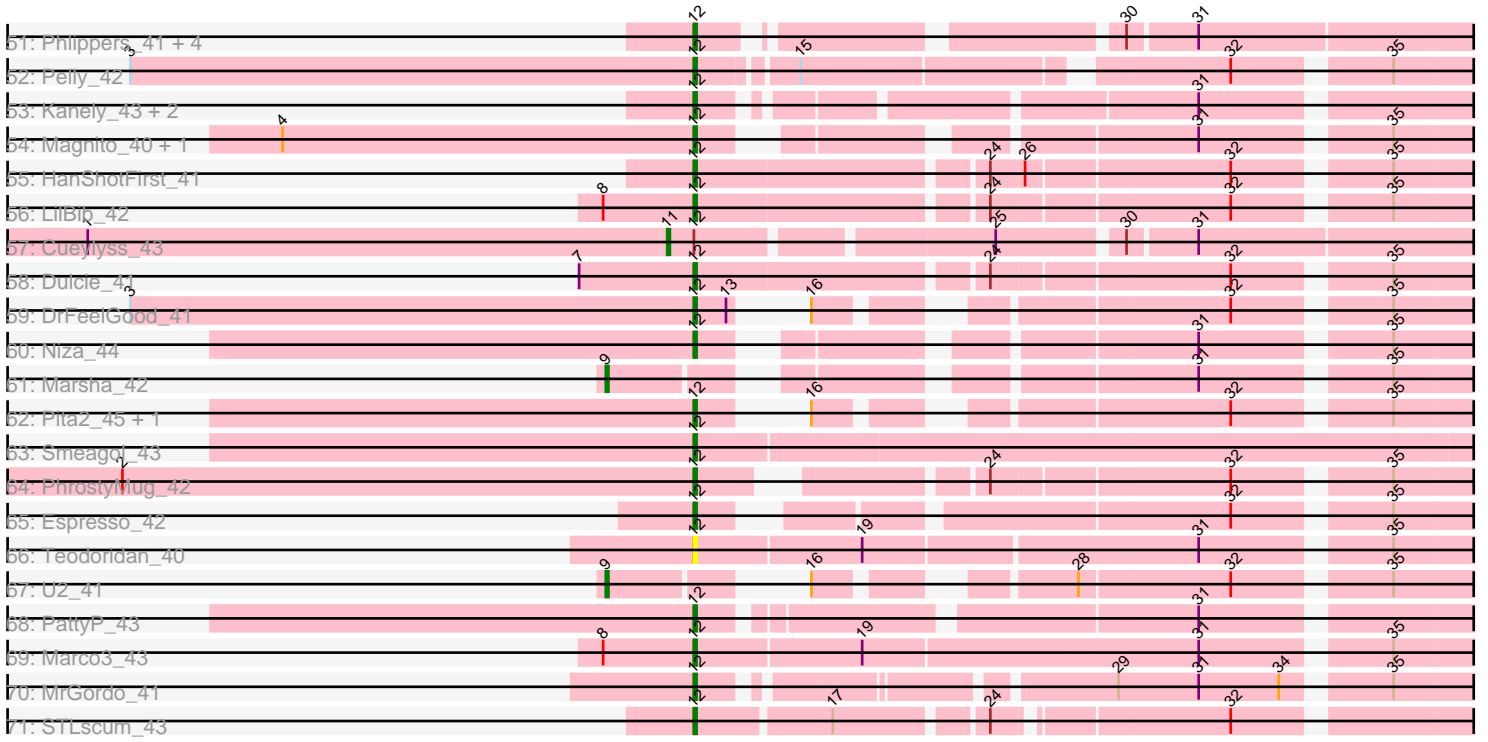




Pham 303071



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 303071 Report

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

Pham number 303071 has 244 members, 20 are drafts.

