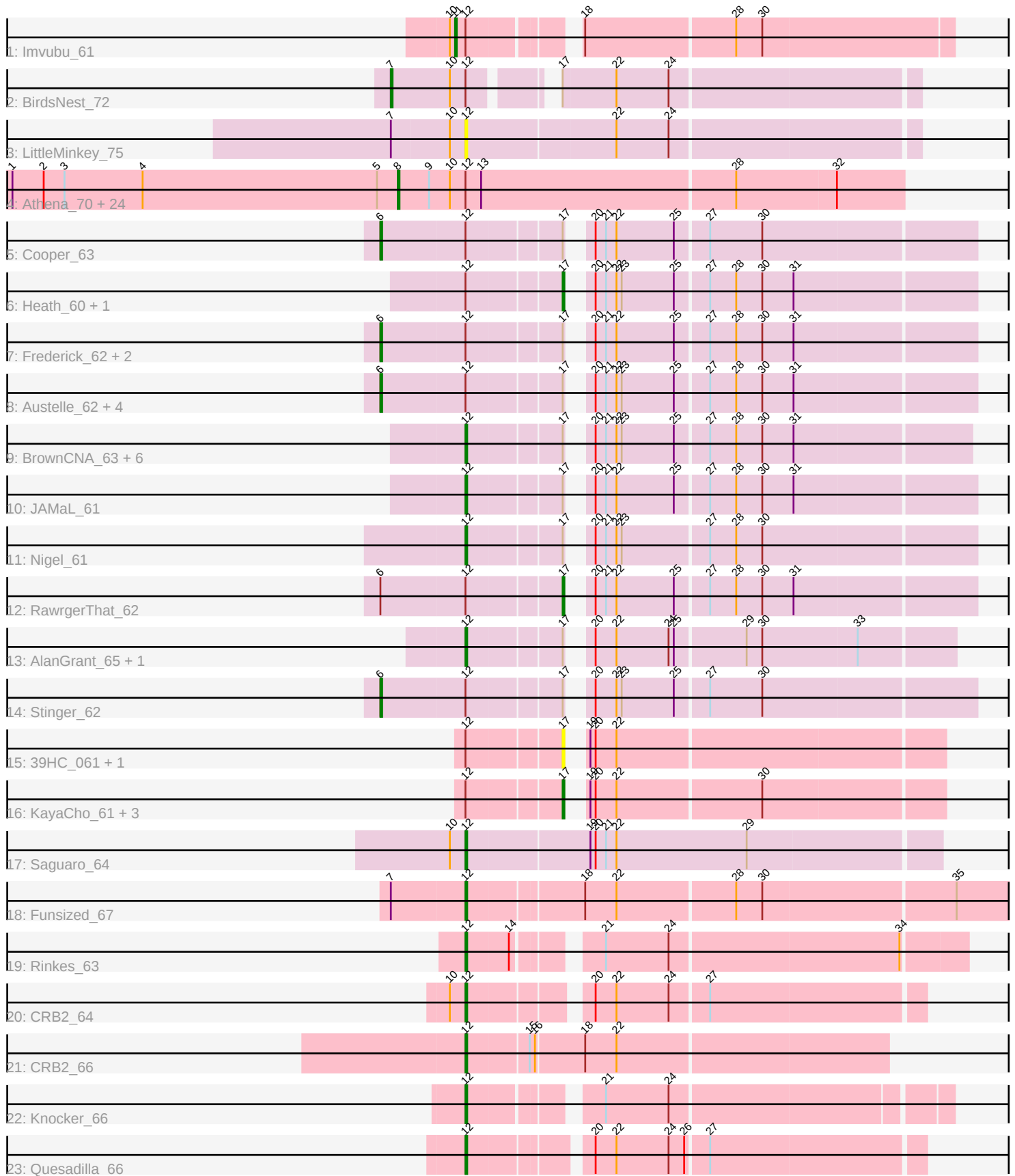


Pham 280430



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 280430 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280430 has 65 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Imvubu_61
- Track 2 : BirdsNest_72
- Track 3 : LittleMinkey_75
- Track 4 : Athena_70, Nozo_68, Heathcliff_68, SynergyX_68, GlenHope_69, Yinz_68, ChaChing_68, Audrey_68, Gadjet_69, Corofin_68, Chalmers_67, OrangeOswald_68, RomaT_68, Deenasa_68, Abinghost_68, Philly_67, Devonte_67, Glubnar_69, Casbah_68, TinyTerror_69, Jackstina_64, Rita1961_69, RagingRooster_67, Phlyer_68, Halfpint_67
- Track 5 : Cooper_63
- Track 6 : Heath_60, Zemanar_62
- Track 7 : Frederick_62, BobbyK_62, ChrisnMich_61
- Track 8 : Austelle_62, Mudslide_61, Hydro_61, Prince_61, Apex_62
- Track 9 : BrownCNA_63, VioletZ_63, Lolalove_62, Fortunato_62, Waleliano_61, Mithril_61, Hangman_61
- Track 10 : JAMaL_61
- Track 11 : Nigel_61
- Track 12 : RawrgerThat_62
- Track 13 : AlanGrant_65, Vincenzo_64
- Track 14 : Stinger_62
- Track 15 : 39HC_061, 40BC_061
- Track 16 : KayaCho_61, ForDig_62, Hosp_059, Jolie1_061
- Track 17 : Saguaro_64
- Track 18 : Funsized_67
- Track 19 : Rinkes_63
- Track 20 : CRB2_64
- Track 21 : CRB2_66
- Track 22 : Knocker_66
- Track 23 : Quesadilla_66

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

The start number called the most often in the published annotations is 8, it was called in 25 of the 60 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abinghost_68, Athena_70, Audrey_68, Casbah_68, ChaChing_68, Chalmers_67, Corofin_68, Deenasa_68, Devonte_67, Gadget_69, GlenHope_69, Glubnar_69, Halfpint_67, Heathcliff_68, Jackstina_64, Nozo_68, OrangeOswald_68, Philly_67, Phlyer_68, RagingRooster_67, Rita1961_69, RomaT_68, SynergyX_68, TinyTerror_69, Yinz_68,

