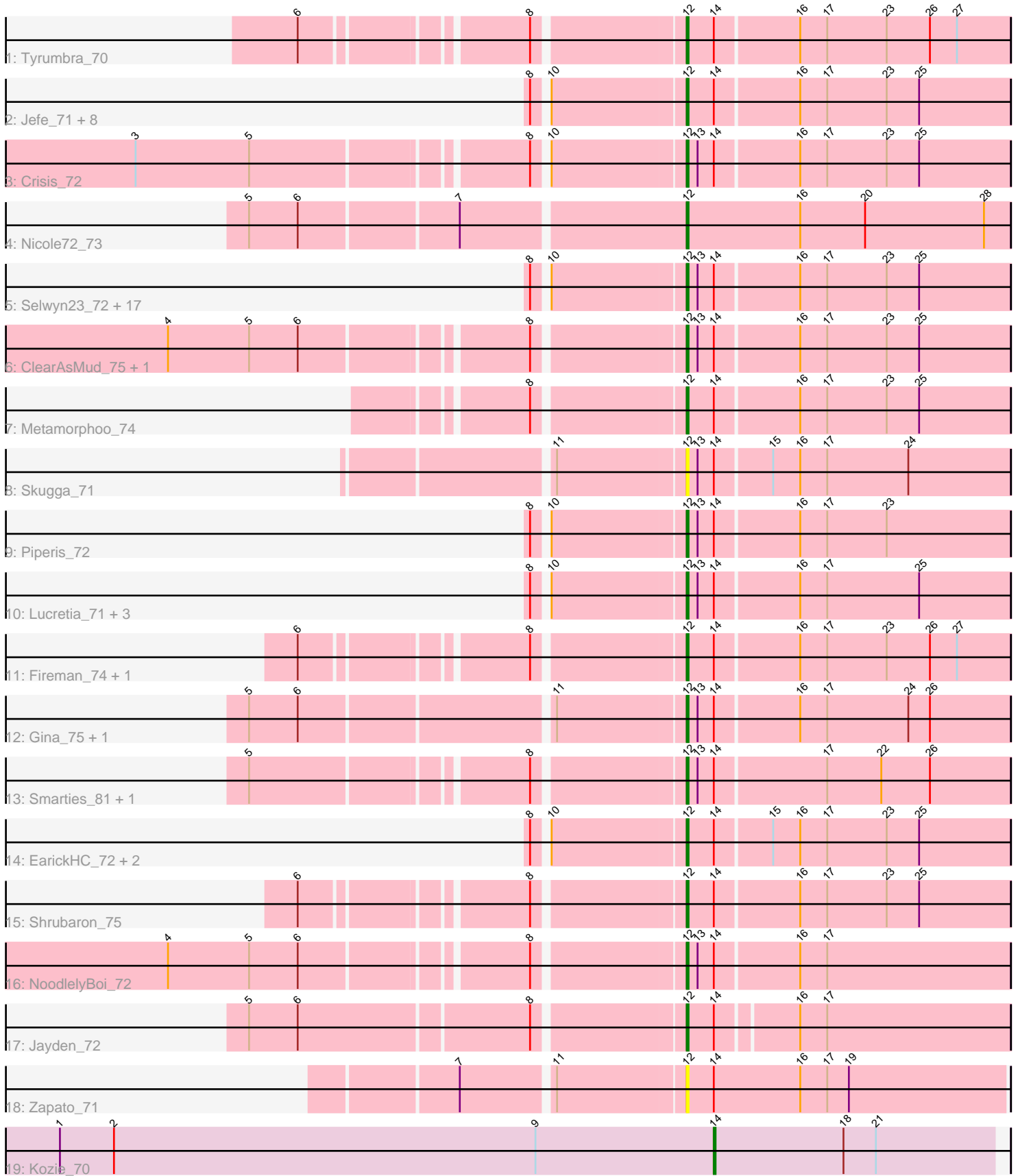


Pham 296640



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 296640 Report

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

Pham number 296640 has 53 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Tyrumbra_70
- Track 2 : Jefe_71, Yeti_73, BeagleBug_70, CrazyRich_70, LittleFortune_73, Hermeonysus_71, Honeyfin_72, PhedwardCullen_70, PierreOrion_71
- Track 3 : Crisis_72
- Track 4 : Nicole72_73
- Track 5 : Selwyn23_72, Quhwah_75, Onika_70, Glorp_72, Cranjis_72, Jollipop_72, PiperSansNom_72, Antares_71, Kowalski_70, Shotgun_71, Ganandorf_70, Scumberland_73, Rockwell_70, Germa_73, Paschalis_71, Ramiel05_70, Savannah_70, BrazzalePHS_70
- Track 6 : ClearAsMud_75, SirFrank_71
- Track 7 : Metamorphoo_74
- Track 8 : Skugga_71
- Track 9 : Piperis_72
- Track 10 : Lucretia_71, Phrancesco_71, Pulchra_73, Busephilis_70
- Track 11 : Fireman_74, RobsFeet_75
- Track 12 : Gina_75, Teamocil_75
- Track 13 : Smarties_81, Ariadne_81
- Track 14 : EarickHC_72, KaiHaiDragon_72, Phorgeous_71
- Track 15 : Shrubaron_75
- Track 16 : NoodlelyBoi_72
- Track 17 : Jayden_72
- Track 18 : Zapato_71
- Track 19 : Kozie_70

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

The start number called the most often in the published annotations is 12, it was called in 45 of the 46 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Antares_71, Ariadne_81, BeagleBug_70, BrazzalePHS_70, Busephilis_70, ClearAsMud_75, Cranjis_72, CrazyRich_70, Crisis_72, EarickHC_72, Fireman_74, Ganandorf_70, Germa_73, Gina_75, Glorp_72, Hermeonysus_71, Honeyfin_72, Jayden_72, Jefe_71, Jollipop_72, KaiHaiDragon_72, Kowalski_70, LittleFortune_73,

