



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 283548 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283548 has 160 members, 30 are drafts.

Phages represented in each track:

- Track 1 : PinkFriday_6, Maria1952_6, Riovina_6, Vulture_6, OMalley_6, KingBob_6, Pumancara_6, HunterDalle_6, Eunoia_6, Sergei_6, Aledel_6, Supakev_6, Daiboju_6, Temper16_6, Herb_6
- Track 2 : Chridison_6, AustinPowers_6
- Track 3 : Oxynfrius_10, Lakshmi_10, Albanese_10, Joann_10, RcigaStruga_10, Huntingdon_10, Nubia_10
- Track 4 : Scuttle_10, BrotherBLo_10
- Track 5 : Carpal_10, RAP15_10, Potatoes_10, Cholula_10, Fluke_10, Glenn_10, Jumboset_10, Savage2526_10, Rozby_10, TattModd_10, MrGloopy_10, Riverdale_10, Immaculata_10, MeganNoll_10
- Track 6 : Bennie_6, HeadNerd_6, Moki_6, Huckleberry_6
- Track 7 : DrRobert_6, Lennox_6, Makoto_6, Lucy_6, PitaDog_6, WonderBoy_6, CristinaYang_6, LilStuart_6, Lasagna_6, Christian_6, OurGirlNessie_6, Nancia_6
- Track 8 : Urla_6
- Track 9 : Wawa_10, Korra_10, Dino_10, Kalizoi_10, Zorro_10
- Track 10 : Greenhouse_10
- Track 11 : Wayne_10, Vallejo_10, Suppi_10, Litotes_10, PartyCup_10, MrBoss_10, Canowicakte_10, CallieOMalley_10, AppleCider_10, Graynor_10
- Track 12 : Kittykat_6, Gisselle_6, DreamTeam_6
- Track 13 : GreenHearts_10
- Track 14 : BigMack_6
- Track 15 : Bodacious_6, ChewChew_6
- Track 16 : MamaPearl_6, EstebanJulior_6
- Track 17 : Misaeng_10
- Track 18 : Pterodactyl_6
- Track 19 : Preamble_6
- Track 20 : Beethoven_10
- Track 21 : Niblet_8, Zixiang_8, Chicken_8
- Track 22 : Abidatro_8, Galaxy_8
- Track 23 : Shen_9, Amanises_9, Pelletreau_9, Orcanus_8, Toad24_9, Gravel_9, Eesa_8, KendraB23_9, Westrich_9
- Track 24 : Chickaboom_7, WileyE_7
- Track 25 : Vulpecula_8
- Track 26 : Ruchi_8
- Track 27 : Cote_9, Amelia_9, OtsoOtso_8, Jerole_9, Polka_8, Lunar_9, Melons_9, Pineda_9, Bedetta_9, Daob_9, Bibble12_9, PhirstandPhine_9, Kepler_8, Colusalem_8, HannahPhantana_9

- Track 28 : Kuleana_8
- Track 29 : Zhuangyuan_9, Cygnet_8
- Track 30 : Antrice_8
- Track 31 : LittleTokyo_8
- Track 32 : Coral_8
- Track 33 : AmiCi24_7, Oppalora_7, DanHam62_7, Camara_7, Juno112_7, PhluffyCoco_7, HamCheese_7, Glotell_7, Amphitrite_7, KHumphrey_7, Laphuphu24k_7, AdoptaAdorbs_7, RedFox_7, Atlantica_7
- Track 34 : AlexMinion_7, StuartMinion_7
- Track 35 : Fingolfin_7
- Track 36 : Rattail_7, Azaz_7
- Track 37 : Andrew_8
- Track 38 : Renna12_8
- Track 39 : Babushka_7
- Track 40 : Upyo_6
- Track 41 : Frizzle_5, Ghobes_5
- Track 42 : Sapo_5
- Track 43 : Alatato_6
- Track 44 : Kumotta_8
- Track 45 : Sarge_7
- Track 46 : JeanClaude_7
- Track 47 : Rooter_7
- Track 48 : Cubone_6, Snekmaggedon_7
- Track 49 : Melville_7, Scitech_7

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

The start number called the most often in the published annotations is 19, it was called in 87 of the 130 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alatato_6, Albanese_10, Aledel_6, AppleCider_10, AustinPowers_6, Beethoven_10, Bennie_6, BigMack_6, Bodacious_6, BrotherBLo_10, CallieOMalley_10, Canowicakte_10, Carpal_10, ChewChew_6, Cholula_10, Chridison_6, Christian_6, CristinaYang_6, Daiboju_6, Dino_10, DrRobert_6, DreamTeam_6, EstebanJulior_6, Eunoia_6, Fluke_10, Gisselle_6, Glenn_10, Graynor_10, GreenHearts_10, Greenhouse_10, HeadNerd_6, Herb_6, Huckleberry_6, HunterDalle_6, Huntingdon_10, Immaculata_10, Joann_10, Jumboset_10, Kalizoi_10, KingBob_6, Kittykat_6, Korra_10, Kumotta_8, Lakshmi_10, Lasagna_6, Lennox_6, LilStuart_6, Litotes_10, Lucy_6, Makoto_6, MamaPearl_6, Maria1952_6, MeganNoll_10, Misaeng_10, Moki_6, MrBoss_10, MrGloopy_10, Nancia_6, Nubia_10, OMalley_6, OurGirlNessie_6, Oxynfrius_10, PartyCup_10, PinkFriday_6, PitaDog_6, Potatoes_10, Preamble_6, Pterodactyl_6, Pumancara_6, RAP15_10, RcigaStruga_10, Riovina_6, Riverdale_10, Rozby_10, Savage2526_10, Scuttle_10, Sergei_6, Supakev_6, Suppi_10, TattModd_10, Temper16_6, Upyo_6, Urla_6, Vallejo_10, Vulture_6, Wawa_10, Wayne_10, WonderBoy_6, Zorro_10,

