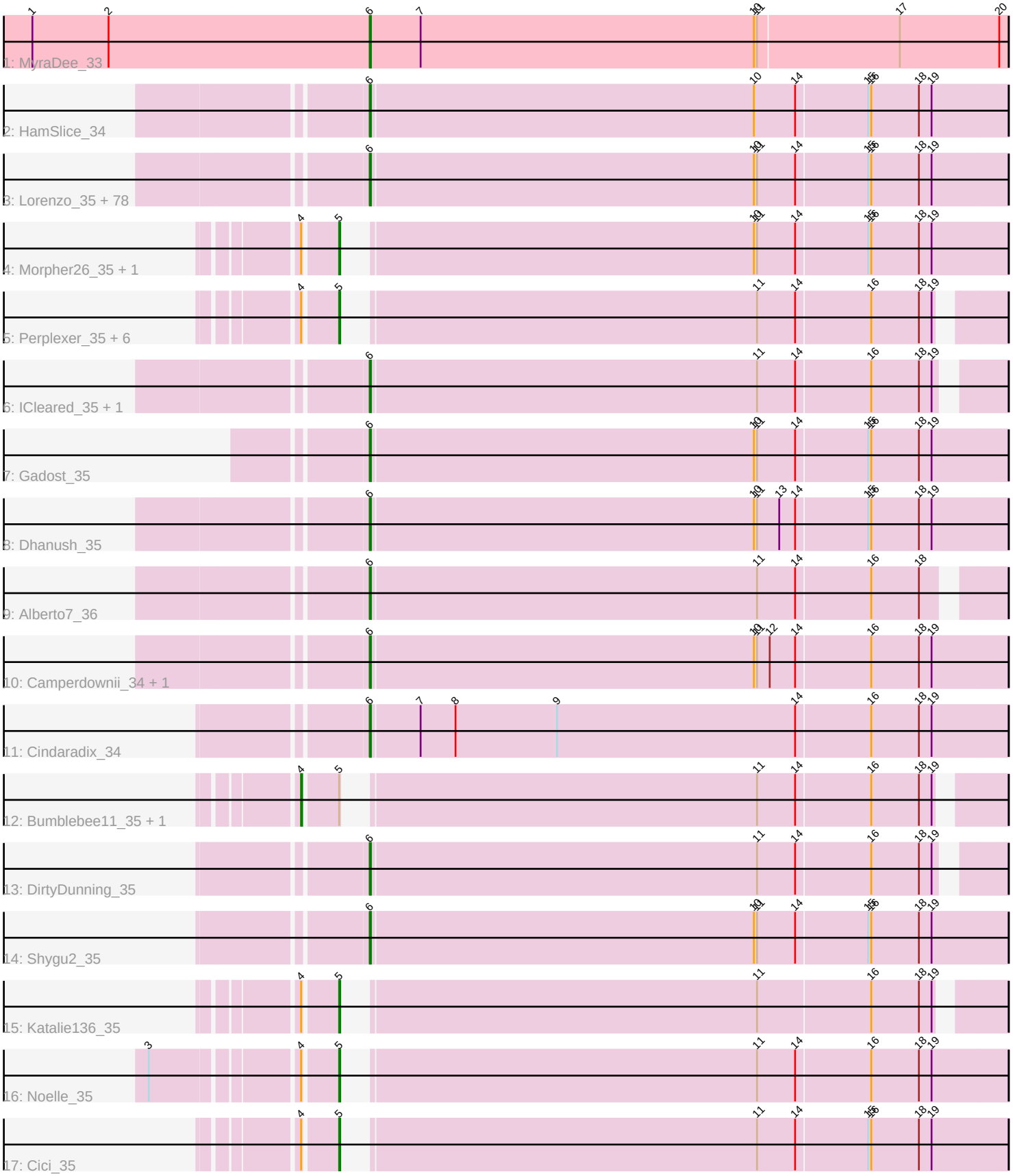
Pham 345571


1: MyraDee_33
2: HamSlice_34
3: Lorenzo_35 + 78
4: Morpher26_35 + 1
5: Perplexer_35 + 6
6: ICleared_35 + 1
7: Gadost_35
8: Dhanush_35
9: Alberto7_36
10: Camperdownii_34 + 1
11: Cindaradix_34
12: Bumblebee11_35 + 1
13: DirtyDunning_35
14: Shygu2_35
15: Katalie136_35
16: Noelle_35
17: Cici_35

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 345571 Report

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

Pham number 345571 has 105 members, 0 are drafts.

