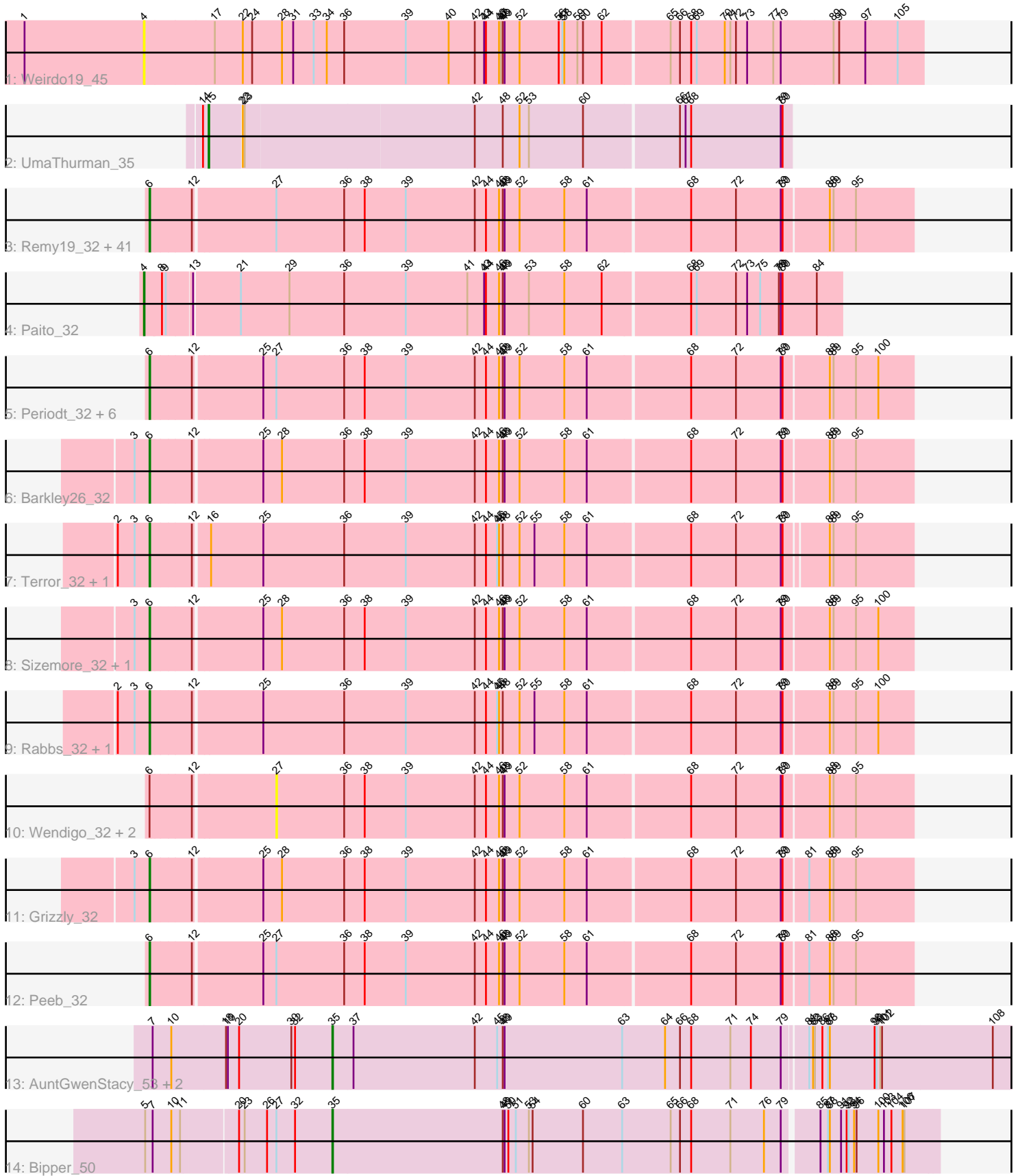


Pham 196520



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 196520 Report

This analysis was run 12/09/24 on database version 580.

