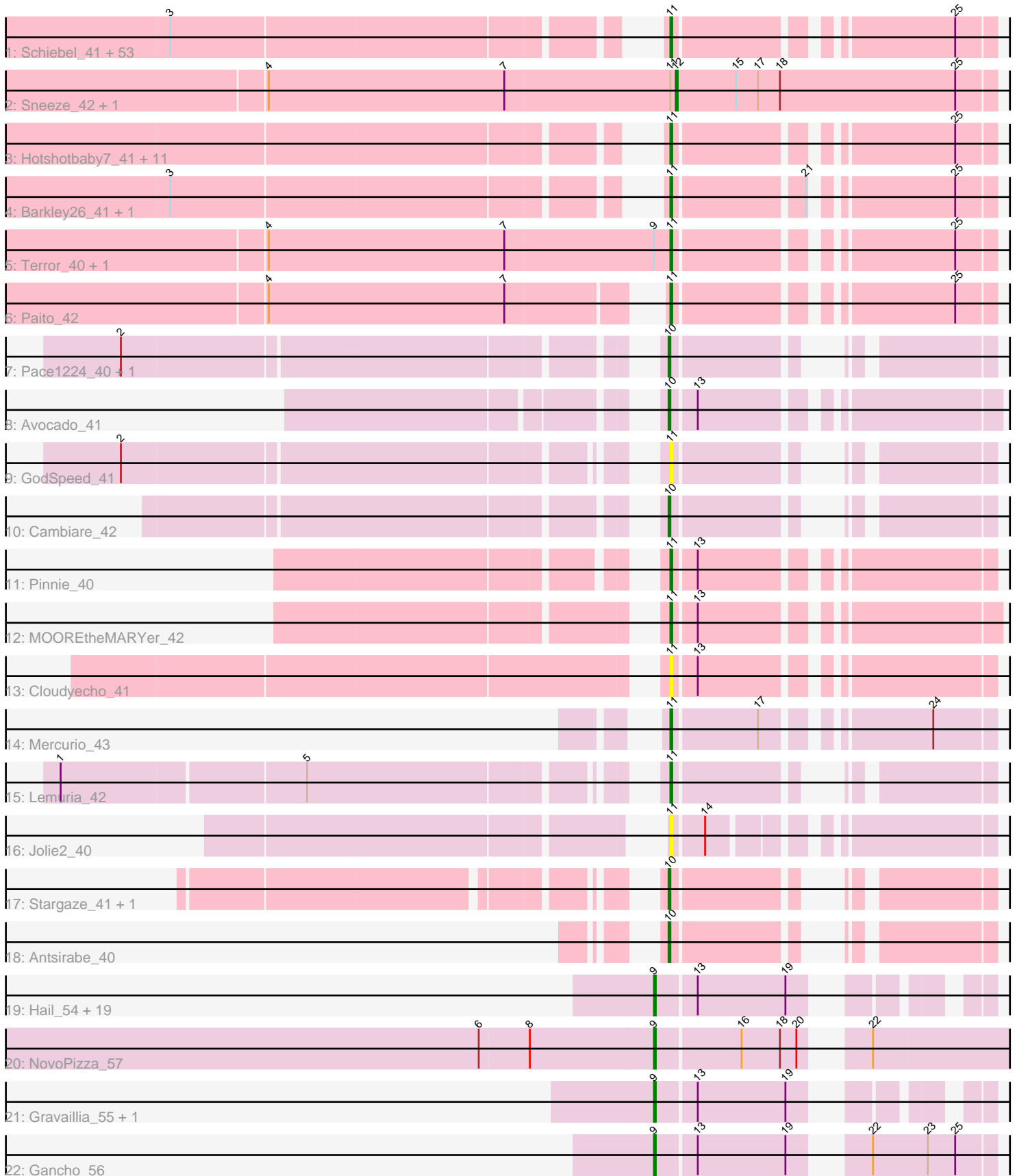


Pham 303230



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 303230 Report

This analysis was run 06/08/26 on database version 649.

Pham number 303230 has 111 members, 14 are drafts.

