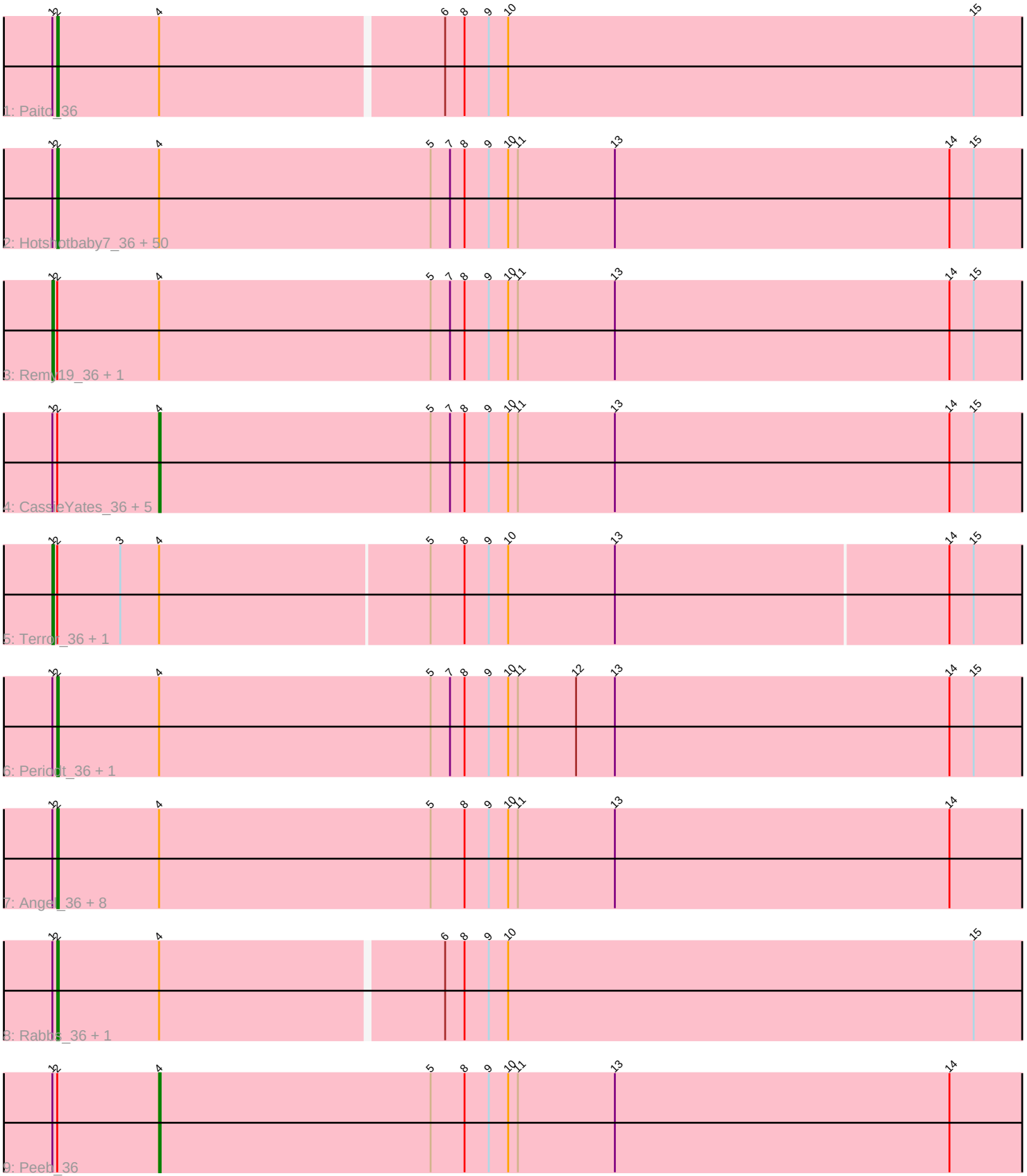
Pham 338229


1: Paito_36
2: Hotshotbaby7_36 + 50
3: Remy19_36 + 1
4: CassieYates_36 + 5
5: Terror_36 + 1
6: Peridot_36 + 1
7: Angel_36 + 8
8: Rabbs_36 + 1
9: Peeb_36

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 338229 Report

This analysis was run 11/14/26 on database version 672.

