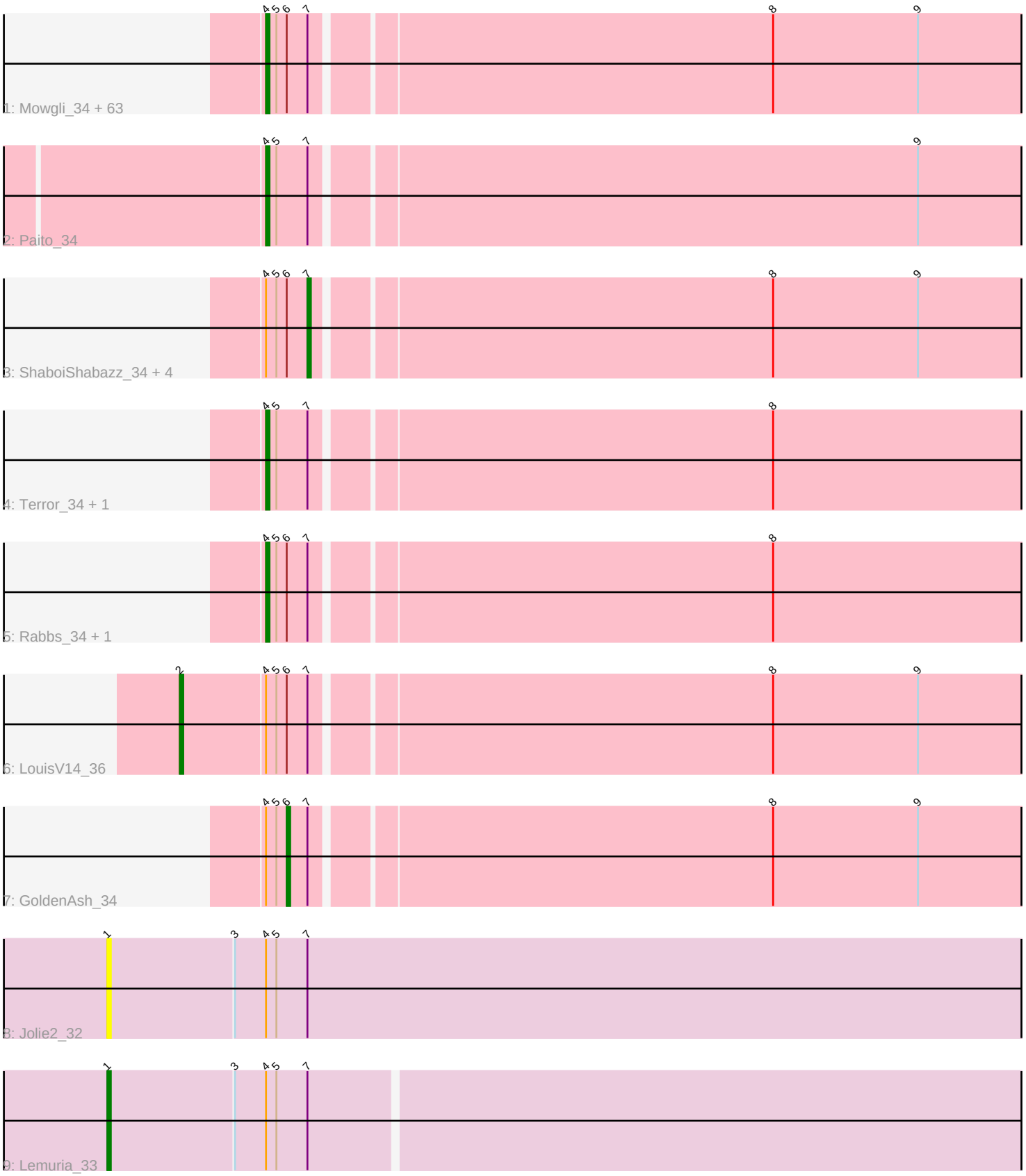
Pham 343921


4
5
6
7
8
9
1: Mowgli_34 + 63
2: Paito_34
3: ShaboiShabazz_34 + 4
4: Terror_34 + 1
5: Rabbs_34 + 1
2
6: LouisV14_36
7: GoldenAsh_34
1
3
8: Jolie2_32
9: Lemuria_33

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 343921 Report

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

Pham number 343921 has 78 members, 5 are drafts.