Lucretia_71, Metamorphoo_74, Nicole72_73, NoodlelyBoi_72, Onika_70, Paschalis_71, PhedwardCullen_70, Phorgeous_71, Phrancesco_71, PierreOrion_71, PiperSansNom_72, Piperis_72, Pulchra_73, Quhwah_75, Ramiel05_70, RobsFeet_75, Rockwell_70, Savannah_70, Scumberland_73, Selwyn23_72, Shotgun_71, Shrubaron_75, SirFrank_71, Skugga_71, Smarties_81, Teamocil_75, Tyrumbra_70, Yeti_73, Zapato_71,

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

-

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

- Kozie_70,

Summary by start number:

Start 12:

- Found in 52 of 53 (98.1%) of genes in pham
- Manual Annotations of this start: 45 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antares_71 (EC), Ariadne_81 (EC), BeagleBug_70 (EC), BrazzalePHS_70 (EC), Busephilis_70 (EC), ClearAsMud_75 (EC), Cranjis_72 (EC), CrazyRich_70 (EC), Crisis_72 (EC), EarickHC_72 (EC), Fireman_74 (EC), Ganandorf_70 (EC), Germa_73 (EC), Gina_75 (EC), Glorp_72 (EC), Hermeonysus_71 (EC), Honeyfin_72 (EC), Jayden_72 (EC), Jefe_71 (EC), Jollipop_72 (EC), KaiHaiDragon_72 (EC), Kowalski_70 (EC), LittleFortune_73 (EC), Lucretia_71 (EC), Metamorphoo_74 (EC), Nicole72_73 (EC), NoodlelyBoi_72 (EC), Onika_70 (EC), Paschalis_71 (EC), PhedwardCullen_70 (EC), Phorgeous_71 (EC), Phrancesco_71 (EC), PierreOrion_71 (EC), PiperSansNom_72 (EC), Piperis_72 (EC), Pulchra_73 (EC), Quhwah_75 (EC), Ramiel05_70 (EC), RobsFeet_75 (EC), Rockwell_70 (EC), Savannah_70 (EC), Scumberland_73 (EC), Selwyn23_72 (EC), Shotgun_71 (EC), Shrubaron_75 (EC), SirFrank_71 (EC), Skugga_71 (EC), Smarties_81 (EC), Teamocil_75 (EC), Tyrumbra_70 (EC), Yeti_73 (EC), Zapato_71 (EC),

