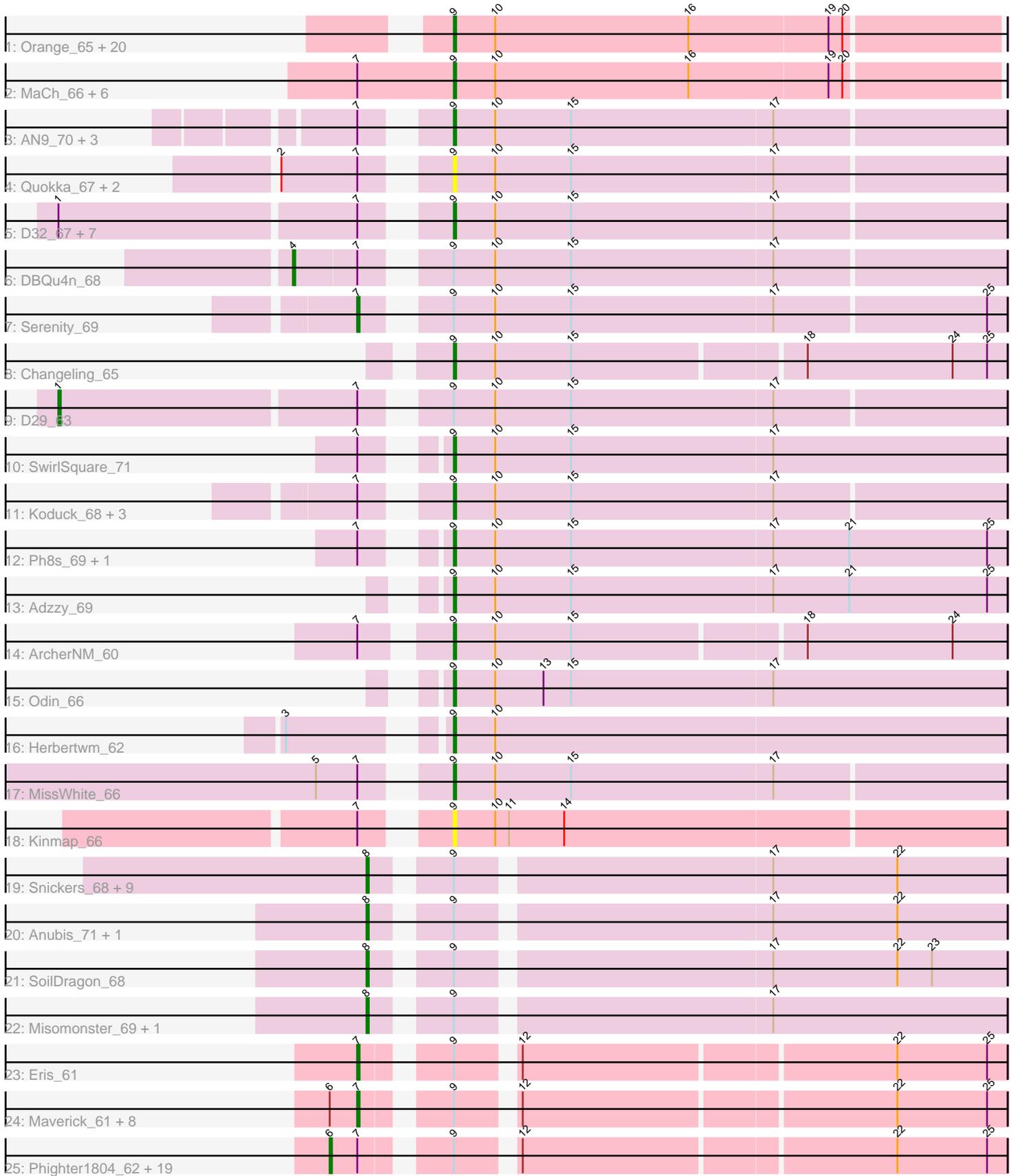


Pham 291012



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 291012 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291012 has 105 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Orange_65, Bowtie_67, Et2Brutus_65, Gilberta_67, Sham4_66, Timothy_66, Mabel_66, Bud_65, Saskia_66, Flaverint_67, Hutc2_65, Insomnia_67, Fibonacci_66, Mulciber_65, Lucivia_67, Petersenfast_64, Snape_66, Ebony_66, Munch_66, Wolpertinger_64, Aneem_67
- Track 2 : MaCh_66, TinyTimmy_66, Salz_65, Kimba_65, Joselito_67, Bachome_68, Jabith_67
- Track 3 : AN9_70, VC3_69, ANI8_70, C3_63
- Track 4 : Quokka_67, Bradman_68, MajorMajor_67
- Track 5 : D32_67, Pomar16_67, Kerberos_68, Travvers_67, StarStuff_68, Tomathan_68, Naji_68, Duplo_68
- Track 6 : DBQu4n_68
- Track 7 : Serenity_69
- Track 8 : Changeling_65
- Track 9 : D29_63
- Track 10 : SwirlSquare_71
- Track 11 : Koduck_68, L5_63, Jsquared_69, TipsytheTRex_65
- Track 12 : Ph8s_69, Che12_69
- Track 13 : Adzzy_69
- Track 14 : ArcherNM_60
- Track 15 : Odin_66
- Track 16 : Herbertwm_62
- Track 17 : MissWhite_66
- Track 18 : Kinmap_66
- Track 19 : Snickers_68, Daishi_67, BreSam8_68, Pembroke_68, DaHudson_67, PGHhamlin_70, Hercules11_68, Colbster_66, Phoebe_69, SoYo_67
- Track 20 : Anubis_71, Wooldri_70
- Track 21 : SoilDragon_68
- Track 22 : Misomonster_69, TinyPebbles_67
- Track 23 : Eris_61
- Track 24 : Maverick_61, Medusa_62, Sabertooth_62, Shaka_60, Avle17_62, Nyxis_61, Cocoaberry_62, LittleGuy_62, Flux_62
- Track 25 : Phighter1804_62, Funston_61, Phacado_62, Iracema64_63, Clarenza_61, HamSlice_59, JoongJeon_61, Millski_61, BubbleTrouble_61, Bruiser_61, TinaFeyge_60, KFPoly_61, Abdiel_62, Palestino_61, Camperdownii_60, Lemur_62, Bombshell_62, Wander_62, Kratark_61, Thanksgivukkah_61