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

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

- Abidatro_8, AdoptaAdorbs_7, AlexMinion_7, Amanises_9, Amelia_9, AmiCi24_7, Amphitrite_7, Andrew_8, Antrice_8, Atlantica_7, Azaz_7, Babushka_7, Bedetta_9, Bible12_9, Camara_7, Chickaboom_7, Chicken_8, Colusalem_8, Coral_8, Cote_9, Cubone_6, Cygnet_8, DanHam62_7, Daob_9, Eesa_8, Fingolfin_7, Frizzle_5, Galaxy_8, Ghobes_5, Glotell_7, Gravel_9, HamCheese_7, HannahPhantana_9, JeanClaude_7, Jerole_9, Juno112_7, KHumphrey_7, KendraB23_9, Kepler_8, Kuleana_8, Laphuphu24k_7, LittleTokyo_8, Lunar_9, Melons_9, Melville_7, Niblet_8, Oppalora_7, Orcanus_8, OtsoOtso_8, Pelletreau_9, PhirstandPhine_9, PhluffyCoco_7, Pineda_9, Polka_8, Rattail_7, RedFox_7, Renna12_8, Rooter_7, Ruchi_8, Sapo_5, Sarge_7, Scitech_7, Shen_9, Snekmaggedon_7, StuartMinion_7, Toad24_9, Vulpecula_8, Westrich_9, WileyE_7, Zhuangyuan_9, Zixiang_8,

Summary by start number:

Start 17:

- Found in 3 of 160 (1.9%) of genes in pham
- Manual Annotations of this start: 3 of 130
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Frizzle_5 (DA), Ghobes_5 (DA), Sapo_5 (DA),

Start 18:

- Found in 4 of 160 (2.5%) of genes in pham
- Manual Annotations of this start: 3 of 130
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antrice_8 (AS2), Cygnet_8 (AS2), LittleTokyo_8 (AS2), Zhuangyuan_9 (AS2),

Start 19:

- Found in 89 of 160 (55.6%) of genes in pham
- Manual Annotations of this start: 87 of 130
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alatato_6 (FB), Albanese_10 (AK), Aledel_6 (AK), AppleCider_10 (AK), AustinPowers_6 (AK), Beethoven_10 (AK), Bennie_6 (AK), BigMack_6 (AK), Bodacious_6 (AK), BrotherBLo_10 (AK), CallieOMalley_10 (AK), Canowicakte_10 (AK), Carpal_10 (AK), ChewChew_6 (AK), Cholula_10 (AK), Chridison_6 (AK), Christian_6 (AK), CristinaYang_6 (AK), Daiboju_6 (AK), Dino_10 (AK), DrRobert_6 (AK), DreamTeam_6 (AK), EstebanJulior_6 (AK), Eunoia_6 (AK), Fluke_10 (AK), Gisselle_6 (AK), Glenn_10 (AK), Graynor_10 (AK), GreenHearts_10 (AK), Greenhouse_10 (AK), HeadNerd_6 (AK), Herb_6 (AK), Huckleberry_6 (AK), HunterDalle_6 (AK), Huntingdon_10 (AK), Immaculata_10 (AK), Joann_10 (AK), Jumboset_10 (AK), Kalizoi_10 (AK), KingBob_6 (AK), Kittykat_6 (AK), Korra_10 (AK), Kumotta_8 (FB), Lakshmi_10 (AK), Lasagna_6 (AK), Lennox_6 (AK), LilStuart_6 (AK), Litotes_10 (AK), Lucy_6 (AK), Makoto_6 (AK), MamaPearl_6 (AK), Maria1952_6 (AK), MeganNoll_10 (AK), Misaeng_10 (AK), Moki_6 (AK), MrBoss_10 (AK), MrGloopy_10 (AK), Nancia_6 (AK), Nubia_10 (AK), OMalley_6 (AK), OurGirlNessie_6 (AK), Oxynfrius_10 (AK), PartyCup_10 (AK), PinkFriday_6 (AK), PitaDog_6 (AK), Potatoes_10 (AK), Preamble_6 (AK), Pterodactyl_6 (AK), Pumancara_6 (AK), RAP15_10 (AK), RcigaStruga_10 (AK), Rivovina_6 (AK), Riverdale_10 (AK), Rozby_10 (AK), Savage2526_10 (AK), Scuttle_10 (AK), Sergei_6 (AK), Supakev_6 (AK), Suppi_10 (AK), TattModd_10 (AK), Temper16_6 (AK), Upyo_6 (CD), Urla_6 (AK), Vallejo_10 (AK), Vulture_6 (AK),

Wawa_10 (AK), Wayne_10 (AK), WonderBoy_6 (AK), Zorro_10 (AK),

Start 20:

- Found in 63 of 160 (39.4%) of genes in pham
- Manual Annotations of this start: 35 of 130
- Called 93.7% of time when present
- Phage (with cluster) where this start called: Abidatro_8 (AS1), AdoptaAdorbs_7 (AS3), AlexMinion_7 (AS3), Amanises_9 (AS1), Amelia_9 (AS2), AmiCi24_7 (AS3), Amphitrite_7 (AS3), Andrew_8 (AS3), Atlantica_7 (AS3), Azaz_7 (AS3), Babushka_7 (AS3), Bedetta_9 (AS2), Bibble12_9 (AS2), Camara_7 (AS3), Chickaboom_7 (AS1), Chicken_8 (AS1), Colusalem_8 (AS2), Coral_8 (AS2), Cote_9 (AS2), DanHam62_7 (AS3), Daob_9 (AS2), Eesa_8 (AS1), Fingolfin_7 (AS3), Galaxy_8 (AS1), Glotell_7 (AS3), Gravel_9 (AS1), HamCheese_7 (AS3), HannahPhantana_9 (AS2), JeanClaude_7 (FB), Jerole_9 (AS2), Juno112_7 (AS3), KHumphrey_7 (AS3), KendraB23_9 (AS1), Kepler_8 (AS2), Kuleana_8 (AS2), Laphuphu24k_7 (AS3), Lunar_9 (AS2), Melons_9 (AS2), Niblet_8 (AS1), Oppalora_7 (AS3), Orcanus_8 (AS1), OtsoOtso_8 (AS2), Pelletreau_9 (AS1), PhirstandPhine_9 (AS2), PhluffyCoco_7 (AS3), Pineda_9 (AS2), Polka_8 (AS2), Rattail_7 (AS3), RedFox_7 (AS3), Renna12_8 (AS3), Ruchi_8 (AS1), Sarge_7 (FB), Shen_9 (AS1), StuartMinion_7 (AS3), Toad24_9 (AS1), Vulpecula_8 (AS1), Westrich_9 (AS1), WileyE_7 (AS1), Zixiang_8 (AS1),

Start 22:

- Found in 1 of 160 (0.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rooter_7 (FB),

Start 31:

- Found in 4 of 160 (2.5%) of genes in pham
- Manual Annotations of this start: 2 of 130
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cubone_6 (N), Melville_7 (N), Scitech_7 (N), Snekmaggon_7 (N),

Summary by clusters:

There are 8 clusters represented in this pham: AS3, AS2, AS1, AK, CD, N, FB, DA,

Info for manual annotations of cluster AK:

- Start number 19 was manually annotated 84 times for cluster AK.

Info for manual annotations of cluster AS1:

- Start number 20 was manually annotated 8 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 18 was manually annotated 3 times for cluster AS2.
- Start number 20 was manually annotated 13 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 20 was manually annotated 13 times for cluster AS3.

Info for manual annotations of cluster CD:

- Start number 19 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster DA:

- Start number 17 was manually annotated 3 times for cluster DA.

Info for manual annotations of cluster FB:

- Start number 19 was manually annotated 2 times for cluster FB.
- Start number 20 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster N:

- Start number 31 was manually annotated 2 times for cluster N.

Gene Information:

Gene: Abidatro_8 Start: 6875, Stop: 7084, Start Num: 20

Candidate Starts for Abidatro_8:

(15, 6830), (Start: 20 @6875 has 35 MA's),

Gene: AdoptaAdorbs_7 Start: 6510, Stop: 6692, Start Num: 20

Candidate Starts for AdoptaAdorbs_7:

(Start: 20 @6510 has 35 MA's), (24, 6531),

Gene: Alatato_6 Start: 5818, Stop: 5973, Start Num: 19

Candidate Starts for Alatato_6:

(Start: 19 @5818 has 87 MA's), (25, 5845),

Gene: Albanese_10 Start: 9061, Stop: 9255, Start Num: 19

Candidate Starts for Albanese_10:

(Start: 19 @9061 has 87 MA's), (32, 9142),

Gene: Aledel_6 Start: 6159, Stop: 6332, Start Num: 19

Candidate Starts for Aledel_6:

(Start: 19 @6159 has 87 MA's),

Gene: AlexMinion_7 Start: 6509, Stop: 6718, Start Num: 20

Candidate Starts for AlexMinion_7:

(7, 6431), (Start: 20 @6509 has 35 MA's), (24, 6530), (35, 6611),

Gene: Amanises_9 Start: 7098, Stop: 7280, Start Num: 20

Candidate Starts for Amanises_9:

(Start: 20 @7098 has 35 MA's),

Gene: Amelia_9 Start: 7077, Stop: 7280, Start Num: 20

Candidate Starts for Amelia_9:

(Start: 20 @7077 has 35 MA's), (24, 7098), (27, 7113), (28, 7122),

Gene: AmiCi24_7 Start: 6510, Stop: 6692, Start Num: 20

Candidate Starts for AmiCi24_7:

(Start: 20 @6510 has 35 MA's), (24, 6531),

Gene: Amphitrite_7 Start: 6508, Stop: 6690, Start Num: 20

Candidate Starts for Amphitrite_7:
(Start: 20 @6508 has 35 MA's), (24, 6529),

Gene: Andrew_8 Start: 6895, Stop: 7071, Start Num: 20
Candidate Starts for Andrew_8:
(Start: 20 @6895 has 35 MA's), (24, 6916), (28, 6940), (35, 6997),

Gene: Antrice_8 Start: 6824, Stop: 7024, Start Num: 18
Candidate Starts for Antrice_8:
(16, 6785), (Start: 18 @6824 has 3 MA's),

Gene: AppleCider_10 Start: 9015, Stop: 9209, Start Num: 19
Candidate Starts for AppleCider_10:
(Start: 19 @9015 has 87 MA's),

Gene: Atlantica_7 Start: 6510, Stop: 6692, Start Num: 20
Candidate Starts for Atlantica_7:
(Start: 20 @6510 has 35 MA's), (24, 6531),

Gene: AustinPowers_6 Start: 6160, Stop: 6333, Start Num: 19
Candidate Starts for AustinPowers_6:
(Start: 19 @6160 has 87 MA's), (27, 6199), (29, 6211),

Gene: Azaz_7 Start: 6552, Stop: 6743, Start Num: 20
Candidate Starts for Azaz_7:
(8, 6489), (Start: 20 @6552 has 35 MA's), (24, 6573), (35, 6654),

Gene: Babushka_7 Start: 6552, Stop: 6740, Start Num: 20
Candidate Starts for Babushka_7:
(Start: 20 @6552 has 35 MA's), (24, 6573), (35, 6654),