Phages represented in each track:
• Track 1 : Mowgli_34, Remy19_34, CassieYates_34, Hotshotbaby7_34, Jeilious_34, Phloodle_34, Periodt_34, CLED96_34, Avrafan_34, AizenPogi_34, DNAIII_0033, Terralys_33, Cherrybomb426_34, TinaBug_34, Angel_34, Barkley26_34, BruceB_34, Coleslaw_34, ECartman_34, ZoMa_34, Neoh_34, Gomashi_34, ForeverHowLong_34, Sizemore_34, Richarlison_34, DingDing_34, Olga_34, Sweets_34, OctaviousRex_34, PinkYoshi_34, Gideon_34, Marmie_34, Cedasite_34, Kasen3_34, Wendigo_34, Peeb_34, Plagueis_34, Renaissance_34, Camri_34, Grizzly_34, Jonghyun_34, Halo_34, JorRay_34, Aroostook_34, Rattrick_34, Jolene_34, Phish_34, Annihilator_34, Jane_34, DMoney_34, BQuat_34, AzulaCat_34, Phreak_34, Hope_34, Schiebel_34, Zombie_34, Primanti_34, Chance64_34, MZKinsey_34, Liefie_34, Kareem_34, Crespo_34, Darionha_34, Frosty24_34
• Track 2 : Paito_34
• Track 3 : ShaboiShabazz_34, TomBrady_34, Ruriko_34, Maliketh_34, BPs_34
• Track 4 : Terror_34, Taheera_34
• Track 5 : Rabbs_34, Sneeze_34
• Track 6 : LouisV14_36
• Track 7 : GoldenAsh_34
• Track 8 : Jolie2_32
• Track 9 : Lemuria_33

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

The start number called the most often in the published annotations is 4, it was called in 65 of the 73 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• AizenPogi_34, Angel_34, Annihilator_34, Aroostook_34, Avrafan_34, AzulaCat_34, BQuat_34, Barkley26_34, BruceB_34, CLED96_34, Camri_34, CassieYates_34, Cedasite_34, Chance64_34, Cherrybomb426_34, Coleslaw_34, Crespo_34, DMoney_34, DNAIII_0033, Darionha_34, DingDing_34, ECartman_34, ForeverHowLong_34, Frosty24_34, Gideon_34, Gomashi_34, Grizzly_34, Halo_34, Hope_34, Hotshotbaby7_34, Jane_34, Jeilious_34, Jolene_34, Jonghyun_34, JorRay_34, Kareem_34, Kasen3_34, Liefie_34, MZKinsey_34, Marmie_34,

Mowgli_34, Neoh_34, OctaviousRex_34, Olga_34, Paito_34, Peeb_34, Periodt_34, Phish_34, Phloodle_34, Phreak_34, PinkYoshi_34, Plagueis_34, Primanti_34, Rabbs_34, Rattrick_34, Remy19_34, Renaissance_34, Richarlison_34, Schiebel_34, Sizemore_34, Sneeze_34, Sweets_34, Taheera_34, Terralys_33, Terror_34, TinaBug_34, Wendigo_34, ZoMa_34, Zombie_34,

Genes that have the "Most Annotated" start but do not call it:
• BPs_34, GoldenAsh_34, Jolie2_32, Lemuria_33, LouisV14_36, Maliketh_34, Ruriko_34, ShaboiShabazz_34, TomBrady_34,

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

Summary by start number:

Start 1:
• Found in 2 of 78 (2.6%) of genes in pham
• Manual Annotations of this start: 1 of 73
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Jolie2_32 (G4), Lemuria_33 (G4),