Phages represented in each track:

- Track 1 : Schiebel_41, ShaboiShabazz_41, Maliketh_41, Zombie_41, MZKinsey_41, Phish_41, Hope_41, TinaBug_41, Avrafan_41, Wendigo_41, Plagueis_41, Renaissance_41, DingDing_41, Cedasite_41, BPs_41, Crespo_41, Darionha_41, Kareem_41, Jeilious_41, BruceB_41, Marmie_41, Gomashi_41, Ruriko_41, PinkYoshi_41, Camri_41, JorRay_41, Cherrybomb426_41, Olga_41, Jane_41, Annihilator_41, Phreak_41, Mowgli_41, Peeb_41, AzulaCat_41, Richarlison_41, Frosty24_41, Angel_41, TomBrady_41, Coleslaw_41, GoldenAsh_41, Gideon_41, OctaviousRex_41, ZoMa_41, DMoney_41, LouisV14_43, BQuat_41, Halo_41, CassieYates_41, Remy19_41, Neoh_41, Sweets_41, Sizemore_41, Kasen3_41, CLED96_41
- Track 2 : Sneeze_42, Rabbs_42
- Track 3 : Hotshotbaby7_41, Phloodle_41, Periodt_41, Chance64_41, Liefie_41, AizenPogi_41, Aroostook_41, Rattrick_41, Jolene_41, DNAIII_0040, Jonghyun_40, ECartman_41
- Track 4 : Barkley26_41, Grizzly_41
- Track 5 : Terror_40, Taheera_40
- Track 6 : Paito_42
- Track 7 : Pace1224_40, FlagStaff_40
- Track 8 : Avocado_41
- Track 9 : GodSpeed_41
- Track 10 : Cambiare_42
- Track 11 : Pinnie_40
- Track 12 : MOOREtheMARYer_42
- Track 13 : Cloudyecho_41
- Track 14 : Mercurio_43
- Track 15 : Lemuria_42
- Track 16 : Jolie2_40
- Track 17 : Stargaze_41, YangYin_41
- Track 18 : Antsirabe_40
- Track 19 : Hail_54, Webster2_57, Luke_56, LilHazelNut_57, Hadrien_56, Wishmaker_54, Giles_54, Forge_54, Ubuntu_57, BloominB_57, Ein37_57, Amymech_57, HH92_56, DeepSoil15_57, Daegal_59, Luna22_54, Kinbote_56, Evanesce_56, Dewey_54, Amochick_57
- Track 20 : NovoPizza_57
- Track 21 : Gravallia_55, OBUpride_57
- Track 22 : Gancho_56

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

The start number called the most often in the published annotations is 11, it was called in 67 of the 97 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AizenPogi_41, Angel_41, Annihilator_41, Aroostook_41, Avrafan_41, AzulaCat_41, BPs_41, BQuat_41, Barkley26_41, BruceB_41, CLED96_41, Camri_41, CassieYates_41, Cedasite_41, Chance64_41, Cherrybomb426_41, Cloudyecho_41, Coleslaw_41, Crespo_41, DMoney_41, DNAIII_0040, Darionha_41, DingDing_41, ECartman_41, Frosty24_41, Gideon_41, GodSpeed_41, GoldenAsh_41, Gomashi_41, Grizzly_41, Halo_41, Hope_41, Hotshotbaby7_41, Jane_41, Jeilious_41, Jolene_41, Jolie2_40, Jonghyun_40, JorRay_41, Kareem_41, Kasen3_41, Lemuria_42, Liefie_41, LouisV14_43, MOOREtheMARYer_42, MZKinsey_41, Maliketh_41, Marmie_41, Mercurio_43, Mowgli_41, Neoh_41, OctaviousRex_41, Olga_41, Paito_42, Peeb_41, Periodt_41, Phish_41, Phloodle_41, Phreak_41, PinkYoshi_41, Pinnie_40, Plagueis_41, Rattrick_41, Remy19_41, Renaissance_41, Richarlison_41, Ruriko_41, Schiebel_41, ShaboiShabazz_41, Sizemore_41, Sweets_41, Taheera_40, Terror_40, TinaBug_41, TomBrady_41, Wendigo_41, ZoMa_41, Zombie_41,