Pham number 338229 has 76 members, 4 are drafts.

Phages represented in each track:
• Track 1 : Paito_36
• Track 2 : Hotshotbaby7_36, Mowgli_36, Jeilious_36, ShaboiShabazz_36, DMoney_36, TomBrady_36, Terralys_35, Avrafan_36, Darionha_36, Cherrybomb426_36, TinaBug_36, BruceB_36, ZoMa_36, Coleslaw_36, ECartman_36, Neoh_36, Gomashi_36, DingDing_36, OctaviousRex_36, PinkYoshi_36, Sweets_36, Cedasite_36, Ruriko_36, Jonghyun_36, Olga_36, Wendigo_36, Renaissance_36, LouisV14_38, Halo_36, JorRay_36, Aroostook_36, Jolene_36, ForeverHowLong_36, Phish_36, Annihilator_36, Jane_36, Chance64_36, Phloodle_36, Marmie_36, BQuat_36, AzulaCat_36, Zombie_36, Gideon_36, Phreak_36, Maliketh_36, Hope_36, BPs_36, Liefie_36, Kareem_36, MZKinsey_36, Frosty24_36
• Track 3 : Remy19_36, CLED96_36
• Track 4 : CassieYates_36, DNAIII_0035, Camri_36, AizenPogi_36, Primanti_36, Crespo_36
• Track 5 : Terror_36, Taheera_36
• Track 6 : Periodt_36, Rattrick_36
• Track 7 : Angel_36, Barkley26_36, Sizemore_36, Schiebel_36, Richarlison_36, Kasen3_36, Plagueis_36, Grizzly_36, GoldenAsh_36
• Track 8 : Rabbs_36, Sneeze_36
• Track 9 : Peeb_36

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

The start number called the most often in the published annotations is 2, it was called in 63 of the 72 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Angel_36, Annihilator_36, Aroostook_36, Avrafan_36, AzulaCat_36, BPs_36, BQuat_36, Barkley26_36, BruceB_36, Cedasite_36, Chance64_36, Cherrybomb426_36, Coleslaw_36, DMoney_36, Darionha_36, DingDing_36, ECartman_36, ForeverHowLong_36, Frosty24_36, Gideon_36, GoldenAsh_36, Gomashi_36, Grizzly_36, Halo_36, Hope_36, Hotshotbaby7_36, Jane_36, Jeilious_36, Jolene_36, Jonghyun_36, JorRay_36, Kareem_36, Kasen3_36, Liefie_36, LouisV14_38, MZKinsey_36, Maliketh_36, Marmie_36, Mowgli_36,

Neoh_36, OctaviousRex_36, Olga_36, Paito_36, Periodt_36, Phish_36, Phloodle_36, Phreak_36, PinkYoshi_36, Plagueis_36, Rabbs_36, Rattrick_36, Renaissance_36, Richarlison_36, Ruriko_36, Schiebel_36, ShaboiShabazz_36, Sizemore_36, Sneeze_36, Sweets_36, Terralys_35, TinaBug_36, TomBrady_36, Wendigo_36, ZoMa_36, Zombie_36,

Genes that have the "Most Annotated" start but do not call it:
• AizenPogi_36, CLED96_36, Camri_36, CassieYates_36, Crespo_36, DNAIII_0035, Peeb_36, Primanti_36, Remy19_36, Taheera_36, Terror_36,

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

Summary by start number:

Start 1:
• Found in 76 of 76 (100.0%) of genes in pham
• Manual Annotations of this start: 4 of 72
• Called 5.3% of time when present
• Phage (with cluster) where this start called: CLED96_36 (G1), Remy19_36 (G1), Taheera_36 (G1), Terror_36 (G1),