Start 2:
• Found in 1 of 78 (1.3%) of genes in pham
• Manual Annotations of this start: 1 of 73
• Called 100.0% of time when present
• Phage (with cluster) where this start called: LouisV14_36 (G1),

Start 4:
• Found in 78 of 78 (100.0%) of genes in pham
• Manual Annotations of this start: 65 of 73
• Called 88.5% of time when present
• Phage (with cluster) where this start called: AizenPogi_34 (G1), Angel_34 (G1), Annihilator_34 (G1), Aroostook_34 (G1), Avrafan_34 (G1), AzulaCat_34 (G1), BQuat_34 (G1), Barkley26_34 (G1), BruceB_34 (G1), CLED96_34 (G1), Camri_34 (G1), CassieYates_34 (G1), Cedasite_34 (G1), Chance64_34 (G1), Cherrybomb426_34 (G1), Coleslaw_34 (G1), Crespo_34 (G1), DMoney_34 (G1), DNAIII_0033 (G1), Darionha_34 (G1), DingDing_34 (G1), ECartman_34 (G1), ForeverHowLong_34 (G1), Frosty24_34 (G1), Gideon_34 (G1), Gomashi_34 (G1), Grizzly_34 (G1), Halo_34 (G1), Hope_34 (G1), Hotshotbaby7_34 (G1), Jane_34 (G1), Jeilious_34 (G), Jolene_34 (G1), Jonghyun_34 (G1), JorRay_34 (G1), Kareem_34 (G1), Kasen3_34 (G1), Liefie_34 (G1), MZKinsey_34 (G1), Marmie_34 (G1), Mowgli_34 (G1), Neoh_34 (G), OctaviousRex_34 (G1), Olga_34 (G1), Paito_34 (G1), Peeb_34 (G1), Periodt_34 (G1), Phish_34 (G1), Phloodle_34 (G1), Phreak_34 (G1), PinkYoshi_34 (G1), Plagueis_34 (G1), Primanti_34 (G1), Rabbs_34 (G1), Rattrick_34 (G1), Remy19_34 (G1), Renaissance_34 (G1), Richarlison_34 (G1), Schiebel_34 (G1), Sizemore_34 (G1), Sneeze_34 (G1), Sweets_34 (G1), Taheera_34 (G1), Terralys_33 (G1), Terror_34 (G1), TinaBug_34 (G1), Wendigo_34 (G1), ZoMa_34 (G1), Zombie_34 (G1),

Start 6:
• Found in 73 of 78 (93.6%) of genes in pham
• Manual Annotations of this start: 1 of 73
• Called 1.4% of time when present

• Phage (with cluster) where this start called: GoldenAsh_34 (G1),

Start 7:
• Found in 78 of 78 (100.0%) of genes in pham
• Manual Annotations of this start: 5 of 73
• Called 6.4% of time when present
• Phage (with cluster) where this start called: BPs_34 (G1), Maliketh_34 (G1), Ruriko_34 (G1), ShaboiShabazz_34 (G1), TomBrady_34 (G1),

Summary by clusters:

There are 3 clusters represented in this pham: G4, G, G1,

Info for manual annotations of cluster G:
•Start number 4 was manually annotated 2 times for cluster G.

Info for manual annotations of cluster G1:
•Start number 2 was manually annotated 1 time for cluster G1.
•Start number 4 was manually annotated 63 times for cluster G1.
•Start number 6 was manually annotated 1 time for cluster G1.
•Start number 7 was manually annotated 5 times for cluster G1.

Info for manual annotations of cluster G4:
•Start number 1 was manually annotated 1 time for cluster G4.

