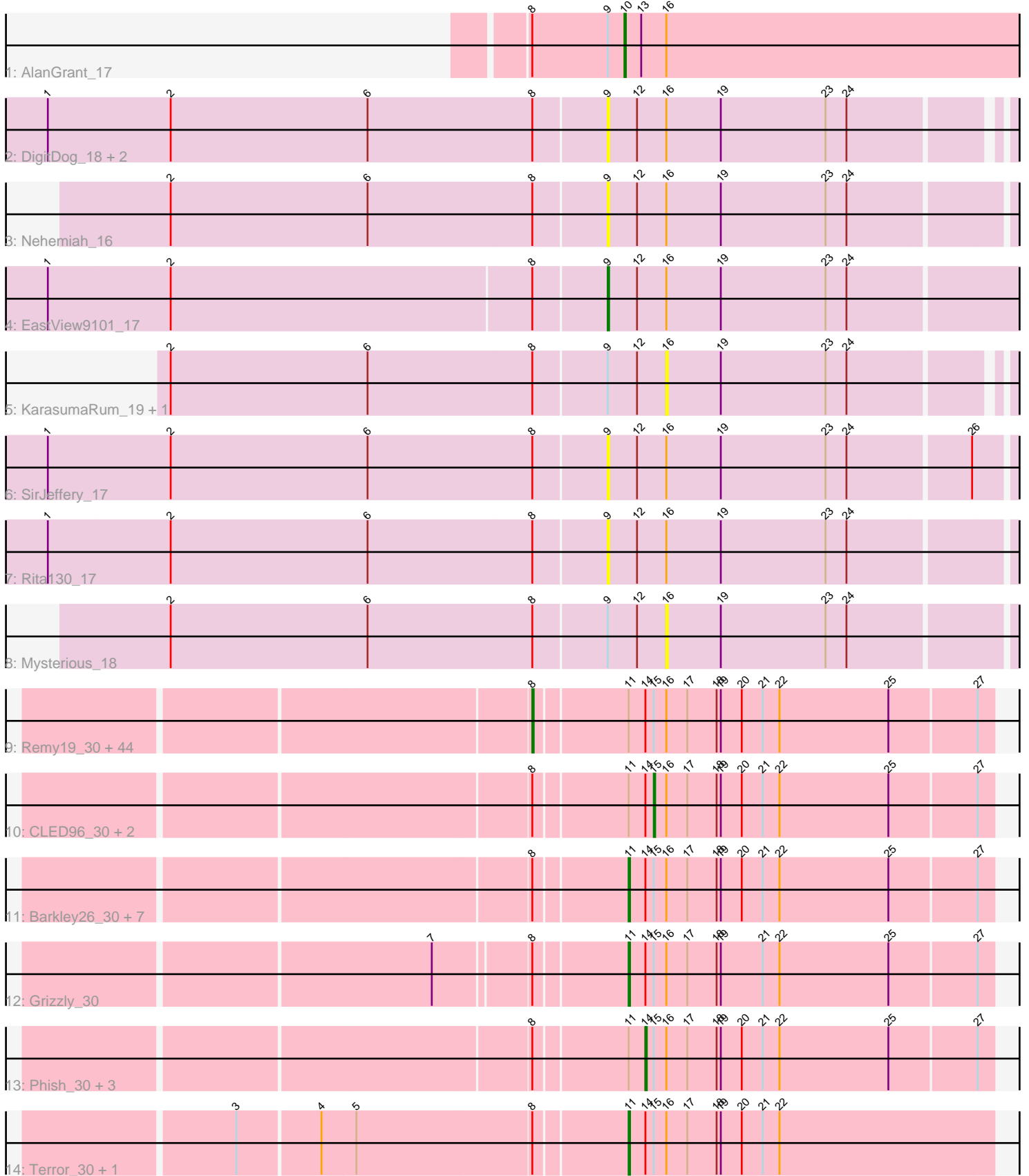


Pham 216117



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 216117 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216117 has 74 members, 13 are drafts.