Start 2:
• Found in 76 of 76 (100.0%) of genes in pham
• Manual Annotations of this start: 63 of 72
• Called 85.5% of time when present
• Phage (with cluster) where this start called: Angel_36 (G1), Annihilator_36 (G1), Aroostook_36 (G1), Avrafan_36 (G1), AzulaCat_36 (G1), BPs_36 (G1), BQuat_36 (G1), Barkley26_36 (G1), BruceB_36 (G1), Cedasite_36 (G1), Chance64_36 (G1), Cherrybomb426_36 (G1), Coleslaw_36 (G1), DMoney_36 (G1), Darionha_36 (G1), DingDing_36 (G1), ECartman_36 (G1), ForeverHowLong_36 (G1), Frosty24_36 (G1), Gideon_36 (G1), GoldenAsh_36 (G1), Gomashi_36 (G1), Grizzly_36 (G1), Halo_36 (G1), Hope_36 (G1), Hotshotbaby7_36 (G1), Jane_36 (G1), Jeilious_36 (G), Jolene_36 (G1), Jonghyun_36 (G1), JorRay_36 (G1), Kareem_36 (G1), Kasen3_36 (G1), Liefie_36 (G1), LouisV14_38 (G1), MZKinsey_36 (G1), Maliketh_36 (G1), Marmie_36 (G1), Mowgli_36 (G1), Neoh_36 (G), OctaviousRex_36 (G1), Olga_36 (G1), Paito_36 (G1), Periodt_36 (G1), Phish_36 (G1), Phloodle_36 (G1), Phreak_36 (G1), PinkYoshi_36 (G1), Plagueis_36 (G1), Rabbs_36 (G1), Rattrick_36 (G1), Renaissance_36 (G1), Richarlison_36 (G1), Ruriko_36 (G1), Schiebel_36 (G1), ShaboiShabazz_36 (G1), Sizemore_36 (G1), Sneeze_36 (G1), Sweets_36 (G1), Terralys_35 (G1), TinaBug_36 (G1), TomBrady_36 (G1), Wendigo_36 (G1), ZoMa_36 (G1), Zombie_36 (G1),

Start 4:
• Found in 76 of 76 (100.0%) of genes in pham
• Manual Annotations of this start: 5 of 72
• Called 9.2% of time when present
• Phage (with cluster) where this start called: AizenPogi_36 (G1), Camri_36 (G1), CassieYates_36 (G1), Crespo_36 (G1), DNAIII_0035 (G1), Peeb_36 (G1), Primanti_36 (G1),

Summary by clusters:

There are 2 clusters represented in this pham: G, G1,

Info for manual annotations of cluster G:
•Start number 2 was manually annotated 2 times for cluster G.

Info for manual annotations of cluster G1:
•Start number 1 was manually annotated 4 times for cluster G1.
•Start number 2 was manually annotated 61 times for cluster G1.
•Start number 4 was manually annotated 5 times for cluster G1.

Gene Information:

Gene: AizenPogi_36 Start: 30213, Stop: 30749, Start Num: 4
Candidate Starts for AizenPogi_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Angel_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Angel_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702),

Gene: Annihilator_36 Start: 30141, Stop: 30740, Start Num: 2
Candidate Starts for Annihilator_36:
(Start: 1 @30138 has 4 MA's), (Start: 2 @30141 has 63 MA's), (Start: 4 @30204 has 5 MA's), (5, 30372), (7, 30384), (8, 30393), (9, 30408), (10, 30420), (11, 30426), (13, 30486), (14, 30693), (15, 30708),

Gene: Aroostook_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Aroostook_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Avrafan_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Avrafan_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: AzulaCat_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for AzulaCat_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: BPs_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for BPs_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15,

30717),

Gene: BQuat_36 Start: 30141, Stop: 30740, Start Num: 2
Candidate Starts for BQuat_36:
(Start: 1 @30138 has 4 MA's), (Start: 2 @30141 has 63 MA's), (Start: 4 @30204 has 5 MA's), (5, 30372), (7, 30384), (8, 30393), (9, 30408), (10, 30420), (11, 30426), (13, 30486), (14, 30693), (15, 30708),

Gene: Barkley26_36 Start: 30172, Stop: 30771, Start Num: 2
Candidate Starts for Barkley26_36:
(Start: 1 @30169 has 4 MA's), (Start: 2 @30172 has 63 MA's), (Start: 4 @30235 has 5 MA's), (5, 30403), (8, 30424), (9, 30439), (10, 30451), (11, 30457), (13, 30517), (14, 30724),

Gene: BruceB_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for BruceB_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: CLED96_36 Start: 30147, Stop: 30749, Start Num: 1
Candidate Starts for CLED96_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Camri_36 Start: 30213, Stop: 30749, Start Num: 4
Candidate Starts for Camri_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: CassieYates_36 Start: 30213, Stop: 30749, Start Num: 4
Candidate Starts for CassieYates_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Cedasite_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Cedasite_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Chance64_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Chance64_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Cherrybomb426_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Cherrybomb426_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15,