Phages represented in each track:

- Track 1 : Kugel\_44, Wheeler\_43, Naira\_43, Fajezeel\_44, Greg\_44, EnzoK\_41, Zephyr\_42, Buttons\_41, Ohno789\_43, Violet\_40, Fenn\_43, Acme\_45, Pippin\_44, Ciao\_42
- Track 2 : Seabiscuit\_43, BeesKnees\_42, Dynamix\_42
- Track 3 : JC27\_43, Mkhuseleli\_42, GrecoEtereo\_43, Hermia\_44, DirtDevil\_43, StrongArm\_41, MaryBeth\_42, Ashballer\_44, Bexan\_40, Inyanga\_40, Perseus\_43, Applejack\_38, CartmannCramer\_42, GroundGoblin\_43, HarryOW\_41, CatBus\_43, PowerRanger\_43, Papez\_44, A6\_39, Aeneas\_44, Squee\_42, Bxb1\_39, BK1\_39, Sunshine924\_43, StewieG\_41, KikiBouba\_44, QTRlifeCrisis\_43, Abrogate\_420, Hami1\_37, Noxious\_44, Aldrich\_43, Mule\_40, Gyzlar\_39, Iqorha\_40, MetalQZJ\_41, RidgeCB\_42, Whitspit\_40, Zeuska\_42, Magnar\_41, Watermelon\_44
- Track 4 : BluSpix\_39, Traft412\_43, IgnatiusPatJac\_41
- Track 5 : Forsytheast\_42, Corvo\_43, SwissCheese\_44, GMonster\_40, Bruns\_41, Alsfro\_46, Moose\_42
- Track 6 : Paphu\_41
- Track 7 : ProMouse\_41
- Track 8 : Gachnar\_43
- Track 9 : Thor\_41, SarFire\_41
- Track 10 : Conceptll\_44
- Track 11 : Burton\_42, Museum\_43, Petp2012\_43
- Track 12 : Swole\_43, ILeeKay\_46, Bigchungji\_41, Alvin\_41, Marcell\_41, Tote\_38, Marge\_42, Rohr\_43, Pinto\_43, JuliaChild\_43, Jerm2\_43, Bob3\_40, Crispicous1\_41, BigMau\_43, Lopton\_43, Rufus\_43, Froghopper\_41, Petruccio\_42, Molly\_43, MPlant7149\_41, HermioneGrange\_42
- Track 13 : Maroc7\_41, Bigfoot\_39, CactusRose\_40, Raid\_42, Solon\_42, Rubeus\_42, Pepe\_39, Ruotula\_44
- Track 14 : Atkinbua\_43, PascalRango\_42, Briton15\_43
- Track 15 : KBG\_44, Bones\_42, BigPaolini\_42, Agaliana\_39, Doom\_43, Graduation\_45, Puppet\_43, PacerPaul\_43, ChristmasHams\_39, Eyeball\_43, Licorice\_45, Francis47\_42, Smairt\_44
- Track 16 : Tasp14\_43, Lamina13\_42, Monet\_46, Homines\_35
- Track 17 : Dussy\_44, Abbyshoes\_45, Kenmech\_46
- Track 18 : McSinger\_43
- Track 19 : Sibs6\_43, Oogway\_40, Makemake\_42, Gwendoluna\_44, Jorgensen\_42, JackSparrow\_44, Parliament\_41, Adahisdi\_42
- Track 20 : Marchy\_37, Payneful\_42
- Track 21 : Carlyle\_42