Gene: Bedetta_9 Start: 7077, Stop: 7280, Start Num: 20
Candidate Starts for Bedetta_9:
(Start: 20 @7077 has 35 MA's), (24, 7098), (27, 7113), (28, 7122),

Gene: Beethoven_10 Start: 8995, Stop: 9174, Start Num: 19
Candidate Starts for Beethoven_10:
(Start: 19 @8995 has 87 MA's),

Gene: Bennie_6 Start: 6140, Stop: 6319, Start Num: 19
Candidate Starts for Bennie_6:
(Start: 19 @6140 has 87 MA's), (32, 6224), (34, 6245),

Gene: Bible12_9 Start: 7080, Stop: 7283, Start Num: 20
Candidate Starts for Bible12_9:
(Start: 20 @7080 has 35 MA's), (24, 7101), (27, 7116), (28, 7125),

Gene: BigMack_6 Start: 6140, Stop: 6319, Start Num: 19
Candidate Starts for BigMack_6:
(Start: 19 @6140 has 87 MA's), (34, 6245),

Gene: Bodacious_6 Start: 6138, Stop: 6317, Start Num: 19
Candidate Starts for Bodacious_6:

(Start: 19 @6138 has 87 MA's), (34, 6243), (37, 6273),

Gene: BrotherBLo_10 Start: 9002, Stop: 9181, Start Num: 19

Candidate Starts for BrotherBLo_10:

(Start: 19 @9002 has 87 MA's), (34, 9107),

Gene: CallieOMalley_10 Start: 9015, Stop: 9209, Start Num: 19

Candidate Starts for CallieOMalley_10:

(Start: 19 @9015 has 87 MA's),

Gene: Camara_7 Start: 6511, Stop: 6693, Start Num: 20

Candidate Starts for Camara_7:

(Start: 20 @6511 has 35 MA's), (24, 6532),

Gene: Canowicakte_10 Start: 9050, Stop: 9244, Start Num: 19

Candidate Starts for Canowicakte_10:

(Start: 19 @9050 has 87 MA's),

Gene: Carpal_10 Start: 9002, Stop: 9181, Start Num: 19

Candidate Starts for Carpal_10:

(Start: 19 @9002 has 87 MA's),

Gene: ChewChew_6 Start: 6137, Stop: 6316, Start Num: 19

Candidate Starts for ChewChew_6:

(Start: 19 @6137 has 87 MA's), (34, 6242), (37, 6272),

Gene: Chickaboom_7 Start: 6580, Stop: 6765, Start Num: 20

Candidate Starts for Chickaboom_7:

(10, 6526), (13, 6532), (Start: 20 @6580 has 35 MA's), (34, 6679),

Gene: Chicken_8 Start: 6886, Stop: 7068, Start Num: 20

Candidate Starts for Chicken_8:

(Start: 20 @6886 has 35 MA's), (26, 6913),

Gene: Cholula_10 Start: 9047, Stop: 9226, Start Num: 19

Candidate Starts for Cholula_10:

(Start: 19 @9047 has 87 MA's),

Gene: Chridison_6 Start: 6160, Stop: 6333, Start Num: 19

Candidate Starts for Chridison_6:

(Start: 19 @6160 has 87 MA's), (27, 6199), (29, 6211),

Gene: Christian_6 Start: 6138, Stop: 6317, Start Num: 19

Candidate Starts for Christian_6:

(Start: 19 @6138 has 87 MA's), (34, 6243), (37, 6273),

Gene: Colusalem_8 Start: 6916, Stop: 7119, Start Num: 20

Candidate Starts for Colusalem_8:

(Start: 20 @6916 has 35 MA's), (24, 6937), (27, 6952), (28, 6961),

Gene: Coral_8 Start: 6916, Stop: 7119, Start Num: 20

Candidate Starts for Coral_8:

(Start: 20 @6916 has 35 MA's), (24, 6937), (27, 6952), (28, 6961), (38, 7051),

Gene: Cote_9 Start: 7077, Stop: 7280, Start Num: 20
Candidate Starts for Cote_9:
(Start: 20 @7077 has 35 MA's), (24, 7098), (27, 7113), (28, 7122),

Gene: CristinaYang_6 Start: 6138, Stop: 6317, Start Num: 19
Candidate Starts for CristinaYang_6:
(Start: 19 @6138 has 87 MA's), (34, 6243), (37, 6273),

Gene: Cubone_6 Start: 5805, Stop: 5987, Start Num: 31
Candidate Starts for Cubone_6:
(1, 5334), (2, 5436), (Start: 20 @5736 has 35 MA's), (Start: 31 @5805 has 2 MA's), (33, 5820),

Gene: Cygnet_8 Start: 6857, Stop: 7063, Start Num: 18
Candidate Starts for Cygnet_8:
(Start: 18 @6857 has 3 MA's),

Gene: Daiboju_6 Start: 6161, Stop: 6334, Start Num: 19
Candidate Starts for Daiboju_6:
(Start: 19 @6161 has 87 MA's),

Gene: DanHam62_7 Start: 6510, Stop: 6692, Start Num: 20
Candidate Starts for DanHam62_7:
(Start: 20 @6510 has 35 MA's), (24, 6531),

Gene: Daob_9 Start: 7080, Stop: 7283, Start Num: 20
Candidate Starts for Daob_9:
(Start: 20 @7080 has 35 MA's), (24, 7101), (27, 7116), (28, 7125),

Gene: Dino_10 Start: 9001, Stop: 9180, Start Num: 19
Candidate Starts for Dino_10:
(Start: 19 @9001 has 87 MA's), (34, 9106),

Gene: DrRobert_6 Start: 6138, Stop: 6317, Start Num: 19
Candidate Starts for DrRobert_6:
(Start: 19 @6138 has 87 MA's), (34, 6243), (37, 6273),