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

The start number called the most often in the published annotations is 9, it was called in 48 of the 96 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AN9_70, ANI8_70, Adzzy_69, Aneem_67, ArcherNM_60, Bachome_68, Bowtie_67, Bradman_68, Bud_65, C3_63, Changeling_65, Che12_69, D32_67, Duplo_68, Ebony_66, Et2Brutus_65, Fibonacci_66, Flaverint_67, Gilberta_67, Herbertwm_62, Hutc2_65, Insomnia_67, Jabith_67, Joselito_67, Jsquared_69, Kerberos_68, Kimba_65, Kinmap_66, Koduck_68, L5_63, Lucivia_67, MaCh_66, Mabel_66, MajorMajor_67, MissWhite_66, Mulciber_65, Munch_66, Naji_68, Odin_66, Orange_65, Petersenfast_64, Ph8s_69, Pomar16_67, Quokka_67, Salz_65, Saskia_66, Sham4_66, Snape_66, StarStuff_68, SwirlSquare_71, Timothy_66, TinyTimmy_66, TopsytheTRex_65, Tomathan_68, Travvers_67, VC3_69, Wolpertinger_64,

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

- Abdiel_62, Anubis_71, Avle17_62, Bombshell_62, BreSam8_68, Bruiser_61, BubbleTrouble_61, Camperdownii_60, Clarenza_61, Cocoaberry_62, Colbster_66, D29_63, DBQu4n_68, DaHudson_67, Daishi_67, Eris_61, Flux_62, Funston_61, HamSlice_59, Hercules11_68, Iracema64_63, JoongJeon_61, KFPoly_61, Kratak_61, Lemur_62, LittleGuy_62, Maverick_61, Medusa_62, Millski_61, Misomonster_69, Nyxis_61, PGHhamlin_70, Palestino_61, Pembroke_68, Phacado_62, Phighter1804_62, Phoebe_69, Sabertooth_62, Serenity_69, Shaka_60, Snickers_68, SoYo_67, SoilDragon_68, Thanksgivukkah_61, TinaFeyge_60, TinyPebbles_67, Wander_62, Wooldri_70,

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

-

Summary by start number:

Start 1:

- Found in 9 of 105 (8.6%) of genes in pham
- Manual Annotations of this start: 1 of 96
- Called 11.1% of time when present
- Phage (with cluster) where this start called: D29_63 (A2),

Start 4:

- Found in 1 of 105 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 96
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DBQu4n_68 (A2),

Start 6:

- Found in 29 of 105 (27.6%) of genes in pham
- Manual Annotations of this start: 20 of 96
- Called 69.0% of time when present
- Phage (with cluster) where this start called: Abdiel_62 (A4), Bombshell_62 (A4), Bruiser_61 (A4), BubbleTrouble_61 (A4), Camperdownii_60 (A4), Clarenza_61 (A4), Funston_61 (A4), HamSlice_59 (A4), Iracema64_63 (A4), JoongJeon_61 (A4),

KFPoly_61 (A4), Kratark_61 (A4), Lemur_62 (A4), Millski_61 (A4), Palestino_61 (A4), Phacado_62 (A4), Phighter1804_62 (A4), Thanksgivukkah_61 (A4), TinaFeyge_60 (A4), Wander_62 (A4),

Start 7:

- Found in 65 of 105 (61.9%) of genes in pham
- Manual Annotations of this start: 11 of 96
- Called 16.9% of time when present
- Phage (with cluster) where this start called: Avle17_62 (A4), Cocoaberry_62 (A4), Eris_61 (A4), Flux_62 (A4), LittleGuy_62 (A4), Maverick_61 (A4), Medusa_62 (A4), Nyxis_61 (A4), Sabertooth_62 (A4), Serenity_69 (A2), Shaka_60 (A4),

Start 8:

- Found in 15 of 105 (14.3%) of genes in pham
- Manual Annotations of this start: 15 of 96
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anubis_71 (A3), BreSam8_68 (A3), Colbster_66 (A3), DaHudson_67 (A3), Daishi_67 (A3), Hercules11_68 (A3), Misomonster_69 (A3), PGHhamlin_70 (A3), Pembroke_68 (A3), Phoebe_69 (A3), Snickers_68 (A3), SoYo_67 (A3), SoilDragon_68 (A3), TinyPebbles_67 (A3), Wooldri_70 (A3),

Start 9:

- Found in 105 of 105 (100.0%) of genes in pham
- Manual Annotations of this start: 48 of 96
- Called 54.3% of time when present
- Phage (with cluster) where this start called: AN9_70 (A2), ANI8_70 (A2), Adzzy_69 (A2), Aneem_67 (A11), ArcherNM_60 (A2), Bachome_68 (A11), Bowtie_67 (A11), Bradman_68 (A2), Bud_65 (A11), C3_63 (A2), Changeling_65 (A2), Che12_69 (A2), D32_67 (A2), Duplo_68 (A2), Ebony_66 (A11), Et2Brutus_65 (A11), Fibonacci_66 (A11), Flaverint_67 (A11), Gilberta_67 (A11), Herbertwm_62 (A2), Hutc2_65 (A11), Insomnia_67 (A11), Jabith_67 (A11), Joselito_67 (A11), Jsquared_69 (A2), Kerberos_68 (A2), Kimba_65 (A11), Kinmap_66 (A21), Koduck_68 (A2), L5_63 (A2), Lucivia_67 (A11), MaCh_66 (A11), Mabel_66 (A11), MajorMajor_67 (A2), MissWhite_66 (A2), Mulciber_65 (A11), Munch_66 (A11), Naji_68 (A2), Odin_66 (A2), Orange_65 (A11), Petersenfast_64 (A11), Ph8s_69 (A2), Pomar16_67 (A2), Quokka_67 (A2), Salz_65 (A11), Saskia_66 (A11), Sham4_66 (A11), Snape_66 (A11), StarStuff_68 (A2), SwirlSquare_71 (A2), Timothy_66 (A11), TinyTimmy_66 (A11), TipsytheTRex_65 (A2), Tomathan_68 (A2), Travvers_67 (A2), VC3_69 (A2), Wolpertinger_64 (A11),

Summary by clusters:

There are 5 clusters represented in this pham: A21, A3, A2, A11, A4,

Info for manual annotations of cluster A11:

- Start number 9 was manually annotated 24 times for cluster A11.

Info for manual annotations of cluster A2:

- Start number 1 was manually annotated 1 time for cluster A2.
- Start number 4 was manually annotated 1 time for cluster A2.
- Start number 7 was manually annotated 1 time for cluster A2.
- Start number 9 was manually annotated 24 times for cluster A2.

Info for manual annotations of cluster A3:

- Start number 8 was manually annotated 15 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 6 was manually annotated 20 times for cluster A4.
- Start number 7 was manually annotated 10 times for cluster A4.

Gene Information:

Gene: AN9_70 Start: 41277, Stop: 41041, Start Num: 9

Candidate Starts for AN9_70:

(Start: 7 @41304 has 11 MA's), (Start: 9 @41277 has 48 MA's), (10, 41259), (15, 41226), (17, 41139),

Gene: ANI8_70 Start: 41277, Stop: 41041, Start Num: 9

Candidate Starts for ANI8_70:

(Start: 7 @41304 has 11 MA's), (Start: 9 @41277 has 48 MA's), (10, 41259), (15, 41226), (17, 41139),

Gene: Abdiel_62 Start: 40510, Stop: 40244, Start Num: 6

Candidate Starts for Abdiel_62:

(Start: 6 @40510 has 20 MA's), (Start: 7 @40498 has 11 MA's), (Start: 9 @40468 has 48 MA's), (12, 40447), (22, 40291), (25, 40252),

Gene: Adzzy_69 Start: 39937, Stop: 39698, Start Num: 9

Candidate Starts for Adzzy_69:

(Start: 9 @39937 has 48 MA's), (10, 39919), (15, 39886), (17, 39799), (21, 39766), (25, 39706),

Gene: Aneem_67 Start: 40626, Stop: 40393, Start Num: 9

Candidate Starts for Aneem_67:

(Start: 9 @40626 has 48 MA's), (10, 40608), (16, 40524), (19, 40464), (20, 40458),

Gene: Anubis_71 Start: 41084, Stop: 40827, Start Num: 8

Candidate Starts for Anubis_71:

(Start: 8 @41084 has 15 MA's), (Start: 9 @41057 has 48 MA's), (17, 40928), (22, 40874),

Gene: ArcherNM_60 Start: 40803, Stop: 40570, Start Num: 9

Candidate Starts for ArcherNM_60:

(Start: 7 @40833 has 11 MA's), (Start: 9 @40803 has 48 MA's), (10, 40785), (15, 40752), (18, 40656), (24, 40593),

Gene: Avle17_62 Start: 40491, Stop: 40237, Start Num: 7

Candidate Starts for Avle17_62:

(Start: 6 @40503 has 20 MA's), (Start: 7 @40491 has 11 MA's), (Start: 9 @40461 has 48 MA's), (12, 40440), (22, 40284), (25, 40245),

Gene: Bachome_68 Start: 40606, Stop: 40373, Start Num: 9

Candidate Starts for Bachome_68:

(Start: 7 @40648 has 11 MA's), (Start: 9 @40606 has 48 MA's), (10, 40588), (16, 40504), (19, 40444), (20, 40438),

Gene: Bombshell_62 Start: 40503, Stop: 40237, Start Num: 6
Candidate Starts for Bombshell_62:
(Start: 6 @40503 has 20 MA's), (Start: 7 @40491 has 11 MA's), (Start: 9 @40461 has 48 MA's), (12, 40440), (22, 40284), (25, 40245),

Gene: Bowtie_67 Start: 40633, Stop: 40400, Start Num: 9
Candidate Starts for Bowtie_67:
(Start: 9 @40633 has 48 MA's), (10, 40615), (16, 40531), (19, 40471), (20, 40465),