- Track 22 : Ajay\_42, AFIS\_41, Sumter\_40, Kykar\_42
- Track 23 : lLeeKay\_45
- Track 24 : Euphoria\_41, KyMonks1A\_45, Target\_43, NEHalo\_41
- Track 25 : McGuire\_42, KSSJEB\_40
- Track 26 : Ichabod\_42
- Track 27 : LunarLander\_44
- Track 28 : Beatrix\_41, Sandaddy\_42, BPBiobs31\_43, Mryolo\_40, Sorpresa\_42
- Track 29 : Blue\_42
- Track 30 : Gandalf20\_43, Lockley\_42, Killigrew\_42, Snazzy\_40, ShortQueendom\_38, DD5\_42
- Track 31 : Fushigi\_40, BillKnuckles\_42
- Track 32 : Sanya\_41, Chanagan\_40
- Track 33 : Bethlehem\_41, Pari\_42, Nhonho\_42, Switzer\_42, Hope4ever\_43, Manatee\_42, Slagathor\_42, Barriga\_42, Tripl3t\_42, Rhynn\_41, Anglerfish\_42, Rajelicia\_41, Arcanine\_41, TwoPeat\_42
- Track 34 : SkiPole\_45
- Track 35 : Lesedi\_40, Big3\_41
- Track 36 : Trouble\_43
- Track 37 : Blackflame\_42
- Track 38 : Jasper\_43, Dreamboat\_43
- Track 39 : BarrowTuph\_42, PhineBark\_41, Levia\_39
- Track 40 : Zeeculate\_41
- Track 41 : PinkPlastic\_40
- Track 42 : SpikeBT\_43, Norz\_43, TheloniousMonk\_43, BaconJack\_45, Seanderson\_44, Michley\_41, GageAP\_43
- Track 43 : Peterson\_45
- Track 44 : Blesser\_41
- Track 45 : Rutherford\_44, Paraselene\_40, MilleFeuille\_41, Sagefire\_44
- Track 46 : DreamCatcher\_44
- Track 47 : Scowl\_42
- Track 48 : Dexes\_42
- Track 49 : Arlo\_40
- Track 50 : Treddle\_44, Edtherson\_43, Ringer\_43
- Track 51 : Phlippers\_41, Gompeii16\_42, Wilkins\_42, Topgun\_42, Bircsak\_42
- Track 52 : Pelly\_42
- Track 53 : Kanely\_43, Altman\_44, PherrisBueller\_42
- Track 54 : Magnito\_40, Turj99\_40
- Track 55 : HanShotFirst\_41
- Track 56 : LilBib\_42
- Track 57 : Cueylyss\_43
- Track 58 : Dulcie\_41
- Track 59 : DrFeelGood\_41
- Track 60 : Niza\_44
- Track 61 : Marsha\_42
- Track 62 : Pita2\_45, PSullivan\_42
- Track 63 : Smeagol\_43
- Track 64 : PhrostyMug\_42
- Track 65 : Espresso\_42
- Track 66 : Teodoridan\_40
- Track 67 : U2\_41
- Track 68 : PattyP\_43
- Track 69 : Marco3\_43
- Track 70 : MrGordo\_41

- Track 71 : STLscum\_43

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

The start number called the most often in the published annotations is 12, it was called in 194 of the 224 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- A6\_39, AFIS\_41, Abbyshoes\_45, Abrogate\_420, Acme\_45, Adahisdi\_42, Aeneas\_44, Agaliana\_39, Ajay\_42, Aldrich\_43, Alsfro\_46, Altman\_44, Alvin\_41, Applejack\_38, Arlo\_40, Ashballer\_44, BK1\_39, BPBiebs31\_43, BaconJack\_45, BarrowTuph\_42, Beatrix\_41, Bexan\_40, Big3\_41, BigMau\_43, BigPaolini\_42, Bigchungu\_41, Bigfoot\_39, BillKnuckles\_42, Bircsak\_42, Blackflame\_42, Blesser\_41, BluSpix\_39, Blue\_42, Bob3\_40, Bones\_42, Bruns\_41, Burton\_42, Buttons\_41, Bxb1\_39, CactusRose\_40, Carlyle\_42, CartmannCramer\_42, CatBus\_43, Chanagan\_40, ChristmasHams\_39, Ciao\_42, ConceptII\_44, Corvo\_43, Crispicious1\_41, DD5\_42, Dexes\_42, DirtDevil\_43, Doom\_43, DrFeelGood\_41, Dreamboat\_43, Dulcie\_41, Dussy\_44, Edtherson\_43, EnzoK\_41, Espresso\_42, Euphoria\_41, Eyeball\_43, Fajezeel\_44, Fenn\_43, Forsytheast\_42, Francis47\_42, Froghopper\_41, Fushigi\_40, GMonster\_40, Gachnar\_43, GageAP\_43, Gandalf20\_43, Gompeii16\_42, Graduation\_45, GrecoEtereo\_43, Greg\_44, GroundGoblin\_43, Gwendoluna\_44, Gyzlar\_39, Hami1\_37, HanShotFirst\_41, HarryOW\_41, Hermia\_44, HermioneGrange\_42, Homines\_35, ILeeKay\_45, ILeeKay\_46, IgnatiusPatJac\_41, Inyanga\_40, Iqorha\_40, JC27\_43, JackSparrow\_44, Jasper\_43, Jerm2\_43, Jorgensen\_42, JuliaChild\_43, KBG\_44, Kanely\_43, Kenmech\_46, KikiBouba\_44, Killigrew\_42, Kugel\_44, KyMonks1A\_45, Kykar\_42, Lamina13\_42, Lesedi\_40, Levia\_39, Licorice\_45, LilBib\_42, Lockley\_42, Lopton\_43, LunarLander\_44, MPlant7149\_41, Magnar\_41, Magnito\_40, Makemake\_42, Marcell\_41, Marchy\_37, Marco3\_43, Marge\_42, Maroc7\_41, MaryBeth\_42, McSinger\_43, MetalQZJ\_41, Michley\_41, MilleFeuille\_41, Mkhuseleli\_42, Molly\_43, Monet\_46, Moose\_42, MrGordo\_41, Mryolo\_40, Mule\_40, Museum\_43, NEHalo\_41, Naira\_43, Niza\_44, Norz\_43, Noxious\_44, Ohno789\_43, Oogway\_40, PSullivan\_42, PacerPaul\_43, Papez\_44, Paraselene\_40, Parliament\_41, PattyP\_43, Payneful\_42, Pelly\_42, Pepe\_39, Perseus\_43, Peterson\_45, Petp2012\_43, Petruccio\_42, PherrisBueller\_42, PhineBark\_41, Phlippers\_41, PhrostyMug\_42, PinkPlastic\_40, Pinto\_43, Pippin\_44, Pita2\_45, PowerRanger\_43, ProMouse\_41, Puppet\_43, QTRLifeCrisis\_43, Raid\_42, RidgeCB\_42, Ringer\_43, Rohr\_43, Rubeus\_42, Rufus\_43, Ruotula\_44, Rutherford\_44, STLscum\_43, Sagefire\_44, Sandaddy\_42, Sanya\_41, SarFire\_41, Seanderson\_44, ShortQueendom\_38, Sibs6\_43, SkiPole\_45, Smairt\_44, Smeagol\_43, Snazzy\_40, Solon\_42, Sorpresa\_42, SpikeBT\_43, Squee\_42, StewieG\_41, StrongArm\_41, Sumter\_40, Sunshine924\_43, SwissCheese\_44, Swole\_43, Target\_43, Tasp14\_43, Teodoridan\_40, TheloniousMonk\_43, Thor\_41, Topgun\_42, Tote\_38, Traft412\_43, Treddle\_44, Trouble\_43, Turj99\_40, Violet\_40, Watermelon\_44, Wheeler\_43, Whitspit\_40, Wilkins\_42, Zephyr\_42, Zeuska\_42,