30717),

Gene: Coleslaw_36 Start: 30141, Stop: 30740, Start Num: 2
Candidate Starts for Coleslaw_36:
(Start: 1 @30138 has 4 MA's), (Start: 2 @30141 has 63 MA's), (Start: 4 @30204 has 5 MA's), (5, 30372), (7, 30384), (8, 30393), (9, 30408), (10, 30420), (11, 30426), (13, 30486), (14, 30693), (15, 30708),

Gene: Crespo_36 Start: 30214, Stop: 30750, Start Num: 4
Candidate Starts for Crespo_36:
(Start: 1 @30148 has 4 MA's), (Start: 2 @30151 has 63 MA's), (Start: 4 @30214 has 5 MA's), (5, 30382), (7, 30394), (8, 30403), (9, 30418), (10, 30430), (11, 30436), (13, 30496), (14, 30703), (15, 30718),

Gene: DMoney_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for DMoney_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: DNAIII_0035 Start: 28847, Stop: 29383, Start Num: 4
Candidate Starts for DNAIII_0035:
(Start: 1 @28781 has 4 MA's), (Start: 2 @28784 has 63 MA's), (Start: 4 @28847 has 5 MA's), (5, 29015), (7, 29027), (8, 29036), (9, 29051), (10, 29063), (11, 29069), (13, 29129), (14, 29336), (15, 29351),

Gene: Darionha_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Darionha_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: DingDing_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for DingDing_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: ECartman_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for ECartman_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: ForeverHowLong_36 Start: 30145, Stop: 30744, Start Num: 2
Candidate Starts for ForeverHowLong_36:
(Start: 1 @30142 has 4 MA's), (Start: 2 @30145 has 63 MA's), (Start: 4 @30208 has 5 MA's), (5, 30376), (7, 30388), (8, 30397), (9, 30412), (10, 30424), (11, 30430), (13, 30490), (14, 30697), (15, 30712),

Gene: Frosty24_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Frosty24_36:

(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Gideon_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Gideon_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: GoldenAsh_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for GoldenAsh_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702),

Gene: Gomashi_36 Start: 30151, Stop: 30750, Start Num: 2
Candidate Starts for Gomashi_36:
(Start: 1 @30148 has 4 MA's), (Start: 2 @30151 has 63 MA's), (Start: 4 @30214 has 5 MA's), (5, 30382), (7, 30394), (8, 30403), (9, 30418), (10, 30430), (11, 30436), (13, 30496), (14, 30703), (15, 30718),

Gene: Grizzly_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Grizzly_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702),

Gene: Halo_36 Start: 30145, Stop: 30744, Start Num: 2
Candidate Starts for Halo_36:
(Start: 1 @30142 has 4 MA's), (Start: 2 @30145 has 63 MA's), (Start: 4 @30208 has 5 MA's), (5, 30376), (7, 30388), (8, 30397), (9, 30412), (10, 30424), (11, 30430), (13, 30490), (14, 30697), (15, 30712),

Gene: Hope_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Hope_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Hotshotbaby7_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Hotshotbaby7_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Jane_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Jane_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Jeilious_36 Start: 30149, Stop: 30748, Start Num: 2
Candidate Starts for Jeilious_36:

(Start: 1 @30146 has 4 MA's), (Start: 2 @30149 has 63 MA's), (Start: 4 @30212 has 5 MA's), (5, 30380), (7, 30392), (8, 30401), (9, 30416), (10, 30428), (11, 30434), (13, 30494), (14, 30701), (15, 30716),

Gene: Jolene_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Jolene_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Jonghyun_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Jonghyun_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: JorRay_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for JorRay_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Kareem_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Kareem_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Kasen3_36 Start: 30151, Stop: 30750, Start Num: 2
Candidate Starts for Kasen3_36:
(Start: 1 @30148 has 4 MA's), (Start: 2 @30151 has 63 MA's), (Start: 4 @30214 has 5 MA's), (5, 30382), (8, 30403), (9, 30418), (10, 30430), (11, 30436), (13, 30496), (14, 30703),

