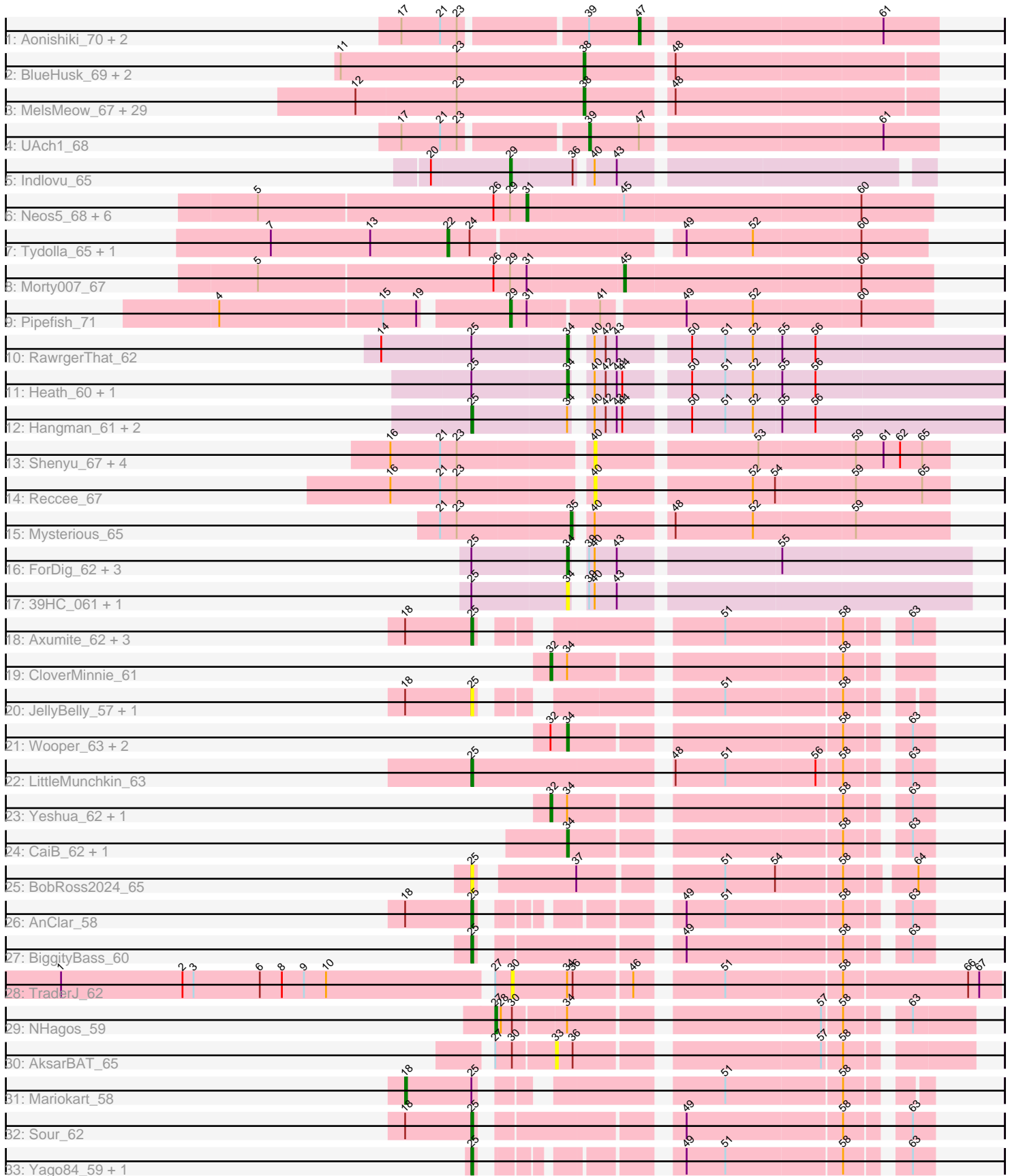


Pham 296440



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 296440 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296440 has 93 members, 21 are drafts.

Phages represented in each track:

- Track 1 : Aonishiki_70, Eugenia_68, HogWash_68
- Track 2 : BlueHusk_69, Melc17_65, Dati_65
- Track 3 : MelsMeow_67, Buckeye_68, Phareon_66, Inverness_66, Basato_67, Gyarad_0067, DonSancho_64, Dingo_65, Grand2040_66, ElvisPhasley_68, BlackStallion_68, Chorkpop_68, Mikota_65, Lasso_67, Sheila_64, Adriana_69, GeneCoco_68, RedRaider89_67, TooFast2Furius_69, MiniBoss_65, Ashraf_68, Hamish_65, AltPhacts_66, Scrick_67, Potter_65, Maskar_68, Nathan_68, ImtiyazSitla_68, Horchata_65, Caspiboi_67
- Track 4 : UAch1_68
- Track 5 : Indlovu_65
- Track 6 : Neos5_68, Obutu_70, SlippinJimmy_71, Briakila_68, Chentzyk_70, Marley1013_69, Phayeta_71
- Track 7 : Tydolla_65, HarveySr_67
- Track 8 : Morty007_67
- Track 9 : Pipefish_71
- Track 10 : RawrgerThat_62
- Track 11 : Heath_60, Zemanar_62
- Track 12 : Hangman_61, Fortunato_62, Lolalove_62
- Track 13 : Shenyu_67, StinkyVeggy_66, KarasumaRum_66, DigitDog_67, Nangang_66
- Track 14 : Reccee_67
- Track 15 : Mysterious_65
- Track 16 : ForDig_62, Jolie1_061, KayaCho_61, Hosp_059
- Track 17 : 39HC_061, 40BC_061
- Track 18 : Axumite_62, Shatter_62, Ligma_62, Fresco_62
- Track 19 : CloverMinnie_61
- Track 20 : JellyBelly_57, CharlottesWeb_58
- Track 21 : Wooper_63, FelixTres_63, Blackpen_61
- Track 22 : LittleMunchkin_63
- Track 23 : Yeshua_62, AnarQue_64
- Track 24 : CaiB_62, MakoManhole_59
- Track 25 : BobRoss2024_65
- Track 26 : AnClar_58
- Track 27 : BiggityBass_60
- Track 28 : TraderJ_62
- Track 29 : NHagos_59
- Track 30 : AksarBAT_65

- Track 31 : Mariokart_58
- Track 32 : Sour_62
- Track 33 : Yago84_59, Sisko_60

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

The start number called the most often in the published annotations is 38, it was called in 32 of the 72 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adriana_69, AltPhacts_66, Ashraf_68, Basato_67, BlackStallion_68, BlueHusk_69, Buckeye_68, Caspiwai_67, Chorkpop_68, Dati_65, Dingo_65, DonSanchon_64, ElvisPhasley_68, GeneCoco_68, Grand2040_66, Gyarad_0067, Hamish_65, Horchata_65, ImtiyazSitla_68, Inverness_66, Lasso_67, Maskar_68, Melc17_65, MelsMeow_67, Mikota_65, MiniBoss_65, Nathan_68, Phareon_66, Potter_65, RedRaider89_67, Scrick_67, Sheila_64, TooFast2Furius_69,

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

-

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

- 39HC_061, 40BC_061, AksarBAT_65, AnClar_58, AnarQue_64, Aonishiki_70, Axumite_62, BiggityBass_60, Blackpen_61, BobRoss2024_65, Briakila_68, CaiB_62, CharlottesWeb_58, Chentzyk_70, CloverMinnie_61, DigitDog_67, Eugenia_68, FelixTres_63, ForDig_62, Fortunato_62, Fresco_62, Hangman_61, HarveySr_67, Heath_60, HogWash_68, Hosp_059, Indlovu_65, JellyBelly_57, Jolie1_061, KarasumaRum_66, KayaCho_61, Ligma_62, LittleMunchkin_63, Lolalove_62, MakoManhole_59, Mariokart_58, Marley1013_69, Morty007_67, Mysterious_65, NHagos_59, Nangang_66, Neos5_68, Obutu_70, Phayeta_71, Pipefish_71, RawrgerThat_62, Reccee_67, Shatter_62, Shenyu_67, Sisko_60, SlippinJimmy_71, Sour_62, StinkyVeggy_66, TraderJ_62, Tydolla_65, UAch1_68, Wooper_63, Yago84_59, Yeshua_62, Zemanar_62,

Summary by start number:

Start 18:

- Found in 9 of 93 (9.7%) of genes in pham
- Manual Annotations of this start: 1 of 72
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Mariokart_58 (DR),

Start 22:

- Found in 2 of 93 (2.2%) of genes in pham
- Manual Annotations of this start: 2 of 72
- Called 100.0% of time when present
- Phage (with cluster) where this start called: HarveySr_67 (B3), Tydolla_65 (B3),

Start 25:

- Found in 26 of 93 (28.0%) of genes in pham
- Manual Annotations of this start: 13 of 72

- Called 61.5% of time when present
- Phage (with cluster) where this start called: AnClar_58 (DR), Axumite_62 (DR), BiggityBass_60 (DR), BobRoss2024_65 (DR), CharlottesWeb_58 (DR), Fortunato_62 (B4), Fresco_62 (DR), Hangman_61 (B4), JellyBelly_57 (DR), Ligma_62 (DR), LittleMunchkin_63 (DR), Lolalove_62 (B4), Shatter_62 (DR), Sisko_60 (DR), Sour_62 (DR), Yago84_59 (DR),

Start 27:

- Found in 3 of 93 (3.2%) of genes in pham
- Manual Annotations of this start: 1 of 72
- Called 33.3% of time when present
- Phage (with cluster) where this start called: NHagos_59 (DR),

Start 29:

- Found in 10 of 93 (10.8%) of genes in pham
- Manual Annotations of this start: 2 of 72
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Indlovu_65 (B11), Pipefish_71 (B3),

Start 30:

- Found in 3 of 93 (3.2%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: TraderJ_62 (DR),

Start 31:

- Found in 9 of 93 (9.7%) of genes in pham
- Manual Annotations of this start: 6 of 72
- Called 77.8% of time when present
- Phage (with cluster) where this start called: Briakila_68 (B3), Chentzyk_70 (B3), Marley1013_69 (B3), Neos5_68 (B3), Obutu_70 (B3), Phayeta_71 (B3), SlippinJimmy_71 (B3),

Start 32:

- Found in 6 of 93 (6.5%) of genes in pham
- Manual Annotations of this start: 3 of 72
- Called 50.0% of time when present
- Phage (with cluster) where this start called: AnarQue_64 (DR), CloverMinnie_61 (DR), Yeshua_62 (DR),

Start 33:

- Found in 1 of 93 (1.1%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AksarBAT_65 (DR),

Start 34:

- Found in 22 of 93 (23.7%) of genes in pham
- Manual Annotations of this start: 8 of 72
- Called 63.6% of time when present
- Phage (with cluster) where this start called: 39HC_061 (B6), 40BC_061 (B6), Blackpen_61 (DR), CaiB_62 (DR), FelixTres_63 (DR), ForDig_62 (B6), Heath_60 (B4), Hosp_059 (B6), Jolie1_061 (B6), KayaCho_61 (B6), MakoManhole_59 (DR),

RawrgerThat_62 (B4), Wooper_63 (DR), Zemanar_62 (B4),

Start 35:

- Found in 1 of 93 (1.1%) of genes in pham
- Manual Annotations of this start: 1 of 72
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mysterious_65 (B5),

Start 38:

- Found in 33 of 93 (35.5%) of genes in pham
- Manual Annotations of this start: 32 of 72
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adriana_69 (B1), AltPhacts_66 (B1), Ashraf_68 (B1), Basato_67 (B1), BlackStallion_68 (B1), BlueHusk_69 (B1), Buckeye_68 (B1), CaspiBoi_67 (B1), Chorkpop_68 (B1), Dati_65 (B1), Dingo_65 (B1), DonSancho_64 (B1), ElvisPhasley_68 (B1), GeneCoco_68 (B1), Grand2040_66 (B1), Gyarad_0067 (B1), Hamish_65 (B1), Horchata_65 (B1), ImtiyazSitla_68 (B1), Inverness_66 (B1), Lasso_67 (B1), Maskar_68 (B1), Melc17_65 (B1), MelsMeow_67 (B1), Mikota_65 (B1), MiniBoss_65 (B1), Nathan_68 (B1), Phareon_66 (B1), Potter_65 (B1), RedRaider89_67 (B1), Scrick_67 (B1), Sheila_64 (B1), TooFast2Furious_69 (B1),

Start 39:

- Found in 10 of 93 (10.8%) of genes in pham
- Manual Annotations of this start: 1 of 72
- Called 10.0% of time when present
- Phage (with cluster) where this start called: UAch1_68 (B1),

Start 40:

- Found in 20 of 93 (21.5%) of genes in pham
- No Manual Annotations of this start.
- Called 30.0% of time when present
- Phage (with cluster) where this start called: DigitDog_67 (B5), KarasumaRum_66 (B5), Nangang_66 (B5), Reccee_67 (B5), Shenyu_67 (B5), StinkyVeggy_66 (B5),

Start 45:

- Found in 8 of 93 (8.6%) of genes in pham
- Manual Annotations of this start: 1 of 72
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Morty007_67 (B3),

Start 47:

- Found in 4 of 93 (4.3%) of genes in pham
- Manual Annotations of this start: 1 of 72
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Aonishiki_70 (B1), Eugenia_68 (B1), HogWash_68 (B1),

Summary by clusters:

There are 7 clusters represented in this pham: B11, B4, B5, B6, B1, B3, DR,

Info for manual annotations of cluster B1:

- Start number 38 was manually annotated 32 times for cluster B1.
- Start number 39 was manually annotated 1 time for cluster B1.
- Start number 47 was manually annotated 1 time for cluster B1.

Info for manual annotations of cluster B11:

- Start number 29 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B3:

- Start number 22 was manually annotated 2 times for cluster B3.
- Start number 29 was manually annotated 1 time for cluster B3.
- Start number 31 was manually annotated 6 times for cluster B3.
- Start number 45 was manually annotated 1 time for cluster B3.

Info for manual annotations of cluster B4:

- Start number 25 was manually annotated 3 times for cluster B4.
- Start number 34 was manually annotated 3 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 35 was manually annotated 1 time for cluster B5.

Info for manual annotations of cluster B6:

- Start number 34 was manually annotated 2 times for cluster B6.

Info for manual annotations of cluster DR:

- Start number 18 was manually annotated 1 time for cluster DR.
- Start number 25 was manually annotated 10 times for cluster DR.
- Start number 27 was manually annotated 1 time for cluster DR.
- Start number 32 was manually annotated 3 times for cluster DR.
- Start number 34 was manually annotated 3 times for cluster DR.