Gene: Bradman_68 Start: 40388, Stop: 40152, Start Num: 9
Candidate Starts for Bradman_68:
(2, 40448), (Start: 7 @40415 has 11 MA's), (Start: 9 @40388 has 48 MA's), (10, 40370), (15, 40337), (17, 40250),

Gene: BreSam8_68 Start: 41191, Stop: 40934, Start Num: 8
Candidate Starts for BreSam8_68:
(Start: 8 @41191 has 15 MA's), (Start: 9 @41164 has 48 MA's), (17, 41035), (22, 40981),

Gene: Bruiser_61 Start: 40506, Stop: 40240, Start Num: 6
Candidate Starts for Bruiser_61:
(Start: 6 @40506 has 20 MA's), (Start: 7 @40494 has 11 MA's), (Start: 9 @40464 has 48 MA's), (12, 40443), (22, 40287), (25, 40248),

Gene: BubbleTrouble_61 Start: 40506, Stop: 40240, Start Num: 6
Candidate Starts for BubbleTrouble_61:
(Start: 6 @40506 has 20 MA's), (Start: 7 @40494 has 11 MA's), (Start: 9 @40464 has 48 MA's), (12, 40443), (22, 40287), (25, 40248),

Gene: Bud_65 Start: 40180, Stop: 39947, Start Num: 9
Candidate Starts for Bud_65:
(Start: 9 @40180 has 48 MA's), (10, 40162), (16, 40078), (19, 40018), (20, 40012),

Gene: C3_63 Start: 41277, Stop: 41041, Start Num: 9
Candidate Starts for C3_63:
(Start: 7 @41304 has 11 MA's), (Start: 9 @41277 has 48 MA's), (10, 41259), (15, 41226), (17, 41139),

Gene: Camperdownii_60 Start: 40180, Stop: 39914, Start Num: 6
Candidate Starts for Camperdownii_60:
(Start: 6 @40180 has 20 MA's), (Start: 7 @40168 has 11 MA's), (Start: 9 @40138 has 48 MA's), (12, 40117), (22, 39961), (25, 39922),

Gene: Changeling_65 Start: 41651, Stop: 41418, Start Num: 9
Candidate Starts for Changeling_65:
(Start: 9 @41651 has 48 MA's), (10, 41633), (15, 41600), (18, 41504), (24, 41441), (25, 41426),

Gene: Che12_69 Start: 39901, Stop: 39662, Start Num: 9
Candidate Starts for Che12_69:
(Start: 7 @39925 has 11 MA's), (Start: 9 @39901 has 48 MA's), (10, 39883), (15, 39850), (17, 39763), (21, 39730), (25, 39670),

Gene: Clarenza_61 Start: 40503, Stop: 40237, Start Num: 6
Candidate Starts for Clarenza_61:

(Start: 6 @40503 has 20 MA's), (Start: 7 @40491 has 11 MA's), (Start: 9 @40461 has 48 MA's), (12, 40440), (22, 40284), (25, 40245),

Gene: Cocoaberry_62 Start: 40498, Stop: 40244, Start Num: 7

Candidate Starts for Cocoaberry_62:

(Start: 6 @40510 has 20 MA's), (Start: 7 @40498 has 11 MA's), (Start: 9 @40468 has 48 MA's), (12, 40447), (22, 40291), (25, 40252),

Gene: Colbster_66 Start: 41201, Stop: 40944, Start Num: 8

Candidate Starts for Colbster_66:

(Start: 8 @41201 has 15 MA's), (Start: 9 @41174 has 48 MA's), (17, 41045), (22, 40991),

Gene: D29_63 Start: 41454, Stop: 41065, Start Num: 1

Candidate Starts for D29_63:

(Start: 1 @41454 has 1 MA's), (Start: 7 @41328 has 11 MA's), (Start: 9 @41301 has 48 MA's), (10, 41283), (15, 41250), (17, 41163),

Gene: D32_67 Start: 41301, Stop: 41065, Start Num: 9

Candidate Starts for D32_67:

(Start: 1 @41454 has 1 MA's), (Start: 7 @41328 has 11 MA's), (Start: 9 @41301 has 48 MA's), (10, 41283), (15, 41250), (17, 41163),

Gene: DBQu4n_68 Start: 41336, Stop: 41046, Start Num: 4

Candidate Starts for DBQu4n_68:

(Start: 4 @41336 has 1 MA's), (Start: 7 @41309 has 11 MA's), (Start: 9 @41282 has 48 MA's), (10, 41264), (15, 41231), (17, 41144),

Gene: DaHudson_67 Start: 41190, Stop: 40933, Start Num: 8

Candidate Starts for DaHudson_67:

(Start: 8 @41190 has 15 MA's), (Start: 9 @41163 has 48 MA's), (17, 41034), (22, 40980),

Gene: Daishi_67 Start: 40066, Stop: 39809, Start Num: 8

Candidate Starts for Daishi_67:

(Start: 8 @40066 has 15 MA's), (Start: 9 @40039 has 48 MA's), (17, 39910), (22, 39856),

Gene: Duplo_68 Start: 41338, Stop: 41102, Start Num: 9

Candidate Starts for Duplo_68:

(Start: 1 @41491 has 1 MA's), (Start: 7 @41365 has 11 MA's), (Start: 9 @41338 has 48 MA's), (10, 41320), (15, 41287), (17, 41200),