Phages represented in each track:
• Track 1 : MyraDee_33
• Track 2 : HamSlice_34
• Track 3 : Lorenzo_35, Cocoaberry_35, Florean_35, Eapen_35, Bartimeaus_35, Avle17_35, Wilbur_35, Taquarus_35, Bruiser_34, Relief_35, Kyee_35, Pipcraft_35, Holli_35, CentreCat_35, Baby16_35, Funston_35, Thanksgivukkah_35, Ruin_35, TygerBlood_35, SteMason_35, Scamp_35, Phighter1804_35, Albee_35, RockieBear_35, Nemo27_35, LappelDuVide_35, Citius_35, Wizard007_35, Lemur_35, Mayonnaise_35, Caelakin_35, NotAPhaseMom_35, SenorClean_35, LittleB_35, Lunsford_36, JoongJeon_35, Eris_34, Sultana_35, Annyong_35, Chaph_35, Druantia_35, Wander_35, Bombshell_35, TiroTheta9_35, Sabertooth_35, MeeZee_35, Blackmoor_35, LochMonster_35, Skipitt_35, Kingmustik0402_35, Iceman_36, Maverick_35, Houdini22_35, Happiness_35, NorthStar_35, Phacado_35, Koan_35, Mazhar510_35, Burger_34, Eros_35, Peaches_35, Romney_35, Millski_34, BubbleTrouble_35, Clarenza_35, Jaykayelowell_35, PeterPeter_35, Deano_35, Shaka_35, Huxley_35, Palestino_34, YoSam321_35, Spino_35, Roosevelt_35, JetBlade_35, Connomayer_35, Flux_35, Broseidon_35, KFPoly_35
• Track 4 : Morpher26_35, Wile_35
• Track 5 : Perplexer_35, Datway_35, PetiteSangsue_35, Badger_35, Backyardigan_35, Xena_35, AbbysRanger_35
• Track 6 : ICleared_35, Koreni_34
• Track 7 : Gadost_35
• Track 8 : Dhanush_35
• Track 9 : Alberto7_36
• Track 10 : Camperdownii_34, Cintron_35
• Track 11 : Cindaradix_34
• Track 12 : Bumblebee11_35, Achebe_34
• Track 13 : DirtyDunning_35
• Track 14 : Shygu2_35
• Track 15 : Katalie136_35
• Track 16 : Noelle_35
• Track 17 : Cici_35

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 91 of the 105 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Albee_35, Alberto7_36, Annyong_35, Avle17_35, Baby16_35, Bartimeaus_35, Blackmoor_35, Bombshell_35, Broseidon_35, Bruiser_34, BubbleTrouble_35, Burger_34, Caelakin_35, Camperdownii_34, CentreCat_35, Chaph_35, Cindaradix_34, Cintron_35, Citius_35, Clarenza_35, Cocoaberry_35, Connomayer_35, Deano_35, Dhanush_35, DirtyDunning_35, Druantia_35, Eapen_35, Eris_34, Eros_35, Florean_35, Flux_35, Funston_35, Gadost_35, HamSlice_34, Happiness_35, Holli_35, Houdini22_35, Huxley_35, ICleared_35, Iceman_36, Jaykayelowell_35, JetBlade_35, JoongJeon_35, KFPoly_35, Kingmustik0402_35, Koan_35, Koreni_34, Kyee_35, LappelDuVide_35, Lemur_35, LittleB_35, LochMonster_35, Lorenzo_35, Lunsford_36, Maverick_35, Mayonnaise_35, Mazhar510_35, MeeZee_35, Millski_34, MyraDee_33, Nemo27_35, NorthStar_35, NotAPhaseMom_35, Palestino_34, Peaches_35, PeterPeter_35, Phacado_35, Phighter1804_35, Pipcraft_35, Relief_35, RockieBear_35, Romney_35, Roosevelt_35, Ruin_35, Sabertooth_35, Scamp_35, SenorClean_35, Shaka_35, Shygu2_35, Skipitt_35, Spino_35, SteMason_35, Sultana_35, Taquarus_35, Thanksgivukkah_35, TiroTheta9_35, TygerBlood_35, Wander_35, Wilbur_35, Wizard007_35, YoSam321_35,

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

Genes that do not have the "Most Annotated" start:
• AbbysRanger_35, Achebe_34, Backyardigan_35, Badger_35, Bumblebee11_35, Cici_35, Datway_35, Katalie136_35, Morpher26_35, Noelle_35, Perplexer_35, PetiteSangsue_35, Wile_35, Xena_35,

Summary by start number:

Start 4:
• Found in 14 of 105 (13.3%) of genes in pham
• Manual Annotations of this start: 2 of 105
• Called 14.3% of time when present
• Phage (with cluster) where this start called: Achebe_34 (A4), Bumblebee11_35 (A4),