Phages represented in each track:

- Track 1 : AlanGrant_17
- Track 2 : DigitDog_18, Nangang_17, Shenyu_17
- Track 3 : Nehemiah_16
- Track 4 : EastView9101_17
- Track 5 : KarasumaRum_19, StinkyVeggy_19
- Track 6 : SirJeffery_17
- Track 7 : Rita130_17
- Track 8 : Mysterious_18
- Track 9 : Remy19_30, BQuat_30, CassieYates_30, ECartman_30, ShaboiShabazz_30, Avrafan_30, Mowgli_30, Angel_30, BruceB_30, Marmie_30, Cherrybomb426_30, DMoney_30, Gomashi_30, Kareem_30, Coleslaw_30, ZoMa_30, TomBrady_30, Gideon_30, Sizemore_30, Rabbs_30, OctaviousRex_30, Schiebel_30, Chance64_30, LouisV14_30, Renaissance_30, GoldenAsh_30, Plagueis_30, Aroostook_30, Sneeze_30, Halo_30, JorRay_30, Jolene_30, Periodt_30, Jane_30, Annihilator_30, Jonghyun_30, Frosty24_30, Phreak_30, BPs_30, Hope_30, Zombie_30, Darionha_30, PinkYoshi_30, Peeb_30, Liefie_30
- Track 10 : CLED96_30, TinaBug_30, Wendigo_30
- Track 11 : Barkley26_30, Cedasite_30, Kasen3_30, DNAlll_0030, Sweets_30, Hotshotbaby7_30, Olga_30, Camri_30
- Track 12 : Grizzly_30
- Track 13 : Phish_30, AzulaCat_30, Maliketh_30, Crespo_30
- Track 14 : Terror_30, Taheera_30

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

The start number called the most often in the published annotations is 8, it was called in 45 of the 61 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Angel_30, Annihilator_30, Aroostook_30, Avrafan_30, BPs_30, BQuat_30, BruceB_30, CassieYates_30, Chance64_30, Cherrybomb426_30, Coleslaw_30, DMoney_30, Darionha_30, ECartman_30, Frosty24_30, Gideon_30, GoldenAsh_30, Gomashi_30, Halo_30, Hope_30, Jane_30, Jolene_30, Jonghyun_30, JorRay_30, Kareem_30, Liefie_30, LouisV14_30, Marmie_30, Mowgli_30, OctaviousRex_30,

Peeb_30, Periodt_30, Phreak_30, PinkYoshi_30, Plagueis_30, Rabbs_30, Remy19_30, Renaissance_30, Schiebel_30, ShaboiShabazz_30, Sizemore_30, Sneeze_30, TomBrady_30, ZoMa_30, Zombie_30,

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

- AlanGrant_17, AzulaCat_30, Barkley26_30, CLED96_30, Camri_30, Cedasite_30, Crespo_30, DNAlll_0030, DigitDog_18, EastView9101_17, Grizzly_30, Hotshotbaby7_30, KarasumaRum_19, Kasen3_30, Maliketh_30, Mysterious_18, Nangang_17, Nehemiah_16, Olga_30, Phish_30, Rita130_17, Shenyu_17, SirJeffery_17, StinkyVeggy_19, Sweets_30, Taheera_30, Terror_30, TinaBug_30, Wendigo_30,

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

-

Summary by start number:

Start 8:

- Found in 74 of 74 (100.0%) of genes in pham
- Manual Annotations of this start: 45 of 61
- Called 60.8% of time when present
- Phage (with cluster) where this start called: Angel_30 (G1), Annihilator_30 (G1), Aroostook_30 (G1), Avrafan_30 (G1), BPs_30 (G1), BQuat_30 (G1), BruceB_30 (G1), CassieYates_30 (G1), Chance64_30 (G1), Cherrybomb426_30 (G1), Coleslaw_30 (G1), DMoney_30 (G1), Darionha_30 (G1), ECartman_30 (G1), Frosty24_30 (G1), Gideon_30 (G1), GoldenAsh_30 (G1), Gomashi_30 (G1), Halo_30 (G1), Hope_30 (G1), Jane_30 (G1), Jolene_30 (G1), Jonghyun_30 (G1), JorRay_30 (G1), Kareem_30 (G1), Liefie_30 (G1), LouisV14_30 (G1), Marmie_30 (G1), Mowgli_30 (G1), OctaviousRex_30 (G1), Peeb_30 (G1), Periodt_30 (G1), Phreak_30 (G1), PinkYoshi_30 (G1), Plagueis_30 (G1), Rabbs_30 (G1), Remy19_30 (G1), Renaissance_30 (G1), Schiebel_30 (G1), ShaboiShabazz_30 (G1), Sizemore_30 (G1), Sneeze_30 (G1), TomBrady_30 (G1), ZoMa_30 (G1), Zombie_30 (G1),