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

- Rabbs_42, Sneeze_42,

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

- Amochick_57, Amymech_57, Antsirabe_40, Avocado_41, BloominB_57, Cambiare_42, Daegal_59, DeepSoil15_57, Dewey_54, Ein37_57, Evanesce_56, FlagStaff_40, Forge_54, Gancho_56, Giles_54, Gravaillia_55, HH92_56, Hadrien_56, Hail_54, Kinbote_56, LilHazelnut_57, Luke_56, Luna22_54, NovoPizza_57, OBUpride_57, Pace1224_40, Stargaze_41, Ubuntu_57, Webster2_57, Wishmaker_54, YangYin_41,

Summary by start number:

Start 9:

- Found in 26 of 111 (23.4%) of genes in pham
- Manual Annotations of this start: 23 of 97
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Amochick_57 (Q), Amymech_57 (Q), BloominB_57 (Q), Daegal_59 (Q), DeepSoil15_57 (Q), Dewey_54 (Q), Ein37_57 (Q), Evanesce_56 (Q), Forge_54 (Q), Gancho_56 (Q), Giles_54 (Q), Gravaillia_55 (Q), HH92_56 (Q), Hadrien_56 (Q), Hail_54 (Q), Kinbote_56 (Q), LilHazelnut_57 (Q), Luke_56 (Q), Luna22_54 (Q), NovoPizza_57 (Q), OBUpride_57 (Q), Ubuntu_57 (Q), Webster2_57 (Q), Wishmaker_54 (Q),

Start 10:

- Found in 7 of 111 (6.3%) of genes in pham
- Manual Annotations of this start: 5 of 97
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Antsirabe_40 (G5), Avocado_41 (G2), Cambiare_42 (G2), FlagStaff_40 (G2), Pace1224_40 (G2), Stargaze_41 (G5), YangYin_41 (G5),

Start 11:

- Found in 80 of 111 (72.1%) of genes in pham
- Manual Annotations of this start: 67 of 97
- Called 97.5% of time when present
- Phage (with cluster) where this start called: AizenPogi_41 (G1), Angel_41 (G1), Annihilator_41 (G1), Aroostook_41 (G1), Avrafan_41 (G1), AzulaCat_41 (G1), BPs_41 (G1), BQuat_41 (G1), Barkley26_41 (G1), BruceB_41 (G1), CLED96_41 (G1), Camri_41 (G1), CassieYates_41 (G1), Cedasite_41 (G1), Chance64_41 (G1), Cherrybomb426_41 (G1), Cloudyecho_41 (G3), Coleslaw_41 (G1), Crespo_41 (G1), DMoney_41 (G1), DNAlll_0040 (G1), Darionha_41 (G1), DingDing_41 (G1), ECartman_41 (G1), Frosty24_41 (G1), Gideon_41 (G1), GodSpeed_41 (G2), GoldenAsh_41 (G1), Gomashi_41 (G1), Grizzly_41 (G1), Halo_41 (G1), Hope_41 (G1), Hotshotbaby7_41 (G1), Jane_41 (G1), Jeilious_41 (G), Jolene_41 (G1), Jolie2_40 (G4), Jonghyun_40 (G1), JorRay_41 (G1), Kareem_41 (G1), Kasen3_41 (G1), Lemuria_42 (G4), Liefie_41 (G1), LouisV14_43 (G1), MOOREtheMARYer_42 (G3), MZKinsey_41 (G1), Maliketh_41 (G1), Marmie_41 (G1), Mercurio_43 (G4), Mowgli_41 (G1), Neoh_41 (G), OctaviousRex_41 (G1), Olga_41 (G1), Paito_42 (G1), Peeb_41 (G1), Periodt_41 (G1), Phish_41 (G1), Phloodle_41 (G1), Phreak_41 (G1), PinkYoshi_41 (G1), Pinnie_40 (G3), Plagueis_41 (G1), Rattrick_41 (G1), Remy19_41 (G1), Renaissance_41 (G1), Richarlison_41 (G1), Ruriko_41 (G1), Schiebel_41 (G1), ShaboiShabazz_41 (G1), Sizemore_41 (G1), Sweets_41 (G1), Taheera_40 (G1), Terror_40 (G1), TinaBug_41 (G1), TomBrady_41 (G1), Wendigo_41 (G1), ZoMa_41 (G1), Zombi_41 (G1),

Start 12:

- Found in 2 of 111 (1.8%) of genes in pham
- Manual Annotations of this start: 2 of 97
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rabbs_42 (G1), Sneeze_42 (G1),

Summary by clusters:

There are 7 clusters represented in this pham: G5, G4, G3, G2, G1, G, Q,

Info for manual annotations of cluster G1:

- Start number 11 was manually annotated 63 times for cluster G1.
- Start number 12 was manually annotated 2 times for cluster G1.