Start 5:
• Found in 14 of 105 (13.3%) of genes in pham
• Manual Annotations of this start: 12 of 105
• Called 85.7% of time when present
• Phage (with cluster) where this start called: AbbysRanger_35 (A4), Backyardigan_35 (A4), Badger_35 (A4), Cici_35 (A4), Datway_35 (A4), Katalie136_35 (A4), Morpher26_35 (A4), Noelle_35 (A4), Perplexer_35 (A4), PetiteSangsue_35 (A4), Wile_35 (A4), Xena_35 (A4),

Start 6:
• Found in 91 of 105 (86.7%) of genes in pham
• Manual Annotations of this start: 91 of 105
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Albee_35 (A4), Alberto7_36 (A4), Annyong_35 (A4), Avle17_35 (A4), Baby16_35 (A4), Bartimeaus_35 (A4),

Blackmoor_35 (A4), Bombshell_35 (A4), Broseidon_35 (A4), Bruiser_34 (A4), BubbleTrouble_35 (A4), Burger_34 (A4), Caelakin_35 (A4), Camperdownii_34 (A4), CentreCat_35 (A4), Chaph_35 (A4), Cindaradix_34 (A4), Cintron_35 (A4), Citius_35 (A4), Clarenza_35 (A4), Cocoaberry_35 (A4), Connomayer_35 (A4), Deano_35 (A4), Dhanush_35 (A4), DirtyDunning_35 (A4), Druantia_35 (A4), Eapen_35 (A4), Eris_34 (A4), Eros_35 (A4), Florean_35 (A4), Flux_35 (A4), Funston_35 (A4), Gadost_35 (A4), HamSlice_34 (A4), Happiness_35 (A4), Holli_35 (A4), Houdini22_35 (A4), Huxley_35 (A4), ICleared_35 (A4), Iceman_36 (A4), Jaykayelowell_35 (A4), JetBlade_35 (A4), JoongJeon_35 (A4), KFPoly_35 (A4), Kingmustik0402_35 (A4), Koan_35 (A4), Koreni_34 (A4), Kyee_35 (A4), LappelDuVide_35 (A4), Lemur_35 (A4), LittleB_35 (A4), LochMonster_35 (A4), Lorenzo_35 (A4), Lunsford_36 (A4), Maverick_35 (A4), Mayonnaise_35 (A4), Mazhar510_35 (A4), MeeZee_35 (A4), Millski_34 (A4), MyraDee_33 (A18), Nemo27_35 (A4), NorthStar_35 (A4), NotAPhaseMom_35 (A4), Palestino_34 (A4), Peaches_35 (A4), PeterPeter_35 (A4), Phacado_35 (A4), Phighter1804_35 (A4), Pipcraft_35 (A4), Relief_35 (A4), RockieBear_35 (A4), Romney_35 (A4), Roosevelt_35 (A4), Ruin_35 (A4), Sabertooth_35 (A4), Scamp_35 (A4), SenorClean_35 (A4), Shaka_35 (A4), Shygu2_35 (A4), Skipitt_35 (A4), Spino_35 (A4), SteMason_35 (A4), Sultana_35 (A4), Taquarus_35 (A4), Thanksgivukkah_35 (A4), TiroTheta9_35 (A4), TygerBlood_35 (A4), Wander_35 (A4), Wilbur_35 (A4), Wizard007_35 (A4), YoSam321_35 (A4),

Summary by clusters:

There are 2 clusters represented in this pham: A4, A18,

Info for manual annotations of cluster A18:
•Start number 6 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A4:
•Start number 4 was manually annotated 2 times for cluster A4.
•Start number 5 was manually annotated 12 times for cluster A4.
•Start number 6 was manually annotated 90 times for cluster A4.

Gene Information:

Gene: AbbysRanger_35 Start: 27851, Stop: 27276, Start Num: 5
Candidate Starts for AbbysRanger_35:
(Start: 4 @27881 has 2 MA's), (Start: 5 @27851 has 12 MA's), (11, 27488), (14, 27452), (16, 27383), (18, 27338), (19, 27326),

Gene: Achebe_34 Start: 27864, Stop: 27259, Start Num: 4
Candidate Starts for Achebe_34:
(Start: 4 @27864 has 2 MA's), (Start: 5 @27834 has 12 MA's), (11, 27471), (14, 27435), (16, 27366), (18, 27321), (19, 27309),

Gene: Albee_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Albee_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Alberto7_36 Start: 28144, Stop: 27569, Start Num: 6
Candidate Starts for Alberto7_36:
(Start: 6 @28144 has 91 MA's), (11, 27781), (14, 27745), (16, 27676), (18, 27631),