Gene Information:

Gene: AizenPogi_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for AizenPogi_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Angel_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Angel_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Annihilator_34 Start: 29489, Stop: 29746, Start Num: 4
Candidate Starts for Annihilator_34:
(Start: 4 @29489 has 65 MA's), (5, 29492), (Start: 6 @29495 has 1 MA's), (Start: 7 @29501 has 5 MA's), (8, 29630), (9, 29672),

Gene: Aroostook_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Aroostook_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Avrafan_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Avrafan_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: AzulaCat_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for AzulaCat_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: BPs_34 Start: 29510, Stop: 29755, Start Num: 7
Candidate Starts for BPs_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: BQuat_34 Start: 29489, Stop: 29746, Start Num: 4
Candidate Starts for BQuat_34:
(Start: 4 @29489 has 65 MA's), (5, 29492), (Start: 6 @29495 has 1 MA's), (Start: 7 @29501 has 5 MA's), (8, 29630), (9, 29672),

Gene: Barkley26_34 Start: 29520, Stop: 29777, Start Num: 4
Candidate Starts for Barkley26_34:
(Start: 4 @29520 has 65 MA's), (5, 29523), (Start: 6 @29526 has 1 MA's), (Start: 7 @29532 has 5 MA's), (8, 29661), (9, 29703),

Gene: BruceB_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for BruceB_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: CLED96_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for CLED96_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Camri_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Camri_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: CassieYates_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for CassieYates_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Cedasite_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Cedasite_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Chance64_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Chance64_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Cherrybomb426_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Cherrybomb426_34:

(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Coleslaw_34 Start: 29489, Stop: 29746, Start Num: 4
Candidate Starts for Coleslaw_34:
(Start: 4 @29489 has 65 MA's), (5, 29492), (Start: 6 @29495 has 1 MA's), (Start: 7 @29501 has 5 MA's), (8, 29630), (9, 29672),

Gene: Crespo_34 Start: 29499, Stop: 29756, Start Num: 4
Candidate Starts for Crespo_34:
(Start: 4 @29499 has 65 MA's), (5, 29502), (Start: 6 @29505 has 1 MA's), (Start: 7 @29511 has 5 MA's), (8, 29640), (9, 29682),

Gene: DMoney_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for DMoney_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: DNAIII_0033 Start: 28132, Stop: 28389, Start Num: 4
Candidate Starts for DNAIII_0033:
(Start: 4 @28132 has 65 MA's), (5, 28135), (Start: 6 @28138 has 1 MA's), (Start: 7 @28144 has 5 MA's), (8, 28273), (9, 28315),

Gene: Darionha_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Darionha_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: DingDing_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for DingDing_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: ECartman_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for ECartman_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: ForeverHowLong_34 Start: 29493, Stop: 29750, Start Num: 4
Candidate Starts for ForeverHowLong_34:
(Start: 4 @29493 has 65 MA's), (5, 29496), (Start: 6 @29499 has 1 MA's), (Start: 7 @29505 has 5 MA's), (8, 29634), (9, 29676),

Gene: Frosty24_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Frosty24_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Gideon_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Gideon_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: GoldenAsh_34 Start: 29504, Stop: 29755, Start Num: 6
Candidate Starts for GoldenAsh_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Gomashi_34 Start: 29499, Stop: 29756, Start Num: 4
Candidate Starts for Gomashi_34:
(Start: 4 @29499 has 65 MA's), (5, 29502), (Start: 6 @29505 has 1 MA's), (Start: 7 @29511 has 5 MA's), (8, 29640), (9, 29682),

Gene: Grizzly_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Grizzly_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Halo_34 Start: 29493, Stop: 29750, Start Num: 4
Candidate Starts for Halo_34:
(Start: 4 @29493 has 65 MA's), (5, 29496), (Start: 6 @29499 has 1 MA's), (Start: 7 @29505 has 5 MA's), (8, 29634), (9, 29676),

Gene: Hope_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Hope_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Hotshotbaby7_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Hotshotbaby7_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Jane_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Jane_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Jeilious_34 Start: 29497, Stop: 29754, Start Num: 4
Candidate Starts for Jeilious_34:
(Start: 4 @29497 has 65 MA's), (5, 29500), (Start: 6 @29503 has 1 MA's), (Start: 7 @29509 has 5 MA's), (8, 29638), (9, 29680),