Pham number 196520 has 68 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Weirido19_45
- Track 2 : UmaThurman_35
- Track 3 : Remy19_32, Mowgli_32, JorRay_32, CassieYates_32, ShaboiShabazz_32, CLED96_32, Camri_32, TomBrady_32, Avrafan_32, BruceB_32, Angel_32, Cherrybomb426_32, Olga_32, Gomashi_32, ZoMa_32, Coleslaw_32, Marmie_32, Cedasite_32, OctaviousRex_32, PinkYoshi_32, Sweets_32, Hotshotbaby7_32, DMoney_32, LouisV14_32, Schiebel_32, Plagueis_32, Renaissance_32, Darionha_32, Halo_32, Phish_32, GoldenAsh_32, Jane_32, Annihilator_32, Phreak_32, BQuat_32, BPs_32, Frosty24_32, Zombie_32, Hope_32, Gideon_32, Crespo_32, Kareem_32
- Track 4 : Paito_32
- Track 5 : Periodt_32, ECartman_32, Chance64_32, Aroostook_32, Jonghyun_32, Jolene_32, Liefie_32
- Track 6 : Barkley26_32
- Track 7 : Terror_32, Taheera_32
- Track 8 : Sizemore_32, Kasen3_32
- Track 9 : Rabbs_32, Sneeze_32
- Track 10 : Wendigo_32, AzulaCat_32, Maliketh_32
- Track 11 : Grizzly_32
- Track 12 : Peeb_32
- Track 13 : AuntGwenStacy_53, Typha_52, Hilltopfarm_52
- Track 14 : Bipper_50

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

The start number called the most often in the published annotations is 6, it was called in 58 of the 63 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Angel_32, Annihilator_32, Aroostook_32, Avrafan_32, BPs_32, BQuat_32, Barkley26_32, BruceB_32, CLED96_32, Camri_32, CassieYates_32, Cedasite_32, Chance64_32, Cherrybomb426_32, Coleslaw_32, Crespo_32, DMoney_32, Darionha_32, ECartman_32, Frosty24_32, Gideon_32, GoldenAsh_32, Gomashi_32, Grizzly_32, Halo_32, Hope_32, Hotshotbaby7_32, Jane_32, Jolene_32,

Jonghyun_32, JorRay_32, Kareem_32, Kasen3_32, Liefie_32, LouisV14_32, Marmie_32, Mowgli_32, OctaviousRex_32, Olga_32, Peeb_32, Periodt_32, Phish_32, Phreak_32, PinkYoshi_32, Plagueis_32, Rabbs_32, Remy19_32, Renaissance_32, Schiebel_32, ShaboiShabazz_32, Sizemore_32, Sneeze_32, Sweets_32, Taheera_32, Terror_32, TomBrady_32, ZoMa_32, Zombie_32,

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

- AzulaCat_32, Maliketh_32, Wendigo_32,

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

- AuntGwenStacy_53, Bipper_50, Hilltopfarm_52, Paito_32, Typha_52, UmaThurman_35, Weirido19_45,

Summary by start number:

Start 4:

- Found in 2 of 68 (2.9%) of genes in pham
- Manual Annotations of this start: 1 of 63
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Paito_32 (G1), Weirido19_45 (AH),

Start 6:

- Found in 61 of 68 (89.7%) of genes in pham
- Manual Annotations of this start: 58 of 63
- Called 95.1% of time when present
- Phage (with cluster) where this start called: Angel_32 (G1), Annihilator_32 (G1), Aroostook_32 (G1), Avrafan_32 (G1), BPs_32 (G1), BQuat_32 (G1), Barkley26_32 (G1), BruceB_32 (G1), CLED96_32 (G1), Camri_32 (G1), CassieYates_32 (G1), Cedasite_32 (G1), Chance64_32 (G1), Cherrybomb426_32 (G1), Coleslaw_32 (G1), Crespo_32 (G1), DMoney_32 (G1), Darionha_32 (G1), ECartman_32 (G1), Frosty24_32 (G1), Gideon_32 (G1), GoldenAsh_32 (G1), Gomashi_32 (G1), Grizzly_32 (G1), Halo_32 (G1), Hope_32 (G1), Hotshotbaby7_32 (G1), Jane_32 (G1), Jolene_32 (G1), Jonghyun_32 (G1), JorRay_32 (G1), Kareem_32 (G1), Kasen3_32 (G1), Liefie_32 (G1), LouisV14_32 (G1), Marmie_32 (G1), Mowgli_32 (G1), OctaviousRex_32 (G1), Olga_32 (G1), Peeb_32 (G1), Periodt_32 (G1), Phish_32 (G1), Phreak_32 (G1), PinkYoshi_32 (G1), Plagueis_32 (G1), Rabbs_32 (G1), Remy19_32 (G1), Renaissance_32 (G1), Schiebel_32 (G1), ShaboiShabazz_32 (G1), Sizemore_32 (G1), Sneeze_32 (G1), Sweets_32 (G1), Taheera_32 (G1), Terror_32 (G1), TomBrady_32 (G1), ZoMa_32 (G1), Zombie_32 (G1),

Start 15:

- Found in 1 of 68 (1.5%) of genes in pham
- Manual Annotations of this start: 1 of 63
- Called 100.0% of time when present
- Phage (with cluster) where this start called: UmaThurman_35 (CV),

Start 27:

- Found in 54 of 68 (79.4%) of genes in pham
- No Manual Annotations of this start.
- Called 5.6% of time when present
- Phage (with cluster) where this start called: AzulaCat_32 (G1), Maliketh_32 (G1), Wendigo_32 (G1),

Start 35:

- Found in 4 of 68 (5.9%) of genes in pham
- Manual Annotations of this start: 3 of 63
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AuntGwenStacy_53 (Y), Bipper_50 (Y), Hilltopfarm_52 (Y), Typha_52 (Y),

Summary by clusters:

There are 4 clusters represented in this pham: Y, AH, CV, G1,

Info for manual annotations of cluster CV:

- Start number 15 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster G1:

- Start number 4 was manually annotated 1 time for cluster G1.
- Start number 6 was manually annotated 58 times for cluster G1.

Info for manual annotations of cluster Y:

- Start number 35 was manually annotated 3 times for cluster Y.

Gene Information:

Gene: Angel_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Angel_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Annihilator_32 Start: 28908, Stop: 27712, Start Num: 6

Candidate Starts for Annihilator_32:

(Start: 6 @28908 has 58 MA's), (12, 28845), (27, 28719), (36, 28611), (38, 28578), (39, 28512), (42, 28401), (44, 28383), (46, 28362), (48, 28356), (49, 28353), (52, 28329), (58, 28257), (61, 28221), (68, 28062), (72, 27990), (79, 27918), (80, 27915), (88, 27846), (89, 27840), (95, 27804),

Gene: Aroostook_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Aroostook_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (25, 28749), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813), (100, 27777),

Gene: AuntGwenStacy_53 Start: 40512, Stop: 39421, Start Num: 35

Candidate Starts for AuntGwenStacy_53:

(7, 40800), (10, 40770), (18, 40683), (19, 40680), (20, 40662), (30, 40578), (32, 40572), (Start: 35 @40512 has 3 MA's), (37, 40479), (42, 40284), (45, 40248), (48, 40239), (49, 40236), (63, 40047), (64, 39978), (66, 39954), (68, 39936), (71, 39873), (74, 39840), (79, 39792), (81, 39756), (82, 39750), (83, 39747), (86, 39735), (87, 39726), (88, 39723), (98, 39651), (99, 39648), (101, 39642), (102, 39639), (108, 39462),

Gene: Avrafan_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Avrafan_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: AzulaCat_32 Start: 28728, Stop: 27721, Start Num: 27

Candidate Starts for AzulaCat_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: BPs_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for BPs_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: BQuat_32 Start: 28908, Stop: 27712, Start Num: 6

Candidate Starts for BQuat_32:

(Start: 6 @28908 has 58 MA's), (12, 28845), (27, 28719), (36, 28611), (38, 28578), (39, 28512), (42, 28401), (44, 28383), (46, 28362), (48, 28356), (49, 28353), (52, 28329), (58, 28257), (61, 28221), (68, 28062), (72, 27990), (79, 27918), (80, 27915), (88, 27846), (89, 27840), (95, 27804),