Info for manual annotations of cluster G2:

- Start number 10 was manually annotated 3 times for cluster G2.

Info for manual annotations of cluster G3:

- Start number 11 was manually annotated 2 times for cluster G3.

Info for manual annotations of cluster G4:

- Start number 11 was manually annotated 2 times for cluster G4.

Info for manual annotations of cluster G5:

•Start number 10 was manually annotated 2 times for cluster G5.

Info for manual annotations of cluster Q:

•Start number 9 was manually annotated 23 times for cluster Q.

Gene Information:

Gene: AizenPogi_41 Start: 31758, Stop: 31910, Start Num: 11

Candidate Starts for AizenPogi_41:

(Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Amochick_57 Start: 41343, Stop: 41483, Start Num: 9

Candidate Starts for Amochick_57:

(Start: 9 @41343 has 23 MA's), (13, 41364), (19, 41412),

Gene: Amymech_57 Start: 41313, Stop: 41453, Start Num: 9

Candidate Starts for Amymech_57:

(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: Angel_41 Start: 31743, Stop: 31895, Start Num: 11

Candidate Starts for Angel_41:

(3, 31509), (Start: 11 @31743 has 67 MA's), (25, 31875),

Gene: Annihilator_41 Start: 31749, Stop: 31901, Start Num: 11

Candidate Starts for Annihilator_41:

(3, 31515), (Start: 11 @31749 has 67 MA's), (25, 31881),

Gene: Antsirabe_40 Start: 32314, Stop: 32445, Start Num: 10

Candidate Starts for Antsirabe_40:

(Start: 10 @32314 has 5 MA's),

Gene: Aroostook_41 Start: 31758, Stop: 31910, Start Num: 11

Candidate Starts for Aroostook_41:

(Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Avocado_41 Start: 32998, Stop: 33153, Start Num: 10

Candidate Starts for Avocado_41:

(Start: 10 @32998 has 5 MA's), (13, 33010),

Gene: Avrafan_41 Start: 31758, Stop: 31910, Start Num: 11

Candidate Starts for Avrafan_41:

(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: AzulaCat_41 Start: 31758, Stop: 31910, Start Num: 11

Candidate Starts for AzulaCat_41:

(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: BPs_41 Start: 31758, Stop: 31910, Start Num: 11

Candidate Starts for BPs_41:

(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: BQuat_41 Start: 31749, Stop: 31901, Start Num: 11
Candidate Starts for BQuat_41:
(3, 31515), (Start: 11 @31749 has 67 MA's), (25, 31881),

Gene: Barkley26_41 Start: 31765, Stop: 31917, Start Num: 11
Candidate Starts for Barkley26_41:
(3, 31531), (Start: 11 @31765 has 67 MA's), (21, 31831), (25, 31897),

Gene: BloominB_57 Start: 41313, Stop: 41453, Start Num: 9
Candidate Starts for BloominB_57:
(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: BruceB_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for BruceB_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: CLED96_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for CLED96_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Cambiare_42 Start: 33265, Stop: 33396, Start Num: 10
Candidate Starts for Cambiare_42:
(Start: 10 @33265 has 5 MA's),

Gene: Camri_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Camri_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: CassieYates_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for CassieYates_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Cedasite_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Cedasite_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Chance64_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Chance64_41:
(Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Cherrybomb426_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Cherrybomb426_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Cloudyecho_41 Start: 32701, Stop: 32853, Start Num: 11
Candidate Starts for Cloudyecho_41:
(Start: 11 @32701 has 67 MA's), (13, 32713),

Gene: Coleslaw_41 Start: 31749, Stop: 31901, Start Num: 11
Candidate Starts for Coleslaw_41:
(3, 31515), (Start: 11 @31749 has 67 MA's), (25, 31881),

Gene: Crespo_41 Start: 31759, Stop: 31911, Start Num: 11

Candidate Starts for Crespo_41:
(3, 31525), (Start: 11 @31759 has 67 MA's), (25, 31891),