Start 14:

- Found in 52 of 53 (98.1%) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 1.9% of time when present
- Phage (with cluster) where this start called: Kozie_70 (EI),

Summary by clusters:

There are 2 clusters represented in this pham: EI, EC,

Info for manual annotations of cluster EC:

- Start number 12 was manually annotated 45 times for cluster EC.

Info for manual annotations of cluster EI:

- Start number 14 was manually annotated 1 time for cluster EI.

Gene Information:

Gene: Antares_71 Start: 43482, Stop: 43658, Start Num: 12

Candidate Starts for Antares_71:

(8, 43404), (10, 43410), (Start: 12 @43482 has 45 MA's), (13, 43488), (Start: 14 @43497 has 1 MA's), (16, 43542), (17, 43557), (23, 43590), (25, 43608),

Gene: Ariadne_81 Start: 45071, Stop: 45247, Start Num: 12

Candidate Starts for Ariadne_81:

(5, 44852), (8, 44993), (Start: 12 @45071 has 45 MA's), (13, 45077), (Start: 14 @45086 has 1 MA's), (17, 45146), (22, 45176), (26, 45203),

Gene: BeagleBug_70 Start: 43262, Stop: 43438, Start Num: 12

Candidate Starts for BeagleBug_70:

(8, 43184), (10, 43190), (Start: 12 @43262 has 45 MA's), (Start: 14 @43277 has 1 MA's), (16, 43322), (17, 43337), (23, 43370), (25, 43388),

Gene: BrazzalePHS_70 Start: 43250, Stop: 43426, Start Num: 12

Candidate Starts for BrazzalePHS_70:

(8, 43172), (10, 43178), (Start: 12 @43250 has 45 MA's), (13, 43256), (Start: 14 @43265 has 1 MA's), (16, 43310), (17, 43325), (23, 43358), (25, 43376),

Gene: Busephilis_70 Start: 43189, Stop: 43365, Start Num: 12

Candidate Starts for Busephilis_70:

(8, 43111), (10, 43117), (Start: 12 @43189 has 45 MA's), (13, 43195), (Start: 14 @43204 has 1 MA's), (16, 43249), (17, 43264), (25, 43315),

Gene: ClearAsMud_75 Start: 43770, Stop: 43946, Start Num: 12

Candidate Starts for ClearAsMud_75:

(4, 43506), (5, 43551), (6, 43578), (8, 43692), (Start: 12 @43770 has 45 MA's), (13, 43776), (Start: 14 @43785 has 1 MA's), (16, 43830), (17, 43845), (23, 43878), (25, 43896),

Gene: Cranjis_72 Start: 43437, Stop: 43613, Start Num: 12

Candidate Starts for Cranjis_72:

(8, 43359), (10, 43365), (Start: 12 @43437 has 45 MA's), (13, 43443), (Start: 14 @43452 has 1 MA's), (16, 43497), (17, 43512), (23, 43545), (25, 43563),

Gene: CrazyRich_70 Start: 43243, Stop: 43419, Start Num: 12

Candidate Starts for CrazyRich_70:

(8, 43165), (10, 43171), (Start: 12 @43243 has 45 MA's), (Start: 14 @43258 has 1 MA's), (16, 43303), (17, 43318), (23, 43351), (25, 43369),