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

- Atkinbua\_43, BeesKnees\_42, Briton15\_43, Cueyllyss\_43, DreamCatcher\_44, Dynamix\_42, PascalRango\_42, Seabiscuit\_43,

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

- Anglerfish\_42, Arcanine\_41, Barriga\_42, Bethlehem\_41, Hope4ever\_43, Ichabod\_42, KSSJEB\_40, Manatee\_42, Marsha\_42, McGuire\_42, Nhonho\_42, Paphu\_41, Pari\_42, Rajelicia\_41, Rhynn\_41, Scowl\_42, Slagathor\_42, Switzer\_42, Tripl3t\_42, TwoPeat\_42, U2\_41, Zeeculate\_41,

### Summary by start number:

Start 8:

- Found in 9 of 244 ( 3.7% ) of genes in pham
- Manual Annotations of this start: 4 of 224
- Called 44.4% of time when present
- Phage (with cluster) where this start called: Atkinbua\_43 (A1), Briton15\_43 (A1), DreamCatcher\_44 (A1), PascalRango\_42 (A1),

Start 9:

- Found in 25 of 244 ( 10.2% ) of genes in pham
- Manual Annotations of this start: 21 of 224
- Called 84.0% of time when present
- Phage (with cluster) where this start called: Anglerfish\_42 (A1), Arcanine\_41 (A1), Barriga\_42 (A1), BeesKnees\_42 (A1), Bethlehem\_41 (A1), Dynamix\_42 (A1), Hope4ever\_43 (A1), Ichabod\_42 (A1), Manatee\_42 (A1), Marsha\_42 (A1), Nhonho\_42 (A1), Pari\_42 (A1), Rajelicia\_41 (A1), Rhynn\_41 (A1), Scowl\_42 (A1), Seabiscuit\_43 (A1), Slagathor\_42 (A1), Switzer\_42 (A1), Tripl3t\_42 (A1), TwoPeat\_42 (A1), U2\_41 (A1),