Gene Information:

Gene: 39HC_061 Start: 56330, Stop: 56530, Start Num: 34

Candidate Starts for 39HC_061:

(Start: 25 @56279 has 13 MA's), (Start: 34 @56330 has 8 MA's), (Start: 39 @56333 has 1 MA's), (40, 56336), (43, 56348),

Gene: 40BC_061 Start: 56330, Stop: 56530, Start Num: 34

Candidate Starts for 40BC_061:

(Start: 25 @56279 has 13 MA's), (Start: 34 @56330 has 8 MA's), (Start: 39 @56333 has 1 MA's), (40, 56336), (43, 56348),

Gene: Adriana_69 Start: 57994, Stop: 58173, Start Num: 38

Candidate Starts for Adriana_69:

(12, 57871), (23, 57925), (Start: 38 @57994 has 32 MA's), (48, 58036),

Gene: AksarBAT_65 Start: 51976, Stop: 52173, Start Num: 33

Candidate Starts for AksarBAT_65:

(Start: 27 @51946 has 1 MA's), (30, 51955), (33, 51976), (36, 51985), (57, 52105), (58, 52114),

Gene: AltPhacts_66 Start: 56481, Stop: 56660, Start Num: 38

Candidate Starts for AltPhacts_66:

(12, 56358), (23, 56412), (Start: 38 @56481 has 32 MA's), (48, 56523),

Gene: AnClar_58 Start: 51779, Stop: 51976, Start Num: 25

Candidate Starts for AnClar_58:

(Start: 18 @51743 has 1 MA's), (Start: 25 @51779 has 13 MA's), (49, 51857), (51, 51878), (58, 51938), (63, 51965),

Gene: AnarQue_64 Start: 52219, Stop: 52398, Start Num: 32

Candidate Starts for AnarQue_64:

(Start: 32 @52219 has 3 MA's), (Start: 34 @52228 has 8 MA's), (58, 52360), (63, 52387),

Gene: Aonishiki_70 Start: 57199, Stop: 57351, Start Num: 47

Candidate Starts for Aonishiki_70:

(17, 57079), (21, 57100), (23, 57109), (Start: 39 @57172 has 1 MA's), (Start: 47 @57199 has 1 MA's), (61, 57322),

Gene: Ashraf_68 Start: 57146, Stop: 57325, Start Num: 38

Candidate Starts for Ashraf_68:

(12, 57023), (23, 57077), (Start: 38 @57146 has 32 MA's), (48, 57188),

Gene: Axumite_62 Start: 50626, Stop: 50826, Start Num: 25

Candidate Starts for Axumite_62:

(Start: 18 @50590 has 1 MA's), (Start: 25 @50626 has 13 MA's), (51, 50728), (58, 50788), (63, 50815),

Gene: Basato_67 Start: 57199, Stop: 57378, Start Num: 38

Candidate Starts for Basato_67:

(12, 57076), (23, 57130), (Start: 38 @57199 has 32 MA's), (48, 57241),

Gene: BiggityBass_60 Start: 52323, Stop: 52532, Start Num: 25

Candidate Starts for BiggityBass_60:

(Start: 25 @52323 has 13 MA's), (49, 52413), (58, 52494), (63, 52521),

Gene: BlackStallion_68 Start: 57193, Stop: 57372, Start Num: 38

Candidate Starts for BlackStallion_68:

(12, 57070), (23, 57124), (Start: 38 @57193 has 32 MA's), (48, 57235),

Gene: Blackpen_61 Start: 50667, Stop: 50837, Start Num: 34

Candidate Starts for Blackpen_61:

(Start: 32 @50658 has 3 MA's), (Start: 34 @50667 has 8 MA's), (58, 50799), (63, 50826),

Gene: BlueHusk_69 Start: 56949, Stop: 57128, Start Num: 38

Candidate Starts for BlueHusk_69:

(11, 56817), (23, 56880), (Start: 38 @56949 has 32 MA's), (48, 56991),

Gene: BobRoss2024_65 Start: 51837, Stop: 52049, Start Num: 25

Candidate Starts for BobRoss2024_65:

(Start: 25 @51837 has 13 MA's), (37, 51882), (51, 51948), (54, 51975), (58, 52008), (64, 52041),

Gene: Briakila_68 Start: 57517, Stop: 57732, Start Num: 31

Candidate Starts for Briakila_68:

(5, 57373), (26, 57499), (Start: 29 @57508 has 2 MA's), (Start: 31 @57517 has 6 MA's), (Start: 45 @57568 has 1 MA's), (60, 57694),

Gene: Buckeye_68 Start: 58013, Stop: 58192, Start Num: 38
Candidate Starts for Buckeye_68:
(12, 57890), (23, 57944), (Start: 38 @58013 has 32 MA's), (48, 58055),

Gene: CaiB_62 Start: 52012, Stop: 52182, Start Num: 34
Candidate Starts for CaiB_62:
(Start: 34 @52012 has 8 MA's), (58, 52144), (63, 52171),

Gene: Caspiboi_67 Start: 57156, Stop: 57335, Start Num: 38
Candidate Starts for Caspiboi_67:
(12, 57033), (23, 57087), (Start: 38 @57156 has 32 MA's), (48, 57198),

Gene: CharlottesWeb_58 Start: 49213, Stop: 49410, Start Num: 25
Candidate Starts for CharlottesWeb_58:
(Start: 18 @49177 has 1 MA's), (Start: 25 @49213 has 13 MA's), (51, 49315), (58, 49375),