Gene: Crisis_72 Start: 43252, Stop: 43428, Start Num: 12

Candidate Starts for Crisis_72:

(3, 42970), (5, 43033), (8, 43174), (10, 43180), (Start: 12 @43252 has 45 MA's), (13, 43258), (Start: 14 @43267 has 1 MA's), (16, 43312), (17, 43327), (23, 43360), (25, 43378),

Gene: EarickHC_72 Start: 43174, Stop: 43350, Start Num: 12

Candidate Starts for EarickHC_72:

(8, 43096), (10, 43102), (Start: 12 @43174 has 45 MA's), (Start: 14 @43189 has 1 MA's), (15, 43219), (16, 43234), (17, 43249), (23, 43282), (25, 43300),

Gene: Fireman_74 Start: 45207, Stop: 45383, Start Num: 12

Candidate Starts for Fireman_74:

(6, 45018), (8, 45129), (Start: 12 @45207 has 45 MA's), (Start: 14 @45222 has 1 MA's), (16, 45267), (17, 45282), (23, 45315), (26, 45339), (27, 45354),

Gene: Ganandorf_70 Start: 43270, Stop: 43446, Start Num: 12

Candidate Starts for Ganandorf_70:

(8, 43192), (10, 43198), (Start: 12 @43270 has 45 MA's), (13, 43276), (Start: 14 @43285 has 1 MA's), (16, 43330), (17, 43345), (23, 43378), (25, 43396),

Gene: Germa_73 Start: 43100, Stop: 43276, Start Num: 12

Candidate Starts for Germa_73:

(8, 43022), (10, 43028), (Start: 12 @43100 has 45 MA's), (13, 43106), (Start: 14 @43115 has 1 MA's), (16, 43160), (17, 43175), (23, 43208), (25, 43226),

Gene: Gina_75 Start: 43324, Stop: 43500, Start Num: 12

Candidate Starts for Gina_75:

(5, 43096), (6, 43123), (11, 43255), (Start: 12 @43324 has 45 MA's), (13, 43330), (Start: 14 @43339 has 1 MA's), (16, 43384), (17, 43399), (24, 43444), (26, 43456),

Gene: Glorp_72 Start: 43234, Stop: 43410, Start Num: 12

Candidate Starts for Glorp_72:

(8, 43156), (10, 43162), (Start: 12 @43234 has 45 MA's), (13, 43240), (Start: 14 @43249 has 1 MA's), (16, 43294), (17, 43309), (23, 43342), (25, 43360),

Gene: Hermeonysus_71 Start: 43159, Stop: 43335, Start Num: 12

Candidate Starts for Hermeonysus_71:

(8, 43081), (10, 43087), (Start: 12 @43159 has 45 MA's), (Start: 14 @43174 has 1 MA's), (16, 43219), (17, 43234), (23, 43267), (25, 43285),

Gene: Honeyfin_72 Start: 43419, Stop: 43595, Start Num: 12

Candidate Starts for Honeyfin_72:

(8, 43341), (10, 43347), (Start: 12 @43419 has 45 MA's), (Start: 14 @43434 has 1 MA's), (16, 43479), (17, 43494), (23, 43527), (25, 43545),

Gene: Jayden_72 Start: 43680, Stop: 43853, Start Num: 12

Candidate Starts for Jayden_72:

(5, 43452), (6, 43479), (8, 43602), (Start: 12 @43680 has 45 MA's), (Start: 14 @43695 has 1 MA's), (16, 43737), (17, 43752),

Gene: Jefe_71 Start: 43220, Stop: 43396, Start Num: 12

Candidate Starts for Jefe_71:

(8, 43142), (10, 43148), (Start: 12 @43220 has 45 MA's), (Start: 14 @43235 has 1 MA's), (16, 43280), (17, 43295), (23, 43328), (25, 43346),