Gene: Liefie_36 Start: 30148, Stop: 30747, Start Num: 2
Candidate Starts for Liefie_36:
(Start: 1 @30145 has 4 MA's), (Start: 2 @30148 has 63 MA's), (Start: 4 @30211 has 5 MA's), (5, 30379), (7, 30391), (8, 30400), (9, 30415), (10, 30427), (11, 30433), (13, 30493), (14, 30700), (15, 30715),

Gene: LouisV14_38 Start: 32415, Stop: 33014, Start Num: 2
Candidate Starts for LouisV14_38:
(Start: 1 @32412 has 4 MA's), (Start: 2 @32415 has 63 MA's), (Start: 4 @32478 has 5 MA's), (5, 32646), (7, 32658), (8, 32667), (9, 32682), (10, 32694), (11, 32700), (13, 32760), (14, 32967), (15, 32982),

Gene: MZKinsey_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for MZKinsey_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Maliketh_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Maliketh_36:

(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Marmie_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Marmie_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Mowgli_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Mowgli_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Neoh_36 Start: 30142, Stop: 30741, Start Num: 2
Candidate Starts for Neoh_36:
(Start: 1 @30139 has 4 MA's), (Start: 2 @30142 has 63 MA's), (Start: 4 @30205 has 5 MA's), (5, 30373), (7, 30385), (8, 30394), (9, 30409), (10, 30421), (11, 30427), (13, 30487), (14, 30694), (15, 30709),

Gene: OctaviousRex_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for OctaviousRex_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Olga_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Olga_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Paito_36 Start: 30331, Stop: 30924, Start Num: 2
Candidate Starts for Paito_36:
(Start: 1 @30328 has 4 MA's), (Start: 2 @30331 has 63 MA's), (Start: 4 @30394 has 5 MA's), (6, 30565), (8, 30577), (9, 30592), (10, 30604), (15, 30892),

Gene: Peeb_36 Start: 30213, Stop: 30749, Start Num: 4
Candidate Starts for Peeb_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702),

Gene: Periodt_36 Start: 30141, Stop: 30740, Start Num: 2
Candidate Starts for Periodt_36:
(Start: 1 @30138 has 4 MA's), (Start: 2 @30141 has 63 MA's), (Start: 4 @30204 has 5 MA's), (5, 30372), (7, 30384), (8, 30393), (9, 30408), (10, 30420), (11, 30426), (12, 30462), (13, 30486), (14, 30693), (15, 30708),

Gene: Phish_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Phish_36:

(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Phloodle_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Phloodle_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Phreak_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Phreak_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: PinkYoshi_36 Start: 30141, Stop: 30740, Start Num: 2
Candidate Starts for PinkYoshi_36:
(Start: 1 @30138 has 4 MA's), (Start: 2 @30141 has 63 MA's), (Start: 4 @30204 has 5 MA's), (5, 30372), (7, 30384), (8, 30393), (9, 30408), (10, 30420), (11, 30426), (13, 30486), (14, 30693), (15, 30708),

Gene: Plagueis_36 Start: 29985, Stop: 30584, Start Num: 2
Candidate Starts for Plagueis_36:
(Start: 1 @29982 has 4 MA's), (Start: 2 @29985 has 63 MA's), (Start: 4 @30048 has 5 MA's), (5, 30216), (8, 30237), (9, 30252), (10, 30264), (11, 30270), (13, 30330), (14, 30537),

Gene: Primanti_36 Start: 30213, Stop: 30749, Start Num: 4
Candidate Starts for Primanti_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Rabbs_36 Start: 30233, Stop: 30826, Start Num: 2
Candidate Starts for Rabbs_36:
(Start: 1 @30230 has 4 MA's), (Start: 2 @30233 has 63 MA's), (Start: 4 @30296 has 5 MA's), (6, 30467), (8, 30479), (9, 30494), (10, 30506), (15, 30794),

Gene: Rattrick_36 Start: 30141, Stop: 30740, Start Num: 2
Candidate Starts for Rattrick_36:
(Start: 1 @30138 has 4 MA's), (Start: 2 @30141 has 63 MA's), (Start: 4 @30204 has 5 MA's), (5, 30372), (7, 30384), (8, 30393), (9, 30408), (10, 30420), (11, 30426), (12, 30462), (13, 30486), (14, 30693), (15, 30708),