Gene: Barkley26_32 Start: 28939, Stop: 27743, Start Num: 6

Candidate Starts for Barkley26_32:

(3, 28963), (Start: 6 @28939 has 58 MA's), (12, 28876), (25, 28771), (28, 28741), (36, 28642), (38, 28609), (39, 28543), (42, 28432), (44, 28414), (46, 28393), (48, 28387), (49, 28384), (52, 28360), (58, 28288), (61, 28252), (68, 28093), (72, 28021), (79, 27949), (80, 27946), (88, 27877), (89, 27871), (95, 27835),

Gene: Bipper_50 Start: 39303, Stop: 38347, Start Num: 35

Candidate Starts for Bipper_50:

(5, 39591), (7, 39579), (10, 39549), (11, 39537), (20, 39453), (23, 39444), (26, 39408), (27, 39393), (32, 39363), (Start: 35 @39303 has 3 MA's), (48, 39030), (49, 39027), (50, 39021), (51, 39009), (53, 38988), (54, 38982), (60, 38901), (63, 38838), (65, 38760), (66, 38745), (68, 38727), (71, 38664), (76, 38610), (79, 38583), (85, 38532), (87, 38520), (88, 38517), (91, 38499), (92, 38490), (93, 38487), (94, 38478), (96, 38475), (100, 38442), (103, 38433), (104, 38421), (106, 38403), (107, 38400),

Gene: BruceB_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for BruceB_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: CLED96_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for CLED96_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Camri_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Camri_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: CassieYates_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for CassieYates_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Cedasite_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Cedasite_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Chance64_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Chance64_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (25, 28749), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813), (100, 27777),

Gene: Cherrybomb426_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Cherrybomb426_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Coleslaw_32 Start: 28908, Stop: 27712, Start Num: 6

Candidate Starts for Coleslaw_32:

(Start: 6 @28908 has 58 MA's), (12, 28845), (27, 28719), (36, 28611), (38, 28578), (39, 28512), (42, 28401), (44, 28383), (46, 28362), (48, 28356), (49, 28353), (52, 28329), (58, 28257), (61, 28221), (68, 28062), (72, 27990), (79, 27918), (80, 27915), (88, 27846), (89, 27840), (95, 27804),

Gene: Crespo_32 Start: 28918, Stop: 27722, Start Num: 6

Candidate Starts for Crespo_32:

(Start: 6 @28918 has 58 MA's), (12, 28855), (27, 28729), (36, 28621), (38, 28588), (39, 28522), (42, 28411), (44, 28393), (46, 28372), (48, 28366), (49, 28363), (52, 28339), (58, 28267), (61, 28231), (68, 28072), (72, 28000), (79, 27928), (80, 27925), (88, 27856), (89, 27850), (95, 27814),

Gene: DMoney_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for DMoney_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Darionha_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Darionha_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: ECartman_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for ECartman_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (25, 28749), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813), (100, 27777),

Gene: Frosty24_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Frosty24_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Gideon_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Gideon_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: GoldenAsh_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for GoldenAsh_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Gomashi_32 Start: 28918, Stop: 27722, Start Num: 6

Candidate Starts for Gomashi_32:

(Start: 6 @28918 has 58 MA's), (12, 28855), (27, 28729), (36, 28621), (38, 28588), (39, 28522), (42, 28411), (44, 28393), (46, 28372), (48, 28366), (49, 28363), (52, 28339), (58, 28267), (61, 28231), (68, 28072), (72, 28000), (79, 27928), (80, 27925), (88, 27856), (89, 27850), (95, 27814),

Gene: Grizzly_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Grizzly_32:

(3, 28941), (Start: 6 @28917 has 58 MA's), (12, 28854), (25, 28749), (28, 28719), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (81, 27888), (88, 27855), (89, 27849), (95, 27813),

Gene: Halo_32 Start: 28912, Stop: 27716, Start Num: 6

Candidate Starts for Halo_32:

(Start: 6 @28912 has 58 MA's), (12, 28849), (27, 28723), (36, 28615), (38, 28582), (39, 28516), (42, 28405), (44, 28387), (46, 28366), (48, 28360), (49, 28357), (52, 28333), (58, 28261), (61, 28225), (68, 28066), (72, 27994), (79, 27922), (80, 27919), (88, 27850), (89, 27844), (95, 27808),

Gene: Hilltopfarm_52 Start: 40199, Stop: 39105, Start Num: 35

Candidate Starts for Hilltopfarm_52:

(7, 40487), (10, 40457), (18, 40370), (19, 40367), (20, 40349), (30, 40265), (32, 40259), (Start: 35 @40199 has 3 MA's), (37, 40166), (42, 39971), (45, 39935), (48, 39926), (49, 39923), (63, 39734), (64, 39665), (66, 39641), (68, 39623), (71, 39560), (74, 39527), (79, 39479), (81, 39440), (82, 39434), (83, 39431), (86, 39419), (87, 39410), (88, 39407), (98, 39335), (99, 39332), (101, 39326), (102, 39323), (108, 39146),

Gene: Hope_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Hope_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Hotshotbaby7_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Hotshotbaby7_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Jane_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Jane_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Jolene_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Jolene_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (25, 28749), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813), (100, 27777),

Gene: Jonghyun_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Jonghyun_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (25, 28749), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813), (100, 27777),

Gene: JorRay_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for JorRay_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Kareem_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Kareem_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Kasen3_32 Start: 28918, Stop: 27722, Start Num: 6

Candidate Starts for Kasen3_32:

(3, 28942), (Start: 6 @28918 has 58 MA's), (12, 28855), (25, 28750), (28, 28720), (36, 28621), (38, 28588), (39, 28522), (42, 28411), (44, 28393), (46, 28372), (48, 28366), (49, 28363), (52, 28339), (58, 28267), (61, 28231), (68, 28072), (72, 28000), (79, 27928), (80, 27925), (88, 27856), (89, 27850), (95, 27814), (100, 27778),

Gene: Liefie_32 Start: 28915, Stop: 27719, Start Num: 6

Candidate Starts for Liefie_32:

(Start: 6 @28915 has 58 MA's), (12, 28852), (25, 28747), (27, 28726), (36, 28618), (38, 28585), (39, 28519), (42, 28408), (44, 28390), (46, 28369), (48, 28363), (49, 28360), (52, 28336), (58, 28264), (61, 28228), (68, 28069), (72, 27997), (79, 27925), (80, 27922), (88, 27853), (89, 27847), (95, 27811), (100, 27775),

Gene: LouisV14_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for LouisV14_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Maliketh_32 Start: 28728, Stop: 27721, Start Num: 27

Candidate Starts for Maliketh_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Marmie_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Marmie_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Mowgli_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Mowgli_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: OctaviousRex_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for OctaviousRex_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Olga_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Olga_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Paito_32 Start: 29040, Stop: 27946, Start Num: 4

Candidate Starts for Paito_32:

(Start: 4 @29040 has 1 MA's), (8, 29013), (9, 29007), (13, 28971), (21, 28899), (29, 28821), (36, 28734), (39, 28635), (41, 28536), (43, 28509), (44, 28506), (46, 28485), (48, 28479), (49, 28476), (53, 28437), (58, 28380), (62, 28320), (68, 28185), (69, 28176), (72, 28113), (73, 28095), (75, 28074), (78, 28044), (79, 28041), (80, 28038), (84, 27984),

Gene: Peeb_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Peeb_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (25, 28749), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (81, 27888), (88, 27855), (89, 27849), (95,

27813),

Gene: Periodt_32 Start: 28908, Stop: 27712, Start Num: 6

Candidate Starts for Periodt_32:

(Start: 6 @28908 has 58 MA's), (12, 28845), (25, 28740), (27, 28719), (36, 28611), (38, 28578), (39, 28512), (42, 28401), (44, 28383), (46, 28362), (48, 28356), (49, 28353), (52, 28329), (58, 28257), (61, 28221), (68, 28062), (72, 27990), (79, 27918), (80, 27915), (88, 27846), (89, 27840), (95, 27804), (100, 27768),

