA's), (Start: 27 @38281 has 29 MA's), (Start: 28 @38269 has 5 MA's), (Start: 33 @38218 has 2 MA's), (53, 38041), (54, 38032), (56, 38011), (58, 37996), (59, 37981), (61, 37975), (63, 37948), (65, 37930), (69, 37903), (71, 37894), (73, 37876), (75, 37864), (76, 37861),

Gene: Graduation_58 Start: 40445, Stop: 39924, Start Num: 17

Candidate Starts for Graduation_58:

(Start: 17 @40445 has 13 MA's), (Start: 24 @40421 has 23 MA's), (Start: 27 @40394 has 29 MA's), (Start: 28 @40382 has 5 MA's), (Start: 32 @40334 has 1 MA's), (41, 40235), (46, 40184), (59, 40088), (60, 40085), (63, 40055), (65, 40037), (66, 40034), (71, 40001), (75, 39971), (76, 39968),

Gene: Hammer_61 Start: 37586, Stop: 37101, Start Num: 24

Candidate Starts for Hammer_61:

(2, 37733), (Start: 11 @37640 has 6 MA's), (Start: 24 @37586 has 23 MA's), (Start: 30 @37529 has 2 MA's), (38, 37445), (43, 37385), (59, 37259), (63, 37226), (65, 37208), (71, 37172), (73, 37154), (75, 37142), (76, 37139),

Gene: Hanray_57 Start: 38790, Stop: 38278, Start Num: 16

Candidate Starts for Hanray_57:

(2, 38907), (Start: 11 @38814 has 6 MA's), (Start: 16 @38790 has 3 MA's), (Start: 24 @38766 has 23 MA's), (Start: 27 @38739 has 29 MA's), (Start: 29 @38724 has 1 MA's), (37, 38628), (38, 38622), (41, 38583), (43, 38562), (53, 38496), (59, 38436), (63, 38403), (71, 38349), (75, 38319),

Gene: Holec_58 Start: 38740, Stop: 38294, Start Num: 29

Candidate Starts for Holec_58:

(2, 38923), (Start: 11 @38830 has 6 MA's), (Start: 16 @38806 has 3 MA's), (Start: 24 @38782 has 23 MA's), (Start: 27 @38755 has 29 MA's), (Start: 29 @38740 has 1 MA's), (37, 38644), (38, 38638), (41, 38599), (43, 38578), (53, 38512), (59, 38452), (63, 38419), (71, 38365), (75, 38335),

Gene: HortumSL17_59 Start: 38686, Stop: 38225, Start Num: 27

Candidate Starts for HortumSL17_59:

(2, 38854), (Start: 11 @38761 has 6 MA's), (Start: 16 @38737 has 3 MA's), (Start: 24 @38713 has 23 MA's), (Start: 27 @38686 has 29 MA's), (Start: 29 @38671 has 1 MA's), (37, 38575), (38, 38569), (41, 38530), (43, 38509), (53, 38443), (59, 38383), (63, 38350), (71, 38296),

Gene: Hydra_41 Start: 28507, Stop: 29013, Start Num: 24

Candidate Starts for Hydra_41:

(1, 28348), (2, 28363), (3, 28366), (Start: 24 @28507 has 23 MA's), (Start: 31 @28591 has 2 MA's), (37, 28648), (38, 28654), (39, 28675), (40, 28684), (44, 28720), (46, 28744), (48, 28756), (51, 28765), (52, 28774), (57, 28819), (70, 28921), (72, 28942), (78, 28990),

Gene: Ibantik_36 Start: 17326, Stop: 16781, Start Num: 21

Candidate Starts for Ibantik_36:

(3, 17482), (5, 17461), (7, 17449), (9, 17434), (Start: 12 @17377 has 1 MA's), (20, 17329), (Start: 21 @17326 has 1 MA's), (22, 17323), (25, 17293), (26, 17290), (41, 17101), (62, 16942), (64, 16912), (65, 16900), (80, 16792),

Gene: IronMan_58 Start: 39806, Stop: 39267, Start Num: 11

Candidate Starts for IronMan_58:

(Start: 11 @39806 has 6 MA's), (Start: 24 @39752 has 23 MA's), (Start: 27 @39725 has 29 MA's), (Start: 30 @39695 has 2 MA's), (37, 39617), (38, 39611), (43, 39551), (55, 39470), (59, 39425), (63, 39392), (71, 39338), (75, 39308),

Gene: Izzy_40 Start: 28383, Stop: 28889, Start Num: 24

Candidate Starts for Izzy_40:

(1, 28224), (2, 28239), (3, 28242), (Start: 24 @28383 has 23 MA's), (Start: 31 @28467 has 2 MA's), (37, 28524), (38, 28530), (39, 28551), (40, 28560), (44, 28596), (46, 28620), (48, 28632), (50, 28635), (51, 28641), (52, 28650), (57, 28695), (59, 28716), (70, 28797), (72, 28818), (78, 28866),

Gene: Jaan_59 Start: 39966, Stop: 39427, Start Num: 11

Candidate Starts for Jaan_59:

(Start: 11 @39966 has 6 MA's), (Start: 24 @39912 has 23 MA's), (Start: 27 @39885 has 29 MA's), (Start: 30 @39855 has 2 MA's), (37, 39777), (38, 39771), (43, 39711), (55, 39630), (59, 39585), (63, 39552), (71, 39498), (75, 39468),

Gene: JackSparrow_57 Start: 39548, Stop: 39078, Start Num: 27

Candidate Starts for JackSparrow_57:

(Start: 17 @39599 has 13 MA's), (Start: 24 @39575 has 23 MA's), (Start: 27 @39548 has 29 MA's), (Start: 28 @39536 has 5 MA's), (Start: 32 @39488 has 1 MA's), (41, 39389), (46, 39338), (59, 39242), (60, 39239), (63, 39209), (65, 39191), (71, 39155), (75, 39125),

Gene: Jash_40 Start: 28336, Stop: 28842, Start Num: 24

Candidate Starts for Jash_40:

(1, 28177), (2, 28192), (3, 28195), (Start: 24 @28336 has 23 MA's), (Start: 31 @28420 has 2 MA's), (37, 28477), (38, 28483), (39, 28504), (40, 28513), (44, 28549), (46, 28573), (48, 28585), (50, 28588), (51, 28594), (52, 28603), (57, 28648), (59, 28669), (70, 28750), (72, 28771), (78, 28819),

Gene: Jasper_56 Start: 38179, Stop: 37709, Start Num: 27

Candidate Starts for Jasper_56:

(Start: 17 @38230 has 13 MA's), (Start: 24 @38206 has 23 MA's), (Start: 27 @38179 has 29 MA's), (Start: 28 @38167 has 5 MA's), (Start: 32 @38119 has 1 MA's), (46, 37969), (59, 37873), (63, 37840), (65, 37822), (68, 37810), (71, 37786), (75, 37756),

Gene: Jeffabunny_61 Start: 37682, Stop: 37197, Start Num: 24

Candidate Starts for Jeffabunny_61:

(2, 37829), (Start: 11 @37736 has 6 MA's), (Start: 24 @37682 has 23 MA's), (Start: 30 @37625 has 2 MA's), (38, 37541), (43, 37481), (59, 37355), (63, 37322), (65, 37304), (71, 37268), (73, 37250), (75, 37238), (76, 37235),

Gene: JuliaChild_56 Start: 38881, Stop: 38408, Start Num: 27

Candidate Starts for JuliaChild_56:

(4, 39055), (Start: 17 @38932 has 13 MA's), (Start: 27 @38881 has 29 MA's), (Start: 28 @38869 has 5 MA's), (39, 38740), (42, 38719), (43, 38701), (59, 38575), (63, 38542), (65, 38524), (71, 38488), (75, 38455), (76, 38452),

Gene: KSSJEB_54 Start: 38647, Stop: 38189, Start Num: 28

Candidate Starts for KSSJEB_54:

(4, 38833), (Start: 17 @38710 has 13 MA's), (Start: 27 @38659 has 29 MA's), (Start: 28 @38647 has 5 MA's), (39, 38518), (42, 38497), (43, 38479), (59, 38353), (63, 38320), (65, 38302), (71, 38266), (75, 38236),

Gene: Kinmap_57 Start: 37075, Stop: 36674, Start Num: 32

Candidate Starts for Kinmap_57:

(2, 37303), (Start: 11 @37210 has 6 MA's), (Start: 24 @37162 has 23 MA's), (Start: 27 @37135 has 29 MA's), (Start: 30 @37105 has 2 MA's), (Start: 32 @37075 has 1 MA's), (37, 37027), (43, 36961), (52, 36901), (53, 36895), (55, 36880), (63, 36802), (65, 36784), (71, 36748), (75, 36718), (76, 36715),

Gene: Koduck_60 Start: 38151, Stop: 37723, Start Num: 30

Candidate Starts for Koduck_60:

(2, 38358), (Start: 11 @38265 has 6 MA's), (Start: 24 @38208 has 23 MA's), (Start: 27 @38181 has 29 MA's), (Start: 30 @38151 has 2 MA's), (38, 38067), (43, 38007), (52, 37947), (59, 37881), (63, 37848), (65, 37830), (71, 37794),

Gene: L5_57 Start: 38268, Stop: 37810, Start Num: 27

Candidate Starts for L5_57:

(2, 38445), (Start: 11 @38352 has 6 MA's), (Start: 24 @38295 has 23 MA's), (Start: 27 @38268 has 29 MA's), (Start: 30 @38238 has 2 MA's), (38, 38154), (43, 38094), (52, 38034), (59, 37968), (63, 37935),

(65, 37917), (71, 37881),

Gene: Lannister_41 Start: 29083, Stop: 29505, Start Num: 31

Candidate Starts for Lannister_41:

(1, 28840), (2, 28855), (3, 28858), (Start: 31 @29083 has 2 MA's), (37, 29140), (38, 29146), (39, 29167), (40, 29176), (44, 29212), (46, 29236), (48, 29248), (51, 29257), (52, 29266), (57, 29311), (59, 29332), (70, 29413), (72, 29434), (78, 29482),

Gene: Legacy_39 Start: 27950, Stop: 28456, Start Num: 24

Candidate Starts for Legacy_39:

(1, 27791), (2, 27806), (3, 27809), (Start: 24 @27950 has 23 MA's), (Start: 31 @28034 has 2 MA's), (37, 28091), (38, 28097), (39, 28118), (40, 28127), (44, 28163), (46, 28187), (48, 28199), (51, 28208), (52, 28217), (57, 28262), (70, 28364), (72, 28385), (78, 28433),

Gene: Leviticus_39 Start: 27979, Stop: 28485, Start Num: 24

Candidate Starts for Leviticus_39:

(1, 27820), (2, 27835), (3, 27838), (Start: 24 @27979 has 23 MA's), (Start: 31 @28063 has 2 MA's), (37, 28120), (38, 28126), (39, 28147), (40, 28156), (44, 28192), (46, 28216), (48, 28228), (51, 28237), (52, 28246), (57, 28291), (70, 28393), (72, 28414), (78, 28462),

Gene: Lilleskat_57 Start: 38739, Stop: 38227, Start Num: 16

Candidate Starts for Lilleskat_57:

(2, 38856), (Start: 11 @38763 has 6 MA's), (Start: 16 @38739 has 3 MA's), (Start: 24 @38715 has 23 MA's), (Start: 27 @38688 has 29 MA's), (Start: 29 @38673 has 1 MA's), (37, 38577), (38, 38571), (41, 38532), (43, 38511), (59, 38385), (63, 38352), (71, 38298), (75, 38268),

Gene: Lillie_48 Start: 35031, Stop: 34621, Start Num: 33

Candidate Starts for Lillie_48:

(2, 35280), (15, 35157), (Start: 24 @35121 has 23 MA's), (Start: 27 @35094 has 29 MA's), (Start: 30 @35064 has 2 MA's), (Start: 32 @35034 has 1 MA's), (Start: 33 @35031 has 2 MA's), (34, 35025), (37, 34974), (41, 34929), (43, 34908), (52, 34848), (53, 34842), (73, 34677), (76, 34662),

Gene: LochMonster_56 Start: 38189, Stop: 37716, Start Num: 27

Candidate Starts for LochMonster_56:

(2, 38375), (Start: 11 @38282 has 6 MA's), (13, 38264), (Start: 19 @38228 has 2 MA's), (Start: 24 @38216 has 23 MA's), (Start: 27 @38189 has 29 MA's), (Start: 29 @38174 has 1 MA's), (37, 38069), (52, 37943), (53, 37937), (55, 37922), (56, 37907), (65, 37826), (69, 37799), (71, 37790), (79, 37724),

Gene: Lockley_53 Start: 38634, Stop: 38164, Start Num: 27

Candidate Starts for Lockley_53:

(Start: 17 @38685 has 13 MA's), (Start: 24 @38661 has 23 MA's), (Start: 27 @38634 has 29 MA's), (Start: 28 @38622 has 5 MA's), (Start: 32 @38574 has 1 MA's), (46, 38424), (59, 38328), (63, 38295), (65, 38277), (71, 38241), (75, 38211),

Gene: LunarLander_56 Start: 39012, Stop: 38491, Start Num: 17

Candidate Starts for LunarLander_56:

(Start: 17 @39012 has 13 MA's), (Start: 24 @38988 has 23 MA's), (Start: 27 @38961 has 29 MA's), (Start: 28 @38949 has 5 MA's), (Start: 32 @38901 has 1 MA's), (41, 38802), (46, 38751), (59, 38655), (60, 38652), (63, 38622), (65, 38604), (66, 38601), (71, 38568), (75, 38538), (76, 38535),

Gene: Marge_54 Start: 39202, Stop: 38705, Start Num: 24

Candidate Starts for Marge_54:

(Start: 17 @39226 has 13 MA's), (Start: 24 @39202 has 23 MA's), (Start: 27 @39175 has 29 MA's), (Start: 28 @39163 has 5 MA's), (Start: 32 @39115 has 1 MA's), (41, 39016), (46, 38965), (60, 38866), (63, 38836), (65, 38818), (71, 38782), (75, 38752),

Gene: MegTheThird_58 Start: 38380, Stop: 38030, Start Num: 37

Candidate Starts for MegTheThird_58:

(2, 38656), (Start: 11 @38563 has 6 MA's), (Start: 24 @38515 has 23 MA's), (Start: 27 @38488 has 29 MA's), (37, 38380), (38, 38374), (43, 38314), (48, 38272), (52, 38254), (55, 38233), (59, 38188), (71, 38101),

Gene: Myxus_59 Start: 38686, Stop: 38225, Start Num: 27

Candidate Starts for Myxus_59:

(2, 38854), (Start: 11 @38761 has 6 MA's), (Start: 16 @38737 has 3 MA's), (Start: 24 @38713 has 23 MA's), (Start: 27 @38686 has 29 MA's), (Start: 29 @38671 has 1 MA's), (37, 38575), (38, 38569), (41, 38530), (43, 38509), (53, 38443), (59, 38383), (63, 38350), (71, 38296),

Gene: Nerdos_38 Start: 27974, Stop: 28480, Start Num: 24

Candidate Starts for Nerdos_38:

(1, 27815), (2, 27830), (3, 27833), (Start: 24 @27974 has 23 MA's), (Start: 31 @28058 has 2 MA's), (37, 28115), (38, 28121), (39, 28142), (40, 28151), (44, 28187), (46, 28211), (48, 28223), (51, 28232), (52, 28241), (57, 28286), (70, 28388), (72, 28409), (78, 28457),

Gene: NicoleTera_57 Start: 38899, Stop: 38414, Start Num: 24

Candidate Starts for NicoleTera_57:

(Start: 11 @38953 has 6 MA's), (Start: 24 @38899 has 23 MA's), (Start: 27 @38872 has 29 MA's), (Start: 30 @38842 has 2 MA's), (37, 38764), (38, 38758), (43, 38698), (53, 38632), (59, 38572), (63, 38539), (65, 38521), (71, 38485), (75, 38455),

Gene: Niza_57 Start: 40756, Stop: 40286, Start Num: 27

Candidate Starts for Niza_57:

(4, 40930), (Start: 17 @40807 has 13 MA's), (Start: 27 @40756 has 29 MA's), (Start: 28 @40744 has 5 MA's), (36, 40663), (39, 40615), (42, 40594), (43, 40576), (52, 40516), (59, 40450), (63, 40417), (65, 40399), (71, 40363), (75, 40333),

Gene: Onglai_57 Start: 37078, Stop: 36566, Start Num: 16

Candidate Starts for Onglai_57:

(2, 37195), (Start: 11 @37102 has 6 MA's), (Start: 16 @37078 has 3 MA's), (Start: 24 @37054 has 23 MA's), (Start: 27 @37027 has 29 MA's), (Start: 29 @37012 has 1 MA's), (37, 36916), (38, 36910), (41, 36871), (43, 36850), (53, 36784), (59, 36724), (63, 36691), (71, 36637), (75, 36607),

Gene: Oogway_54 Start: 39161, Stop: 38640, Start Num: 17

Candidate Starts for Oogway_54:

(Start: 17 @39161 has 13 MA's), (Start: 24 @39137 has 23 MA's), (Start: 27 @39110 has 29 MA's), (Start: 28 @39098 has 5 MA's), (Start: 32 @39050 has 1 MA's), (41, 38951), (46, 38900), (59, 38804), (60, 38801), (63, 38771), (65, 38753), (66, 38750), (71, 38717), (75, 38687), (76, 38684),

Gene: PP_58 Start: 42225, Stop: 41752, Start Num: 27

Candidate Starts for PP_58:

(2, 42411), (7, 42375), (Start: 11 @42318 has 6 MA's), (14, 42288), (Start: 24 @42252 has 23 MA's), (Start: 27 @42225 has 29 MA's), (Start: 33 @42162 has 2 MA's), (34, 42156), (37, 42105), (53, 41973), (55, 41958), (56, 41943), (59, 41913), (67, 41853), (68, 41850), (69, 41835), (71, 41826), (74, 41799), (75, 41796), (77, 41772), (79, 41760),

Gene: PackMan_58 Start: 38686, Stop: 38225, Start Num: 27

Candidate Starts for PackMan_58:

(2, 38854), (Start: 11 @38761 has 6 MA's), (Start: 16 @38737 has 3 MA's), (Start: 24 @38713 has 23 MA's), (Start: 27 @38686 has 29 MA's), (Start: 29 @38671 has 1 MA's), (37, 38575), (38, 38569), (41, 38530), (43, 38509), (53, 38443), (59, 38383), (63, 38350), (71, 38296),

Gene: PainterBoy_61 Start: 39028, Stop: 38537, Start Num: 24

Candidate Starts for PainterBoy_61:

(2, 39175), (Start: 11 @39082 has 6 MA's), (Start: 24 @39028 has 23 MA's), (Start: 27 @39001 has 29 MA's), (Start: 29 @38986 has 1 MA's), (Start: 30 @38971 has 2 MA's), (38, 38884), (43, 38824), (49, 38779), (56, 38725), (59, 38695), (65, 38644), (71, 38608),

Gene: PhailMary_47 Start: 35416, Stop: 34943, Start Num: 27

Candidate Starts for PhailMary_47:

(2, 35602), (15, 35479), (Start: 24 @35443 has 23 MA's), (Start: 27 @35416 has 29 MA's), (Start: 30 @35386 has 2 MA's), (Start: 32 @35356 has 1 MA's), (Start: 33 @35353 has 2 MA's), (34, 35347), (37, 35296), (41, 35251), (43, 35230), (53, 35164), (73, 34999), (76, 34984),

Gene: PherrisBueller_54 Start: 37881, Stop: 37360, Start Num: 17

Candidate Starts for PherrisBueller_54:

(Start: 17 @37881 has 13 MA's), (Start: 24 @37857 has 23 MA's), (Start: 27 @37830 has 29 MA's), (Start: 28 @37818 has 5 MA's), (Start: 32 @37770 has 1 MA's), (46, 37620), (59, 37524), (63, 37491), (65, 37473), (68, 37461), (71, 37437), (75, 37407),

Gene: Pioneer_59 Start: 38783, Stop: 38322, Start Num: 27

Candidate Starts for Pioneer_59:

(2, 38951), (Start: 11 @38858 has 6 MA's), (Start: 16 @38834 has 3 MA's), (Start: 24 @38810 has 23 MA's), (Start: 27 @38783 has 29 MA's), (Start: 29 @38768 has 1 MA's), (37, 38672), (38, 38666), (41, 38627), (43, 38606), (59, 38480), (63, 38447), (71, 38393), (75, 38363),

Gene: Pukovnik_57 Start: 39434, Stop: 38976, Start Num: 27

Candidate Starts for Pukovnik_57:

(2, 39608), (Start: 11 @39515 has 6 MA's), (Start: 24 @39461 has 23 MA's), (Start: 27 @39434 has 29 MA's), (Start: 29 @39419 has 1 MA's), (Start: 30 @39404 has 2 MA's), (Start: 32 @39374 has 1 MA's), (37, 39326), (38, 39320), (43, 39260), (55, 39179), (59, 39134), (63, 39101), (65, 39083), (71, 39047), (75, 39017),

Gene: Puppet_55 Start: 39559, Stop: 39038, Start Num: 17

Candidate Starts for Puppet_55:

(Start: 17 @39559 has 13 MA's), (Start: 24 @39535 has 23 MA's), (Start: 27 @39508 has 29 MA's), (Start: 28 @39496 has 5 MA's), (Start: 32 @39448 has 1 MA's), (41, 39349), (46, 39298), (59, 39202), (60, 39199), (63, 39169), (65, 39151), (66, 39148), (71, 39115), (75, 39085), (76, 39082),

Gene: Qobbit_59 Start: 38766, Stop: 38254, Start Num: 16

Candidate Starts for Qobbit_59:

(2, 38883), (Start: 11 @38790 has 6 MA's), (Start: 16 @38766 has 3 MA's), (Start: 24 @38742 has 23 MA's), (Start: 27 @38715 has 29 MA's), (Start: 29 @38700 has 1 MA's), (37, 38604), (38, 38598), (41, 38559), (43, 38538), (53, 38472), (59, 38412), (63, 38379), (71, 38325),

