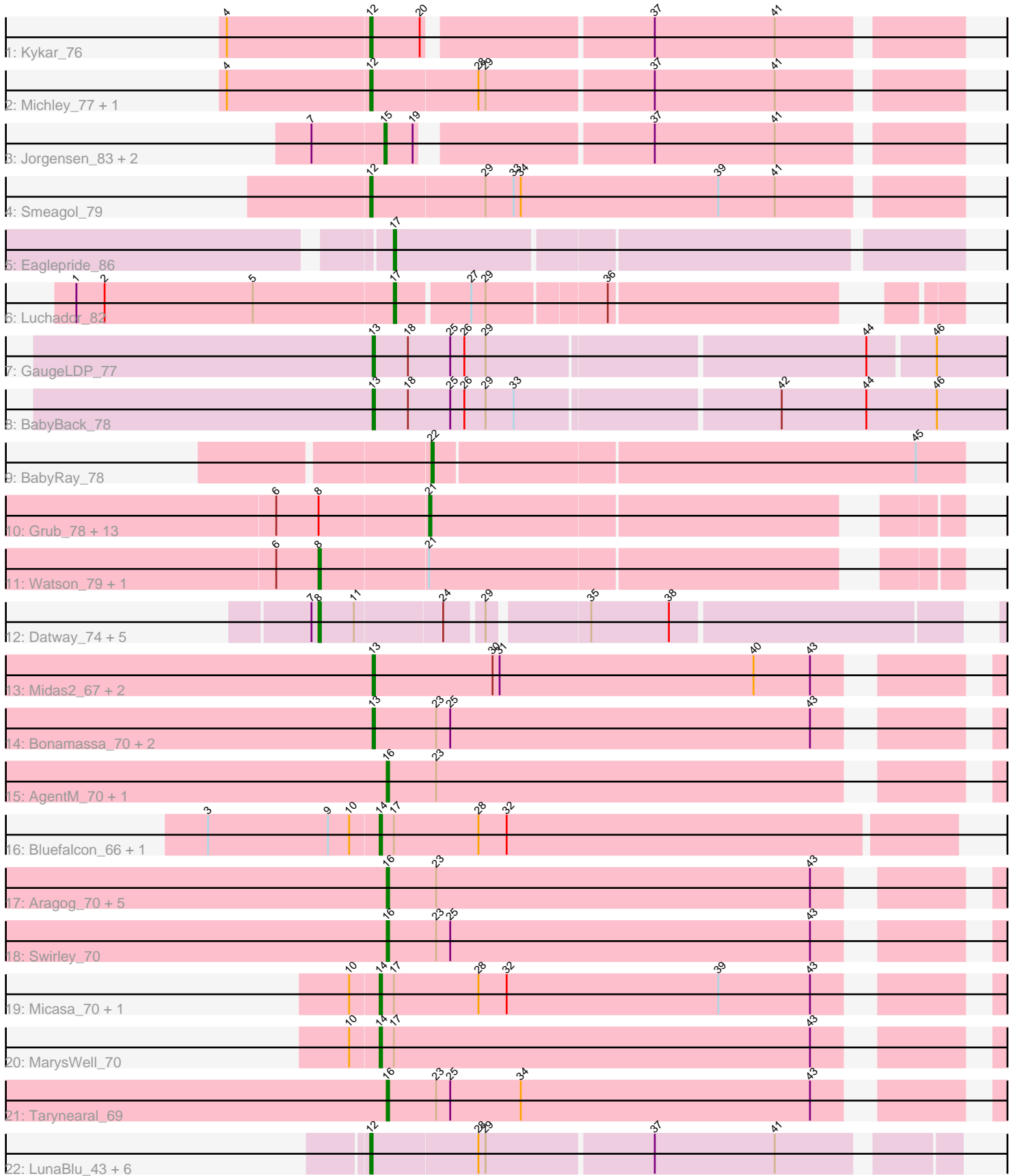


Pham 294744



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 294744 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294744 has 62 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Kykar_76
- Track 2 : Michley_77, ProMouse_76
- Track 3 : Jorgensen_83, JC27_77, Zeuska_78
- Track 4 : Smeagol_79
- Track 5 : Eaglepride_86
- Track 6 : Luchador_82
- Track 7 : GaugeLDP_77
- Track 8 : BabyBack_78
- Track 9 : BabyRay_78
- Track 10 : Grub_78, Stagni_77, AugsMagnumOpus_83, DaHudson_79, Malinsilva_83, StepMih_80, Mainiac_79, PGHhamlin_82, Sabia_78, Lilith_78, Lowa_77, Microwolf_76, MuchMore_83, Pembroke_80
- Track 11 : Watson_79, BreSam8_80
- Track 12 : Datway_74, Perplexer_74, AbbysRanger_74, PetiteSangsue_74, Backyardigan_72, Xena_73
- Track 13 : Midas2_67, Coog_67, Cuco_69
- Track 14 : Bonamassa_70, LittleCherry_69, HuhtaEnerson15_68
- Track 15 : AgentM_70, Phlorence_69
- Track 16 : Bluefalcon_66, Archetta_68
- Track 17 : Aragog_70, Lev2_71, ForGetIt_71, Conspiracy_71, Discoknowium_68, PickleBack_71
- Track 18 : Swirley_70
- Track 19 : Micasa_70, Theia_69
- Track 20 : MarysWell_70
- Track 21 : Tarynearal_69
- Track 22 : LunaBlu_43, Fruitloop_38, Polo2Bam_44, Enzomatic_45, Melissauren88_39, SeaLumen_44, Batiatus_39

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

The start number called the most often in the published annotations is 21, it was called in 13 of the 57 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AugsMagnumOpus_83, DaHudson_79, Grub_78, Lilith_78, Lova_77, Mainiac_79, Malinsilva_83, Microwolf_76, MuchMore_83, PGHhamlin_82, Pembroke_80, Sabia_78, Stagni_77, StepMih_80,