Gene: Remy19_36 Start: 30147, Stop: 30749, Start Num: 1
Candidate Starts for Remy19_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Renaissance_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Renaissance_36:

(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Richarlison_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Richarlison_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702),

Gene: Ruriko_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Ruriko_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Schiebel_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Schiebel_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702),

Gene: ShaboiShabazz_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for ShaboiShabazz_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Sizemore_36 Start: 30151, Stop: 30750, Start Num: 2
Candidate Starts for Sizemore_36:
(Start: 1 @30148 has 4 MA's), (Start: 2 @30151 has 63 MA's), (Start: 4 @30214 has 5 MA's), (5, 30382), (8, 30403), (9, 30418), (10, 30430), (11, 30436), (13, 30496), (14, 30703),

Gene: Sneeze_36 Start: 30232, Stop: 30825, Start Num: 2
Candidate Starts for Sneeze_36:
(Start: 1 @30229 has 4 MA's), (Start: 2 @30232 has 63 MA's), (Start: 4 @30295 has 5 MA's), (6, 30466), (8, 30478), (9, 30493), (10, 30505), (15, 30793),

Gene: Sweets_36 Start: 30145, Stop: 30744, Start Num: 2
Candidate Starts for Sweets_36:
(Start: 1 @30142 has 4 MA's), (Start: 2 @30145 has 63 MA's), (Start: 4 @30208 has 5 MA's), (5, 30376), (7, 30388), (8, 30397), (9, 30412), (10, 30424), (11, 30430), (13, 30490), (14, 30697), (15, 30712),

Gene: Taheera_36 Start: 30265, Stop: 30861, Start Num: 1
Candidate Starts for Taheera_36:
(Start: 1 @30265 has 4 MA's), (Start: 2 @30268 has 63 MA's), (3, 30307), (Start: 4 @30331 has 5 MA's), (5, 30496), (8, 30517), (9, 30532), (10, 30544), (13, 30610), (14, 30814), (15, 30829),

Gene: Terralys_35 Start: 30084, Stop: 30683, Start Num: 2
Candidate Starts for Terralys_35:
(Start: 1 @30081 has 4 MA's), (Start: 2 @30084 has 63 MA's), (Start: 4 @30147 has 5 MA's), (5, 30315), (7, 30327), (8, 30336), (9, 30351), (10, 30363), (11, 30369), (13, 30429), (14, 30636), (15, 30651),

Gene: Terror_36 Start: 30265, Stop: 30861, Start Num: 1
Candidate Starts for Terror_36:
(Start: 1 @30265 has 4 MA's), (Start: 2 @30268 has 63 MA's), (3, 30307), (Start: 4 @30331 has 5 MA's), (5, 30496), (8, 30517), (9, 30532), (10, 30544), (13, 30610), (14, 30814), (15, 30829),

Gene: TinaBug_36 Start: 30145, Stop: 30744, Start Num: 2
Candidate Starts for TinaBug_36:
(Start: 1 @30142 has 4 MA's), (Start: 2 @30145 has 63 MA's), (Start: 4 @30208 has 5 MA's), (5, 30376), (7, 30388), (8, 30397), (9, 30412), (10, 30424), (11, 30430), (13, 30490), (14, 30697), (15, 30712),

Gene: TomBrady_36 Start: 30151, Stop: 30750, Start Num: 2
Candidate Starts for TomBrady_36:
(Start: 1 @30148 has 4 MA's), (Start: 2 @30151 has 63 MA's), (Start: 4 @30214 has 5 MA's), (5, 30382), (7, 30394), (8, 30403), (9, 30418), (10, 30430), (11, 30436), (13, 30496), (14, 30703), (15, 30718),

Gene: Wendigo_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Wendigo_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: ZoMa_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for ZoMa_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),

Gene: Zombie_36 Start: 30150, Stop: 30749, Start Num: 2
Candidate Starts for Zombie_36:
(Start: 1 @30147 has 4 MA's), (Start: 2 @30150 has 63 MA's), (Start: 4 @30213 has 5 MA's), (5, 30381), (7, 30393), (8, 30402), (9, 30417), (10, 30429), (11, 30435), (13, 30495), (14, 30702), (15, 30717),