Gene: Quokka_58 Start: 38151, Stop: 37627, Start Num: 12

Candidate Starts for Quokka_58:

(2, 38259), (Start: 11 @38166 has 6 MA's), (Start: 12 @38151 has 1 MA's), (Start: 24 @38112 has 23 MA's), (Start: 27 @38085 has 29 MA's), (Start: 30 @38055 has 2 MA's), (37, 37977), (41, 37932), (43,

37911), (55, 37830), (59, 37785), (63, 37752), (65, 37734), (71, 37698),

Gene: RER2_41 Start: 31966, Stop: 31493, Start Num: 27

Candidate Starts for RER2_41:

(2, 32152), (15, 32029), (Start: 24 @31993 has 23 MA's), (Start: 27 @31966 has 29 MA's), (Start: 30 @31936 has 2 MA's), (Start: 32 @31906 has 1 MA's), (Start: 33 @31903 has 2 MA's), (34, 31897), (37, 31846), (41, 31801), (43, 31780), (52, 31720), (53, 31714), (73, 31549), (76, 31534),

Gene: RGL3_42 Start: 32920, Stop: 32447, Start Num: 27

Candidate Starts for RGL3_42:

(2, 33106), (15, 32983), (Start: 24 @32947 has 23 MA's), (Start: 27 @32920 has 29 MA's), (Start: 29 @32905 has 1 MA's), (34, 32851), (37, 32800), (38, 32794), (41, 32755), (43, 32734), (47, 32701), (48, 32692), (52, 32674), (53, 32668), (59, 32608),

Gene: RedRock_61 Start: 39741, Stop: 39313, Start Num: 30

Candidate Starts for RedRock_61:

(2, 39945), (Start: 11 @39852 has 6 MA's), (18, 39816), (Start: 24 @39798 has 23 MA's), (Start: 30 @39741 has 2 MA's), (37, 39663), (38, 39657), (41, 39618), (43, 39597), (55, 39516), (59, 39471), (63, 39438), (65, 39420), (71, 39384),

Gene: Rhodalysa_48 Start: 35031, Stop: 34621, Start Num: 33

Candidate Starts for Rhodalysa_48:

(2, 35280), (15, 35157), (Start: 24 @35121 has 23 MA's), (Start: 27 @35094 has 29 MA's), (Start: 30 @35064 has 2 MA's), (Start: 32 @35034 has 1 MA's), (Start: 33 @35031 has 2 MA's), (34, 35025), (37, 34974), (41, 34929), (43, 34908), (52, 34848), (53, 34842), (73, 34677), (76, 34662),

Gene: Rubeus_55 Start: 37291, Stop: 36713, Start Num: 10

Candidate Starts for Rubeus_55:

(Start: 10 @37291 has 1 MA's), (Start: 17 @37234 has 13 MA's), (Start: 24 @37210 has 23 MA's), (Start: 27 @37183 has 29 MA's), (Start: 28 @37171 has 5 MA's), (Start: 32 @37123 has 1 MA's), (46, 36973), (59, 36877), (60, 36874), (63, 36844), (65, 36826), (71, 36790), (75, 36760),

Gene: Rusticus_40 Start: 28336, Stop: 28842, Start Num: 24

Candidate Starts for Rusticus_40:

(1, 28177), (2, 28192), (3, 28195), (Start: 24 @28336 has 23 MA's), (Start: 31 @28420 has 2 MA's), (37, 28477), (38, 28483), (39, 28504), (40, 28513), (44, 28549), (46, 28573), (48, 28585), (50, 28588), (51, 28594), (52, 28603), (57, 28648), (59, 28669), (70, 28750), (72, 28771), (78, 28819),

Gene: Sachima_56 Start: 38719, Stop: 38207, Start Num: 16

Candidate Starts for Sachima_56:

(2, 38836), (Start: 11 @38743 has 6 MA's), (Start: 16 @38719 has 3 MA's), (Start: 24 @38695 has 23 MA's), (Start: 27 @38668 has 29 MA's), (Start: 29 @38653 has 1 MA's), (37, 38557), (38, 38551), (41, 38512), (43, 38491), (59, 38365), (63, 38332), (71, 38278), (75, 38248),

Gene: Scherzo_59 Start: 39023, Stop: 38511, Start Num: 16

Candidate Starts for Scherzo_59:

(2, 39140), (Start: 11 @39047 has 6 MA's), (Start: 16 @39023 has 3 MA's), (Start: 24 @38999 has 23 MA's), (Start: 27 @38972 has 29 MA's), (Start: 29 @38957 has 1 MA's), (37, 38861), (38, 38855), (41, 38816), (43, 38795), (59, 38669), (63, 38636), (71, 38582), (75, 38552),

Gene: Scowl_55 Start: 39191, Stop: 38670, Start Num: 17

Candidate Starts for Scowl_55:

(Start: 17 @39191 has 13 MA's), (Start: 24 @39167 has 23 MA's), (Start: 27 @39140 has 29 MA's),
(Start: 28 @39128 has 5 MA's), (Start: 32 @39080 has 1 MA's), (46, 38930), (59, 38834), (63, 38801),
(65, 38783), (68, 38771), (71, 38747), (75, 38717),

Gene: SkiPole_59 Start: 39713, Stop: 39255, Start Num: 28

Candidate Starts for SkiPole_59:

(Start: 17 @39776 has 13 MA's), (Start: 24 @39752 has 23 MA's), (Start: 27 @39725 has 29 MA's),
(Start: 28 @39713 has 5 MA's), (Start: 32 @39665 has 1 MA's), (46, 39515), (59, 39419), (63, 39386),
(65, 39368), (71, 39332), (75, 39302),

Gene: Snazzy_54 Start: 38809, Stop: 38285, Start Num: 17

Candidate Starts for Snazzy_54:

(Start: 17 @38809 has 13 MA's), (Start: 24 @38785 has 23 MA's), (Start: 27 @38758 has 29 MA's),
(Start: 28 @38746 has 5 MA's), (Start: 32 @38698 has 1 MA's), (46, 38548), (59, 38452), (60, 38449),
(63, 38419), (65, 38401), (71, 38365), (75, 38335), (76, 38332),

Gene: Sunhee_61 Start: 38248, Stop: 37715, Start Num: 11

Candidate Starts for Sunhee_61:

(2, 38341), (Start: 11 @38248 has 6 MA's), (Start: 24 @38200 has 23 MA's), (37, 38065), (43, 37999),
(48, 37957), (55, 37918), (57, 37894), (59, 37873), (71, 37786), (76, 37753),

Gene: SunsetPointe_39 Start: 27966, Stop: 28472, Start Num: 24

Candidate Starts for SunsetPointe_39:

(1, 27807), (2, 27822), (3, 27825), (Start: 24 @27966 has 23 MA's), (Start: 31 @28050 has 2 MA's),
(37, 28107), (38, 28113), (39, 28134), (40, 28143), (44, 28179), (46, 28203), (48, 28215), (51, 28224),
(52, 28233), (57, 28278), (70, 28380), (72, 28401), (78, 28449),

Gene: TarsusIV_57 Start: 38582, Stop: 38097, Start Num: 24

Candidate Starts for TarsusIV_57:

(Start: 11 @38636 has 6 MA's), (Start: 24 @38582 has 23 MA's), (Start: 30 @38525 has 2 MA's), (37,
38447), (38, 38441), (43, 38381), (45, 38360), (55, 38300), (63, 38222), (71, 38168),

Gene: Timshel_54 Start: 40008, Stop: 39469, Start Num: 12

Candidate Starts for Timshel_54:

(Start: 11 @40023 has 6 MA's), (Start: 12 @40008 has 1 MA's), (Start: 17 @39981 has 13 MA's),
(Start: 24 @39957 has 23 MA's), (Start: 27 @39930 has 29 MA's), (Start: 28 @39918 has 5 MA's),
(Start: 33 @39867 has 2 MA's), (37, 39822), (39, 39795), (48, 39714), (53, 39690), (56, 39660), (59,
39630), (65, 39579), (69, 39552), (71, 39543), (75, 39513), (79, 39477),

Gene: Topgun_54 Start: 38573, Stop: 38052, Start Num: 17

Candidate Starts for Topgun_54:

(Start: 17 @38573 has 13 MA's), (Start: 24 @38549 has 23 MA's), (Start: 27 @38522 has 29 MA's),
(Start: 28 @38510 has 5 MA's), (Start: 32 @38462 has 1 MA's), (41, 38363), (46, 38312), (59, 38216),
(60, 38213), (63, 38183), (65, 38165), (66, 38162), (71, 38129), (75, 38099), (76, 38096),

Gene: Tripl3t_55 Start: 40330, Stop: 39830, Start Num: 24

Candidate Starts for Tripl3t_55:

(Start: 17 @40354 has 13 MA's), (Start: 24 @40330 has 23 MA's), (Start: 27 @40303 has 29 MA's),
(Start: 28 @40291 has 5 MA's), (Start: 32 @40243 has 1 MA's), (41, 40144), (46, 40093), (59, 39997),
(63, 39964), (65, 39946), (71, 39910), (75, 39877), (76, 39874),

Gene: TuanPN_38 Start: 28367, Stop: 28789, Start Num: 31

Candidate Starts for TuanPN_38:

(1, 28124), (2, 28139), (3, 28142), (Start: 31 @28367 has 2 MA's), (37, 28424), (38, 28430), (39, 28451), (44, 28496), (46, 28520), (48, 28532), (51, 28541), (52, 28550), (57, 28595), (59, 28616), (70, 28697), (72, 28718), (78, 28766),

Gene: U2_54 Start: 39847, Stop: 39374, Start Num: 27

Candidate Starts for U2_54:

(Start: 17 @39898 has 13 MA's), (Start: 24 @39874 has 23 MA's), (Start: 27 @39847 has 29 MA's), (Start: 28 @39835 has 5 MA's), (Start: 32 @39787 has 1 MA's), (41, 39688), (46, 39637), (59, 39541), (60, 39538), (63, 39508), (65, 39490), (71, 39454), (75, 39421), (76, 39418),

Gene: Unstoppable_39 Start: 27970, Stop: 28476, Start Num: 24

Candidate Starts for Unstoppable_39:

(1, 27811), (2, 27826), (3, 27829), (Start: 24 @27970 has 23 MA's), (Start: 31 @28054 has 2 MA's), (37, 28111), (38, 28117), (39, 28138), (40, 28147), (44, 28183), (46, 28207), (48, 28219), (51, 28228), (52, 28237), (57, 28282), (70, 28384), (72, 28405), (78, 28453),

Gene: VA6_60 Start: 39153, Stop: 38614, Start Num: 11

Candidate Starts for VA6_60:

(Start: 11 @39153 has 6 MA's), (Start: 24 @39099 has 23 MA's), (Start: 30 @39042 has 2 MA's), (38, 38958), (43, 38898), (53, 38832), (59, 38772), (63, 38739), (65, 38721), (71, 38685),

Gene: Vanseggelen_45 Start: 29600, Stop: 30022, Start Num: 31

Candidate Starts for Vanseggelen_45:

(1, 29357), (2, 29372), (Start: 31 @29600 has 2 MA's), (37, 29657), (38, 29663), (39, 29684), (40, 29693), (46, 29753), (47, 29756), (48, 29765), (57, 29828), (70, 29930),

Gene: Verabelle_43 Start: 30009, Stop: 30431, Start Num: 31

Candidate Starts for Verabelle_43:

(1, 29766), (2, 29781), (Start: 31 @30009 has 2 MA's), (37, 30066), (38, 30072), (39, 30093), (40, 30102), (46, 30162), (47, 30165), (48, 30174), (57, 30237), (70, 30339), (72, 30360),

Gene: VieEnRose_40 Start: 28747, Stop: 29256, Start Num: 23

Candidate Starts for VieEnRose_40:

(1, 28591), (2, 28606), (8, 28651), (Start: 23 @28747 has 2 MA's), (37, 28891), (46, 28987), (47, 28990), (57, 29062), (70, 29164), (72, 29185), (75, 29200),

Gene: Wilkins_54 Start: 38503, Stop: 37982, Start Num: 17

Candidate Starts for Wilkins_54:

(Start: 17 @38503 has 13 MA's), (Start: 24 @38479 has 23 MA's), (Start: 27 @38452 has 29 MA's), (Start: 28 @38440 has 5 MA's), (Start: 32 @38392 has 1 MA's), (41, 38293), (46, 38242), (59, 38146), (60, 38143), (63, 38113), (65, 38095), (66, 38092), (71, 38059), (75, 38029), (76, 38026),

Gene: phiCAM_38 Start: 31902, Stop: 32324, Start Num: 31

Candidate Starts for phiCAM_38:

(1, 31659), (2, 31674), (Start: 31 @31902 has 2 MA's), (37, 31959), (38, 31965), (39, 31986), (40, 31995), (46, 32055), (47, 32058), (48, 32067), (57, 32130), (70, 32232), (72, 32253), (78, 32301),

Gene: phiHau3_41 Start: 28474, Stop: 28935, Start Num: 28

Candidate Starts for phiHau3_41:

(2, 28291), (6, 28321), (Start: 28 @28474 has 5 MA's), (39, 28603), (52, 28702), (55, 28723), (57, 28747), (59, 28768), (61, 28774), (72, 28870),