Gene: DreamTeam_6 Start: 6184, Stop: 6363, Start Num: 19
Candidate Starts for DreamTeam_6:
(12, 6133), (Start: 19 @6184 has 87 MA's), (32, 6268),

Gene: Eesa_8 Start: 7101, Stop: 7283, Start Num: 20
Candidate Starts for Eesa_8:
(Start: 20 @7101 has 35 MA's),

Gene: EstebanJulior_6 Start: 6182, Stop: 6361, Start Num: 19
Candidate Starts for EstebanJulior_6:
(6, 6101), (11, 6128), (Start: 19 @6182 has 87 MA's), (34, 6287),

Gene: Eunoia_6 Start: 6159, Stop: 6332, Start Num: 19
Candidate Starts for Eunoia_6:
(Start: 19 @6159 has 87 MA's),

Gene: Fingolfin_7 Start: 6511, Stop: 6693, Start Num: 20
Candidate Starts for Fingolfin_7:
(Start: 20 @6511 has 35 MA's), (24, 6532),

Gene: Fluke_10 Start: 9043, Stop: 9222, Start Num: 19
Candidate Starts for Fluke_10:
(Start: 19 @9043 has 87 MA's),

Gene: Frizzle_5 Start: 5267, Stop: 5443, Start Num: 17
Candidate Starts for Frizzle_5:
(Start: 17 @5267 has 3 MA's), (23, 5285),

Gene: Galaxy_8 Start: 6882, Stop: 7091, Start Num: 20
Candidate Starts for Galaxy_8:
(15, 6837), (Start: 20 @6882 has 35 MA's),

Gene: Ghobes_5 Start: 5267, Stop: 5443, Start Num: 17
Candidate Starts for Ghobes_5:
(Start: 17 @5267 has 3 MA's), (23, 5285),

Gene: Gisselle_6 Start: 6184, Stop: 6363, Start Num: 19
Candidate Starts for Gisselle_6:
(12, 6133), (Start: 19 @6184 has 87 MA's), (32, 6268),

Gene: Glenn_10 Start: 9053, Stop: 9232, Start Num: 19
Candidate Starts for Glenn_10:
(Start: 19 @9053 has 87 MA's),

Gene: Glotell_7 Start: 6510, Stop: 6692, Start Num: 20
Candidate Starts for Glotell_7:
(Start: 20 @6510 has 35 MA's), (24, 6531),

Gene: Gravel_9 Start: 7098, Stop: 7280, Start Num: 20
Candidate Starts for Gravel_9:
(Start: 20 @7098 has 35 MA's),

Gene: Graynor_10 Start: 9039, Stop: 9233, Start Num: 19
Candidate Starts for Graynor_10:
(Start: 19 @9039 has 87 MA's),

Gene: GreenHearts_10 Start: 9107, Stop: 9301, Start Num: 19
Candidate Starts for GreenHearts_10:
(14, 9059), (Start: 19 @9107 has 87 MA's), (32, 9188),

Gene: Greenhouse_10 Start: 9032, Stop: 9226, Start Num: 19
Candidate Starts for Greenhouse_10:
(5, 8924), (Start: 19 @9032 has 87 MA's), (32, 9113),

Gene: HamCheese_7 Start: 6510, Stop: 6692, Start Num: 20
Candidate Starts for HamCheese_7:
(Start: 20 @6510 has 35 MA's), (24, 6531),

Gene: HannahPhantana_9 Start: 7080, Stop: 7283, Start Num: 20

Candidate Starts for HannahPhantana_9:
(Start: 20 @7080 has 35 MA's), (24, 7101), (27, 7116), (28, 7125),

Gene: HeadNerd_6 Start: 6140, Stop: 6319, Start Num: 19
Candidate Starts for HeadNerd_6:
(Start: 19 @6140 has 87 MA's), (32, 6224), (34, 6245),

Gene: Herb_6 Start: 6161, Stop: 6334, Start Num: 19
Candidate Starts for Herb_6:
(Start: 19 @6161 has 87 MA's),

Gene: Huckleberry_6 Start: 6140, Stop: 6319, Start Num: 19
Candidate Starts for Huckleberry_6:
(Start: 19 @6140 has 87 MA's), (32, 6224), (34, 6245),

Gene: HunterDalle_6 Start: 6159, Stop: 6332, Start Num: 19
Candidate Starts for HunterDalle_6:
(Start: 19 @6159 has 87 MA's),

Gene: Huntingdon_10 Start: 9018, Stop: 9212, Start Num: 19
Candidate Starts for Huntingdon_10:
(Start: 19 @9018 has 87 MA's), (32, 9099),

Gene: Immaculata_10 Start: 9047, Stop: 9226, Start Num: 19
Candidate Starts for Immaculata_10:
(Start: 19 @9047 has 87 MA's),

Gene: JeanClaude_7 Start: 6199, Stop: 6378, Start Num: 20
Candidate Starts for JeanClaude_7:
(3, 5911), (4, 5992), (Start: 20 @6199 has 35 MA's), (24, 6220),

Gene: Jerole_9 Start: 7077, Stop: 7280, Start Num: 20
Candidate Starts for Jerole_9:
(Start: 20 @7077 has 35 MA's), (24, 7098), (27, 7113), (28, 7122),

Gene: Joann_10 Start: 9010, Stop: 9204, Start Num: 19
Candidate Starts for Joann_10:
(Start: 19 @9010 has 87 MA's), (32, 9091),

Gene: Jumboset_10 Start: 8996, Stop: 9175, Start Num: 19
Candidate Starts for Jumboset_10:
(Start: 19 @8996 has 87 MA's),

Gene: Juno112_7 Start: 6511, Stop: 6693, Start Num: 20
Candidate Starts for Juno112_7:
(Start: 20 @6511 has 35 MA's), (24, 6532),