Gene: Phish_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Phish_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Phreak_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Phreak_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: PinkYoshi_32 Start: 28908, Stop: 27712, Start Num: 6

Candidate Starts for PinkYoshi_32:

(Start: 6 @28908 has 58 MA's), (12, 28845), (27, 28719), (36, 28611), (38, 28578), (39, 28512), (42, 28401), (44, 28383), (46, 28362), (48, 28356), (49, 28353), (52, 28329), (58, 28257), (61, 28221), (68, 28062), (72, 27990), (79, 27918), (80, 27915), (88, 27846), (89, 27840), (95, 27804),

Gene: Plagueis_32 Start: 28752, Stop: 27556, Start Num: 6

Candidate Starts for Plagueis_32:

(Start: 6 @28752 has 58 MA's), (12, 28689), (27, 28563), (36, 28455), (38, 28422), (39, 28356), (42, 28245), (44, 28227), (46, 28206), (48, 28200), (49, 28197), (52, 28173), (58, 28101), (61, 28065), (68, 27906), (72, 27834), (79, 27762), (80, 27759), (88, 27690), (89, 27684), (95, 27648),

Gene: Rabbs_32 Start: 29000, Stop: 27804, Start Num: 6

Candidate Starts for Rabbs_32:

(2, 29051), (3, 29024), (Start: 6 @29000 has 58 MA's), (12, 28937), (25, 28832), (36, 28703), (39, 28604), (42, 28493), (44, 28475), (45, 28457), (46, 28454), (48, 28448), (52, 28421), (55, 28397), (58, 28349), (61, 28313), (68, 28154), (72, 28082), (79, 28010), (80, 28007), (88, 27938), (89, 27932), (95, 27896), (100, 27860),

Gene: Remy19_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Remy19_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Renaissance_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Renaissance_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Schiebel_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Schiebel_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: ShaboiShabazz_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for ShaboiShabazz_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Sizemore_32 Start: 28918, Stop: 27722, Start Num: 6

Candidate Starts for Sizemore_32:

(3, 28942), (Start: 6 @28918 has 58 MA's), (12, 28855), (25, 28750), (28, 28720), (36, 28621), (38, 28588), (39, 28522), (42, 28411), (44, 28393), (46, 28372), (48, 28366), (49, 28363), (52, 28339), (58, 28267), (61, 28231), (68, 28072), (72, 28000), (79, 27928), (80, 27925), (88, 27856), (89, 27850), (95, 27814), (100, 27778),

Gene: Sneeze_32 Start: 28999, Stop: 27803, Start Num: 6

Candidate Starts for Sneeze_32:

(2, 29050), (3, 29023), (Start: 6 @28999 has 58 MA's), (12, 28936), (25, 28831), (36, 28702), (39, 28603), (42, 28492), (44, 28474), (45, 28456), (46, 28453), (48, 28447), (52, 28420), (55, 28396), (58, 28348), (61, 28312), (68, 28153), (72, 28081), (79, 28009), (80, 28006), (88, 27937), (89, 27931), (95, 27895), (100, 27859),

Gene: Sweets_32 Start: 28912, Stop: 27716, Start Num: 6

Candidate Starts for Sweets_32:

(Start: 6 @28912 has 58 MA's), (12, 28849), (27, 28723), (36, 28615), (38, 28582), (39, 28516), (42, 28405), (44, 28387), (46, 28366), (48, 28360), (49, 28357), (52, 28333), (58, 28261), (61, 28225), (68, 28066), (72, 27994), (79, 27922), (80, 27919), (88, 27850), (89, 27844), (95, 27808),

Gene: Taheera_32 Start: 29035, Stop: 27845, Start Num: 6

Candidate Starts for Taheera_32:

(2, 29086), (3, 29059), (Start: 6 @29035 has 58 MA's), (12, 28972), (16, 28951), (25, 28867), (36, 28738), (39, 28639), (42, 28528), (44, 28510), (45, 28492), (46, 28489), (48, 28483), (52, 28456), (55, 28432), (58, 28384), (61, 28348), (68, 28189), (72, 28117), (79, 28045), (80, 28042), (88, 27979), (89, 27973), (95, 27937),

Gene: Terror_32 Start: 29035, Stop: 27845, Start Num: 6

Candidate Starts for Terror_32:

(2, 29086), (3, 29059), (Start: 6 @29035 has 58 MA's), (12, 28972), (16, 28951), (25, 28867), (36, 28738), (39, 28639), (42, 28528), (44, 28510), (45, 28492), (46, 28489), (48, 28483), (52, 28456), (55, 28432), (58, 28384), (61, 28348), (68, 28189), (72, 28117), (79, 28045), (80, 28042), (88, 27979), (89, 27973), (95, 27937),

Gene: TomBrady_32 Start: 28918, Stop: 27722, Start Num: 6

Candidate Starts for TomBrady_32:

(Start: 6 @28918 has 58 MA's), (12, 28855), (27, 28729), (36, 28621), (38, 28588), (39, 28522), (42, 28411), (44, 28393), (46, 28372), (48, 28366), (49, 28363), (52, 28339), (58, 28267), (61, 28231), (68, 28072), (72, 28000), (79, 27928), (80, 27925), (88, 27856), (89, 27850), (95, 27814),

Gene: Typha_52 Start: 40512, Stop: 39421, Start Num: 35

Candidate Starts for Typha_52:

(7, 40800), (10, 40770), (18, 40683), (19, 40680), (20, 40662), (30, 40578), (32, 40572), (Start: 35 @40512 has 3 MA's), (37, 40479), (42, 40284), (45, 40248), (48, 40239), (49, 40236), (63, 40047), (64, 39978), (66, 39954), (68, 39936), (71, 39873), (74, 39840), (79, 39792), (81, 39756), (82, 39750), (83, 39747), (86, 39735), (87, 39726), (88, 39723), (98, 39651), (99, 39648), (101, 39642), (102, 39639), (108, 39462),

Gene: UmaThurman_35 Start: 31152, Stop: 30235, Start Num: 15

Candidate Starts for UmaThurman_35:

(14, 31161), (Start: 15 @31152 has 1 MA's), (22, 31101), (23, 31098), (42, 30735), (48, 30690), (52, 30663), (53, 30648), (60, 30561), (66, 30414), (67, 30405), (68, 30396), (79, 30252), (80, 30249),

Gene: Weirido19_45 Start: 34583, Stop: 33348, Start Num: 4

Candidate Starts for Weirido19_45:

(1, 34775), (Start: 4 @34583 has 1 MA's), (17, 34472), (22, 34427), (24, 34412), (28, 34364), (31, 34346), (33, 34313), (34, 34292), (36, 34265), (39, 34166), (40, 34097), (42, 34055), (43, 34040), (44, 34037), (46, 34016), (47, 34013), (48, 34010), (49, 34007), (52, 33983), (56, 33920), (57, 33914), (58, 33911), (59, 33890), (60, 33881), (62, 33851), (65, 33749), (66, 33734), (68, 33716), (69, 33707), (70, 33662), (71, 33653), (72, 33644), (73, 33626), (77, 33584), (79, 33572), (89, 33491), (90, 33482), (97, 33440), (105, 33389),

Gene: Wendigo_32 Start: 28728, Stop: 27721, Start Num: 27

Candidate Starts for Wendigo_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: ZoMa_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for ZoMa_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),

Gene: Zombie_32 Start: 28917, Stop: 27721, Start Num: 6

Candidate Starts for Zombie_32:

(Start: 6 @28917 has 58 MA's), (12, 28854), (27, 28728), (36, 28620), (38, 28587), (39, 28521), (42, 28410), (44, 28392), (46, 28371), (48, 28365), (49, 28362), (52, 28338), (58, 28266), (61, 28230), (68, 28071), (72, 27999), (79, 27927), (80, 27924), (88, 27855), (89, 27849), (95, 27813),