Gene: Ebony_66 Start: 40197, Stop: 39964, Start Num: 9

Candidate Starts for Ebony_66:

(Start: 9 @40197 has 48 MA's), (10, 40179), (16, 40095), (19, 40035), (20, 40029),

Gene: Eris_61 Start: 40509, Stop: 40255, Start Num: 7

Candidate Starts for Eris_61:

(Start: 7 @40509 has 11 MA's), (Start: 9 @40479 has 48 MA's), (12, 40458), (22, 40302), (25, 40263),

Gene: Et2Brutus_65 Start: 40160, Stop: 39927, Start Num: 9

Candidate Starts for Et2Brutus_65:

(Start: 9 @40160 has 48 MA's), (10, 40142), (16, 40058), (19, 39998), (20, 39992),

Gene: Fibonacci_66 Start: 40166, Stop: 39933, Start Num: 9

Candidate Starts for Fibonacci_66:

(Start: 9 @40166 has 48 MA's), (10, 40148), (16, 40064), (19, 40004), (20, 39998),

Gene: Flaverint_67 Start: 40624, Stop: 40391, Start Num: 9

Candidate Starts for Flaverint_67:

(Start: 9 @40624 has 48 MA's), (10, 40606), (16, 40522), (19, 40462), (20, 40456),

Gene: Flux_62 Start: 40493, Stop: 40239, Start Num: 7

Candidate Starts for Flux_62:

(Start: 6 @40505 has 20 MA's), (Start: 7 @40493 has 11 MA's), (Start: 9 @40463 has 48 MA's), (12, 40442), (22, 40286), (25, 40247),

Gene: Funston_61 Start: 40506, Stop: 40240, Start Num: 6

Candidate Starts for Funston_61:

(Start: 6 @40506 has 20 MA's), (Start: 7 @40494 has 11 MA's), (Start: 9 @40464 has 48 MA's), (12, 40443), (22, 40287), (25, 40248),

Gene: Gilberta_67 Start: 40617, Stop: 40384, Start Num: 9

Candidate Starts for Gilberta_67:

(Start: 9 @40617 has 48 MA's), (10, 40599), (16, 40515), (19, 40455), (20, 40449),

Gene: HamSlice_59 Start: 40504, Stop: 40238, Start Num: 6

Candidate Starts for HamSlice_59:

(Start: 6 @40504 has 20 MA's), (Start: 7 @40492 has 11 MA's), (Start: 9 @40462 has 48 MA's), (12, 40441), (22, 40285), (25, 40246),

Gene: Herbertwm_62 Start: 40747, Stop: 40508, Start Num: 9

Candidate Starts for Herbertwm_62:

(3, 40801), (Start: 9 @40747 has 48 MA's), (10, 40729),

Gene: Hercules11_68 Start: 41206, Stop: 40949, Start Num: 8

Candidate Starts for Hercules11_68:

(Start: 8 @41206 has 15 MA's), (Start: 9 @41179 has 48 MA's), (17, 41050), (22, 40996),

Gene: Hutc2_65 Start: 40166, Stop: 39933, Start Num: 9

Candidate Starts for Hutc2_65:

(Start: 9 @40166 has 48 MA's), (10, 40148), (16, 40064), (19, 40004), (20, 39998),

Gene: Insomnia_67 Start: 40605, Stop: 40372, Start Num: 9

Candidate Starts for Insomnia_67:

(Start: 9 @40605 has 48 MA's), (10, 40587), (16, 40503), (19, 40443), (20, 40437),

Gene: Iracema64_63 Start: 40773, Stop: 40507, Start Num: 6

Candidate Starts for Iracema64_63:

(Start: 6 @40773 has 20 MA's), (Start: 7 @40761 has 11 MA's), (Start: 9 @40731 has 48 MA's), (12, 40710), (22, 40554), (25, 40515),

Gene: Jabith_67 Start: 40606, Stop: 40373, Start Num: 9

Candidate Starts for Jabith_67:

(Start: 7 @40648 has 11 MA's), (Start: 9 @40606 has 48 MA's), (10, 40588), (16, 40504), (19, 40444), (20, 40438),

Gene: JoongJeon_61 Start: 40503, Stop: 40237, Start Num: 6

Candidate Starts for JoongJeon_61:

(Start: 6 @40503 has 20 MA's), (Start: 7 @40491 has 11 MA's), (Start: 9 @40461 has 48 MA's), (12, 40440), (22, 40284), (25, 40245),

Gene: Joselito_67 Start: 40626, Stop: 40393, Start Num: 9

Candidate Starts for Joselito_67:

(Start: 7 @40668 has 11 MA's), (Start: 9 @40626 has 48 MA's), (10, 40608), (16, 40524), (19, 40464), (20, 40458),

Gene: Jsquared_69 Start: 40546, Stop: 40310, Start Num: 9

Candidate Starts for Jsquared_69:

(Start: 7 @40573 has 11 MA's), (Start: 9 @40546 has 48 MA's), (10, 40528), (15, 40495), (17, 40408),

Gene: KFPoly_61 Start: 40500, Stop: 40234, Start Num: 6

Candidate Starts for KFPoly_61:

(Start: 6 @40500 has 20 MA's), (Start: 7 @40488 has 11 MA's), (Start: 9 @40458 has 48 MA's), (12, 40437), (22, 40281), (25, 40242),

Gene: Kerberos_68 Start: 41300, Stop: 41064, Start Num: 9

Candidate Starts for Kerberos_68:

(Start: 1 @41453 has 1 MA's), (Start: 7 @41327 has 11 MA's), (Start: 9 @41300 has 48 MA's), (10, 41282), (15, 41249), (17, 41162),

Gene: Kimba_65 Start: 40126, Stop: 39893, Start Num: 9

Candidate Starts for Kimba_65:

(Start: 7 @40168 has 11 MA's), (Start: 9 @40126 has 48 MA's), (10, 40108), (16, 40024), (19, 39964), (20, 39958),

Gene: Kinmap_66 Start: 39557, Stop: 39321, Start Num: 9

Candidate Starts for Kinmap_66:

(Start: 7 @39584 has 11 MA's), (Start: 9 @39557 has 48 MA's), (10, 39539), (11, 39533), (14, 39509),

Gene: Koduck_68 Start: 40131, Stop: 39895, Start Num: 9

Candidate Starts for Koduck_68:

(Start: 7 @40158 has 11 MA's), (Start: 9 @40131 has 48 MA's), (10, 40113), (15, 40080), (17, 39993),

Gene: Kratark_61 Start: 40504, Stop: 40238, Start Num: 6

Candidate Starts for Kratark_61:

(Start: 6 @40504 has 20 MA's), (Start: 7 @40492 has 11 MA's), (Start: 9 @40462 has 48 MA's), (12, 40441), (22, 40285), (25, 40246),

Gene: L5_63 Start: 40284, Stop: 40048, Start Num: 9

Candidate Starts for L5_63:

(Start: 7 @40311 has 11 MA's), (Start: 9 @40284 has 48 MA's), (10, 40266), (15, 40233), (17, 40146),

Gene: Lemur_62 Start: 40503, Stop: 40237, Start Num: 6

Candidate Starts for Lemur_62:

(Start: 6 @40503 has 20 MA's), (Start: 7 @40491 has 11 MA's), (Start: 9 @40461 has 48 MA's), (12, 40440), (22, 40284), (25, 40245),

Gene: LittleGuy_62 Start: 40390, Stop: 40136, Start Num: 7

Candidate Starts for LittleGuy_62:

(Start: 6 @40402 has 20 MA's), (Start: 7 @40390 has 11 MA's), (Start: 9 @40360 has 48 MA's), (12, 40339), (22, 40183), (25, 40144),

Gene: Lucivia_67 Start: 40675, Stop: 40442, Start Num: 9

Candidate Starts for Lucivia_67:

(Start: 9 @40675 has 48 MA's), (10, 40657), (16, 40573), (19, 40513), (20, 40507),

Gene: MaCh_66 Start: 40605, Stop: 40372, Start Num: 9

Candidate Starts for MaCh_66:

(Start: 7 @40647 has 11 MA's), (Start: 9 @40605 has 48 MA's), (10, 40587), (16, 40503), (19, 40443), (20, 40437),

Gene: Mabel_66 Start: 40622, Stop: 40389, Start Num: 9

Candidate Starts for Mabel_66:

(Start: 9 @40622 has 48 MA's), (10, 40604), (16, 40520), (19, 40460), (20, 40454),

Gene: MajorMajor_67 Start: 40388, Stop: 40152, Start Num: 9

Candidate Starts for MajorMajor_67:

(2, 40448), (Start: 7 @40415 has 11 MA's), (Start: 9 @40388 has 48 MA's), (10, 40370), (15, 40337), (17, 40250),

Gene: Maverick_61 Start: 40494, Stop: 40240, Start Num: 7

Candidate Starts for Maverick_61:

(Start: 6 @40506 has 20 MA's), (Start: 7 @40494 has 11 MA's), (Start: 9 @40464 has 48 MA's), (12, 40443), (22, 40287), (25, 40248),

Gene: Medusa_62 Start: 40508, Stop: 40254, Start Num: 7

Candidate Starts for Medusa_62:

(Start: 6 @40520 has 20 MA's), (Start: 7 @40508 has 11 MA's), (Start: 9 @40478 has 48 MA's), (12, 40457), (22, 40301), (25, 40262),

Gene: Millski_61 Start: 40507, Stop: 40241, Start Num: 6

Candidate Starts for Millski_61:

(Start: 6 @40507 has 20 MA's), (Start: 7 @40495 has 11 MA's), (Start: 9 @40465 has 48 MA's), (12, 40444), (22, 40288), (25, 40249),

Gene: Misomonster_69 Start: 41224, Stop: 40967, Start Num: 8

Candidate Starts for Misomonster_69:

(Start: 8 @41224 has 15 MA's), (Start: 9 @41197 has 48 MA's), (17, 41068),

Gene: MissWhite_66 Start: 40337, Stop: 40101, Start Num: 9

Candidate Starts for MissWhite_66:

(5, 40382), (Start: 7 @40364 has 11 MA's), (Start: 9 @40337 has 48 MA's), (10, 40319), (15, 40286), (17, 40199),

Gene: Mulciber_65 Start: 40163, Stop: 39930, Start Num: 9

Candidate Starts for Mulciber_65:

(Start: 9 @40163 has 48 MA's), (10, 40145), (16, 40061), (19, 40001), (20, 39995),

Gene: Munch_66 Start: 40626, Stop: 40393, Start Num: 9

Candidate Starts for Munch_66:

(Start: 9 @40626 has 48 MA's), (10, 40608), (16, 40524), (19, 40464), (20, 40458),

Gene: Naji_68 Start: 41301, Stop: 41065, Start Num: 9

Candidate Starts for Naji_68:

(Start: 1 @41454 has 1 MA's), (Start: 7 @41328 has 11 MA's), (Start: 9 @41301 has 48 MA's), (10, 41283), (15, 41250), (17, 41163),

Gene: Nyxis_61 Start: 40384, Stop: 40130, Start Num: 7

Candidate Starts for Nyxis_61:

(Start: 6 @40396 has 20 MA's), (Start: 7 @40384 has 11 MA's), (Start: 9 @40354 has 48 MA's), (12, 40333), (22, 40177), (25, 40138),

Gene: Odin_66 Start: 40072, Stop: 39833, Start Num: 9

Candidate Starts for Odin_66:

(Start: 9 @40072 has 48 MA's), (10, 40054), (13, 40033), (15, 40021), (17, 39934),

Gene: Orange_65 Start: 40175, Stop: 39942, Start Num: 9

Candidate Starts for Orange_65:

(Start: 9 @40175 has 48 MA's), (10, 40157), (16, 40073), (19, 40013), (20, 40007),

Gene: PGHhamlin_70 Start: 41189, Stop: 40932, Start Num: 8

Candidate Starts for PGHhamlin_70:

(Start: 8 @41189 has 15 MA's), (Start: 9 @41162 has 48 MA's), (17, 41033), (22, 40979),

Gene: Palestino_61 Start: 40506, Stop: 40240, Start Num: 6

Candidate Starts for Palestino_61:

(Start: 6 @40506 has 20 MA's), (Start: 7 @40494 has 11 MA's), (Start: 9 @40464 has 48 MA's), (12, 40443), (22, 40287), (25, 40248),

Gene: Pembroke_68 Start: 41198, Stop: 40941, Start Num: 8

Candidate Starts for Pembroke_68:

(Start: 8 @41198 has 15 MA's), (Start: 9 @41171 has 48 MA's), (17, 41042), (22, 40988),

Gene: Petersenfast_64 Start: 40174, Stop: 39941, Start Num: 9

Candidate Starts for Petersenfast_64:

(Start: 9 @40174 has 48 MA's), (10, 40156), (16, 40072), (19, 40012), (20, 40006),

Gene: Ph8s_69 Start: 40234, Stop: 39995, Start Num: 9

Candidate Starts for Ph8s_69:

(Start: 7 @40258 has 11 MA's), (Start: 9 @40234 has 48 MA's), (10, 40216), (15, 40183), (17, 40096), (21, 40063), (25, 40003),

Gene: Phacado_62 Start: 40505, Stop: 40239, Start Num: 6

Candidate Starts for Phacado_62:

(Start: 6 @40505 has 20 MA's), (Start: 7 @40493 has 11 MA's), (Start: 9 @40463 has 48 MA's), (12, 40442), (22, 40286), (25, 40247),

Gene: Phighter1804_62 Start: 40570, Stop: 40304, Start Num: 6

Candidate Starts for Phighter1804_62:

(Start: 6 @40570 has 20 MA's), (Start: 7 @40558 has 11 MA's), (Start: 9 @40528 has 48 MA's), (12, 40507), (22, 40351), (25, 40312),

Gene: Phoebe_69 Start: 41190, Stop: 40933, Start Num: 8

Candidate Starts for Phoebe_69:

(Start: 8 @41190 has 15 MA's), (Start: 9 @41163 has 48 MA's), (17, 41034), (22, 40980),

Gene: Pomar16_67 Start: 41341, Stop: 41105, Start Num: 9

Candidate Starts for Pomar16_67:

(Start: 1 @41494 has 1 MA's), (Start: 7 @41368 has 11 MA's), (Start: 9 @41341 has 48 MA's), (10, 41323), (15, 41290), (17, 41203),

Gene: Quokka_67 Start: 40388, Stop: 40152, Start Num: 9

Candidate Starts for Quokka_67:

(2, 40448), (Start: 7 @40415 has 11 MA's), (Start: 9 @40388 has 48 MA's), (10, 40370), (15, 40337), (17, 40250),

Gene: Sabertooth_62 Start: 40496, Stop: 40242, Start Num: 7

Candidate Starts for Sabertooth_62:

(Start: 6 @40508 has 20 MA's), (Start: 7 @40496 has 11 MA's), (Start: 9 @40466 has 48 MA's), (12, 40445), (22, 40289), (25, 40250),

Gene: Salz_65 Start: 40073, Stop: 39840, Start Num: 9

Candidate Starts for Salz_65:

(Start: 7 @40115 has 11 MA's), (Start: 9 @40073 has 48 MA's), (10, 40055), (16, 39971), (19, 39911), (20, 39905),

Gene: Saskia_66 Start: 40173, Stop: 39940, Start Num: 9

Candidate Starts for Saskia_66:

(Start: 9 @40173 has 48 MA's), (10, 40155), (16, 40071), (19, 40011), (20, 40005),

Gene: Serenity_69 Start: 40640, Stop: 40377, Start Num: 7

Candidate Starts for Serenity_69:

(Start: 7 @40640 has 11 MA's), (Start: 9 @40613 has 48 MA's), (10, 40595), (15, 40562), (17, 40475), (25, 40385),

Gene: Shaka_60 Start: 40491, Stop: 40237, Start Num: 7

Candidate Starts for Shaka_60:

(Start: 6 @40503 has 20 MA's), (Start: 7 @40491 has 11 MA's), (Start: 9 @40461 has 48 MA's), (12, 40440), (22, 40284), (25, 40245),