Gene: Chentzyk_70 Start: 58269, Stop: 58484, Start Num: 31
Candidate Starts for Chentzyk_70:
(5, 58125), (26, 58251), (Start: 29 @58260 has 2 MA's), (Start: 31 @58269 has 6 MA's), (Start: 45 @58320 has 1 MA's), (60, 58446),

Gene: Chorkpop_68 Start: 56930, Stop: 57109, Start Num: 38
Candidate Starts for Chorkpop_68:
(12, 56807), (23, 56861), (Start: 38 @56930 has 32 MA's), (48, 56972),

Gene: CloverMinnie_61 Start: 51166, Stop: 51345, Start Num: 32
Candidate Starts for CloverMinnie_61:
(Start: 32 @51166 has 3 MA's), (Start: 34 @51175 has 8 MA's), (58, 51307),

Gene: Dati_65 Start: 57259, Stop: 57438, Start Num: 38
Candidate Starts for Dati_65:
(11, 57127), (23, 57190), (Start: 38 @57259 has 32 MA's), (48, 57301),

Gene: DigitDog_67 Start: 58467, Stop: 58649, Start Num: 40
Candidate Starts for DigitDog_67:
(16, 58365), (21, 58392), (23, 58401), (40, 58467), (53, 58548), (59, 58599), (61, 58614), (62, 58623), (65, 58635),

Gene: Dingo_65 Start: 56457, Stop: 56636, Start Num: 38
Candidate Starts for Dingo_65:
(12, 56334), (23, 56388), (Start: 38 @56457 has 32 MA's), (48, 56499),

Gene: DonSanchon_64 Start: 56612, Stop: 56791, Start Num: 38
Candidate Starts for DonSanchon_64:
(12, 56489), (23, 56543), (Start: 38 @56612 has 32 MA's), (48, 56654),

Gene: ElvisPhasley_68 Start: 57946, Stop: 58125, Start Num: 38
Candidate Starts for ElvisPhasley_68:
(12, 57823), (23, 57877), (Start: 38 @57946 has 32 MA's), (48, 57988),

Gene: Eugenia_68 Start: 57577, Stop: 57729, Start Num: 47
Candidate Starts for Eugenia_68:

(17, 57457), (21, 57478), (23, 57487), (Start: 39 @57550 has 1 MA's), (Start: 47 @57577 has 1 MA's), (61, 57700),

Gene: FelixTres_63 Start: 51482, Stop: 51652, Start Num: 34

Candidate Starts for FelixTres_63:

(Start: 32 @51473 has 3 MA's), (Start: 34 @51482 has 8 MA's), (58, 51614), (63, 51641),

Gene: ForDig_62 Start: 56642, Stop: 56842, Start Num: 34

Candidate Starts for ForDig_62:

(Start: 25 @56591 has 13 MA's), (Start: 34 @56642 has 8 MA's), (Start: 39 @56645 has 1 MA's), (40, 56648), (43, 56660), (55, 56741),

Gene: Fortunato_62 Start: 58000, Stop: 58269, Start Num: 25

Candidate Starts for Fortunato_62:

(Start: 25 @58000 has 13 MA's), (Start: 34 @58051 has 8 MA's), (40, 58057), (42, 58063), (43, 58069), (44, 58072), (50, 58102), (51, 58120), (52, 58135), (55, 58150), (56, 58168),

Gene: Fresco_62 Start: 50626, Stop: 50826, Start Num: 25

Candidate Starts for Fresco_62:

(Start: 18 @50590 has 1 MA's), (Start: 25 @50626 has 13 MA's), (51, 50728), (58, 50788), (63, 50815),

Gene: GeneCoco_68 Start: 57462, Stop: 57641, Start Num: 38

Candidate Starts for GeneCoco_68:

(12, 57339), (23, 57393), (Start: 38 @57462 has 32 MA's), (48, 57504),

Gene: Grand2040_66 Start: 57405, Stop: 57584, Start Num: 38

Candidate Starts for Grand2040_66:

(12, 57282), (23, 57336), (Start: 38 @57405 has 32 MA's), (48, 57447),

Gene: Gyarad_0067 Start: 56782, Stop: 56961, Start Num: 38

Candidate Starts for Gyarad_0067:

(12, 56659), (23, 56713), (Start: 38 @56782 has 32 MA's), (48, 56824),

Gene: Hamish_65 Start: 56845, Stop: 57024, Start Num: 38

Candidate Starts for Hamish_65:

(12, 56722), (23, 56776), (Start: 38 @56845 has 32 MA's), (48, 56887),

Gene: Hangman_61 Start: 58042, Stop: 58311, Start Num: 25

Candidate Starts for Hangman_61:

(Start: 25 @58042 has 13 MA's), (Start: 34 @58093 has 8 MA's), (40, 58099), (42, 58105), (43, 58111), (44, 58114), (50, 58144), (51, 58162), (52, 58177), (55, 58192), (56, 58210),

Gene: HarveySr_67 Start: 56727, Stop: 56969, Start Num: 22

Candidate Starts for HarveySr_67:

(7, 56631), (13, 56685), (Start: 22 @56727 has 2 MA's), (24, 56739), (49, 56841), (52, 56877), (60, 56934),

Gene: Heath_60 Start: 57720, Stop: 57938, Start Num: 34

Candidate Starts for Heath_60:

(Start: 25 @57669 has 13 MA's), (Start: 34 @57720 has 8 MA's), (40, 57726), (42, 57732), (43, 57738), (44, 57741), (50, 57771), (51, 57789), (52, 57804), (55, 57819), (56, 57837),

Gene: HogWash_68 Start: 57799, Stop: 57951, Start Num: 47

Candidate Starts for HogWash_68:

(17, 57679), (21, 57700), (23, 57709), (Start: 39 @57772 has 1 MA's), (Start: 47 @57799 has 1 MA's), (61, 57922),

Gene: Horchata_65 Start: 56937, Stop: 57116, Start Num: 38

Candidate Starts for Horchata_65:

(12, 56814), (23, 56868), (Start: 38 @56937 has 32 MA's), (48, 56979),

Gene: Hosp_059 Start: 54555, Stop: 54755, Start Num: 34

Candidate Starts for Hosp_059:

(Start: 25 @54504 has 13 MA's), (Start: 34 @54555 has 8 MA's), (Start: 39 @54558 has 1 MA's), (40, 54561), (43, 54573), (55, 54654),

Gene: ImtiyazSitla_68 Start: 57146, Stop: 57325, Start Num: 38

Candidate Starts for ImtiyazSitla_68:

(12, 57023), (23, 57077), (Start: 38 @57146 has 32 MA's), (48, 57188),

Gene: Indlovu_65 Start: 58320, Stop: 58526, Start Num: 29

Candidate Starts for Indlovu_65:

(20, 58278), (Start: 29 @58320 has 2 MA's), (36, 58353), (40, 58359), (43, 58371),

Gene: Inverness_66 Start: 56946, Stop: 57125, Start Num: 38

Candidate Starts for Inverness_66:

(12, 56823), (23, 56877), (Start: 38 @56946 has 32 MA's), (48, 56988),

Gene: JellyBelly_57 Start: 49210, Stop: 49407, Start Num: 25

Candidate Starts for JellyBelly_57:

(Start: 18 @49174 has 1 MA's), (Start: 25 @49210 has 13 MA's), (51, 49312), (58, 49372),

Gene: Jolie1_061 Start: 56473, Stop: 56673, Start Num: 34

Candidate Starts for Jolie1_061:

(Start: 25 @56422 has 13 MA's), (Start: 34 @56473 has 8 MA's), (Start: 39 @56476 has 1 MA's), (40, 56479), (43, 56491), (55, 56572),

Gene: KarasumaRum_66 Start: 58294, Stop: 58476, Start Num: 40

Candidate Starts for KarasumaRum_66:

(16, 58192), (21, 58219), (23, 58228), (40, 58294), (53, 58375), (59, 58426), (61, 58441), (62, 58450), (65, 58462),

Gene: KayaCho_61 Start: 56583, Stop: 56783, Start Num: 34

Candidate Starts for KayaCho_61:

(Start: 25 @56532 has 13 MA's), (Start: 34 @56583 has 8 MA's), (Start: 39 @56586 has 1 MA's), (40, 56589), (43, 56601), (55, 56682),

Gene: Lasso_67 Start: 57164, Stop: 57343, Start Num: 38

Candidate Starts for Lasso_67:

(12, 57041), (23, 57095), (Start: 38 @57164 has 32 MA's), (48, 57206),

Gene: Ligma_62 Start: 50626, Stop: 50826, Start Num: 25

Candidate Starts for Ligma_62:

(Start: 18 @50590 has 1 MA's), (Start: 25 @50626 has 13 MA's), (51, 50728), (58, 50788), (63, 50815),

Gene: LittleMunchkin_63 Start: 53357, Stop: 53581, Start Num: 25

Candidate Starts for LittleMunchkin_63:

(Start: 25 @53357 has 13 MA's), (48, 53456), (51, 53483), (56, 53531), (58, 53543), (63, 53570),

Gene: Lolalove_62 Start: 58003, Stop: 58272, Start Num: 25

Candidate Starts for Lolalove_62:

(Start: 25 @58003 has 13 MA's), (Start: 34 @58054 has 8 MA's), (40, 58060), (42, 58066), (43, 58072), (44, 58075), (50, 58105), (51, 58123), (52, 58138), (55, 58153), (56, 58171),

Gene: MakoManhole_59 Start: 50530, Stop: 50700, Start Num: 34

Candidate Starts for MakoManhole_59:

(Start: 34 @50530 has 8 MA's), (58, 50662), (63, 50689),

Gene: Mariokart_58 Start: 49462, Stop: 49695, Start Num: 18

Candidate Starts for Mariokart_58:

(Start: 18 @49462 has 1 MA's), (Start: 25 @49498 has 13 MA's), (51, 49600), (58, 49660),