Gene: DMoney_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for DMoney_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: DNAllI_0040 Start: 30392, Stop: 30544, Start Num: 11
Candidate Starts for DNAllI_0040:
(Start: 11 @30392 has 67 MA's), (25, 30524),

Gene: Daegal_59 Start: 41897, Stop: 42037, Start Num: 9
Candidate Starts for Daegal_59:
(Start: 9 @41897 has 23 MA's), (13, 41918), (19, 41966),

Gene: Darionha_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Darionha_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: DeepSoil15_57 Start: 41313, Stop: 41453, Start Num: 9
Candidate Starts for DeepSoil15_57:
(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: Dewey_54 Start: 41313, Stop: 41453, Start Num: 9
Candidate Starts for Dewey_54:
(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: DingDing_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for DingDing_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: ECartman_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for ECartman_41:
(Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Ein37_57 Start: 41313, Stop: 41453, Start Num: 9
Candidate Starts for Ein37_57:
(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: Evanesce_56 Start: 41313, Stop: 41453, Start Num: 9
Candidate Starts for Evanesce_56:
(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: FlagStaff_40 Start: 32423, Stop: 32554, Start Num: 10
Candidate Starts for FlagStaff_40:
(2, 32162), (Start: 10 @32423 has 5 MA's),

Gene: Forge_54 Start: 41313, Stop: 41453, Start Num: 9
Candidate Starts for Forge_54:
(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: Frosty24_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Frosty24_41:

(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Gancho_56 Start: 41024, Stop: 41185, Start Num: 9

Candidate Starts for Gancho_56:

(Start: 9 @41024 has 23 MA's), (13, 41045), (19, 41093), (22, 41120), (23, 41150), (25, 41165),

Gene: Gideon_41 Start: 31758, Stop: 31910, Start Num: 11

Candidate Starts for Gideon_41:

(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Giles_54 Start: 41313, Stop: 41453, Start Num: 9

Candidate Starts for Giles_54:

(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: GodSpeed_41 Start: 32517, Stop: 32648, Start Num: 11

Candidate Starts for GodSpeed_41:

(2, 32259), (Start: 11 @32517 has 67 MA's),

Gene: GoldenAsh_41 Start: 31743, Stop: 31895, Start Num: 11

Candidate Starts for GoldenAsh_41:

(3, 31509), (Start: 11 @31743 has 67 MA's), (25, 31875),

Gene: Gomashi_41 Start: 31759, Stop: 31911, Start Num: 11

Candidate Starts for Gomashi_41:

(3, 31525), (Start: 11 @31759 has 67 MA's), (25, 31891),

Gene: Gravaillia_55 Start: 41321, Stop: 41461, Start Num: 9

Candidate Starts for Gravaillia_55:

(Start: 9 @41321 has 23 MA's), (13, 41342), (19, 41390),

Gene: Grizzly_41 Start: 31743, Stop: 31895, Start Num: 11

Candidate Starts for Grizzly_41:

(3, 31509), (Start: 11 @31743 has 67 MA's), (21, 31809), (25, 31875),

Gene: HH92_56 Start: 41313, Stop: 41453, Start Num: 9

Candidate Starts for HH92_56:

(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: Hadrien_56 Start: 41313, Stop: 41453, Start Num: 9

Candidate Starts for Hadrien_56:

(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: Hail_54 Start: 41313, Stop: 41453, Start Num: 9

Candidate Starts for Hail_54:

(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: Halo_41 Start: 31753, Stop: 31905, Start Num: 11

Candidate Starts for Halo_41:

(3, 31519), (Start: 11 @31753 has 67 MA's), (25, 31885),

Gene: Hope_41 Start: 31758, Stop: 31910, Start Num: 11

Candidate Starts for Hope_41:

(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Hotshotbaby7_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Hotshotbaby7_41:
(Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Jane_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Jane_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Jeilious_41 Start: 31757, Stop: 31909, Start Num: 11
Candidate Starts for Jeilious_41:
(3, 31523), (Start: 11 @31757 has 67 MA's), (25, 31889),

Gene: Jolene_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Jolene_41:
(Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Jolie2_40 Start: 31370, Stop: 31513, Start Num: 11
Candidate Starts for Jolie2_40:
(Start: 11 @31370 has 67 MA's), (14, 31385),