Gene: Annyong_35 Start: 27805, Stop: 27209, Start Num: 6
Candidate Starts for Annyong_35:
(Start: 6 @27805 has 91 MA's), (10, 27445), (11, 27442), (14, 27406), (15, 27340), (16, 27337), (18, 27292), (19, 27280),

Gene: Avle17_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Avle17_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Baby16_35 Start: 27815, Stop: 27219, Start Num: 6
Candidate Starts for Baby16_35:
(Start: 6 @27815 has 91 MA's), (10, 27455), (11, 27452), (14, 27416), (15, 27350), (16, 27347), (18, 27302), (19, 27290),

Gene: Backyardigan_35 Start: 27867, Stop: 27271, Start Num: 5
Candidate Starts for Backyardigan_35:
(Start: 4 @27897 has 2 MA's), (Start: 5 @27867 has 12 MA's), (11, 27504), (14, 27468), (16, 27399), (18, 27354), (19, 27342),

Gene: Badger_35 Start: 27835, Stop: 27260, Start Num: 5
Candidate Starts for Badger_35:
(Start: 4 @27865 has 2 MA's), (Start: 5 @27835 has 12 MA's), (11, 27472), (14, 27436), (16, 27367), (18, 27322), (19, 27310),

Gene: Bartimeaus_35 Start: 27806, Stop: 27210, Start Num: 6
Candidate Starts for Bartimeaus_35:
(Start: 6 @27806 has 91 MA's), (10, 27446), (11, 27443), (14, 27407), (15, 27341), (16, 27338), (18, 27293), (19, 27281),

Gene: Blackmoor_35 Start: 27806, Stop: 27210, Start Num: 6
Candidate Starts for Blackmoor_35:
(Start: 6 @27806 has 91 MA's), (10, 27446), (11, 27443), (14, 27407), (15, 27341), (16, 27338), (18, 27293), (19, 27281),

Gene: Bombshell_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Bombshell_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Broseidon_35 Start: 27806, Stop: 27210, Start Num: 6
Candidate Starts for Broseidon_35:
(Start: 6 @27806 has 91 MA's), (10, 27446), (11, 27443), (14, 27407), (15, 27341), (16, 27338), (18, 27293), (19, 27281),

Gene: Bruiser_34 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Bruiser_34:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: BubbleTrouble_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for BubbleTrouble_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Bumblebee11_35 Start: 27867, Stop: 27262, Start Num: 4
Candidate Starts for Bumblebee11_35:
(Start: 4 @27867 has 2 MA's), (Start: 5 @27837 has 12 MA's), (11, 27474), (14, 27438), (16, 27369), (18, 27324), (19, 27312),

Gene: Burger_34 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Burger_34:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Caelakin_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Caelakin_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Camperdownii_34 Start: 27498, Stop: 26902, Start Num: 6
Candidate Starts for Camperdownii_34:
(Start: 6 @27498 has 91 MA's), (10, 27138), (11, 27135), (12, 27123), (14, 27099), (16, 27030), (18, 26985), (19, 26973),

Gene: CentreCat_35 Start: 27807, Stop: 27211, Start Num: 6
Candidate Starts for CentreCat_35:
(Start: 6 @27807 has 91 MA's), (10, 27447), (11, 27444), (14, 27408), (15, 27342), (16, 27339), (18, 27294), (19, 27282),

Gene: Chaph_35 Start: 27815, Stop: 27219, Start Num: 6
Candidate Starts for Chaph_35:
(Start: 6 @27815 has 91 MA's), (10, 27455), (11, 27452), (14, 27416), (15, 27350), (16, 27347), (18, 27302), (19, 27290),

Gene: Cici_35 Start: 27852, Stop: 27256, Start Num: 5
Candidate Starts for Cici_35:
(Start: 4 @27882 has 2 MA's), (Start: 5 @27852 has 12 MA's), (11, 27489), (14, 27453), (15, 27387), (16, 27384), (18, 27339), (19, 27327),

Gene: Cindaradix_34 Start: 27606, Stop: 27010, Start Num: 6
Candidate Starts for Cindaradix_34:
(Start: 6 @27606 has 91 MA's), (7, 27561), (8, 27528), (9, 27432), (14, 27207), (16, 27138), (18, 27093), (19, 27081),

Gene: Cintron_35 Start: 27870, Stop: 27274, Start Num: 6
Candidate Starts for Cintron_35:
(Start: 6 @27870 has 91 MA's), (10, 27510), (11, 27507), (12, 27495), (14, 27471), (16, 27402), (18, 27357), (19, 27345),