Gene: Marley1013_69 Start: 58226, Stop: 58441, Start Num: 31

Candidate Starts for Marley1013_69:

(5, 58082), (26, 58208), (Start: 29 @58217 has 2 MA's), (Start: 31 @58226 has 6 MA's), (Start: 45 @58277 has 1 MA's), (60, 58403),

Gene: Maskar_68 Start: 57146, Stop: 57325, Start Num: 38

Candidate Starts for Maskar_68:

(12, 57023), (23, 57077), (Start: 38 @57146 has 32 MA's), (48, 57188),

Gene: Melc17_65 Start: 57547, Stop: 57726, Start Num: 38

Candidate Starts for Melc17_65:

(11, 57415), (23, 57478), (Start: 38 @57547 has 32 MA's), (48, 57589),

Gene: MelsMeow_67 Start: 57199, Stop: 57378, Start Num: 38

Candidate Starts for MelsMeow_67:

(12, 57076), (23, 57130), (Start: 38 @57199 has 32 MA's), (48, 57241),

Gene: Mikota_65 Start: 56445, Stop: 56624, Start Num: 38

Candidate Starts for Mikota_65:

(12, 56322), (23, 56376), (Start: 38 @56445 has 32 MA's), (48, 56487),

Gene: MiniBoss_65 Start: 56250, Stop: 56429, Start Num: 38

Candidate Starts for MiniBoss_65:

(12, 56127), (23, 56181), (Start: 38 @56250 has 32 MA's), (48, 56292),

Gene: Morty007_67 Start: 58277, Stop: 58441, Start Num: 45

Candidate Starts for Morty007_67:

(5, 58082), (26, 58208), (Start: 29 @58217 has 2 MA's), (Start: 31 @58226 has 6 MA's), (Start: 45 @58277 has 1 MA's), (60, 58403),

Gene: Mysterious_65 Start: 58405, Stop: 58593, Start Num: 35

Candidate Starts for Mysterious_65:

(21, 58336), (23, 58345), (Start: 35 @58405 has 1 MA's), (40, 58411), (48, 58447), (52, 58489), (59, 58543),

Gene: NHagos_59 Start: 49828, Stop: 50055, Start Num: 27

Candidate Starts for NHagos_59:

(Start: 27 @49828 has 1 MA's), (28, 49831), (30, 49837), (Start: 34 @49864 has 8 MA's), (57, 49987), (58, 49996), (63, 50023),

Gene: Nangang_66 Start: 58493, Stop: 58675, Start Num: 40

Candidate Starts for Nangang_66:

(16, 58391), (21, 58418), (23, 58427), (40, 58493), (53, 58574), (59, 58625), (61, 58640), (62, 58649), (65, 58661),

Gene: Nathan_68 Start: 57281, Stop: 57460, Start Num: 38

Candidate Starts for Nathan_68:

(12, 57158), (23, 57212), (Start: 38 @57281 has 32 MA's), (48, 57323),

Gene: Neos5_68 Start: 57688, Stop: 57903, Start Num: 31

Candidate Starts for Neos5_68:

(5, 57544), (26, 57670), (Start: 29 @57679 has 2 MA's), (Start: 31 @57688 has 6 MA's), (Start: 45 @57739 has 1 MA's), (60, 57865),

Gene: Obutu_70 Start: 57908, Stop: 58123, Start Num: 31

Candidate Starts for Obutu_70:

(5, 57764), (26, 57890), (Start: 29 @57899 has 2 MA's), (Start: 31 @57908 has 6 MA's), (Start: 45 @57959 has 1 MA's), (60, 58085),

Gene: Phareon_66 Start: 56635, Stop: 56814, Start Num: 38

Candidate Starts for Phareon_66:

(12, 56512), (23, 56566), (Start: 38 @56635 has 32 MA's), (48, 56677),

Gene: Phayeta_71 Start: 57812, Stop: 58027, Start Num: 31

Candidate Starts for Phayeta_71:

(5, 57668), (26, 57794), (Start: 29 @57803 has 2 MA's), (Start: 31 @57812 has 6 MA's), (Start: 45 @57863 has 1 MA's), (60, 57989),

Gene: Pipefish_71 Start: 58442, Stop: 58660, Start Num: 29

Candidate Starts for Pipefish_71:

(4, 58295), (15, 58382), (19, 58400), (Start: 29 @58442 has 2 MA's), (Start: 31 @58451 has 6 MA's), (41, 58487), (49, 58529), (52, 58565), (60, 58622),

Gene: Potter_65 Start: 56927, Stop: 57106, Start Num: 38

Candidate Starts for Potter_65:

(12, 56804), (23, 56858), (Start: 38 @56927 has 32 MA's), (48, 56969),

Gene: RawrgerThat_62 Start: 58029, Stop: 58247, Start Num: 34

Candidate Starts for RawrgerThat_62:

(14, 57930), (Start: 25 @57978 has 13 MA's), (Start: 34 @58029 has 8 MA's), (40, 58035), (42, 58041), (43, 58047), (50, 58080), (51, 58098), (52, 58113), (55, 58128), (56, 58146),