Start 10:

- Found in 2 of 244 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 2 of 224
- Called 100.0% of time when present
- Phage (with cluster) where this start called: KSSJEB\_40 (A1), McGuire\_42 (A1),

Start 11:

- Found in 1 of 244 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 224
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cueyllyss\_43 (A1),

Start 12:

- Found in 222 of 244 ( 91.0% ) of genes in pham
- Manual Annotations of this start: 194 of 224
- Called 96.4% of time when present
- Phage (with cluster) where this start called: A6\_39 (A1), AFIS\_41 (A1), Abbyshoes\_45 (A1), Abrogate\_420 (A1), Acme\_45 (A1), Adahisdi\_42 (A1), Aeneas\_44 (A1), Agaliana\_39 (A1), Ajay\_42 (A1), Aldrich\_43 (A1), Alsfro\_46 (A1), Altman\_44 (A1), Alvin\_41 (A1), Applejack\_38 (A1), Arlo\_40 (A1), Ashballer\_44 (A1), BK1\_39 (A1), BPBiabs31\_43 (A1), BaconJack\_45 (A1), BarrowTuph\_42 (A1), Beatrix\_41 (A1), Bexan\_40 (A1), Big3\_41 (A1), BigMau\_43 (A1), BigPaolini\_42 (A1), Bigchungi\_41 (A1), Bigfoot\_39 (A1), BillKnuckles\_42 (A1), Bircsak\_42 (A1), Blackflame\_42 (A1), Blesser\_41 (A1), BluSpix\_39 (A1), Blue\_42 (A1), Bob3\_40 (A1), Bones\_42 (A1), Bruns\_41 (A1), Burton\_42 (A1), Buttons\_41 (A1), Bxb1\_39 (A1), CactusRose\_40 (A1), Carlyle\_42 (A1), CartmannCramer\_42 (A1), CatBus\_43 (A1), Chanagan\_40 (A1), ChristmasHams\_39 (A1), Ciao\_42 (A1), ConceptII\_44 (A1),