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

- BreSam8_80, Watson_79,

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

- AbbysRanger_74, AgentM_70, Aragog_70, Archetta_68, BabyBack_78, BabyRay_78, Backyardigan_72, Batiatus_39, Bluefalcon_66, Bonamassa_70, Conspiracy_71, Coog_67, Cuco_69, Datway_74, Discoknowium_68, Eaglepride_86, Enzomatic_45, ForGetIt_71, Fruitloop_38, GaugeLDP_77, HuhtaEnerson15_68, JC27_77, Jorgensen_83, Kykar_76, Lev2_71, LittleCherry_69, Luchador_82, LunaBlu_43, MarysWell_70, Melissauen88_39, Micasa_70, Michley_77, Midas2_67, Perplexer_74, PetiteSangsue_74, Phlorence_69, PickleBack_71, Polo2Bam_44, ProMouse_76, SeaLumen_44, Smeagol_79, Swirley_70, Tarynearal_69, Theia_69, Xena_73, Zeuska_78,

Summary by start number:

Start 8:

- Found in 22 of 62 (35.5%) of genes in pham
- Manual Annotations of this start: 8 of 57
- Called 36.4% of time when present
- Phage (with cluster) where this start called: AbbysRanger_74 (A4), Backyardigan_72 (A4), BreSam8_80 (A3), Datway_74 (A4), Perplexer_74 (A4), PetiteSangsue_74 (A4), Watson_79 (A3), Xena_73 (A4),

Start 12:

- Found in 11 of 62 (17.7%) of genes in pham
- Manual Annotations of this start: 7 of 57
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Batiatus_39 (F1), Enzomatic_45 (F1), Fruitloop_38 (F1), Kykar_76 (A1), LunaBlu_43 (F1), Melissauen88_39 (F1), Michley_77 (A1), Polo2Bam_44 (F1), ProMouse_76 (A1), SeaLumen_44 (F1), Smeagol_79 (A1),