Start 9:

- Found in 11 of 74 (14.9%) of genes in pham
- Manual Annotations of this start: 1 of 61
- Called 63.6% of time when present
- Phage (with cluster) where this start called: DigitDog_18 (B5), EastView9101_17 (B5), Nangang_17 (B5), Nehemiah_16 (B5), Rita130_17 (B5), Shenyu_17 (B5), SirJeffery_17 (B5),

Start 10:

- Found in 1 of 74 (1.4%) of genes in pham
- Manual Annotations of this start: 1 of 61
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AlanGrant_17 (B4),

Start 11:

- Found in 63 of 74 (85.1%) of genes in pham
- Manual Annotations of this start: 11 of 61
- Called 17.5% of time when present
- Phage (with cluster) where this start called: Barkley26_30 (G1), Camri_30 (G1), Cedasite_30 (G1), DNAlll_0030 (G1), Grizzly_30 (G1), Hotshotbaby7_30 (G1),

Kasen3_30 (G1), Olga_30 (G1), Sweets_30 (G1), Taheera_30 (G1), Terror_30 (G1),

Start 14:

- Found in 63 of 74 (85.1%) of genes in pham
- Manual Annotations of this start: 2 of 61
- Called 6.3% of time when present
- Phage (with cluster) where this start called: AzulaCat_30 (G1), Crespo_30 (G1), Maliketh_30 (G1), Phish_30 (G1),

Start 15:

- Found in 63 of 74 (85.1%) of genes in pham
- Manual Annotations of this start: 1 of 61
- Called 4.8% of time when present
- Phage (with cluster) where this start called: CLED96_30 (G1), TinaBug_30 (G1), Wendigo_30 (G1),

Start 16:

- Found in 74 of 74 (100.0%) of genes in pham
- No Manual Annotations of this start.
- Called 4.1% of time when present
- Phage (with cluster) where this start called: KarasumaRum_19 (B5), Mysterious_18 (B5), StinkyVeggy_19 (B5),

Summary by clusters:

There are 3 clusters represented in this pham: B4, B5, G1,

Info for manual annotations of cluster B4:

- Start number 10 was manually annotated 1 time for cluster B4.

Info for manual annotations of cluster B5:

- Start number 9 was manually annotated 1 time for cluster B5.

Info for manual annotations of cluster G1:

- Start number 8 was manually annotated 45 times for cluster G1.
- Start number 11 was manually annotated 11 times for cluster G1.
- Start number 14 was manually annotated 2 times for cluster G1.
- Start number 15 was manually annotated 1 time for cluster G1.

Gene Information:

Gene: AlanGrant_17 Start: 16219, Stop: 16518, Start Num: 10

Candidate Starts for AlanGrant_17:

(Start: 8 @16153 has 45 MA's), (Start: 9 @16207 has 1 MA's), (Start: 10 @16219 has 1 MA's), (13, 16231), (16, 16249),

Gene: Angel_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Angel_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Annihilator_30 Start: 26781, Stop: 27101, Start Num: 8

Candidate Starts for Annihilator_30:

(Start: 8 @26781 has 45 MA's), (Start: 11 @26844 has 11 MA's), (Start: 14 @26856 has 2 MA's),
(Start: 15 @26862 has 1 MA's), (16, 26871), (17, 26886), (18, 26907), (19, 26910), (20, 26925), (21,
26940), (22, 26952), (25, 27030), (27, 27090),

Gene: Aroostook_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Aroostook_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's),
(Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21,
26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Avrafan_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Avrafan_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's),
(Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21,
26949), (22, 26961), (25, 27039), (27, 27099),