Gene: Jolene_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Jolene_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Jolie2_32 Start: 28378, Stop: 28671, Start Num: 1
Candidate Starts for Jolie2_32:
(Start: 1 @28378 has 1 MA's), (3, 28414), (Start: 4 @28423 has 65 MA's), (5, 28426), (Start: 7 @28435 has 5 MA's),

Gene: Jonghyun_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Jonghyun_34:

(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: JorRay_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for JorRay_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Kareem_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Kareem_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Kasen3_34 Start: 29499, Stop: 29756, Start Num: 4
Candidate Starts for Kasen3_34:
(Start: 4 @29499 has 65 MA's), (5, 29502), (Start: 6 @29505 has 1 MA's), (Start: 7 @29511 has 5 MA's), (8, 29640), (9, 29682),

Gene: Lemuria_33 Start: 29447, Stop: 29740, Start Num: 1
Candidate Starts for Lemuria_33:
(Start: 1 @29447 has 1 MA's), (3, 29483), (Start: 4 @29492 has 65 MA's), (5, 29495), (Start: 7 @29504 has 5 MA's),

Gene: Liefie_34 Start: 29496, Stop: 29753, Start Num: 4
Candidate Starts for Liefie_34:
(Start: 4 @29496 has 65 MA's), (5, 29499), (Start: 6 @29502 has 1 MA's), (Start: 7 @29508 has 5 MA's), (8, 29637), (9, 29679),

Gene: LouisV14_36 Start: 31739, Stop: 32020, Start Num: 2
Candidate Starts for LouisV14_36:
(Start: 2 @31739 has 1 MA's), (Start: 4 @31763 has 65 MA's), (5, 31766), (Start: 6 @31769 has 1 MA's), (Start: 7 @31775 has 5 MA's), (8, 31904), (9, 31946),

Gene: MZKinsey_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for MZKinsey_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Maliketh_34 Start: 29510, Stop: 29755, Start Num: 7
Candidate Starts for Maliketh_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Marmie_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Marmie_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Mowgli_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Mowgli_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Neoh_34 Start: 29490, Stop: 29747, Start Num: 4
Candidate Starts for Neoh_34:
(Start: 4 @29490 has 65 MA's), (5, 29493), (Start: 6 @29496 has 1 MA's), (Start: 7 @29502 has 5 MA's), (8, 29631), (9, 29673),

Gene: OctaviousRex_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for OctaviousRex_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Olga_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Olga_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Paito_34 Start: 29679, Stop: 29936, Start Num: 4
Candidate Starts for Paito_34:
(Start: 4 @29679 has 65 MA's), (5, 29682), (Start: 7 @29691 has 5 MA's), (9, 29862),

Gene: Peeb_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Peeb_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Periodt_34 Start: 29489, Stop: 29746, Start Num: 4
Candidate Starts for Periodt_34:
(Start: 4 @29489 has 65 MA's), (5, 29492), (Start: 6 @29495 has 1 MA's), (Start: 7 @29501 has 5 MA's), (8, 29630), (9, 29672),

Gene: Phish_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Phish_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Phloodle_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Phloodle_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Phreak_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Phreak_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: PinkYoshi_34 Start: 29489, Stop: 29746, Start Num: 4
Candidate Starts for PinkYoshi_34:
(Start: 4 @29489 has 65 MA's), (5, 29492), (Start: 6 @29495 has 1 MA's), (Start: 7 @29501 has 5 MA's), (8, 29630), (9, 29672),

Gene: Plagueis_34 Start: 29333, Stop: 29590, Start Num: 4
Candidate Starts for Plagueis_34:
(Start: 4 @29333 has 65 MA's), (5, 29336), (Start: 6 @29339 has 1 MA's), (Start: 7 @29345 has 5 MA's), (8, 29474), (9, 29516),