Gene: Reccee_67 Start: 58488, Stop: 58670, Start Num: 40

Candidate Starts for Reccee_67:

(16, 58386), (21, 58413), (23, 58422), (40, 58488), (52, 58566), (54, 58578), (59, 58620), (65, 58656),

Gene: RedRaider89_67 Start: 57358, Stop: 57537, Start Num: 38

Candidate Starts for RedRaider89_67:

(12, 57235), (23, 57289), (Start: 38 @57358 has 32 MA's), (48, 57400),

Gene: Scrick_67 Start: 56929, Stop: 57108, Start Num: 38
Candidate Starts for Scrick_67:
(12, 56806), (23, 56860), (Start: 38 @56929 has 32 MA's), (48, 56971),

Gene: Shatter_62 Start: 50626, Stop: 50826, Start Num: 25
Candidate Starts for Shatter_62:
(Start: 18 @50590 has 1 MA's), (Start: 25 @50626 has 13 MA's), (51, 50728), (58, 50788), (63, 50815),

Gene: Sheila_64 Start: 56299, Stop: 56478, Start Num: 38
Candidate Starts for Sheila_64:
(12, 56176), (23, 56230), (Start: 38 @56299 has 32 MA's), (48, 56341),

Gene: Shenyu_67 Start: 58862, Stop: 59044, Start Num: 40
Candidate Starts for Shenyu_67:
(16, 58760), (21, 58787), (23, 58796), (40, 58862), (53, 58943), (59, 58994), (61, 59009), (62, 59018),
(65, 59030),

Gene: Sisko_60 Start: 50847, Stop: 51044, Start Num: 25
Candidate Starts for Sisko_60:
(Start: 25 @50847 has 13 MA's), (49, 50925), (51, 50946), (58, 51006), (63, 51033),

Gene: SlippinJimmy_71 Start: 58709, Stop: 58924, Start Num: 31
Candidate Starts for SlippinJimmy_71:
(5, 58565), (26, 58691), (Start: 29 @58700 has 2 MA's), (Start: 31 @58709 has 6 MA's), (Start: 45
@58760 has 1 MA's), (60, 58886),

Gene: Sour_62 Start: 53064, Stop: 53273, Start Num: 25
Candidate Starts for Sour_62:
(Start: 18 @53028 has 1 MA's), (Start: 25 @53064 has 13 MA's), (49, 53154), (58, 53235), (63, 53262),

Gene: StinkyVeggy_66 Start: 58294, Stop: 58476, Start Num: 40
Candidate Starts for StinkyVeggy_66:
(16, 58192), (21, 58219), (23, 58228), (40, 58294), (53, 58375), (59, 58426), (61, 58441), (62, 58450),
(65, 58462),

Gene: TooFast2Furius_69 Start: 57172, Stop: 57351, Start Num: 38
Candidate Starts for TooFast2Furius_69:
(12, 57049), (23, 57103), (Start: 38 @57172 has 32 MA's), (48, 57214),

Gene: TraderJ_62 Start: 51541, Stop: 51786, Start Num: 30
Candidate Starts for TraderJ_62:
(1, 51304), (2, 51370), (3, 51376), (6, 51412), (8, 51424), (9, 51436), (10, 51448), (Start: 27 @51532
has 1 MA's), (30, 51541), (Start: 34 @51571 has 8 MA's), (36, 51574), (46, 51604), (51, 51643), (58,
51703), (66, 51769), (67, 51775),

Gene: Tydolla_65 Start: 57176, Stop: 57418, Start Num: 22
Candidate Starts for Tydolla_65:
(7, 57080), (13, 57134), (Start: 22 @57176 has 2 MA's), (24, 57188), (49, 57290), (52, 57326), (60,
57383),

Gene: UAch1_68 Start: 57127, Stop: 57306, Start Num: 39
Candidate Starts for UAch1_68:

(17, 57034), (21, 57055), (23, 57064), (Start: 39 @57127 has 1 MA's), (Start: 47 @57154 has 1 MA's), (61, 57277),

Gene: Wooper_63 Start: 51561, Stop: 51731, Start Num: 34

Candidate Starts for Wooper_63:

(Start: 32 @51552 has 3 MA's), (Start: 34 @51561 has 8 MA's), (58, 51693), (63, 51720),

Gene: Yago84_59 Start: 50332, Stop: 50529, Start Num: 25

Candidate Starts for Yago84_59:

(Start: 25 @50332 has 13 MA's), (49, 50410), (51, 50431), (58, 50491), (63, 50518),

Gene: Yeshua_62 Start: 51529, Stop: 51708, Start Num: 32

Candidate Starts for Yeshua_62:

(Start: 32 @51529 has 3 MA's), (Start: 34 @51538 has 8 MA's), (58, 51670), (63, 51697),

Gene: Zemanar_62 Start: 57920, Stop: 58138, Start Num: 34

Candidate Starts for Zemanar_62:

(Start: 25 @57869 has 13 MA's), (Start: 34 @57920 has 8 MA's), (40, 57926), (42, 57932), (43, 57938), (44, 57941), (50, 57971), (51, 57989), (52, 58004), (55, 58019), (56, 58037),