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, AlanGrant_65, Apex_62, Austelle_62, BirdsNest_72, BobbyK_62, BrownCNA_63, CRB2_64, CRB2_66, ChrisnMich_61, Cooper_63, ForDig_62, Fortunato_62, Frederick_62, Funsized_67, Hangman_61, Heath_60, Hosp_059, Hydro_61, Imvubu_61, JAMaL_61, Jolie1_061, KayaCho_61, Knocker_66, LittleMinkey_75, Lolalove_62, Mithril_61, Mudslide_61, Nigel_61, Prince_61, Quesadilla_66, RawrgerThat_62, Rinkes_63, Saguaro_64, Stinger_62, Vincenzo_64, VioletZ_63, Waleliano_61, Zemanar_62,

Summary by start number:

Start 6:

- Found in 11 of 65 (16.9%) of genes in pham
- Manual Annotations of this start: 10 of 60
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Apex_62 (B4), Austelle_62 (B4), BobbyK_62 (B4), ChrisnMich_61 (B4), Cooper_63 (B4), Frederick_62 (B4), Hydro_61 (B4), Mudslide_61 (B4), Prince_61 (B4), Stinger_62 (B4),

Start 7:

- Found in 3 of 65 (4.6%) of genes in pham
- Manual Annotations of this start: 1 of 60
- Called 33.3% of time when present
- Phage (with cluster) where this start called: BirdsNest_72 (B13),

Start 8:

- Found in 25 of 65 (38.5%) of genes in pham
- Manual Annotations of this start: 25 of 60
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abinghost_68 (B3), Athena_70 (B3), Audrey_68 (B3), Casbah_68 (B3), ChaChing_68 (B3), Chalmers_67 (B3), Corofin_68 (B3), Deenasa_68 (B3), Devonte_67 (B3), Gadget_69 (B3), GlenHope_69 (B3), Glubnar_69 (B3), Halfpint_67 (B3), Heathcliff_68 (B3), Jackstina_64 (B3), Nozo_68 (B3), OrangeOswald_68 (B3), Philly_67 (B3), Phlyer_68 (B3), RagingRooster_67 (B3), Rita1961_69 (B3), RomaT_68 (B3), SynergyX_68 (B3), TinyTerror_69 (B3), Yinz_68 (B3),

Start 11:

- Found in 1 of 65 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 60
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Imvubu_61 (B10),

Start 12:

- Found in 65 of 65 (100.0%) of genes in pham
- Manual Annotations of this start: 18 of 60
- Called 29.2% of time when present
- Phage (with cluster) where this start called: AlanGrant_65 (B4), BrownCNA_63 (B4), CRB2_64 (B9), CRB2_66 (B9), Fortunato_62 (B4), Funsized_67 (B9), Hangman_61 (B4), JAMaL_61 (B4), Knocker_66 (B9), LittleMinkey_75 (B13), Lolalove_62 (B4), Mithril_61 (B4), Nigel_61 (B4), Quesadilla_66 (B9), Rinkes_63 (B9), Saguaro_64 (B7), Vincenzo_64 (B4), VioletZ_63 (B4), Waleliano_61 (B4),

Start 17:

- Found in 31 of 65 (47.7%) of genes in pham
- Manual Annotations of this start: 5 of 60
- Called 29.0% of time when present
- Phage (with cluster) where this start called: 39HC_061 (B6), 40BC_061 (B6), ForDig_62 (B6), Heath_60 (B4), Hosp_059 (B6), Jolie1_061 (B6), KayaCho_61 (B6), RawrgerThat_62 (B4), Zemanar_62 (B4),

Summary by clusters:

There are 7 clusters represented in this pham: B4, B6, B7, B13, B10, B3, B9,

Info for manual annotations of cluster B10:

- Start number 11 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B13:

- Start number 7 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B3:

- Start number 8 was manually annotated 25 times for cluster B3.

Info for manual annotations of cluster B4:

- Start number 6 was manually annotated 10 times for cluster B4.
- Start number 12 was manually annotated 11 times for cluster B4.
- Start number 17 was manually annotated 3 times for cluster B4.

Info for manual annotations of cluster B6:

- Start number 17 was manually annotated 2 times for cluster B6.

Info for manual annotations of cluster B7:

- Start number 12 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B9:

- Start number 12 was manually annotated 6 times for cluster B9.

Gene Information:

Gene: 39HC_061 Start: 56330, Stop: 56530, Start Num: 17

Candidate Starts for 39HC_061:

(Start: 12 @56279 has 18 MA's), (Start: 17 @56330 has 5 MA's), (19, 56333), (20, 56336), (22, 56348),

Gene: 40BC_061 Start: 56330, Stop: 56530, Start Num: 17

Candidate Starts for 40BC_061:

(Start: 12 @56279 has 18 MA's), (Start: 17 @56330 has 5 MA's), (19, 56333), (20, 56336), (22, 56348),

Gene: Abinghost_68 Start: 57207, Stop: 57494, Start Num: 8

Candidate Starts for Abinghost_68:

(1, 56985), (2, 57003), (3, 57015), (4, 57060), (5, 57195), (Start: 8 @57207 has 25 MA's), (9, 57225), (10, 57237), (Start: 12 @57246 has 18 MA's), (13, 57255), (28, 57399), (32, 57456),

Gene: AlanGrant_65 Start: 59138, Stop: 59395, Start Num: 12

Candidate Starts for AlanGrant_65:

(Start: 12 @59138 has 18 MA's), (Start: 17 @59189 has 5 MA's), (20, 59195), (22, 59207), (24, 59237), (25, 59240), (29, 59279), (30, 59288), (33, 59342),

Gene: Apex_62 Start: 58091, Stop: 58408, Start Num: 6

Candidate Starts for Apex_62:

(Start: 6 @58091 has 10 MA's), (Start: 12 @58139 has 18 MA's), (Start: 17 @58190 has 5 MA's), (20, 58196), (21, 58202), (22, 58208), (23, 58211), (25, 58241), (27, 58259), (28, 58274), (30, 58289), (31, 58307),

Gene: Athena_70 Start: 57982, Stop: 58269, Start Num: 8

Candidate Starts for Athena_70:

(1, 57760), (2, 57778), (3, 57790), (4, 57835), (5, 57970), (Start: 8 @57982 has 25 MA's), (9, 58000), (10, 58012), (Start: 12 @58021 has 18 MA's), (13, 58030), (28, 58174), (32, 58231),

Gene: Audrey_68 Start: 57246, Stop: 57533, Start Num: 8

Candidate Starts for Audrey_68:

(1, 57024), (2, 57042), (3, 57054), (4, 57099), (5, 57234), (Start: 8 @57246 has 25 MA's), (9, 57264), (10, 57276), (Start: 12 @57285 has 18 MA's), (13, 57294), (28, 57438), (32, 57495),