Start 13:

- Found in 8 of 62 (12.9%) of genes in pham
- Manual Annotations of this start: 8 of 57
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BabyBack_78 (A2), Bonamassa_70 (A5), Coog_67 (A5), Cuco_69 (A5), GaugeLDP_77 (A2), HuhtaEnerson15_68 (A5), LittleCherry_69 (A5), Midas2_67 (A5),

Start 14:

- Found in 5 of 62 (8.1%) of genes in pham
- Manual Annotations of this start: 5 of 57
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archetta_68 (A5), Bluefalcon_66 (A5), MarysWell_70 (A5), Micasa_70 (A5), Theia_69 (A5),

Start 15:

- Found in 3 of 62 (4.8%) of genes in pham
- Manual Annotations of this start: 3 of 57
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JC27_77 (A1), Jorgensen_83 (A1), Zeuska_78 (A1),

Start 16:

- Found in 10 of 62 (16.1%) of genes in pham
- Manual Annotations of this start: 10 of 57
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AgentM_70 (A5), Aragog_70 (A5), Conspiracy_71 (A5), Discoknowium_68 (A5), ForGetIt_71 (A5), Lev2_71 (A5), Phlorence_69 (A5), PickleBack_71 (A5), Swirley_70 (A5), Tarynearal_69 (A5),

Start 17:

- Found in 7 of 62 (11.3%) of genes in pham
- Manual Annotations of this start: 2 of 57
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Eaglepride_86 (A10), Luchador_82 (A14),

Start 21:

- Found in 16 of 62 (25.8%) of genes in pham
- Manual Annotations of this start: 13 of 57
- Called 87.5% of time when present
- Phage (with cluster) where this start called: AugsMagnumOpus_83 (A3), DaHudson_79 (A3), Grub_78 (A3), Lilith_78 (A3), Lowa_77 (A3), Mainiac_79 (A3), Malinsilva_83 (A3), Microwolf_76 (A3), MuchMore_83 (A3), PGHhamlin_82 (A3), Pembroke_80 (A3), Sabia_78 (A3), Stagni_77 (A3), StepMih_80 (A3),

Start 22:

- Found in 1 of 62 (1.6%) of genes in pham
- Manual Annotations of this start: 1 of 57
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BabyRay_78 (A3),

Summary by clusters:

There are 8 clusters represented in this pham: F1, A10, A14, A1, A3, A2, A5, A4,

Info for manual annotations of cluster A1:

- Start number 12 was manually annotated 3 times for cluster A1.
- Start number 15 was manually annotated 3 times for cluster A1.

Info for manual annotations of cluster A10:

- Start number 17 was manually annotated 1 time for cluster A10.

Info for manual annotations of cluster A14:

- Start number 17 was manually annotated 1 time for cluster A14.

Info for manual annotations of cluster A2:

- Start number 13 was manually annotated 2 times for cluster A2.

Info for manual annotations of cluster A3:

- Start number 8 was manually annotated 2 times for cluster A3.
- Start number 21 was manually annotated 13 times for cluster A3.
- Start number 22 was manually annotated 1 time for cluster A3.

Info for manual annotations of cluster A4:

- Start number 8 was manually annotated 6 times for cluster A4.

Info for manual annotations of cluster A5:

- Start number 13 was manually annotated 6 times for cluster A5.
- Start number 14 was manually annotated 5 times for cluster A5.
- Start number 16 was manually annotated 10 times for cluster A5.

Info for manual annotations of cluster F1:

- Start number 12 was manually annotated 4 times for cluster F1.