Gene: AzulaCat_30 Start: 26865, Stop: 27110, Start Num: 14

Candidate Starts for AzulaCat_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's),
(Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21,
26949), (22, 26961), (25, 27039), (27, 27099),

Gene: BPs_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for BPs_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's),
(Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21,
26949), (22, 26961), (25, 27039), (27, 27099),

Gene: BQuat_30 Start: 26781, Stop: 27101, Start Num: 8

Candidate Starts for BQuat_30:

(Start: 8 @26781 has 45 MA's), (Start: 11 @26844 has 11 MA's), (Start: 14 @26856 has 2 MA's),
(Start: 15 @26862 has 1 MA's), (16, 26871), (17, 26886), (18, 26907), (19, 26910), (20, 26925), (21,
26940), (22, 26952), (25, 27030), (27, 27090),

Gene: Barkley26_30 Start: 26875, Stop: 27132, Start Num: 11

Candidate Starts for Barkley26_30:

(Start: 8 @26812 has 45 MA's), (Start: 11 @26875 has 11 MA's), (Start: 14 @26887 has 2 MA's),
(Start: 15 @26893 has 1 MA's), (16, 26902), (17, 26917), (18, 26938), (19, 26941), (20, 26956), (21,
26971), (22, 26983), (25, 27061), (27, 27121),

Gene: BruceB_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for BruceB_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's),
(Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21,
26949), (22, 26961), (25, 27039), (27, 27099),

Gene: CLED96_30 Start: 26871, Stop: 27110, Start Num: 15

Candidate Starts for CLED96_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's),
(Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21,

26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Camri_30 Start: 26853, Stop: 27110, Start Num: 11

Candidate Starts for Camri_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: CassieYates_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for CassieYates_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Cedasite_30 Start: 26853, Stop: 27110, Start Num: 11

Candidate Starts for Cedasite_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Chance64_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Chance64_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Cherrybomb426_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Cherrybomb426_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Coleslaw_30 Start: 26781, Stop: 27101, Start Num: 8

Candidate Starts for Coleslaw_30:

(Start: 8 @26781 has 45 MA's), (Start: 11 @26844 has 11 MA's), (Start: 14 @26856 has 2 MA's), (Start: 15 @26862 has 1 MA's), (16, 26871), (17, 26886), (18, 26907), (19, 26910), (20, 26925), (21, 26940), (22, 26952), (25, 27030), (27, 27090),

Gene: Crespo_30 Start: 26866, Stop: 27111, Start Num: 14

Candidate Starts for Crespo_30:

(Start: 8 @26791 has 45 MA's), (Start: 11 @26854 has 11 MA's), (Start: 14 @26866 has 2 MA's), (Start: 15 @26872 has 1 MA's), (16, 26881), (17, 26896), (18, 26917), (19, 26920), (20, 26935), (21, 26950), (22, 26962), (25, 27040), (27, 27100),

Gene: DMoney_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for DMoney_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: DNAIII_0030 Start: 26604, Stop: 26861, Start Num: 11

Candidate Starts for DNAIII_0030:

(Start: 8 @26541 has 45 MA's), (Start: 11 @26604 has 11 MA's), (Start: 14 @26616 has 2 MA's), (Start: 15 @26622 has 1 MA's), (16, 26631), (17, 26646), (18, 26667), (19, 26670), (20, 26685), (21, 26700), (22, 26712), (25, 26790), (27, 26850),

Gene: Darionha_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Darionha_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: DigitDog_18 Start: 15284, Stop: 15568, Start Num: 9

Candidate Starts for DigitDog_18:

(1, 14888), (2, 14975), (6, 15116), (Start: 8 @15233 has 45 MA's), (Start: 9 @15284 has 1 MA's), (12, 15305), (16, 15326), (19, 15365), (23, 15440), (24, 15455),

Gene: ECartman_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for ECartman_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: EastView9101_17 Start: 15313, Stop: 15612, Start Num: 9

Candidate Starts for EastView9101_17:

(1, 14920), (2, 15007), (Start: 8 @15262 has 45 MA's), (Start: 9 @15313 has 1 MA's), (12, 15334), (16, 15355), (19, 15394), (23, 15469), (24, 15484),