Gene: Sham4_66 Start: 40173, Stop: 39940, Start Num: 9

Candidate Starts for Sham4_66:

(Start: 9 @40173 has 48 MA's), (10, 40155), (16, 40071), (19, 40011), (20, 40005),

Gene: Snape_66 Start: 40165, Stop: 39932, Start Num: 9

Candidate Starts for Snape_66:

(Start: 9 @40165 has 48 MA's), (10, 40147), (16, 40063), (19, 40003), (20, 39997),

Gene: Snickers_68 Start: 41171, Stop: 40914, Start Num: 8

Candidate Starts for Snickers_68:

(Start: 8 @41171 has 15 MA's), (Start: 9 @41144 has 48 MA's), (17, 41015), (22, 40961),

Gene: SoYo_67 Start: 41109, Stop: 40852, Start Num: 8

Candidate Starts for SoYo_67:

(Start: 8 @41109 has 15 MA's), (Start: 9 @41082 has 48 MA's), (17, 40953), (22, 40899),

Gene: SoilDragon_68 Start: 40645, Stop: 40388, Start Num: 8

Candidate Starts for SoilDragon_68:

(Start: 8 @40645 has 15 MA's), (Start: 9 @40618 has 48 MA's), (17, 40489), (22, 40435), (23, 40420),

Gene: StarStuff_68 Start: 41303, Stop: 41067, Start Num: 9

Candidate Starts for StarStuff_68:

(Start: 1 @41456 has 1 MA's), (Start: 7 @41330 has 11 MA's), (Start: 9 @41303 has 48 MA's), (10, 41285), (15, 41252), (17, 41165),

Gene: SwirlSquare_71 Start: 40512, Stop: 40273, Start Num: 9

Candidate Starts for SwirlSquare_71:

(Start: 7 @40536 has 11 MA's), (Start: 9 @40512 has 48 MA's), (10, 40494), (15, 40461), (17, 40374),

Gene: Thanksgivukkah_61 Start: 40504, Stop: 40238, Start Num: 6

Candidate Starts for Thanksgivukkah_61:

(Start: 6 @40504 has 20 MA's), (Start: 7 @40492 has 11 MA's), (Start: 9 @40462 has 48 MA's), (12, 40441), (22, 40285), (25, 40246),

Gene: Timothy_66 Start: 40142, Stop: 39909, Start Num: 9

Candidate Starts for Timothy_66:

(Start: 9 @40142 has 48 MA's), (10, 40124), (16, 40040), (19, 39980), (20, 39974),

Gene: TinaFeyge_60 Start: 40501, Stop: 40235, Start Num: 6

Candidate Starts for TinaFeyge_60:

(Start: 6 @40501 has 20 MA's), (Start: 7 @40489 has 11 MA's), (Start: 9 @40459 has 48 MA's), (12, 40438), (22, 40282), (25, 40243),

Gene: TinyPebbles_67 Start: 41227, Stop: 40970, Start Num: 8

Candidate Starts for TinyPebbles_67:

(Start: 8 @41227 has 15 MA's), (Start: 9 @41200 has 48 MA's), (17, 41071),

Gene: TinyTimmy_66 Start: 40119, Stop: 39886, Start Num: 9

Candidate Starts for TinyTimmy_66:

(Start: 7 @40161 has 11 MA's), (Start: 9 @40119 has 48 MA's), (10, 40101), (16, 40017), (19, 39957), (20, 39951),

Gene: TipsytheTRex_65 Start: 40588, Stop: 40352, Start Num: 9

Candidate Starts for TipsytheTRex_65:

(Start: 7 @40615 has 11 MA's), (Start: 9 @40588 has 48 MA's), (10, 40570), (15, 40537), (17, 40450),

Gene: Tomathan_68 Start: 41350, Stop: 41114, Start Num: 9

Candidate Starts for Tomathan_68:

(Start: 1 @41503 has 1 MA's), (Start: 7 @41377 has 11 MA's), (Start: 9 @41350 has 48 MA's), (10, 41332), (15, 41299), (17, 41212),

Gene: Travvers_67 Start: 41300, Stop: 41064, Start Num: 9

Candidate Starts for Travvers_67:

(Start: 1 @41453 has 1 MA's), (Start: 7 @41327 has 11 MA's), (Start: 9 @41300 has 48 MA's), (10, 41282), (15, 41249), (17, 41162),

Gene: VC3_69 Start: 41277, Stop: 41041, Start Num: 9

Candidate Starts for VC3_69:

(Start: 7 @41304 has 11 MA's), (Start: 9 @41277 has 48 MA's), (10, 41259), (15, 41226), (17, 41139),

Gene: Wander_62 Start: 40503, Stop: 40237, Start Num: 6

Candidate Starts for Wander_62:

(Start: 6 @40503 has 20 MA's), (Start: 7 @40491 has 11 MA's), (Start: 9 @40461 has 48 MA's), (12, 40440), (22, 40284), (25, 40245),

Gene: Wolpertinger_64 Start: 40174, Stop: 39941, Start Num: 9

Candidate Starts for Wolpertinger_64:

(Start: 9 @40174 has 48 MA's), (10, 40156), (16, 40072), (19, 40012), (20, 40006),

Gene: Wooldri_70 Start: 41109, Stop: 40852, Start Num: 8

Candidate Starts for Wooldri_70:

(Start: 8 @41109 has 15 MA's), (Start: 9 @41082 has 48 MA's), (17, 40953), (22, 40899),