Corvo\_43 (A1), Crispicous1\_41 (A1), DD5\_42 (A1), Dexes\_42 (A1), DirtDevil\_43 (A1), Doom\_43 (A1), DrFeelGood\_41 (A1), Dreamboat\_43 (A1), Dulcie\_41 (A1), Dussy\_44 (A1), Edtherson\_43 (A1), EnzoK\_41 (A1), Espresso\_42 (A1), Euphoria\_41 (A1), Eyeball\_43 (A1), Fajezeel\_44 (A1), Fenn\_43 (A1), Forsytheast\_42 (A1), Francis47\_42 (A1), Froghopper\_41 (A1), Fushigi\_40 (A1), GMonster\_40 (A1), Gachnar\_43 (A1), GageAP\_43 (A1), Gandalf20\_43 (A1), Gompeii16\_42 (A1), Graduation\_45 (A1), GrecoEtereo\_43 (A1), Greg\_44 (A1), GroundGoblin\_43 (A1), Gwendoluna\_44 (A1), Gyzlar\_39 (A1), Hami1\_37 (A1), HanShotFirst\_41 (A1), HarryOW\_41 (A1), Hermia\_44 (A1), HermioneGrange\_42 (A1), Homines\_35 (A1), ILeeKay\_45 (A1), ILeeKay\_46 (A1), IgnatiusPatJac\_41 (A1), Inyanga\_40 (A1), Iqorha\_40 (A1), JC27\_43 (A1), JackSparrow\_44 (A1), Jasper\_43 (A1), Jerm2\_43 (A1), Jorgensen\_42 (A1), JuliaChild\_43 (A1), KBG\_44 (A1), Kanely\_43 (A1), Kenmech\_46 (A1), KikiBouba\_44 (A1), Killigrew\_42 (A1), Kugel\_44 (A1), KyMonks1A\_45 (A1), Kykar\_42 (A1), Lamina13\_42 (A1), Lesedi\_40 (A1), Levia\_39 (A1), Licorice\_45 (A1), LilBib\_42 (A1), Lockley\_42 (A1), Lopton\_43 (A1), LunarLander\_44 (A1), MPlant7149\_41 (A1), Magnar\_41 (A1), Magnito\_40 (A1), Makemake\_42 (A1), Marcell\_41 (A1), Marchy\_37 (A1), Marco3\_43 (A1), Marge\_42 (A1), Maroc7\_41 (A1), MaryBeth\_42 (A1), McSinger\_43 (A1), MetalQZJ\_41 (A1), Michley\_41 (A1), MilleFeuille\_41 (A1), Mkhuseleli\_42 (A1), Molly\_43 (A1), Monet\_46 (A1), Moose\_42 (A1), MrGordo\_41 (A1), Mryolo\_40 (A1), Mule\_40 (A1), Museum\_43 (A1), NEHalo\_41 (A1), Naira\_43 (A1), Niza\_44 (A1), Norz\_43 (A1), Noxious\_44 (A1), Ohno789\_43 (A1), Oogway\_40 (A1), PSullivan\_42 (A1), PacerPaul\_43 (A1), Papez\_44 (A1), Paraselene\_40 (A1), Parliament\_41 (A1), PattyP\_43 (A1), Payneful\_42 (A1), Pelly\_42 (A1), Pepe\_39 (A1), Perseus\_43 (A1), Peterson\_45 (A1), Petp2012\_43 (A1), Petruchio\_42 (A1), PherrisBueller\_42 (A1), PhineBark\_41 (A1), Phippers\_41 (A1), PhrostyMug\_42 (A1), PinkPlastic\_40 (A1), Pinto\_43 (A1), Pippin\_44 (A1), Pita2\_45 (A1), PowerRanger\_43 (A1), ProMouse\_41 (A1), Puppet\_43 (A1), QTRLifeCrisis\_43 (A1), Raid\_42 (A1), RidgeCB\_42 (A1), Ringer\_43 (A1), Rohr\_43 (A1), Rubeus\_42 (A1), Rufus\_43 (A1), Ruotula\_44 (A1), Rutherford\_44 (A1), STLscum\_43 (A1), Sagefire\_44 (A1), Sandaddy\_42 (A1), Sanya\_41 (A1), SarFire\_41 (A1), Seanderson\_44 (A1), ShortQueendom\_38 (A1), Sibs6\_43 (A1), SkiPole\_45 (A1), Smairt\_44 (A1), Smeagol\_43 (A1), Snazzy\_40 (A1), Solon\_42 (A1), Sorpresa\_42 (A1), SpikeBT\_43 (A1), Squee\_42 (A1), StewieG\_41 (A1), StrongArm\_41 (A1), Sumter\_40 (A1), Sunshine924\_43 (A1), SwissCheese\_44 (A1), Swole\_43 (A1), Target\_43 (A1), Tasp14\_43 (A1), Teodoridan\_40 (A1), TheloniousMonk\_43 (A1), Thor\_41 (A1), Topgun\_42 (A1), Tote\_38 (A1), Traft412\_43 (A1), Treddle\_44 (A1), Trouble\_43 (A1), Turj99\_40 (A1), Violet\_40 (A1), Watermelon\_44 (A1), Wheeler\_43 (A1), Whitspit\_40 (A1), Wilkins\_42 (A1), Zephyr\_42 (A1), Zeuska\_42 (A1),

Start 15:

- Found in 3 of 244 ( 1.2% ) of genes in pham
- Manual Annotations of this start: 1 of 224
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Zeeculate\_41 (A1),

Start 24:

- Found in 88 of 244 ( 36.1% ) of genes in pham
- Manual Annotations of this start: 1 of 224
- Called 1.1% of time when present
- Phage (with cluster) where this start called: Paphu\_41 (A1),

**Summary by clusters:**

There is one cluster represented in this pham: A1

Info for manual annotations of cluster A1:

- Start number 8 was manually annotated 4 times for cluster A1.
- Start number 9 was manually annotated 21 times for cluster A1.
- Start number 10 was manually annotated 2 times for cluster A1.
- Start number 11 was manually annotated 1 time for cluster A1.
- Start number 12 was manually annotated 194 times for cluster A1.
- Start number 15 was manually annotated 1 time for cluster A1.
- Start number 24 was manually annotated 1 time for cluster A1.