Gene: Jollipop_72 Start: 43608, Stop: 43784, Start Num: 12

Candidate Starts for Jollipop_72:

(8, 43530), (10, 43536), (Start: 12 @43608 has 45 MA's), (13, 43614), (Start: 14 @43623 has 1 MA's), (16, 43668), (17, 43683), (23, 43716), (25, 43734),

Gene: KaiHaiDragon_72 Start: 43174, Stop: 43350, Start Num: 12

Candidate Starts for KaiHaiDragon_72:

(8, 43096), (10, 43102), (Start: 12 @43174 has 45 MA's), (Start: 14 @43189 has 1 MA's), (15, 43219), (16, 43234), (17, 43249), (23, 43282), (25, 43300),

Gene: Kowalski_70 Start: 43245, Stop: 43421, Start Num: 12

Candidate Starts for Kowalski_70:

(8, 43167), (10, 43173), (Start: 12 @43245 has 45 MA's), (13, 43251), (Start: 14 @43260 has 1 MA's), (16, 43305), (17, 43320), (23, 43353), (25, 43371),

Gene: Kozie_70 Start: 44545, Stop: 44700, Start Num: 14

Candidate Starts for Kozie_70:

(1, 44182), (2, 44212), (9, 44446), (Start: 14 @44545 has 1 MA's), (18, 44617), (21, 44635),

Gene: LittleFortune_73 Start: 43530, Stop: 43706, Start Num: 12

Candidate Starts for LittleFortune_73:

(8, 43452), (10, 43458), (Start: 12 @43530 has 45 MA's), (Start: 14 @43545 has 1 MA's), (16, 43590), (17, 43605), (23, 43638), (25, 43656),

Gene: Lucretia_71 Start: 43152, Stop: 43328, Start Num: 12

Candidate Starts for Lucretia_71:

(8, 43074), (10, 43080), (Start: 12 @43152 has 45 MA's), (13, 43158), (Start: 14 @43167 has 1 MA's), (16, 43212), (17, 43227), (25, 43278),

Gene: Metamorphoo_74 Start: 44501, Stop: 44677, Start Num: 12

Candidate Starts for Metamorphoo_74:

(8, 44423), (Start: 12 @44501 has 45 MA's), (Start: 14 @44516 has 1 MA's), (16, 44561), (17, 44576), (23, 44609), (25, 44627),

Gene: Nicole72_73 Start: 48942, Stop: 49121, Start Num: 12

Candidate Starts for Nicole72_73:

(5, 48711), (6, 48738), (7, 48822), (Start: 12 @48942 has 45 MA's), (16, 49005), (20, 49041), (28, 49107),

Gene: NoodlelyBoi_72 Start: 44019, Stop: 44195, Start Num: 12

Candidate Starts for NoodlelyBoi_72:

(4, 43755), (5, 43800), (6, 43827), (8, 43941), (Start: 12 @44019 has 45 MA's), (13, 44025), (Start: 14 @44034 has 1 MA's), (16, 44079), (17, 44094),

Gene: Onika_70 Start: 43248, Stop: 43424, Start Num: 12

Candidate Starts for Onika_70:

(8, 43170), (10, 43176), (Start: 12 @43248 has 45 MA's), (13, 43254), (Start: 14 @43263 has 1 MA's), (16, 43308), (17, 43323), (23, 43356), (25, 43374),

Gene: Paschalis_71 Start: 43273, Stop: 43449, Start Num: 12

Candidate Starts for Paschalis_71:

(8, 43195), (10, 43201), (Start: 12 @43273 has 45 MA's), (13, 43279), (Start: 14 @43288 has 1 MA's), (16, 43333), (17, 43348), (23, 43381), (25, 43399),

Gene: PhedwardCullen_70 Start: 42990, Stop: 43166, Start Num: 12

Candidate Starts for PhedwardCullen_70:

(8, 42912), (10, 42918), (Start: 12 @42990 has 45 MA's), (Start: 14 @43005 has 1 MA's), (16, 43050), (17, 43065), (23, 43098), (25, 43116),

Gene: Phorgeous_71 Start: 43056, Stop: 43232, Start Num: 12

Candidate Starts for Phorgeous_71:

(8, 42978), (10, 42984), (Start: 12 @43056 has 45 MA's), (Start: 14 @43071 has 1 MA's), (15, 43101), (16, 43116), (17, 43131), (23, 43164), (25, 43182),

Gene: Phrancesco_71 Start: 43379, Stop: 43555, Start Num: 12

Candidate Starts for Phrancesco_71:

(8, 43301), (10, 43307), (Start: 12 @43379 has 45 MA's), (13, 43385), (Start: 14 @43394 has 1 MA's), (16, 43439), (17, 43454), (25, 43505),

Gene: PierreOrion_71 Start: 43485, Stop: 43661, Start Num: 12

Candidate Starts for PierreOrion_71:

(8, 43407), (10, 43413), (Start: 12 @43485 has 45 MA's), (Start: 14 @43500 has 1 MA's), (16, 43545), (17, 43560), (23, 43593), (25, 43611),

Gene: PiperSansNom_72 Start: 43558, Stop: 43734, Start Num: 12

Candidate Starts for PiperSansNom_72:

(8, 43480), (10, 43486), (Start: 12 @43558 has 45 MA's), (13, 43564), (Start: 14 @43573 has 1 MA's), (16, 43618), (17, 43633), (23, 43666), (25, 43684),

Gene: Piperis_72 Start: 43181, Stop: 43357, Start Num: 12

Candidate Starts for Piperis_72:

(8, 43103), (10, 43109), (Start: 12 @43181 has 45 MA's), (13, 43187), (Start: 14 @43196 has 1 MA's), (16, 43241), (17, 43256), (23, 43289),

Gene: Pulchra_73 Start: 43577, Stop: 43753, Start Num: 12

Candidate Starts for Pulchra_73:

(8, 43499), (10, 43505), (Start: 12 @43577 has 45 MA's), (13, 43583), (Start: 14 @43592 has 1 MA's), (16, 43637), (17, 43652), (25, 43703),

Gene: Quhwah_75 Start: 43866, Stop: 44042, Start Num: 12

Candidate Starts for Quhwah_75:

(8, 43788), (10, 43794), (Start: 12 @43866 has 45 MA's), (13, 43872), (Start: 14 @43881 has 1 MA's), (16, 43926), (17, 43941), (23, 43974), (25, 43992),

Gene: Ramiel05_70 Start: 43245, Stop: 43421, Start Num: 12

Candidate Starts for Ramiel05_70:

(8, 43167), (10, 43173), (Start: 12 @43245 has 45 MA's), (13, 43251), (Start: 14 @43260 has 1 MA's), (16, 43305), (17, 43320), (23, 43353), (25, 43371),

Gene: RobsFeet_75 Start: 44787, Stop: 44963, Start Num: 12

Candidate Starts for RobsFeet_75:

(6, 44598), (8, 44709), (Start: 12 @44787 has 45 MA's), (Start: 14 @44802 has 1 MA's), (16, 44847), (17, 44862), (23, 44895), (26, 44919), (27, 44934),

Gene: Rockwell_70 Start: 43269, Stop: 43445, Start Num: 12

Candidate Starts for Rockwell_70:

(8, 43191), (10, 43197), (Start: 12 @43269 has 45 MA's), (13, 43275), (Start: 14 @43284 has 1 MA's), (16, 43329), (17, 43344), (23, 43377), (25, 43395),

Gene: Savannah_70 Start: 43296, Stop: 43472, Start Num: 12

Candidate Starts for Savannah_70:

(8, 43218), (10, 43224), (Start: 12 @43296 has 45 MA's), (13, 43302), (Start: 14 @43311 has 1 MA's), (16, 43356), (17, 43371), (23, 43404), (25, 43422),