Gene: Jonghyun_40 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Jonghyun_40:
(Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: JorRay_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for JorRay_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Kareem_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Kareem_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Kasen3_41 Start: 31744, Stop: 31896, Start Num: 11
Candidate Starts for Kasen3_41:
(3, 31510), (Start: 11 @31744 has 67 MA's), (25, 31876),

Gene: Kinbote_56 Start: 41313, Stop: 41453, Start Num: 9
Candidate Starts for Kinbote_56:
(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: Lemuria_42 Start: 32730, Stop: 32861, Start Num: 11
Candidate Starts for Lemuria_42:
(1, 32439), (5, 32568), (Start: 11 @32730 has 67 MA's),

Gene: Liefie_41 Start: 31756, Stop: 31908, Start Num: 11
Candidate Starts for Liefie_41:
(Start: 11 @31756 has 67 MA's), (25, 31888),

Gene: LilHazelnut_57 Start: 41313, Stop: 41453, Start Num: 9
Candidate Starts for LilHazelnut_57:
(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: LouisV14_43 Start: 34023, Stop: 34175, Start Num: 11
Candidate Starts for LouisV14_43:
(3, 33789), (Start: 11 @34023 has 67 MA's), (25, 34155),

Gene: Luke_56 Start: 41268, Stop: 41408, Start Num: 9
Candidate Starts for Luke_56:
(Start: 9 @41268 has 23 MA's), (13, 41289), (19, 41337),

Gene: Luna22_54 Start: 41297, Stop: 41437, Start Num: 9
Candidate Starts for Luna22_54:
(Start: 9 @41297 has 23 MA's), (13, 41318), (19, 41366),

Gene: MOOREtheMARYer_42 Start: 32962, Stop: 33117, Start Num: 11
Candidate Starts for MOOREtheMARYer_42:
(Start: 11 @32962 has 67 MA's), (13, 32974),

Gene: MZKinsey_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for MZKinsey_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Maliketh_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Maliketh_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Marmie_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Marmie_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Mercurio_43 Start: 33230, Stop: 33382, Start Num: 11
Candidate Starts for Mercurio_43:
(Start: 11 @33230 has 67 MA's), (17, 33275), (24, 33350),

Gene: Mowgli_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Mowgli_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Neoh_41 Start: 31750, Stop: 31902, Start Num: 11
Candidate Starts for Neoh_41:
(3, 31516), (Start: 11 @31750 has 67 MA's), (25, 31882),

Gene: NovoPizza_57 Start: 42030, Stop: 42200, Start Num: 9
Candidate Starts for NovoPizza_57:
(6, 41949), (8, 41976), (Start: 9 @42030 has 23 MA's), (16, 42075), (18, 42096), (20, 42105), (22, 42126),

Gene: OBUpride_57 Start: 41309, Stop: 41449, Start Num: 9
Candidate Starts for OBUpride_57:
(Start: 9 @41309 has 23 MA's), (13, 41330), (19, 41378),

Gene: OctaviousRex_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for OctaviousRex_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Olga_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Olga_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Pace1224_40 Start: 32423, Stop: 32554, Start Num: 10
Candidate Starts for Pace1224_40:
(2, 32162), (Start: 10 @32423 has 5 MA's),

Gene: Paito_42 Start: 31996, Stop: 32148, Start Num: 11
Candidate Starts for Paito_42:
(4, 31801), (7, 31930), (Start: 11 @31996 has 67 MA's), (25, 32128),

Gene: Peeb_41 Start: 31743, Stop: 31895, Start Num: 11
Candidate Starts for Peeb_41:
(3, 31509), (Start: 11 @31743 has 67 MA's), (25, 31875),

Gene: Periodt_41 Start: 31749, Stop: 31901, Start Num: 11
Candidate Starts for Periodt_41:
(Start: 11 @31749 has 67 MA's), (25, 31881),

Gene: Phish_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Phish_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Phloodle_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Phloodle_41:
(Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Phreak_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Phreak_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: PinkYoshi_41 Start: 31749, Stop: 31901, Start Num: 11
Candidate Starts for PinkYoshi_41:
(3, 31515), (Start: 11 @31749 has 67 MA's), (25, 31881),

Gene: Pinnie_40 Start: 32670, Stop: 32822, Start Num: 11
Candidate Starts for Pinnie_40:
(Start: 11 @32670 has 67 MA's), (13, 32682),