Gene: KHumphrey_7 Start: 6510, Stop: 6692, Start Num: 20
Candidate Starts for KHumphrey_7:
(Start: 20 @6510 has 35 MA's), (24, 6531),

Gene: Kalizoi_10 Start: 8995, Stop: 9174, Start Num: 19
Candidate Starts for Kalizoi_10:

(Start: 19 @8995 has 87 MA's), (34, 9100),

Gene: KendraB23_9 Start: 7098, Stop: 7280, Start Num: 20

Candidate Starts for KendraB23_9:

(Start: 20 @7098 has 35 MA's),

Gene: Kepler_8 Start: 6915, Stop: 7118, Start Num: 20

Candidate Starts for Kepler_8:

(Start: 20 @6915 has 35 MA's), (24, 6936), (27, 6951), (28, 6960),

Gene: KingBob_6 Start: 6161, Stop: 6334, Start Num: 19

Candidate Starts for KingBob_6:

(Start: 19 @6161 has 87 MA's),

Gene: Kittykat_6 Start: 6181, Stop: 6360, Start Num: 19

Candidate Starts for Kittykat_6:

(12, 6130), (Start: 19 @6181 has 87 MA's), (32, 6265),

Gene: Korra_10 Start: 9001, Stop: 9180, Start Num: 19

Candidate Starts for Korra_10:

(Start: 19 @9001 has 87 MA's), (34, 9106),

Gene: Kuleana_8 Start: 6883, Stop: 7083, Start Num: 20

Candidate Starts for Kuleana_8:

(Start: 20 @6883 has 35 MA's), (24, 6904), (28, 6928), (36, 6994),

Gene: Kumotta_8 Start: 7171, Stop: 7326, Start Num: 19

Candidate Starts for Kumotta_8:

(Start: 19 @7171 has 87 MA's), (25, 7198), (30, 7231),

Gene: Lakshmi_10 Start: 9037, Stop: 9231, Start Num: 19

Candidate Starts for Lakshmi_10:

(Start: 19 @9037 has 87 MA's), (32, 9118),

Gene: Laphuphu24k_7 Start: 6510, Stop: 6692, Start Num: 20

Candidate Starts for Laphuphu24k_7:

(Start: 20 @6510 has 35 MA's), (24, 6531),

Gene: Lasagna_6 Start: 6138, Stop: 6317, Start Num: 19

Candidate Starts for Lasagna_6:

(Start: 19 @6138 has 87 MA's), (34, 6243), (37, 6273),

Gene: Lennox_6 Start: 6138, Stop: 6317, Start Num: 19

Candidate Starts for Lennox_6:

(Start: 19 @6138 has 87 MA's), (34, 6243), (37, 6273),

Gene: LilStuart_6 Start: 6138, Stop: 6317, Start Num: 19

Candidate Starts for LilStuart_6:

(Start: 19 @6138 has 87 MA's), (34, 6243), (37, 6273),

Gene: Litotes_10 Start: 9003, Stop: 9197, Start Num: 19

Candidate Starts for Litotes_10:

(Start: 19 @9003 has 87 MA's),

Gene: LittleTokyo_8 Start: 6828, Stop: 7022, Start Num: 18
Candidate Starts for LittleTokyo_8:
(Start: 18 @6828 has 3 MA's),

Gene: Lucy_6 Start: 6129, Stop: 6308, Start Num: 19
Candidate Starts for Lucy_6:
(Start: 19 @6129 has 87 MA's), (34, 6234), (37, 6264),

Gene: Lunar_9 Start: 7077, Stop: 7280, Start Num: 20
Candidate Starts for Lunar_9:
(Start: 20 @7077 has 35 MA's), (24, 7098), (27, 7113), (28, 7122),

Gene: Makoto_6 Start: 6138, Stop: 6317, Start Num: 19
Candidate Starts for Makoto_6:
(Start: 19 @6138 has 87 MA's), (34, 6243), (37, 6273),

Gene: MamaPearl_6 Start: 6182, Stop: 6361, Start Num: 19
Candidate Starts for MamaPearl_6:
(6, 6101), (11, 6128), (Start: 19 @6182 has 87 MA's), (34, 6287),

Gene: Maria1952_6 Start: 6161, Stop: 6334, Start Num: 19
Candidate Starts for Maria1952_6:
(Start: 19 @6161 has 87 MA's),

Gene: MeganNoll_10 Start: 9053, Stop: 9232, Start Num: 19
Candidate Starts for MeganNoll_10:
(Start: 19 @9053 has 87 MA's),

Gene: Melons_9 Start: 7077, Stop: 7280, Start Num: 20
Candidate Starts for Melons_9:
(Start: 20 @7077 has 35 MA's), (24, 7098), (27, 7113), (28, 7122),

Gene: Melville_7 Start: 5799, Stop: 5963, Start Num: 31
Candidate Starts for Melville_7:
(Start: 20 @5730 has 35 MA's), (Start: 31 @5799 has 2 MA's), (33, 5814),

Gene: Misaeng_10 Start: 9083, Stop: 9277, Start Num: 19
Candidate Starts for Misaeng_10:
(Start: 19 @9083 has 87 MA's), (32, 9164),

Gene: Moki_6 Start: 6140, Stop: 6319, Start Num: 19
Candidate Starts for Moki_6:
(Start: 19 @6140 has 87 MA's), (32, 6224), (34, 6245),

Gene: MrBoss_10 Start: 9003, Stop: 9197, Start Num: 19
Candidate Starts for MrBoss_10:
(Start: 19 @9003 has 87 MA's),

Gene: MrGloopy_10 Start: 8986, Stop: 9165, Start Num: 19
Candidate Starts for MrGloopy_10:
(Start: 19 @8986 has 87 MA's),