Gene: Scumberland_73 Start: 43491, Stop: 43667, Start Num: 12

Candidate Starts for Scumberland_73:

(8, 43413), (10, 43419), (Start: 12 @43491 has 45 MA's), (13, 43497), (Start: 14 @43506 has 1 MA's), (16, 43551), (17, 43566), (23, 43599), (25, 43617),

Gene: Selwyn23_72 Start: 43408, Stop: 43584, Start Num: 12

Candidate Starts for Selwyn23_72:

(8, 43330), (10, 43336), (Start: 12 @43408 has 45 MA's), (13, 43414), (Start: 14 @43423 has 1 MA's), (16, 43468), (17, 43483), (23, 43516), (25, 43534),

Gene: Shotgun_71 Start: 43175, Stop: 43351, Start Num: 12

Candidate Starts for Shotgun_71:

(8, 43097), (10, 43103), (Start: 12 @43175 has 45 MA's), (13, 43181), (Start: 14 @43190 has 1 MA's), (16, 43235), (17, 43250), (23, 43283), (25, 43301),

Gene: Shrubaron_75 Start: 44382, Stop: 44558, Start Num: 12

Candidate Starts for Shrubaron_75:

(6, 44193), (8, 44304), (Start: 12 @44382 has 45 MA's), (Start: 14 @44397 has 1 MA's), (16, 44442), (17, 44457), (23, 44490), (25, 44508),

Gene: SirFrank_71 Start: 43465, Stop: 43641, Start Num: 12

Candidate Starts for SirFrank_71:

(4, 43201), (5, 43246), (6, 43273), (8, 43387), (Start: 12 @43465 has 45 MA's), (13, 43471), (Start: 14 @43480 has 1 MA's), (16, 43525), (17, 43540), (23, 43573), (25, 43591),

Gene: Skugga_71 Start: 43713, Stop: 43889, Start Num: 12

Candidate Starts for Skugga_71:

(11, 43644), (Start: 12 @43713 has 45 MA's), (13, 43719), (Start: 14 @43728 has 1 MA's), (15, 43758), (16, 43773), (17, 43788), (24, 43833),

Gene: Smarties_81 Start: 45071, Stop: 45247, Start Num: 12

Candidate Starts for Smarties_81:

(5, 44852), (8, 44993), (Start: 12 @45071 has 45 MA's), (13, 45077), (Start: 14 @45086 has 1 MA's), (17, 45146), (22, 45176), (26, 45203),

Gene: Teamocil_75 Start: 43417, Stop: 43593, Start Num: 12

Candidate Starts for Teamocil_75:

(5, 43189), (6, 43216), (11, 43348), (Start: 12 @43417 has 45 MA's), (13, 43423), (Start: 14 @43432 has 1 MA's), (16, 43477), (17, 43492), (24, 43537), (26, 43549),

Gene: Tyrumbra_70 Start: 44012, Stop: 44188, Start Num: 12

Candidate Starts for Tyrumbra_70:

(6, 43823), (8, 43934), (Start: 12 @44012 has 45 MA's), (Start: 14 @44027 has 1 MA's), (16, 44072), (17, 44087), (23, 44120), (26, 44144), (27, 44159),

Gene: Yeti_73 Start: 43207, Stop: 43383, Start Num: 12

Candidate Starts for Yeti_73:

(8, 43129), (10, 43135), (Start: 12 @43207 has 45 MA's), (Start: 14 @43222 has 1 MA's), (16, 43267), (17, 43282), (23, 43315), (25, 43333),

Gene: Zapato_71 Start: 43943, Stop: 44119, Start Num: 12

Candidate Starts for Zapato_71:

(7, 43826), (11, 43874), (Start: 12 @43943 has 45 MA's), (Start: 14 @43958 has 1 MA's), (16, 44006), (17, 44021), (19, 44033),