Gene: Plagueis_41 Start: 31578, Stop: 31730, Start Num: 11
Candidate Starts for Plagueis_41:
(3, 31344), (Start: 11 @31578 has 67 MA's), (25, 31710),

Gene: Rabbs_42 Start: 31925, Stop: 32098, Start Num: 12
Candidate Starts for Rabbs_42:
(4, 31703), (7, 31832), (Start: 11 @31922 has 67 MA's), (Start: 12 @31925 has 2 MA's), (15, 31958),
(17, 31970), (18, 31982), (25, 32078),

Gene: Rattrick_41 Start: 31749, Stop: 31901, Start Num: 11
Candidate Starts for Rattrick_41:
(Start: 11 @31749 has 67 MA's), (25, 31881),

Gene: Remy19_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Remy19_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Renaissance_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Renaissance_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Richarlison_41 Start: 31743, Stop: 31895, Start Num: 11
Candidate Starts for Richarlison_41:
(3, 31509), (Start: 11 @31743 has 67 MA's), (25, 31875),

Gene: Ruriko_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Ruriko_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Schiebel_41 Start: 31743, Stop: 31895, Start Num: 11
Candidate Starts for Schiebel_41:
(3, 31509), (Start: 11 @31743 has 67 MA's), (25, 31875),

Gene: ShaboiShabazz_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for ShaboiShabazz_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Sizemore_41 Start: 31744, Stop: 31896, Start Num: 11
Candidate Starts for Sizemore_41:
(3, 31510), (Start: 11 @31744 has 67 MA's), (25, 31876),

Gene: Sneeze_42 Start: 31924, Stop: 32097, Start Num: 12
Candidate Starts for Sneeze_42:
(4, 31702), (7, 31831), (Start: 11 @31921 has 67 MA's), (Start: 12 @31924 has 2 MA's), (15, 31957),
(17, 31969), (18, 31981), (25, 32077),

Gene: Stargaze_41 Start: 32652, Stop: 32783, Start Num: 10
Candidate Starts for Stargaze_41:
(Start: 10 @32652 has 5 MA's),

Gene: Sweets_41 Start: 31753, Stop: 31905, Start Num: 11
Candidate Starts for Sweets_41:
(3, 31519), (Start: 11 @31753 has 67 MA's), (25, 31885),

Gene: Taheera_40 Start: 31449, Stop: 31601, Start Num: 11
Candidate Starts for Taheera_40:
(4, 31230), (7, 31359), (Start: 9 @31440 has 23 MA's), (Start: 11 @31449 has 67 MA's), (25, 31581),

Gene: Terror_40 Start: 31449, Stop: 31601, Start Num: 11
Candidate Starts for Terror_40:
(4, 31230), (7, 31359), (Start: 9 @31440 has 23 MA's), (Start: 11 @31449 has 67 MA's), (25, 31581),

Gene: TinaBug_41 Start: 31753, Stop: 31905, Start Num: 11
Candidate Starts for TinaBug_41:
(3, 31519), (Start: 11 @31753 has 67 MA's), (25, 31885),

Gene: TomBrady_41 Start: 31759, Stop: 31911, Start Num: 11
Candidate Starts for TomBrady_41:
(3, 31525), (Start: 11 @31759 has 67 MA's), (25, 31891),

Gene: Ubuntu_57 Start: 41313, Stop: 41453, Start Num: 9
Candidate Starts for Ubuntu_57:
(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: Webster2_57 Start: 41313, Stop: 41453, Start Num: 9
Candidate Starts for Webster2_57:
(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: Wendigo_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Wendigo_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Wishmaker_54 Start: 41313, Stop: 41453, Start Num: 9
Candidate Starts for Wishmaker_54:
(Start: 9 @41313 has 23 MA's), (13, 41334), (19, 41382),

Gene: YangYin_41 Start: 32678, Stop: 32809, Start Num: 10
Candidate Starts for YangYin_41:
(Start: 10 @32678 has 5 MA's),

Gene: ZoMa_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for ZoMa_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),

Gene: Zombie_41 Start: 31758, Stop: 31910, Start Num: 11
Candidate Starts for Zombie_41:
(3, 31524), (Start: 11 @31758 has 67 MA's), (25, 31890),