Gene: Primanti_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Primanti_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Rabbs_34 Start: 29581, Stop: 29838, Start Num: 4
Candidate Starts for Rabbs_34:
(Start: 4 @29581 has 65 MA's), (5, 29584), (Start: 6 @29587 has 1 MA's), (Start: 7 @29593 has 5 MA's), (8, 29722),

Gene: Rattrick_34 Start: 29489, Stop: 29746, Start Num: 4
Candidate Starts for Rattrick_34:
(Start: 4 @29489 has 65 MA's), (5, 29492), (Start: 6 @29495 has 1 MA's), (Start: 7 @29501 has 5 MA's), (8, 29630), (9, 29672),

Gene: Remy19_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Remy19_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Renaissance_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Renaissance_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Richarlison_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Richarlison_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Ruriko_34 Start: 29510, Stop: 29755, Start Num: 7
Candidate Starts for Ruriko_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Schiebel_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Schiebel_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: ShaboiShabazz_34 Start: 29510, Stop: 29755, Start Num: 7
Candidate Starts for ShaboiShabazz_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Sizemore_34 Start: 29499, Stop: 29756, Start Num: 4
Candidate Starts for Sizemore_34:
(Start: 4 @29499 has 65 MA's), (5, 29502), (Start: 6 @29505 has 1 MA's), (Start: 7 @29511 has 5 MA's), (8, 29640), (9, 29682),

Gene: Sneeze_34 Start: 29580, Stop: 29837, Start Num: 4
Candidate Starts for Sneeze_34:

(Start: 4 @29580 has 65 MA's), (5, 29583), (Start: 6 @29586 has 1 MA's), (Start: 7 @29592 has 5 MA's), (8, 29721),

Gene: Sweets_34 Start: 29493, Stop: 29750, Start Num: 4
Candidate Starts for Sweets_34:
(Start: 4 @29493 has 65 MA's), (5, 29496), (Start: 6 @29499 has 1 MA's), (Start: 7 @29505 has 5 MA's), (8, 29634), (9, 29676),

Gene: Taheera_34 Start: 29616, Stop: 29873, Start Num: 4
Candidate Starts for Taheera_34:
(Start: 4 @29616 has 65 MA's), (5, 29619), (Start: 7 @29628 has 5 MA's), (8, 29757),

Gene: Terralys_33 Start: 29432, Stop: 29689, Start Num: 4
Candidate Starts for Terralys_33:
(Start: 4 @29432 has 65 MA's), (5, 29435), (Start: 6 @29438 has 1 MA's), (Start: 7 @29444 has 5 MA's), (8, 29573), (9, 29615),

Gene: Terror_34 Start: 29616, Stop: 29873, Start Num: 4
Candidate Starts for Terror_34:
(Start: 4 @29616 has 65 MA's), (5, 29619), (Start: 7 @29628 has 5 MA's), (8, 29757),

Gene: TinaBug_34 Start: 29493, Stop: 29750, Start Num: 4
Candidate Starts for TinaBug_34:
(Start: 4 @29493 has 65 MA's), (5, 29496), (Start: 6 @29499 has 1 MA's), (Start: 7 @29505 has 5 MA's), (8, 29634), (9, 29676),

Gene: TomBrady_34 Start: 29511, Stop: 29756, Start Num: 7
Candidate Starts for TomBrady_34:
(Start: 4 @29499 has 65 MA's), (5, 29502), (Start: 6 @29505 has 1 MA's), (Start: 7 @29511 has 5 MA's), (8, 29640), (9, 29682),

Gene: Wendigo_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Wendigo_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: ZoMa_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for ZoMa_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),

Gene: Zombie_34 Start: 29498, Stop: 29755, Start Num: 4
Candidate Starts for Zombie_34:
(Start: 4 @29498 has 65 MA's), (5, 29501), (Start: 6 @29504 has 1 MA's), (Start: 7 @29510 has 5 MA's), (8, 29639), (9, 29681),