Gene: Frosty24_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Frosty24_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Gideon_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Gideon_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: GoldenAsh_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for GoldenAsh_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Gomashi_30 Start: 26791, Stop: 27111, Start Num: 8

Candidate Starts for Gomashi_30:

(Start: 8 @26791 has 45 MA's), (Start: 11 @26854 has 11 MA's), (Start: 14 @26866 has 2 MA's), (Start: 15 @26872 has 1 MA's), (16, 26881), (17, 26896), (18, 26917), (19, 26920), (20, 26935), (21, 26950), (22, 26962), (25, 27040), (27, 27100),

Gene: Grizzly_30 Start: 26853, Stop: 27110, Start Num: 11

Candidate Starts for Grizzly_30:

(7, 26727), (Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Halo_30 Start: 26785, Stop: 27105, Start Num: 8

Candidate Starts for Halo_30:

(Start: 8 @26785 has 45 MA's), (Start: 11 @26848 has 11 MA's), (Start: 14 @26860 has 2 MA's), (Start: 15 @26866 has 1 MA's), (16, 26875), (17, 26890), (18, 26911), (19, 26914), (20, 26929), (21, 26944), (22, 26956), (25, 27034), (27, 27094),

Gene: Hope_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Hope_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Hotshotbaby7_30 Start: 26853, Stop: 27110, Start Num: 11

Candidate Starts for Hotshotbaby7_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Jane_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Jane_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Jolene_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Jolene_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Jonghyun_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Jonghyun_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: JorRay_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for JorRay_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: KarasumaRum_19 Start: 15482, Stop: 15724, Start Num: 16

Candidate Starts for KarasumaRum_19:

(2, 15131), (6, 15272), (Start: 8 @15389 has 45 MA's), (Start: 9 @15440 has 1 MA's), (12, 15461), (16, 15482), (19, 15521), (23, 15596), (24, 15611),

Gene: Kareem_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Kareem_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's),
(Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21,
26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Kasen3_30 Start: 26854, Stop: 27111, Start Num: 11

Candidate Starts for Kasen3_30:

(Start: 8 @26791 has 45 MA's), (Start: 11 @26854 has 11 MA's), (Start: 14 @26866 has 2 MA's),
(Start: 15 @26872 has 1 MA's), (16, 26881), (17, 26896), (18, 26917), (19, 26920), (20, 26935), (21,
26950), (22, 26962), (25, 27040), (27, 27100),

Gene: Liefie_30 Start: 26788, Stop: 27108, Start Num: 8

Candidate Starts for Liefie_30:

(Start: 8 @26788 has 45 MA's), (Start: 11 @26851 has 11 MA's), (Start: 14 @26863 has 2 MA's),
(Start: 15 @26869 has 1 MA's), (16, 26878), (17, 26893), (18, 26914), (19, 26917), (20, 26932), (21,
26947), (22, 26959), (25, 27037), (27, 27097),

Gene: LouisV14_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for LouisV14_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's),
(Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21,
26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Maliketh_30 Start: 26865, Stop: 27110, Start Num: 14

Candidate Starts for Maliketh_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's),
(Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21,
26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Marmie_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Marmie_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's),
(Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21,
26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Mowgli_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Mowgli_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's),
(Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21,
26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Mysterious_18 Start: 15593, Stop: 15844, Start Num: 16

Candidate Starts for Mysterious_18:

(2, 15242), (6, 15383), (Start: 8 @15500 has 45 MA's), (Start: 9 @15551 has 1 MA's), (12, 15572), (16,
15593), (19, 15632), (23, 15707), (24, 15722),

Gene: Nangang_17 Start: 15284, Stop: 15568, Start Num: 9

Candidate Starts for Nangang_17:

(1, 14888), (2, 14975), (6, 15116), (Start: 8 @15233 has 45 MA's), (Start: 9 @15284 has 1 MA's), (12,
15305), (16, 15326), (19, 15365), (23, 15440), (24, 15455),

Gene: Nehemiah_16 Start: 15551, Stop: 15844, Start Num: 9

Candidate Starts for Nehemiah_16:

(2, 15242), (6, 15383), (Start: 8 @15500 has 45 MA's), (Start: 9 @15551 has 1 MA's), (12, 15572), (16, 15593), (19, 15632), (23, 15707), (24, 15722),

Gene: OctaviousRex_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for OctaviousRex_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Olga_30 Start: 26853, Stop: 27110, Start Num: 11

Candidate Starts for Olga_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Peeb_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Peeb_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Periodt_30 Start: 26781, Stop: 27101, Start Num: 8

Candidate Starts for Periodt_30:

(Start: 8 @26781 has 45 MA's), (Start: 11 @26844 has 11 MA's), (Start: 14 @26856 has 2 MA's), (Start: 15 @26862 has 1 MA's), (16, 26871), (17, 26886), (18, 26907), (19, 26910), (20, 26925), (21, 26940), (22, 26952), (25, 27030), (27, 27090),

Gene: Phish_30 Start: 26865, Stop: 27110, Start Num: 14

Candidate Starts for Phish_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Phreak_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Phreak_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: PinkYoshi_30 Start: 26781, Stop: 27101, Start Num: 8

Candidate Starts for PinkYoshi_30:

(Start: 8 @26781 has 45 MA's), (Start: 11 @26844 has 11 MA's), (Start: 14 @26856 has 2 MA's), (Start: 15 @26862 has 1 MA's), (16, 26871), (17, 26886), (18, 26907), (19, 26910), (20, 26925), (21, 26940), (22, 26952), (25, 27030), (27, 27090),

Gene: Plagueis_30 Start: 26625, Stop: 26945, Start Num: 8

Candidate Starts for Plagueis_30:

(Start: 8 @26625 has 45 MA's), (Start: 11 @26688 has 11 MA's), (Start: 14 @26700 has 2 MA's), (Start: 15 @26706 has 1 MA's), (16, 26715), (17, 26730), (18, 26751), (19, 26754), (20, 26769), (21, 26784), (22, 26796), (25, 26874), (27, 26934),

Gene: Rabbs_30 Start: 26873, Stop: 27193, Start Num: 8

Candidate Starts for Rabbs_30:

(Start: 8 @26873 has 45 MA's), (Start: 11 @26936 has 11 MA's), (Start: 14 @26948 has 2 MA's), (Start: 15 @26954 has 1 MA's), (16, 26963), (17, 26978), (18, 26999), (19, 27002), (20, 27017), (21, 27032), (22, 27044), (25, 27122), (27, 27182),

Gene: Remy19_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Remy19_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Renaissance_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Renaissance_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Rita130_17 Start: 15309, Stop: 15602, Start Num: 9

Candidate Starts for Rita130_17:

(1, 14913), (2, 15000), (6, 15141), (Start: 8 @15258 has 45 MA's), (Start: 9 @15309 has 1 MA's), (12, 15330), (16, 15351), (19, 15390), (23, 15465), (24, 15480),

Gene: Schiebel_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Schiebel_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: ShaboiShabazz_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for ShaboiShabazz_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Shenyu_17 Start: 15284, Stop: 15568, Start Num: 9

Candidate Starts for Shenyu_17:

(1, 14888), (2, 14975), (6, 15116), (Start: 8 @15233 has 45 MA's), (Start: 9 @15284 has 1 MA's), (12, 15305), (16, 15326), (19, 15365), (23, 15440), (24, 15455),

Gene: SirJeffery_17 Start: 15310, Stop: 15603, Start Num: 9

Candidate Starts for SirJeffery_17:

(1, 14914), (2, 15001), (6, 15142), (Start: 8 @15259 has 45 MA's), (Start: 9 @15310 has 1 MA's), (12, 15331), (16, 15352), (19, 15391), (23, 15466), (24, 15481), (26, 15565),

Gene: Sizemore_30 Start: 26791, Stop: 27111, Start Num: 8

Candidate Starts for Sizemore_30:

(Start: 8 @26791 has 45 MA's), (Start: 11 @26854 has 11 MA's), (Start: 14 @26866 has 2 MA's), (Start: 15 @26872 has 1 MA's), (16, 26881), (17, 26896), (18, 26917), (19, 26920), (20, 26935), (21, 26950), (22, 26962), (25, 27040), (27, 27100),