Gene: Citius_35 Start: 27819, Stop: 27223, Start Num: 6
Candidate Starts for Citius_35:

(Start: 6 @27819 has 91 MA's), (10, 27459), (11, 27456), (14, 27420), (15, 27354), (16, 27351), (18, 27306), (19, 27294),

Gene: Clarenza_35 Start: 27801, Stop: 27205, Start Num: 6
Candidate Starts for Clarenza_35:
(Start: 6 @27801 has 91 MA's), (10, 27441), (11, 27438), (14, 27402), (15, 27336), (16, 27333), (18, 27288), (19, 27276),

Gene: Cocoaberry_35 Start: 27808, Stop: 27212, Start Num: 6
Candidate Starts for Cocoaberry_35:
(Start: 6 @27808 has 91 MA's), (10, 27448), (11, 27445), (14, 27409), (15, 27343), (16, 27340), (18, 27295), (19, 27283),

Gene: Connomayer_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Connomayer_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Datway_35 Start: 27823, Stop: 27227, Start Num: 5
Candidate Starts for Datway_35:
(Start: 4 @27853 has 2 MA's), (Start: 5 @27823 has 12 MA's), (11, 27460), (14, 27424), (16, 27355), (18, 27310), (19, 27298),

Gene: Deano_35 Start: 27812, Stop: 27216, Start Num: 6
Candidate Starts for Deano_35:
(Start: 6 @27812 has 91 MA's), (10, 27452), (11, 27449), (14, 27413), (15, 27347), (16, 27344), (18, 27299), (19, 27287),

Gene: Dhanush_35 Start: 27807, Stop: 27211, Start Num: 6
Candidate Starts for Dhanush_35:
(Start: 6 @27807 has 91 MA's), (10, 27447), (11, 27444), (13, 27423), (14, 27408), (15, 27342), (16, 27339), (18, 27294), (19, 27282),

Gene: DirtyDunning_35 Start: 27843, Stop: 27268, Start Num: 6
Candidate Starts for DirtyDunning_35:
(Start: 6 @27843 has 91 MA's), (11, 27480), (14, 27444), (16, 27375), (18, 27330), (19, 27318),

Gene: Druantia_35 Start: 27807, Stop: 27211, Start Num: 6
Candidate Starts for Druantia_35:
(Start: 6 @27807 has 91 MA's), (10, 27447), (11, 27444), (14, 27408), (15, 27342), (16, 27339), (18, 27294), (19, 27282),

Gene: Eapen_35 Start: 27802, Stop: 27206, Start Num: 6
Candidate Starts for Eapen_35:
(Start: 6 @27802 has 91 MA's), (10, 27442), (11, 27439), (14, 27403), (15, 27337), (16, 27334), (18, 27289), (19, 27277),

Gene: Eris_34 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Eris_34:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Eros_35 Start: 27806, Stop: 27210, Start Num: 6

Candidate Starts for Eros_35:
(Start: 6 @27806 has 91 MA's), (10, 27446), (11, 27443), (14, 27407), (15, 27341), (16, 27338), (18, 27293), (19, 27281),

Gene: Florean_35 Start: 27803, Stop: 27207, Start Num: 6
Candidate Starts for Florean_35:
(Start: 6 @27803 has 91 MA's), (10, 27443), (11, 27440), (14, 27404), (15, 27338), (16, 27335), (18, 27290), (19, 27278),

Gene: Flux_35 Start: 27806, Stop: 27210, Start Num: 6
Candidate Starts for Flux_35:
(Start: 6 @27806 has 91 MA's), (10, 27446), (11, 27443), (14, 27407), (15, 27341), (16, 27338), (18, 27293), (19, 27281),

Gene: Funston_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Funston_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Gadost_35 Start: 27808, Stop: 27212, Start Num: 6
Candidate Starts for Gadost_35:
(Start: 6 @27808 has 91 MA's), (10, 27448), (11, 27445), (14, 27409), (15, 27343), (16, 27340), (18, 27295), (19, 27283),

Gene: HamSlice_34 Start: 27802, Stop: 27206, Start Num: 6
Candidate Starts for HamSlice_34:
(Start: 6 @27802 has 91 MA's), (10, 27442), (14, 27403), (15, 27337), (16, 27334), (18, 27289), (19, 27277),

Gene: Happiness_35 Start: 27809, Stop: 27213, Start Num: 6
Candidate Starts for Happiness_35:
(Start: 6 @27809 has 91 MA's), (10, 27449), (11, 27446), (14, 27410), (15, 27344), (16, 27341), (18, 27296), (19, 27284),