Gene: Austelle_62 Start: 58545, Stop: 58862, Start Num: 6

Candidate Starts for Austelle_62:

(Start: 6 @58545 has 10 MA's), (Start: 12 @58593 has 18 MA's), (Start: 17 @58644 has 5 MA's), (20, 58650), (21, 58656), (22, 58662), (23, 58665), (25, 58695), (27, 58713), (28, 58728), (30, 58743), (31, 58761),

Gene: BirdsNest_72 Start: 58539, Stop: 58814, Start Num: 7

Candidate Starts for BirdsNest_72:

(Start: 7 @58539 has 1 MA's), (10, 58572), (Start: 12 @58581 has 18 MA's), (Start: 17 @58617 has 5 MA's), (22, 58647), (24, 58677),

Gene: BobbyK_62 Start: 57853, Stop: 58170, Start Num: 6

Candidate Starts for BobbyK_62:

(Start: 6 @57853 has 10 MA's), (Start: 12 @57901 has 18 MA's), (Start: 17 @57952 has 5 MA's), (20, 57958), (21, 57964), (22, 57970), (25, 58003), (27, 58021), (28, 58036), (30, 58051), (31, 58069),

Gene: BrownCNA_63 Start: 58302, Stop: 58568, Start Num: 12

Candidate Starts for BrownCNA_63:

(Start: 12 @58302 has 18 MA's), (Start: 17 @58353 has 5 MA's), (20, 58359), (21, 58365), (22, 58371), (23, 58374), (25, 58404), (27, 58422), (28, 58437), (30, 58452), (31, 58470),

Gene: CRB2_64 Start: 58911, Stop: 59153, Start Num: 12

Candidate Starts for CRB2_64:

(10, 58902), (Start: 12 @58911 has 18 MA's), (20, 58971), (22, 58983), (24, 59013), (27, 59034),

Gene: CRB2_66 Start: 60189, Stop: 60422, Start Num: 12

Candidate Starts for CRB2_66:

(Start: 12 @60189 has 18 MA's), (15, 60222), (16, 60225), (18, 60252), (22, 60270),

Gene: Casbah_68 Start: 57566, Stop: 57853, Start Num: 8

Candidate Starts for Casbah_68:

(1, 57344), (2, 57362), (3, 57374), (4, 57419), (5, 57554), (Start: 8 @57566 has 25 MA's), (9, 57584), (10, 57596), (Start: 12 @57605 has 18 MA's), (13, 57614), (28, 57758), (32, 57815),

Gene: ChaChing_68 Start: 57264, Stop: 57551, Start Num: 8

Candidate Starts for ChaChing_68:

(1, 57042), (2, 57060), (3, 57072), (4, 57117), (5, 57252), (Start: 8 @57264 has 25 MA's), (9, 57282), (10, 57294), (Start: 12 @57303 has 18 MA's), (13, 57312), (28, 57456), (32, 57513),

Gene: Chalmers_67 Start: 57697, Stop: 57984, Start Num: 8

Candidate Starts for Chalmers_67:

(1, 57475), (2, 57493), (3, 57505), (4, 57550), (5, 57685), (Start: 8 @57697 has 25 MA's), (9, 57715), (10, 57727), (Start: 12 @57736 has 18 MA's), (13, 57745), (28, 57889), (32, 57946),

Gene: ChrisnMich_61 Start: 56895, Stop: 57212, Start Num: 6

Candidate Starts for ChrisnMich_61:

(Start: 6 @56895 has 10 MA's), (Start: 12 @56943 has 18 MA's), (Start: 17 @56994 has 5 MA's), (20, 57000), (21, 57006), (22, 57012), (25, 57045), (27, 57063), (28, 57078), (30, 57093), (31, 57111),

Gene: Cooper_63 Start: 57347, Stop: 57664, Start Num: 6

Candidate Starts for Cooper_63:

(Start: 6 @57347 has 10 MA's), (Start: 12 @57395 has 18 MA's), (Start: 17 @57446 has 5 MA's), (20, 57452), (21, 57458), (22, 57464), (25, 57497), (27, 57515), (30, 57545),

Gene: Corofin_68 Start: 57277, Stop: 57564, Start Num: 8

Candidate Starts for Corofin_68:

(1, 57055), (2, 57073), (3, 57085), (4, 57130), (5, 57265), (Start: 8 @57277 has 25 MA's), (9, 57295), (10, 57307), (Start: 12 @57316 has 18 MA's), (13, 57325), (28, 57469), (32, 57526),

Gene: Deenasa_68 Start: 58113, Stop: 58400, Start Num: 8

Candidate Starts for Deenasa_68:

(1, 57891), (2, 57909), (3, 57921), (4, 57966), (5, 58101), (Start: 8 @58113 has 25 MA's), (9, 58131), (10, 58143), (Start: 12 @58152 has 18 MA's), (13, 58161), (28, 58305), (32, 58362),

Gene: Devonte_67 Start: 56889, Stop: 57176, Start Num: 8

Candidate Starts for Devonte_67:

(1, 56667), (2, 56685), (3, 56697), (4, 56742), (5, 56877), (Start: 8 @56889 has 25 MA's), (9, 56907), (10, 56919), (Start: 12 @56928 has 18 MA's), (13, 56937), (28, 57081), (32, 57138),

Gene: ForDig_62 Start: 56642, Stop: 56842, Start Num: 17

Candidate Starts for ForDig_62:

(Start: 12 @56591 has 18 MA's), (Start: 17 @56642 has 5 MA's), (19, 56645), (20, 56648), (22, 56660), (30, 56741),

Gene: Fortunato_62 Start: 58000, Stop: 58269, Start Num: 12

Candidate Starts for Fortunato_62:

(Start: 12 @58000 has 18 MA's), (Start: 17 @58051 has 5 MA's), (20, 58057), (21, 58063), (22, 58069), (23, 58072), (25, 58102), (27, 58120), (28, 58135), (30, 58150), (31, 58168),

Gene: Frederick_62 Start: 57795, Stop: 58112, Start Num: 6

Candidate Starts for Frederick_62:

(Start: 6 @57795 has 10 MA's), (Start: 12 @57843 has 18 MA's), (Start: 17 @57894 has 5 MA's), (20, 57900), (21, 57906), (22, 57912), (25, 57945), (27, 57963), (28, 57978), (30, 57993), (31, 58011),

Gene: Funsized_67 Start: 60141, Stop: 60473, Start Num: 12

Candidate Starts for Funsized_67:

(Start: 7 @60099 has 1 MA's), (Start: 12 @60141 has 18 MA's), (18, 60204), (22, 60222), (28, 60288), (30, 60303), (35, 60411),

Gene: Gadget_69 Start: 57577, Stop: 57864, Start Num: 8

Candidate Starts for Gadget_69:

(1, 57355), (2, 57373), (3, 57385), (4, 57430), (5, 57565), (Start: 8 @57577 has 25 MA's), (9, 57595), (10, 57607), (Start: 12 @57616 has 18 MA's), (13, 57625), (28, 57769), (32, 57826),

Gene: GlenHope_69 Start: 57237, Stop: 57524, Start Num: 8

Candidate Starts for GlenHope_69:

(1, 57015), (2, 57033), (3, 57045), (4, 57090), (5, 57225), (Start: 8 @57237 has 25 MA's), (9, 57255), (10, 57267), (Start: 12 @57276 has 18 MA's), (13, 57285), (28, 57429), (32, 57486),

Gene: Glubnar_69 Start: 57143, Stop: 57430, Start Num: 8

Candidate Starts for Glubnar_69:

(1, 56921), (2, 56939), (3, 56951), (4, 56996), (5, 57131), (Start: 8 @57143 has 25 MA's), (9, 57161), (10, 57173), (Start: 12 @57182 has 18 MA's), (13, 57191), (28, 57335), (32, 57392),

Gene: Halfpint_67 Start: 56988, Stop: 57275, Start Num: 8

Candidate Starts for Halfpint_67:

(1, 56766), (2, 56784), (3, 56796), (4, 56841), (5, 56976), (Start: 8 @56988 has 25 MA's), (9, 57006), (10, 57018), (Start: 12 @57027 has 18 MA's), (13, 57036), (28, 57180), (32, 57237),

Gene: Hangman_61 Start: 58042, Stop: 58311, Start Num: 12

Candidate Starts for Hangman_61:

(Start: 12 @58042 has 18 MA's), (Start: 17 @58093 has 5 MA's), (20, 58099), (21, 58105), (22, 58111), (23, 58114), (25, 58144), (27, 58162), (28, 58177), (30, 58192), (31, 58210),

Gene: Heath_60 Start: 57720, Stop: 57938, Start Num: 17

Candidate Starts for Heath_60:

(Start: 12 @57669 has 18 MA's), (Start: 17 @57720 has 5 MA's), (20, 57726), (21, 57732), (22, 57738), (23, 57741), (25, 57771), (27, 57789), (28, 57804), (30, 57819), (31, 57837),

Gene: Heathcliff_68 Start: 57204, Stop: 57491, Start Num: 8

Candidate Starts for Heathcliff_68:

(1, 56982), (2, 57000), (3, 57012), (4, 57057), (5, 57192), (Start: 8 @57204 has 25 MA's), (9, 57222), (10, 57234), (Start: 12 @57243 has 18 MA's), (13, 57252), (28, 57396), (32, 57453),

Gene: Hosp_059 Start: 54555, Stop: 54755, Start Num: 17

Candidate Starts for Hosp_059:

(Start: 12 @54504 has 18 MA's), (Start: 17 @54555 has 5 MA's), (19, 54558), (20, 54561), (22, 54573), (30, 54654),

Gene: Hydro_61 Start: 57932, Stop: 58249, Start Num: 6

Candidate Starts for Hydro_61:

(Start: 6 @57932 has 10 MA's), (Start: 12 @57980 has 18 MA's), (Start: 17 @58031 has 5 MA's), (20, 58037), (21, 58043), (22, 58049), (23, 58052), (25, 58082), (27, 58100), (28, 58115), (30, 58130), (31, 58148),

Gene: Imvubu_61 Start: 56360, Stop: 56623, Start Num: 11

Candidate Starts for Imvubu_61:

(10, 56357), (Start: 11 @56360 has 1 MA's), (Start: 12 @56366 has 18 MA's), (18, 56417), (28, 56501), (30, 56516),

Gene: JAMaL_61 Start: 58031, Stop: 58300, Start Num: 12

Candidate Starts for JAMaL_61:

(Start: 12 @58031 has 18 MA's), (Start: 17 @58082 has 5 MA's), (20, 58088), (21, 58094), (22, 58100), (25, 58133), (27, 58151), (28, 58166), (30, 58181), (31, 58199),

Gene: Jackstina_64 Start: 57129, Stop: 57416, Start Num: 8

Candidate Starts for Jackstina_64:

(1, 56907), (2, 56925), (3, 56937), (4, 56982), (5, 57117), (Start: 8 @57129 has 25 MA's), (9, 57147), (10, 57159), (Start: 12 @57168 has 18 MA's), (13, 57177), (28, 57321), (32, 57378),

Gene: Jolie1_061 Start: 56473, Stop: 56673, Start Num: 17

Candidate Starts for Jolie1_061:

(Start: 12 @56422 has 18 MA's), (Start: 17 @56473 has 5 MA's), (19, 56476), (20, 56479), (22, 56491), (30, 56572),

Gene: KayaCho_61 Start: 56583, Stop: 56783, Start Num: 17

Candidate Starts for KayaCho_61:

(Start: 12 @56532 has 18 MA's), (Start: 17 @56583 has 5 MA's), (19, 56586), (20, 56589), (22, 56601), (30, 56682),

Gene: Knocker_66 Start: 59276, Stop: 59527, Start Num: 12

Candidate Starts for Knocker_66:

(Start: 12 @59276 has 18 MA's), (21, 59339), (24, 59375),

Gene: LittleMinkey_75 Start: 58467, Stop: 58718, Start Num: 12

Candidate Starts for LittleMinkey_75:

(Start: 7 @58425 has 1 MA's), (10, 58458), (Start: 12 @58467 has 18 MA's), (22, 58551), (24, 58581),

Gene: Lolalove_62 Start: 58003, Stop: 58272, Start Num: 12

Candidate Starts for Lolalove_62:

(Start: 12 @58003 has 18 MA's), (Start: 17 @58054 has 5 MA's), (20, 58060), (21, 58066), (22, 58072), (23, 58075), (25, 58105), (27, 58123), (28, 58138), (30, 58153), (31, 58171),

Gene: Mithril_61 Start: 58157, Stop: 58423, Start Num: 12

Candidate Starts for Mithril_61:

(Start: 12 @58157 has 18 MA's), (Start: 17 @58208 has 5 MA's), (20, 58214), (21, 58220), (22, 58226), (23, 58229), (25, 58259), (27, 58277), (28, 58292), (30, 58307), (31, 58325),

Gene: Mudslide_61 Start: 58184, Stop: 58498, Start Num: 6

Candidate Starts for Mudslide_61:

(Start: 6 @58184 has 10 MA's), (Start: 12 @58232 has 18 MA's), (Start: 17 @58283 has 5 MA's), (20, 58289), (21, 58295), (22, 58301), (23, 58304), (25, 58334), (27, 58352), (28, 58367), (30, 58382), (31,

58400),

Gene: Nigel_61 Start: 57023, Stop: 57292, Start Num: 12

Candidate Starts for Nigel_61:

(Start: 12 @57023 has 18 MA's), (Start: 17 @57074 has 5 MA's), (20, 57080), (21, 57086), (22, 57092), (23, 57095), (27, 57143), (28, 57158), (30, 57173),

Gene: Nozo_68 Start: 58013, Stop: 58300, Start Num: 8

Candidate Starts for Nozo_68:

(1, 57791), (2, 57809), (3, 57821), (4, 57866), (5, 58001), (Start: 8 @58013 has 25 MA's), (9, 58031), (10, 58043), (Start: 12 @58052 has 18 MA's), (13, 58061), (28, 58205), (32, 58262),

Gene: OrangeOswald_68 Start: 57254, Stop: 57541, Start Num: 8

Candidate Starts for OrangeOswald_68:

(1, 57032), (2, 57050), (3, 57062), (4, 57107), (5, 57242), (Start: 8 @57254 has 25 MA's), (9, 57272), (10, 57284), (Start: 12 @57293 has 18 MA's), (13, 57302), (28, 57446), (32, 57503),

Gene: Philly_67 Start: 57066, Stop: 57353, Start Num: 8

Candidate Starts for Philly_67:

(1, 56844), (2, 56862), (3, 56874), (4, 56919), (5, 57054), (Start: 8 @57066 has 25 MA's), (9, 57084), (10, 57096), (Start: 12 @57105 has 18 MA's), (13, 57114), (28, 57258), (32, 57315),

Gene: Phlyer_68 Start: 57962, Stop: 58249, Start Num: 8

Candidate Starts for Phlyer_68:

(1, 57740), (2, 57758), (3, 57770), (4, 57815), (5, 57950), (Start: 8 @57962 has 25 MA's), (9, 57980), (10, 57992), (Start: 12 @58001 has 18 MA's), (13, 58010), (28, 58154), (32, 58211),

Gene: Prince_61 Start: 58088, Stop: 58405, Start Num: 6

Candidate Starts for Prince_61:

(Start: 6 @58088 has 10 MA's), (Start: 12 @58136 has 18 MA's), (Start: 17 @58187 has 5 MA's), (20, 58193), (21, 58199), (22, 58205), (23, 58208), (25, 58238), (27, 58256), (28, 58271), (30, 58286), (31, 58304),

Gene: Quesadilla_66 Start: 58228, Stop: 58470, Start Num: 12

Candidate Starts for Quesadilla_66:

(Start: 12 @58228 has 18 MA's), (20, 58288), (22, 58300), (24, 58330), (26, 58339), (27, 58351),

Gene: RagingRooster_67 Start: 56894, Stop: 57181, Start Num: 8

Candidate Starts for RagingRooster_67:

(1, 56672), (2, 56690), (3, 56702), (4, 56747), (5, 56882), (Start: 8 @56894 has 25 MA's), (9, 56912), (10, 56924), (Start: 12 @56933 has 18 MA's), (13, 56942), (28, 57086), (32, 57143),

Gene: RawrgerThat_62 Start: 58029, Stop: 58247, Start Num: 17

Candidate Starts for RawrgerThat_62:

(Start: 6 @57930 has 10 MA's), (Start: 12 @57978 has 18 MA's), (Start: 17 @58029 has 5 MA's), (20, 58035), (21, 58041), (22, 58047), (25, 58080), (27, 58098), (28, 58113), (30, 58128), (31, 58146),

Gene: Rinkes_63 Start: 57811, Stop: 58074, Start Num: 12

Candidate Starts for Rinkes_63:

(Start: 12 @57811 has 18 MA's), (14, 57835), (21, 57874), (24, 57910), (34, 58039),

Gene: Rita1961_69 Start: 57612, Stop: 57899, Start Num: 8

Candidate Starts for Rita1961_69:

(1, 57390), (2, 57408), (3, 57420), (4, 57465), (5, 57600), (Start: 8 @57612 has 25 MA's), (9, 57630), (10, 57642), (Start: 12 @57651 has 18 MA's), (13, 57660), (28, 57804), (32, 57861),

Gene: RomaT_68 Start: 57813, Stop: 58100, Start Num: 8

Candidate Starts for RomaT_68:

(1, 57591), (2, 57609), (3, 57621), (4, 57666), (5, 57801), (Start: 8 @57813 has 25 MA's), (9, 57831), (10, 57843), (Start: 12 @57852 has 18 MA's), (13, 57861), (28, 58005), (32, 58062),

Gene: Saguaro_64 Start: 57561, Stop: 57827, Start Num: 12

Candidate Starts for Saguaro_64:

(10, 57552), (Start: 12 @57561 has 18 MA's), (19, 57630), (20, 57633), (21, 57639), (22, 57645), (29, 57720),

Gene: Stinger_62 Start: 56901, Stop: 57218, Start Num: 6

Candidate Starts for Stinger_62:

(Start: 6 @56901 has 10 MA's), (Start: 12 @56949 has 18 MA's), (Start: 17 @57000 has 5 MA's), (20, 57006), (22, 57018), (23, 57021), (25, 57051), (27, 57069), (30, 57099),

Gene: SynergyX_68 Start: 57251, Stop: 57538, Start Num: 8

Candidate Starts for SynergyX_68:

(1, 57029), (2, 57047), (3, 57059), (4, 57104), (5, 57239), (Start: 8 @57251 has 25 MA's), (9, 57269), (10, 57281), (Start: 12 @57290 has 18 MA's), (13, 57299), (28, 57443), (32, 57500),

Gene: TinyTerror_69 Start: 57673, Stop: 57960, Start Num: 8

Candidate Starts for TinyTerror_69:

(1, 57451), (2, 57469), (3, 57481), (4, 57526), (5, 57661), (Start: 8 @57673 has 25 MA's), (9, 57691), (10, 57703), (Start: 12 @57712 has 18 MA's), (13, 57721), (28, 57865), (32, 57922),

Gene: Vincenzo_64 Start: 59168, Stop: 59425, Start Num: 12

Candidate Starts for Vincenzo_64:

(Start: 12 @59168 has 18 MA's), (Start: 17 @59219 has 5 MA's), (20, 59225), (22, 59237), (24, 59267), (25, 59270), (29, 59309), (30, 59318), (33, 59372),

Gene: VioletZ_63 Start: 58094, Stop: 58360, Start Num: 12

Candidate Starts for VioletZ_63:

(Start: 12 @58094 has 18 MA's), (Start: 17 @58145 has 5 MA's), (20, 58151), (21, 58157), (22, 58163), (23, 58166), (25, 58196), (27, 58214), (28, 58229), (30, 58244), (31, 58262),

Gene: Waleliano_61 Start: 58034, Stop: 58300, Start Num: 12

Candidate Starts for Waleliano_61:

(Start: 12 @58034 has 18 MA's), (Start: 17 @58085 has 5 MA's), (20, 58091), (21, 58097), (22, 58103), (23, 58106), (25, 58136), (27, 58154), (28, 58169), (30, 58184), (31, 58202),

Gene: Yinz_68 Start: 57121, Stop: 57408, Start Num: 8

Candidate Starts for Yinz_68:

(1, 56899), (2, 56917), (3, 56929), (4, 56974), (5, 57109), (Start: 8 @57121 has 25 MA's), (9, 57139), (10, 57151), (Start: 12 @57160 has 18 MA's), (13, 57169), (28, 57313), (32, 57370),

Gene: Zemanar_62 Start: 57920, Stop: 58138, Start Num: 17

Candidate Starts for Zemanar_62:

(Start: 12 @57869 has 18 MA's), (Start: 17 @57920 has 5 MA's), (20, 57926), (21, 57932), (22, 57938), (23, 57941), (25, 57971), (27, 57989), (28, 58004), (30, 58019), (31, 58037),