Gene: Sneeze_30 Start: 26872, Stop: 27192, Start Num: 8

Candidate Starts for Sneeze_30:

(Start: 8 @26872 has 45 MA's), (Start: 11 @26935 has 11 MA's), (Start: 14 @26947 has 2 MA's), (Start: 15 @26953 has 1 MA's), (16, 26962), (17, 26977), (18, 26998), (19, 27001), (20, 27016), (21,

27031), (22, 27043), (25, 27121), (27, 27181),

Gene: StinkyVeggy_19 Start: 15482, Stop: 15724, Start Num: 16

Candidate Starts for StinkyVeggy_19:

(2, 15131), (6, 15272), (Start: 8 @15389 has 45 MA's), (Start: 9 @15440 has 1 MA's), (12, 15461), (16, 15482), (19, 15521), (23, 15596), (24, 15611),

Gene: Sweets_30 Start: 26848, Stop: 27105, Start Num: 11

Candidate Starts for Sweets_30:

(Start: 8 @26785 has 45 MA's), (Start: 11 @26848 has 11 MA's), (Start: 14 @26860 has 2 MA's), (Start: 15 @26866 has 1 MA's), (16, 26875), (17, 26890), (18, 26911), (19, 26914), (20, 26929), (21, 26944), (22, 26956), (25, 27034), (27, 27094),

Gene: Taheera_30 Start: 26974, Stop: 27234, Start Num: 11

Candidate Starts for Taheera_30:

(3, 26707), (4, 26764), (5, 26788), (Start: 8 @26911 has 45 MA's), (Start: 11 @26974 has 11 MA's), (Start: 14 @26986 has 2 MA's), (Start: 15 @26992 has 1 MA's), (16, 27001), (17, 27016), (18, 27037), (19, 27040), (20, 27055), (21, 27070), (22, 27082),

Gene: Terror_30 Start: 26974, Stop: 27234, Start Num: 11

Candidate Starts for Terror_30:

(3, 26707), (4, 26764), (5, 26788), (Start: 8 @26911 has 45 MA's), (Start: 11 @26974 has 11 MA's), (Start: 14 @26986 has 2 MA's), (Start: 15 @26992 has 1 MA's), (16, 27001), (17, 27016), (18, 27037), (19, 27040), (20, 27055), (21, 27070), (22, 27082),

Gene: TinaBug_30 Start: 26866, Stop: 27105, Start Num: 15

Candidate Starts for TinaBug_30:

(Start: 8 @26785 has 45 MA's), (Start: 11 @26848 has 11 MA's), (Start: 14 @26860 has 2 MA's), (Start: 15 @26866 has 1 MA's), (16, 26875), (17, 26890), (18, 26911), (19, 26914), (20, 26929), (21, 26944), (22, 26956), (25, 27034), (27, 27094),

Gene: TomBrady_30 Start: 26791, Stop: 27111, Start Num: 8

Candidate Starts for TomBrady_30:

(Start: 8 @26791 has 45 MA's), (Start: 11 @26854 has 11 MA's), (Start: 14 @26866 has 2 MA's), (Start: 15 @26872 has 1 MA's), (16, 26881), (17, 26896), (18, 26917), (19, 26920), (20, 26935), (21, 26950), (22, 26962), (25, 27040), (27, 27100),

Gene: Wendigo_30 Start: 26871, Stop: 27110, Start Num: 15

Candidate Starts for Wendigo_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: ZoMa_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for ZoMa_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21, 26949), (22, 26961), (25, 27039), (27, 27099),

Gene: Zombie_30 Start: 26790, Stop: 27110, Start Num: 8

Candidate Starts for Zombie_30:

(Start: 8 @26790 has 45 MA's), (Start: 11 @26853 has 11 MA's), (Start: 14 @26865 has 2 MA's), (Start: 15 @26871 has 1 MA's), (16, 26880), (17, 26895), (18, 26916), (19, 26919), (20, 26934), (21,

26949), (22, 26961), (25, 27039), (27, 27099),