Gene: Holli_35 Start: 27594, Stop: 26998, Start Num: 6
Candidate Starts for Holli_35:
(Start: 6 @27594 has 91 MA's), (10, 27234), (11, 27231), (14, 27195), (15, 27129), (16, 27126), (18, 27081), (19, 27069),

Gene: Houdini22_35 Start: 27808, Stop: 27212, Start Num: 6
Candidate Starts for Houdini22_35:
(Start: 6 @27808 has 91 MA's), (10, 27448), (11, 27445), (14, 27409), (15, 27343), (16, 27340), (18, 27295), (19, 27283),

Gene: Huxley_35 Start: 27865, Stop: 27269, Start Num: 6
Candidate Starts for Huxley_35:
(Start: 6 @27865 has 91 MA's), (10, 27505), (11, 27502), (14, 27466), (15, 27400), (16, 27397), (18, 27352), (19, 27340),

Gene: ICleared_35 Start: 27836, Stop: 27261, Start Num: 6
Candidate Starts for ICleared_35:
(Start: 6 @27836 has 91 MA's), (11, 27473), (14, 27437), (16, 27368), (18, 27323), (19, 27311),

Gene: Iceman_36 Start: 28093, Stop: 27497, Start Num: 6
Candidate Starts for Iceman_36:
(Start: 6 @28093 has 91 MA's), (10, 27733), (11, 27730), (14, 27694), (15, 27628), (16, 27625), (18, 27580), (19, 27568),

Gene: Jaykayelowell_35 Start: 27800, Stop: 27204, Start Num: 6
Candidate Starts for Jaykayelowell_35:
(Start: 6 @27800 has 91 MA's), (10, 27440), (11, 27437), (14, 27401), (15, 27335), (16, 27332), (18, 27287), (19, 27275),

Gene: JetBlade_35 Start: 27801, Stop: 27205, Start Num: 6
Candidate Starts for JetBlade_35:
(Start: 6 @27801 has 91 MA's), (10, 27441), (11, 27438), (14, 27402), (15, 27336), (16, 27333), (18, 27288), (19, 27276),

Gene: JoongJeon_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for JoongJeon_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: KFPoly_35 Start: 27801, Stop: 27205, Start Num: 6
Candidate Starts for KFPoly_35:
(Start: 6 @27801 has 91 MA's), (10, 27441), (11, 27438), (14, 27402), (15, 27336), (16, 27333), (18, 27288), (19, 27276),

Gene: Katalie136_35 Start: 27837, Stop: 27262, Start Num: 5
Candidate Starts for Katalie136_35:
(Start: 4 @27867 has 2 MA's), (Start: 5 @27837 has 12 MA's), (11, 27474), (16, 27369), (18, 27324), (19, 27312),

Gene: Kingmustik0402_35 Start: 27796, Stop: 27200, Start Num: 6
Candidate Starts for Kingmustik0402_35:
(Start: 6 @27796 has 91 MA's), (10, 27436), (11, 27433), (14, 27397), (15, 27331), (16, 27328), (18, 27283), (19, 27271),

Gene: Koan_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Koan_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Koreni_34 Start: 27485, Stop: 26910, Start Num: 6
Candidate Starts for Koreni_34:
(Start: 6 @27485 has 91 MA's), (11, 27122), (14, 27086), (16, 27017), (18, 26972), (19, 26960),

Gene: Kyee_35 Start: 27802, Stop: 27206, Start Num: 6
Candidate Starts for Kyee_35:
(Start: 6 @27802 has 91 MA's), (10, 27442), (11, 27439), (14, 27403), (15, 27337), (16, 27334), (18, 27289), (19, 27277),

Gene: LappelDuVide_35 Start: 27803, Stop: 27207, Start Num: 6
Candidate Starts for LappelDuVide_35:
(Start: 6 @27803 has 91 MA's), (10, 27443), (11, 27440), (14, 27404), (15, 27338), (16, 27335), (18, 27290), (19, 27278),

Gene: Lemur_35 Start: 27801, Stop: 27205, Start Num: 6
Candidate Starts for Lemur_35:
(Start: 6 @27801 has 91 MA's), (10, 27441), (11, 27438), (14, 27402), (15, 27336), (16, 27333), (18, 27288), (19, 27276),

Gene: LittleB_35 Start: 27805, Stop: 27209, Start Num: 6
Candidate Starts for LittleB_35:
(Start: 6 @27805 has 91 MA's), (10, 27445), (11, 27442), (14, 27406), (15, 27340), (16, 27337), (18, 27292), (19, 27280),