Gene Information:

Gene: AbbysRanger_74 Start: 45728, Stop: 45411, Start Num: 8

Candidate Starts for AbbysRanger_74:

(7, 45731), (Start: 8 @45728 has 8 MA's), (11, 45713), (24, 45677), (29, 45662), (35, 45623), (38, 45590),

Gene: AgentM_70 Start: 44113, Stop: 43817, Start Num: 16

Candidate Starts for AgentM_70:

(Start: 16 @44113 has 10 MA's), (23, 44092),

Gene: Aragog_70 Start: 44131, Stop: 43835, Start Num: 16

Candidate Starts for Aragog_70:

(Start: 16 @44131 has 10 MA's), (23, 44110), (43, 43951),

Gene: Archetta_68 Start: 44079, Stop: 43762, Start Num: 14

Candidate Starts for Archetta_68:

(3, 44151), (9, 44100), (10, 44091), (Start: 14 @44079 has 5 MA's), (Start: 17 @44073 has 2 MA's), (28, 44037), (32, 44025),

Gene: AugsMagnumOpus_83 Start: 45616, Stop: 45353, Start Num: 21

Candidate Starts for AugsMagnumOpus_83:

(6, 45679), (Start: 8 @45661 has 8 MA's), (Start: 21 @45616 has 13 MA's),

Gene: BabyBack_78 Start: 47102, Stop: 46782, Start Num: 13

Candidate Starts for BabyBack_78:

(Start: 13 @47102 has 8 MA's), (18, 47087), (25, 47069), (26, 47063), (29, 47054), (33, 47042), (42, 46934), (44, 46898), (46, 46868),

Gene: BabyRay_78 Start: 45607, Stop: 45326, Start Num: 22

Candidate Starts for BabyRay_78:

(Start: 22 @45607 has 1 MA's), (45, 45406),

Gene: Backyardigan_72 Start: 45744, Stop: 45427, Start Num: 8

Candidate Starts for Backyardigan_72:

(7, 45747), (Start: 8 @45744 has 8 MA's), (11, 45729), (24, 45693), (29, 45678), (35, 45639), (38, 45606),

Gene: Batiatus_39 Start: 31386, Stop: 31150, Start Num: 12

Candidate Starts for Batiatus_39:

(Start: 12 @31386 has 7 MA's), (28, 31341), (29, 31338), (37, 31269), (41, 31218),

Gene: Bluefalcon_66 Start: 44078, Stop: 43782, Start Num: 14

Candidate Starts for Bluefalcon_66:

(3, 44150), (9, 44099), (10, 44090), (Start: 14 @44078 has 5 MA's), (Start: 17 @44072 has 2 MA's), (28, 44036), (32, 44024),

Gene: Bonamassa_70 Start: 44301, Stop: 43999, Start Num: 13

Candidate Starts for Bonamassa_70:

(Start: 13 @44301 has 8 MA's), (23, 44274), (25, 44268), (43, 44115),

Gene: BreSam8_80 Start: 45666, Stop: 45358, Start Num: 8

Candidate Starts for BreSam8_80:

(6, 45684), (Start: 8 @45666 has 8 MA's), (Start: 21 @45621 has 13 MA's),

Gene: Conspiracy_71 Start: 44353, Stop: 44057, Start Num: 16

Candidate Starts for Conspiracy_71:

(Start: 16 @44353 has 10 MA's), (23, 44332), (43, 44173),

Gene: Coog_67 Start: 44122, Stop: 43820, Start Num: 13

Candidate Starts for Coog_67:

(Start: 13 @44122 has 8 MA's), (30, 44071), (31, 44068), (40, 43960), (43, 43936),

Gene: Cuco_69 Start: 43982, Stop: 43680, Start Num: 13

Candidate Starts for Cuco_69:

(Start: 13 @43982 has 8 MA's), (30, 43931), (31, 43928), (40, 43820), (43, 43796),

Gene: DaHudson_79 Start: 45620, Stop: 45357, Start Num: 21

Candidate Starts for DaHudson_79:

(6, 45683), (Start: 8 @45665 has 8 MA's), (Start: 21 @45620 has 13 MA's),

Gene: Datway_74 Start: 45727, Stop: 45410, Start Num: 8

Candidate Starts for Datway_74:

(7, 45730), (Start: 8 @45727 has 8 MA's), (11, 45712), (24, 45676), (29, 45661), (35, 45622), (38, 45589),

Gene: Discoknowium_68 Start: 43870, Stop: 43574, Start Num: 16

Candidate Starts for Discoknowium_68:

(Start: 16 @43870 has 10 MA's), (23, 43849), (43, 43690),

Gene: Eaglepride_86 Start: 48465, Stop: 48175, Start Num: 17

Candidate Starts for Eaglepride_86:

(Start: 17 @48465 has 2 MA's),

Gene: Enzomatic_45 Start: 31582, Stop: 31346, Start Num: 12

Candidate Starts for Enzomatic_45:

(Start: 12 @31582 has 7 MA's), (28, 31537), (29, 31534), (37, 31465), (41, 31414),

Gene: ForGetIt_71 Start: 44378, Stop: 44082, Start Num: 16

Candidate Starts for ForGetIt_71:

(Start: 16 @44378 has 10 MA's), (23, 44357), (43, 44198),

Gene: Fruitloop_38 Start: 31549, Stop: 31313, Start Num: 12

Candidate Starts for Fruitloop_38:

(Start: 12 @31549 has 7 MA's), (28, 31504), (29, 31501), (37, 31432), (41, 31381),

Gene: GaugeLDP_77 Start: 46661, Stop: 46341, Start Num: 13

Candidate Starts for GaugeLDP_77:

(Start: 13 @46661 has 8 MA's), (18, 46646), (25, 46628), (26, 46622), (29, 46613), (44, 46457), (46, 46430),

Gene: Grub_78 Start: 45620, Stop: 45357, Start Num: 21

Candidate Starts for Grub_78:

(6, 45683), (Start: 8 @45665 has 8 MA's), (Start: 21 @45620 has 13 MA's),

Gene: HuhtaEnerson15_68 Start: 43954, Stop: 43652, Start Num: 13

Candidate Starts for HuhtaEnerson15_68:

(Start: 13 @43954 has 8 MA's), (23, 43927), (25, 43921), (43, 43768),

Gene: JC27_77 Start: 46703, Stop: 46419, Start Num: 15

Candidate Starts for JC27_77:

(7, 46733), (Start: 15 @46703 has 3 MA's), (19, 46691), (37, 46601), (41, 46550),

Gene: Jorgensen_83 Start: 48562, Stop: 48278, Start Num: 15

Candidate Starts for Jorgensen_83:

(7, 48592), (Start: 15 @48562 has 3 MA's), (19, 48550), (37, 48460), (41, 48409),

Gene: Kykar_76 Start: 46815, Stop: 46522, Start Num: 12

Candidate Starts for Kykar_76:

(4, 46875), (Start: 12 @46815 has 7 MA's), (20, 46794), (37, 46704), (41, 46653),

Gene: Lev2_71 Start: 44266, Stop: 43970, Start Num: 16

Candidate Starts for Lev2_71:

(Start: 16 @44266 has 10 MA's), (23, 44245), (43, 44086),

Gene: Lilith_78 Start: 45620, Stop: 45357, Start Num: 21

Candidate Starts for Lilith_78:

(6, 45683), (Start: 8 @45665 has 8 MA's), (Start: 21 @45620 has 13 MA's),

Gene: LittleCherry_69 Start: 43824, Stop: 43522, Start Num: 13

Candidate Starts for LittleCherry_69:

(Start: 13 @43824 has 8 MA's), (23, 43797), (25, 43791), (43, 43638),

Gene: Lowa_77 Start: 45619, Stop: 45356, Start Num: 21

Candidate Starts for Lowa_77:

(6, 45682), (Start: 8 @45664 has 8 MA's), (Start: 21 @45619 has 13 MA's),

Gene: Luchador_82 Start: 47356, Stop: 47087, Start Num: 17

Candidate Starts for Luchador_82:

(1, 47488), (2, 47476), (5, 47413), (Start: 17 @47356 has 2 MA's), (27, 47326), (29, 47320), (36, 47272),

Gene: LunaBlu_43 Start: 32418, Stop: 32182, Start Num: 12
Candidate Starts for LunaBlu_43:
(Start: 12 @32418 has 7 MA's), (28, 32373), (29, 32370), (37, 32301), (41, 32250),

Gene: Mainiac_79 Start: 45620, Stop: 45357, Start Num: 21
Candidate Starts for Mainiac_79:
(6, 45683), (Start: 8 @45665 has 8 MA's), (Start: 21 @45620 has 13 MA's),

Gene: Malinsilva_83 Start: 45619, Stop: 45356, Start Num: 21
Candidate Starts for Malinsilva_83:
(6, 45682), (Start: 8 @45664 has 8 MA's), (Start: 21 @45619 has 13 MA's),

Gene: MarysWell_70 Start: 44501, Stop: 44202, Start Num: 14
Candidate Starts for MarysWell_70:
(10, 44513), (Start: 14 @44501 has 5 MA's), (Start: 17 @44495 has 2 MA's), (43, 44318),

Gene: Melissauren88_39 Start: 31545, Stop: 31309, Start Num: 12
Candidate Starts for Melissauren88_39:
(Start: 12 @31545 has 7 MA's), (28, 31500), (29, 31497), (37, 31428), (41, 31377),

Gene: Micasa_70 Start: 44223, Stop: 43924, Start Num: 14
Candidate Starts for Micasa_70:
(10, 44235), (Start: 14 @44223 has 5 MA's), (Start: 17 @44217 has 2 MA's), (28, 44181), (32, 44169),
(39, 44079), (43, 44040),

Gene: Michley_77 Start: 46813, Stop: 46514, Start Num: 12
Candidate Starts for Michley_77:
(4, 46873), (Start: 12 @46813 has 7 MA's), (28, 46768), (29, 46765), (37, 46696), (41, 46645),

Gene: Microwolf_76 Start: 45643, Stop: 45380, Start Num: 21
Candidate Starts for Microwolf_76:
(6, 45706), (Start: 8 @45688 has 8 MA's), (Start: 21 @45643 has 13 MA's),

Gene: Midas2_67 Start: 44122, Stop: 43820, Start Num: 13
Candidate Starts for Midas2_67:
(Start: 13 @44122 has 8 MA's), (30, 44071), (31, 44068), (40, 43960), (43, 43936),

Gene: MuchMore_83 Start: 45616, Stop: 45353, Start Num: 21
Candidate Starts for MuchMore_83:
(6, 45679), (Start: 8 @45661 has 8 MA's), (Start: 21 @45616 has 13 MA's),

Gene: PGHhamlin_82 Start: 45619, Stop: 45356, Start Num: 21
Candidate Starts for PGHhamlin_82:
(6, 45682), (Start: 8 @45664 has 8 MA's), (Start: 21 @45619 has 13 MA's),

Gene: Pembroke_80 Start: 45628, Stop: 45365, Start Num: 21
Candidate Starts for Pembroke_80:
(6, 45691), (Start: 8 @45673 has 8 MA's), (Start: 21 @45628 has 13 MA's),

Gene: Perplexer_74 Start: 45711, Stop: 45394, Start Num: 8
Candidate Starts for Perplexer_74:

(7, 45714), (Start: 8 @45711 has 8 MA's), (11, 45696), (24, 45660), (29, 45645), (35, 45606), (38, 45573),

Gene: PetiteSangusue_74 Start: 45714, Stop: 45397, Start Num: 8

Candidate Starts for PetiteSangusue_74:

(7, 45717), (Start: 8 @45714 has 8 MA's), (11, 45699), (24, 45663), (29, 45648), (35, 45609), (38, 45576),

Gene: Phlorence_69 Start: 44013, Stop: 43717, Start Num: 16

Candidate Starts for Phlorence_69:

(Start: 16 @44013 has 10 MA's), (23, 43992),

Gene: PickleBack_71 Start: 44188, Stop: 43892, Start Num: 16

Candidate Starts for PickleBack_71:

(Start: 16 @44188 has 10 MA's), (23, 44167), (43, 44008),

Gene: Polo2Bam_44 Start: 31582, Stop: 31346, Start Num: 12

Candidate Starts for Polo2Bam_44:

(Start: 12 @31582 has 7 MA's), (28, 31537), (29, 31534), (37, 31465), (41, 31414),

Gene: ProMouse_76 Start: 46599, Stop: 46300, Start Num: 12

Candidate Starts for ProMouse_76:

(4, 46659), (Start: 12 @46599 has 7 MA's), (28, 46554), (29, 46551), (37, 46482), (41, 46431),

Gene: Sabia_78 Start: 45635, Stop: 45372, Start Num: 21

Candidate Starts for Sabia_78:

(6, 45698), (Start: 8 @45680 has 8 MA's), (Start: 21 @45635 has 13 MA's),

Gene: SeaLumen_44 Start: 31582, Stop: 31346, Start Num: 12

Candidate Starts for SeaLumen_44:

(Start: 12 @31582 has 7 MA's), (28, 31537), (29, 31534), (37, 31465), (41, 31414),

Gene: Smeagol_79 Start: 49291, Stop: 48989, Start Num: 12

Candidate Starts for Smeagol_79:

(Start: 12 @49291 has 7 MA's), (29, 49243), (33, 49231), (34, 49228), (39, 49144), (41, 49120),

Gene: Stagni_77 Start: 45630, Stop: 45367, Start Num: 21

Candidate Starts for Stagni_77:

(6, 45693), (Start: 8 @45675 has 8 MA's), (Start: 21 @45630 has 13 MA's),

Gene: StepMih_80 Start: 45621, Stop: 45358, Start Num: 21

Candidate Starts for StepMih_80:

(6, 45684), (Start: 8 @45666 has 8 MA's), (Start: 21 @45621 has 13 MA's),

Gene: Swirley_70 Start: 44157, Stop: 43861, Start Num: 16

Candidate Starts for Swirley_70:

(Start: 16 @44157 has 10 MA's), (23, 44136), (25, 44130), (43, 43977),

Gene: Tarynearal_69 Start: 43993, Stop: 43697, Start Num: 16

Candidate Starts for Tarynearal_69:

(Start: 16 @43993 has 10 MA's), (23, 43972), (25, 43966), (34, 43936), (43, 43813),

Gene: Theia_69 Start: 44485, Stop: 44186, Start Num: 14

Candidate Starts for Theia_69:

(10, 44497), (Start: 14 @44485 has 5 MA's), (Start: 17 @44479 has 2 MA's), (28, 44443), (32, 44431), (39, 44341), (43, 44302),

Gene: Watson_79 Start: 45664, Stop: 45356, Start Num: 8

Candidate Starts for Watson_79:

(6, 45682), (Start: 8 @45664 has 8 MA's), (Start: 21 @45619 has 13 MA's),

Gene: Xena_73 Start: 45735, Stop: 45418, Start Num: 8

Candidate Starts for Xena_73:

(7, 45738), (Start: 8 @45735 has 8 MA's), (11, 45720), (24, 45684), (29, 45669), (35, 45630), (38, 45597),

Gene: Zeuska_78 Start: 48397, Stop: 48113, Start Num: 15

Candidate Starts for Zeuska_78:

(7, 48427), (Start: 15 @48397 has 3 MA's), (19, 48385), (37, 48295), (41, 48244),