Gene: Nancia_6 Start: 6138, Stop: 6317, Start Num: 19
Candidate Starts for Nancia_6:
(Start: 19 @6138 has 87 MA's), (34, 6243), (37, 6273),

Gene: Niblet_8 Start: 6886, Stop: 7068, Start Num: 20
Candidate Starts for Niblet_8:
(Start: 20 @6886 has 35 MA's), (26, 6913),

Gene: Nubia_10 Start: 8997, Stop: 9191, Start Num: 19
Candidate Starts for Nubia_10:
(Start: 19 @8997 has 87 MA's), (32, 9078),

Gene: OMalley_6 Start: 6159, Stop: 6332, Start Num: 19
Candidate Starts for OMalley_6:
(Start: 19 @6159 has 87 MA's),

Gene: Oppalora_7 Start: 6510, Stop: 6692, Start Num: 20
Candidate Starts for Oppalora_7:
(Start: 20 @6510 has 35 MA's), (24, 6531),

Gene: Orcanus_8 Start: 6891, Stop: 7073, Start Num: 20
Candidate Starts for Orcanus_8:
(Start: 20 @6891 has 35 MA's),

Gene: OtsoOtso_8 Start: 6916, Stop: 7119, Start Num: 20
Candidate Starts for OtsoOtso_8:
(Start: 20 @6916 has 35 MA's), (24, 6937), (27, 6952), (28, 6961),

Gene: OurGirlNessie_6 Start: 6129, Stop: 6308, Start Num: 19
Candidate Starts for OurGirlNessie_6:
(Start: 19 @6129 has 87 MA's), (34, 6234), (37, 6264),

Gene: Oxynfrius_10 Start: 9010, Stop: 9204, Start Num: 19
Candidate Starts for Oxynfrius_10:
(Start: 19 @9010 has 87 MA's), (32, 9091),

Gene: PartyCup_10 Start: 9050, Stop: 9244, Start Num: 19
Candidate Starts for PartyCup_10:
(Start: 19 @9050 has 87 MA's),

Gene: Pelletreau_9 Start: 7098, Stop: 7280, Start Num: 20
Candidate Starts for Pelletreau_9:
(Start: 20 @7098 has 35 MA's),

Gene: PhirstandPhine_9 Start: 7077, Stop: 7280, Start Num: 20
Candidate Starts for PhirstandPhine_9:
(Start: 20 @7077 has 35 MA's), (24, 7098), (27, 7113), (28, 7122),

Gene: PhluffyCoco_7 Start: 6510, Stop: 6692, Start Num: 20
Candidate Starts for PhluffyCoco_7:
(Start: 20 @6510 has 35 MA's), (24, 6531),

Gene: Pineda_9 Start: 7077, Stop: 7280, Start Num: 20

Candidate Starts for Pineda_9:
(Start: 20 @7077 has 35 MA's), (24, 7098), (27, 7113), (28, 7122),

Gene: PinkFriday_6 Start: 6162, Stop: 6335, Start Num: 19
Candidate Starts for PinkFriday_6:
(Start: 19 @6162 has 87 MA's),

Gene: PitaDog_6 Start: 6129, Stop: 6308, Start Num: 19
Candidate Starts for PitaDog_6:
(Start: 19 @6129 has 87 MA's), (34, 6234), (37, 6264),

Gene: Polka_8 Start: 6916, Stop: 7119, Start Num: 20
Candidate Starts for Polka_8:
(Start: 20 @6916 has 35 MA's), (24, 6937), (27, 6952), (28, 6961),

Gene: Potatoes_10 Start: 9047, Stop: 9226, Start Num: 19
Candidate Starts for Potatoes_10:
(Start: 19 @9047 has 87 MA's),

Gene: Preamble_6 Start: 6139, Stop: 6318, Start Num: 19
Candidate Starts for Preamble_6:
(Start: 19 @6139 has 87 MA's), (32, 6223),

Gene: Pterodactyl_6 Start: 6130, Stop: 6309, Start Num: 19
Candidate Starts for Pterodactyl_6:
(Start: 19 @6130 has 87 MA's), (34, 6235), (37, 6265),

Gene: Pumancara_6 Start: 6161, Stop: 6334, Start Num: 19
Candidate Starts for Pumancara_6:
(Start: 19 @6161 has 87 MA's),

Gene: RAP15_10 Start: 9053, Stop: 9232, Start Num: 19
Candidate Starts for RAP15_10:
(Start: 19 @9053 has 87 MA's),

Gene: Rattail_7 Start: 6552, Stop: 6743, Start Num: 20
Candidate Starts for Rattail_7:
(8, 6489), (Start: 20 @6552 has 35 MA's), (24, 6573), (35, 6654),

Gene: RcigaStruga_10 Start: 9018, Stop: 9212, Start Num: 19
Candidate Starts for RcigaStruga_10:
(Start: 19 @9018 has 87 MA's), (32, 9099),

Gene: RedFox_7 Start: 6510, Stop: 6692, Start Num: 20
Candidate Starts for RedFox_7:
(Start: 20 @6510 has 35 MA's), (24, 6531),

Gene: Renna12_8 Start: 6698, Stop: 6889, Start Num: 20
Candidate Starts for Renna12_8:
(Start: 20 @6698 has 35 MA's), (24, 6719), (35, 6800),

Gene: Riovina_6 Start: 6159, Stop: 6332, Start Num: 19
Candidate Starts for Riovina_6:

(Start: 19 @6159 has 87 MA's),

Gene: Riverdale_10 Start: 8984, Stop: 9163, Start Num: 19

Candidate Starts for Riverdale_10:

(Start: 19 @8984 has 87 MA's),

Gene: Rooter_7 Start: 5814, Stop: 5960, Start Num: 22

Candidate Starts for Rooter_7:

(22, 5814), (27, 5844), (34, 5907),

Gene: Rozby_10 Start: 8984, Stop: 9163, Start Num: 19

Candidate Starts for Rozby_10:

(Start: 19 @8984 has 87 MA's),

Gene: Ruchi_8 Start: 7139, Stop: 7354, Start Num: 20

Candidate Starts for Ruchi_8:

(10, 7082), (13, 7088), (Start: 20 @7139 has 35 MA's),

Gene: Sapo_5 Start: 5262, Stop: 5438, Start Num: 17

Candidate Starts for Sapo_5:

(Start: 17 @5262 has 3 MA's),

Gene: Sarge_7 Start: 6203, Stop: 6382, Start Num: 20

Candidate Starts for Sarge_7:

(Start: 20 @6203 has 35 MA's), (24, 6224),

Gene: Savage2526_10 Start: 9047, Stop: 9226, Start Num: 19

Candidate Starts for Savage2526_10:

(Start: 19 @9047 has 87 MA's),

Gene: Scitech_7 Start: 5799, Stop: 5963, Start Num: 31

Candidate Starts for Scitech_7:

(Start: 20 @5730 has 35 MA's), (Start: 31 @5799 has 2 MA's), (33, 5814),

Gene: Scuttle_10 Start: 9053, Stop: 9232, Start Num: 19

Candidate Starts for Scuttle_10:

(Start: 19 @9053 has 87 MA's), (34, 9158),

Gene: Sergei_6 Start: 6161, Stop: 6334, Start Num: 19

Candidate Starts for Sergei_6:

(Start: 19 @6161 has 87 MA's),

Gene: Shen_9 Start: 7098, Stop: 7280, Start Num: 20

Candidate Starts for Shen_9:

(Start: 20 @7098 has 35 MA's),

Gene: Snekmaggedon_7 Start: 5822, Stop: 6004, Start Num: 31

Candidate Starts for Snekmaggedon_7:

(1, 5351), (2, 5453), (Start: 20 @5753 has 35 MA's), (Start: 31 @5822 has 2 MA's), (33, 5837),

Gene: StuartMinion_7 Start: 6509, Stop: 6718, Start Num: 20

Candidate Starts for StuartMinion_7:

(7, 6431), (Start: 20 @6509 has 35 MA's), (24, 6530), (35, 6611),

Gene: Supakev_6 Start: 6161, Stop: 6334, Start Num: 19
Candidate Starts for Supakev_6:
(Start: 19 @6161 has 87 MA's),

Gene: Suppi_10 Start: 9050, Stop: 9244, Start Num: 19
Candidate Starts for Suppi_10:
(Start: 19 @9050 has 87 MA's),

Gene: TattModd_10 Start: 9047, Stop: 9226, Start Num: 19
Candidate Starts for TattModd_10:
(Start: 19 @9047 has 87 MA's),

Gene: Temper16_6 Start: 6161, Stop: 6334, Start Num: 19
Candidate Starts for Temper16_6:
(Start: 19 @6161 has 87 MA's),

Gene: Toad24_9 Start: 7098, Stop: 7280, Start Num: 20
Candidate Starts for Toad24_9:
(Start: 20 @7098 has 35 MA's),

Gene: Upyo_6 Start: 5831, Stop: 5995, Start Num: 19
Candidate Starts for Upyo_6:
(Start: 19 @5831 has 87 MA's), (21, 5840), (30, 5888),

Gene: Urla_6 Start: 6185, Stop: 6364, Start Num: 19
Candidate Starts for Urla_6:
(9, 6125), (11, 6131), (Start: 19 @6185 has 87 MA's), (34, 6290),

Gene: Vallejo_10 Start: 8985, Stop: 9164, Start Num: 19
Candidate Starts for Vallejo_10:
(Start: 19 @8985 has 87 MA's),

Gene: Vulpecula_8 Start: 7215, Stop: 7430, Start Num: 20
Candidate Starts for Vulpecula_8:
(Start: 20 @7215 has 35 MA's),

Gene: Vulture_6 Start: 6159, Stop: 6332, Start Num: 19
Candidate Starts for Vulture_6:
(Start: 19 @6159 has 87 MA's),

Gene: Wawa_10 Start: 9022, Stop: 9201, Start Num: 19
Candidate Starts for Wawa_10:
(Start: 19 @9022 has 87 MA's), (34, 9127),

Gene: Wayne_10 Start: 9096, Stop: 9290, Start Num: 19
Candidate Starts for Wayne_10:
(Start: 19 @9096 has 87 MA's),

Gene: Westrich_9 Start: 7086, Stop: 7268, Start Num: 20
Candidate Starts for Westrich_9:
(Start: 20 @7086 has 35 MA's),

Gene: WileyE_7 Start: 6580, Stop: 6765, Start Num: 20
Candidate Starts for WileyE_7:
(10, 6526), (13, 6532), (Start: 20 @6580 has 35 MA's), (34, 6679),

Gene: WonderBoy_6 Start: 6138, Stop: 6317, Start Num: 19
Candidate Starts for WonderBoy_6:
(Start: 19 @6138 has 87 MA's), (34, 6243), (37, 6273),

Gene: Zhuangyuan_9 Start: 7207, Stop: 7446, Start Num: 18
Candidate Starts for Zhuangyuan_9:
(Start: 18 @7207 has 3 MA's),

Gene: Zixiang_8 Start: 6886, Stop: 7068, Start Num: 20
Candidate Starts for Zixiang_8:
(Start: 20 @6886 has 35 MA's), (26, 6913),

Gene: Zorro_10 Start: 9001, Stop: 9180, Start Num: 19
Candidate Starts for Zorro_10:
(Start: 19 @9001 has 87 MA's), (34, 9106),