Gene: LochMonster_35 Start: 27843, Stop: 27247, Start Num: 6
Candidate Starts for LochMonster_35:
(Start: 6 @27843 has 91 MA's), (10, 27483), (11, 27480), (14, 27444), (15, 27378), (16, 27375), (18, 27330), (19, 27318),

Gene: Lorenzo_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Lorenzo_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Lunsford_36 Start: 27801, Stop: 27205, Start Num: 6
Candidate Starts for Lunsford_36:
(Start: 6 @27801 has 91 MA's), (10, 27441), (11, 27438), (14, 27402), (15, 27336), (16, 27333), (18, 27288), (19, 27276),

Gene: Maverick_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Maverick_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Mayonnaise_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Mayonnaise_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Mazhar510_35 Start: 27805, Stop: 27209, Start Num: 6
Candidate Starts for Mazhar510_35:
(Start: 6 @27805 has 91 MA's), (10, 27445), (11, 27442), (14, 27406), (15, 27340), (16, 27337), (18, 27292), (19, 27280),

Gene: MeeZee_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for MeeZee_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Millski_34 Start: 27808, Stop: 27212, Start Num: 6
Candidate Starts for Millski_34:
(Start: 6 @27808 has 91 MA's), (10, 27448), (11, 27445), (14, 27409), (15, 27343), (16, 27340), (18, 27295), (19, 27283),

Gene: Morpher26_35 Start: 27858, Stop: 27262, Start Num: 5
Candidate Starts for Morpher26_35:

(Start: 4 @27888 has 2 MA's), (Start: 5 @27858 has 12 MA's), (10, 27498), (11, 27495), (14, 27459), (15, 27393), (16, 27390), (18, 27345), (19, 27333),

Gene: MyraDee_33 Start: 25725, Stop: 25126, Start Num: 6
Candidate Starts for MyraDee_33:
(1, 26043), (2, 25971), (Start: 6 @25725 has 91 MA's), (7, 25677), (10, 25362), (11, 25359), (17, 25227), (20, 25134),

Gene: Nemo27_35 Start: 27803, Stop: 27207, Start Num: 6
Candidate Starts for Nemo27_35:
(Start: 6 @27803 has 91 MA's), (10, 27443), (11, 27440), (14, 27404), (15, 27338), (16, 27335), (18, 27290), (19, 27278),

Gene: Noelle_35 Start: 27902, Stop: 27306, Start Num: 5
Candidate Starts for Noelle_35:
(3, 28055), (Start: 4 @27932 has 2 MA's), (Start: 5 @27902 has 12 MA's), (11, 27539), (14, 27503), (16, 27434), (18, 27389), (19, 27377),

Gene: NorthStar_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for NorthStar_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: NotAPhaseMom_35 Start: 27808, Stop: 27212, Start Num: 6
Candidate Starts for NotAPhaseMom_35:
(Start: 6 @27808 has 91 MA's), (10, 27448), (11, 27445), (14, 27409), (15, 27343), (16, 27340), (18, 27295), (19, 27283),

Gene: Palestino_34 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Palestino_34:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Peaches_35 Start: 27803, Stop: 27207, Start Num: 6
Candidate Starts for Peaches_35:
(Start: 6 @27803 has 91 MA's), (10, 27443), (11, 27440), (14, 27404), (15, 27338), (16, 27335), (18, 27290), (19, 27278),

Gene: Perplexer_35 Start: 27834, Stop: 27259, Start Num: 5
Candidate Starts for Perplexer_35:
(Start: 4 @27864 has 2 MA's), (Start: 5 @27834 has 12 MA's), (11, 27471), (14, 27435), (16, 27366), (18, 27321), (19, 27309),

Gene: PeterPeter_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for PeterPeter_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: PetiteSangsue_35 Start: 27837, Stop: 27262, Start Num: 5
Candidate Starts for PetiteSangsue_35:
(Start: 4 @27867 has 2 MA's), (Start: 5 @27837 has 12 MA's), (11, 27474), (14, 27438), (16, 27369), (18, 27324), (19, 27312),

Gene: Phacado_35 Start: 27803, Stop: 27207, Start Num: 6
Candidate Starts for Phacado_35:
(Start: 6 @27803 has 91 MA's), (10, 27443), (11, 27440), (14, 27404), (15, 27338), (16, 27335), (18, 27290), (19, 27278),

Gene: Phighter1804_35 Start: 27846, Stop: 27250, Start Num: 6
Candidate Starts for Phighter1804_35:
(Start: 6 @27846 has 91 MA's), (10, 27486), (11, 27483), (14, 27447), (15, 27381), (16, 27378), (18, 27333), (19, 27321),

Gene: Pipcraft_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Pipcraft_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Relief_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Relief_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: RockieBear_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for RockieBear_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Romney_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Romney_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Roosevelt_35 Start: 27806, Stop: 27210, Start Num: 6
Candidate Starts for Roosevelt_35:
(Start: 6 @27806 has 91 MA's), (10, 27446), (11, 27443), (14, 27407), (15, 27341), (16, 27338), (18, 27293), (19, 27281),

Gene: Ruin_35 Start: 27800, Stop: 27204, Start Num: 6
Candidate Starts for Ruin_35:
(Start: 6 @27800 has 91 MA's), (10, 27440), (11, 27437), (14, 27401), (15, 27335), (16, 27332), (18, 27287), (19, 27275),

Gene: Sabertooth_35 Start: 27803, Stop: 27207, Start Num: 6
Candidate Starts for Sabertooth_35:
(Start: 6 @27803 has 91 MA's), (10, 27443), (11, 27440), (14, 27404), (15, 27338), (16, 27335), (18, 27290), (19, 27278),

Gene: Scamp_35 Start: 27806, Stop: 27210, Start Num: 6
Candidate Starts for Scamp_35:
(Start: 6 @27806 has 91 MA's), (10, 27446), (11, 27443), (14, 27407), (15, 27341), (16, 27338), (18, 27293), (19, 27281),

Gene: SenorClean_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for SenorClean_35:

(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Shaka_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Shaka_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Shygu2_35 Start: 27798, Stop: 27202, Start Num: 6
Candidate Starts for Shygu2_35:
(Start: 6 @27798 has 91 MA's), (10, 27438), (11, 27435), (14, 27399), (15, 27333), (16, 27330), (18, 27285), (19, 27273),

Gene: Skipitt_35 Start: 27801, Stop: 27205, Start Num: 6
Candidate Starts for Skipitt_35:
(Start: 6 @27801 has 91 MA's), (10, 27441), (11, 27438), (14, 27402), (15, 27336), (16, 27333), (18, 27288), (19, 27276),

Gene: Spino_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Spino_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: SteMason_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for SteMason_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Sultana_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Sultana_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Taquarus_35 Start: 27807, Stop: 27211, Start Num: 6
Candidate Starts for Taquarus_35:
(Start: 6 @27807 has 91 MA's), (10, 27447), (11, 27444), (14, 27408), (15, 27342), (16, 27339), (18, 27294), (19, 27282),

Gene: Thanksgivukkah_35 Start: 27805, Stop: 27209, Start Num: 6
Candidate Starts for Thanksgivukkah_35:
(Start: 6 @27805 has 91 MA's), (10, 27445), (11, 27442), (14, 27406), (15, 27340), (16, 27337), (18, 27292), (19, 27280),

Gene: TiroTheta9_35 Start: 27801, Stop: 27205, Start Num: 6
Candidate Starts for TiroTheta9_35:
(Start: 6 @27801 has 91 MA's), (10, 27441), (11, 27438), (14, 27402), (15, 27336), (16, 27333), (18, 27288), (19, 27276),

Gene: TygerBlood_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for TygerBlood_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Wander_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Wander_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Wilbur_35 Start: 27804, Stop: 27208, Start Num: 6
Candidate Starts for Wilbur_35:
(Start: 6 @27804 has 91 MA's), (10, 27444), (11, 27441), (14, 27405), (15, 27339), (16, 27336), (18, 27291), (19, 27279),

Gene: Wile_35 Start: 27868, Stop: 27272, Start Num: 5
Candidate Starts for Wile_35:
(Start: 4 @27898 has 2 MA's), (Start: 5 @27868 has 12 MA's), (10, 27508), (11, 27505), (14, 27469), (15, 27403), (16, 27400), (18, 27355), (19, 27343),

Gene: Wizard007_35 Start: 27809, Stop: 27213, Start Num: 6
Candidate Starts for Wizard007_35:
(Start: 6 @27809 has 91 MA's), (10, 27449), (11, 27446), (14, 27410), (15, 27344), (16, 27341), (18, 27296), (19, 27284),

Gene: Xena_35 Start: 27834, Stop: 27259, Start Num: 5
Candidate Starts for Xena_35:
(Start: 4 @27864 has 2 MA's), (Start: 5 @27834 has 12 MA's), (11, 27471), (14, 27435), (16, 27366), (18, 27321), (19, 27309),

Gene: YoSam321_35 Start: 27801, Stop: 27205, Start Num: 6
Candidate Starts for YoSam321_35:
(Start: 6 @27801 has 91 MA's), (10, 27441), (11, 27438), (14, 27402), (15, 27336), (16, 27333), (18, 27288), (19, 27276),