**Gene Information:**

Gene: A6\_39 Start: 31351, Stop: 31064, Start Num: 12

Candidate Starts for A6\_39:

(Start: 12 @31351 has 194 MA's), (Start: 24 @31249 has 1 MA's), (32, 31165), (35, 31114),

Gene: AFIS\_41 Start: 32120, Stop: 31854, Start Num: 12

Candidate Starts for AFIS\_41:

(Start: 12 @32120 has 194 MA's), (32, 31955), (35, 31904),

Gene: Abbyshoes\_45 Start: 32556, Stop: 32263, Start Num: 12

Candidate Starts for Abbyshoes\_45:

(Start: 12 @32556 has 194 MA's), (19, 32496), (32, 32364), (35, 32313),

Gene: Abrogate\_420 Start: 32810, Stop: 32541, Start Num: 12

Candidate Starts for Abrogate\_420:

(Start: 12 @32810 has 194 MA's), (Start: 24 @32726 has 1 MA's), (32, 32642), (35, 32591),

Gene: Acme\_45 Start: 32668, Stop: 32381, Start Num: 12

Candidate Starts for Acme\_45:

(Start: 12 @32668 has 194 MA's), (Start: 24 @32566 has 1 MA's), (32, 32482), (35, 32431),

Gene: Adahisdi\_42 Start: 32146, Stop: 31904, Start Num: 12

Candidate Starts for Adahisdi\_42:

(Start: 12 @32146 has 194 MA's), (16, 32131), (32, 32005), (35, 31954),

Gene: Aeneas\_44 Start: 32342, Stop: 32055, Start Num: 12

Candidate Starts for Aeneas\_44:

(Start: 12 @32342 has 194 MA's), (Start: 24 @32240 has 1 MA's), (32, 32156), (35, 32105),

Gene: Agaliana\_39 Start: 29400, Stop: 29104, Start Num: 12

Candidate Starts for Agaliana\_39:

(Start: 12 @29400 has 194 MA's), (20, 29340), (30, 29250), (31, 29226),

Gene: Ajay\_42 Start: 31958, Stop: 31695, Start Num: 12

Candidate Starts for Ajay\_42:

(Start: 12 @31958 has 194 MA's), (32, 31796), (35, 31745),

Gene: Aldrich\_43 Start: 33154, Stop: 32867, Start Num: 12

Candidate Starts for Aldrich\_43:

(Start: 12 @33154 has 194 MA's), (Start: 24 @33052 has 1 MA's), (32, 32968), (35, 32917),

Gene: Alsfro\_46 Start: 32728, Stop: 32444, Start Num: 12

Candidate Starts for Alsfro\_46:

(Start: 12 @32728 has 194 MA's), (14, 32698), (17, 32680), (27, 32617), (31, 32557), (35, 32494),

Gene: Altman\_44 Start: 32975, Stop: 32700, Start Num: 12

Candidate Starts for Altman\_44:

(Start: 12 @32975 has 194 MA's), (31, 32813),

Gene: Alvin\_41 Start: 32479, Stop: 32210, Start Num: 12

Candidate Starts for Alvin\_41:

(Start: 12 @32479 has 194 MA's), (32, 32311), (35, 32260),

Gene: Anglerfish\_42 Start: 32229, Stop: 31957, Start Num: 9

Candidate Starts for Anglerfish\_42:

(Start: 9 @32229 has 21 MA's), (16, 32184), (32, 32058), (35, 32007),

Gene: Applejack\_38 Start: 29040, Stop: 28771, Start Num: 12

Candidate Starts for Applejack\_38:

(Start: 12 @29040 has 194 MA's), (Start: 24 @28956 has 1 MA's), (32, 28872), (35, 28821),

Gene: Arcanine\_41 Start: 31349, Stop: 31077, Start Num: 9

Candidate Starts for Arcanine\_41:

(Start: 9 @31349 has 21 MA's), (16, 31304), (32, 31178), (35, 31127),

Gene: Arlo\_40 Start: 31869, Stop: 31585, Start Num: 12

Candidate Starts for Arlo\_40:

(Start: 12 @31869 has 194 MA's), (17, 31821), (Start: 24 @31770 has 1 MA's), (32, 31686), (35, 31635),

Gene: Ashballer\_44 Start: 33124, Stop: 32837, Start Num: 12

Candidate Starts for Ashballer\_44:

(Start: 12 @33124 has 194 MA's), (Start: 24 @33022 has 1 MA's), (32, 32938), (35, 32887),

Gene: Atkinbua\_43 Start: 32341, Stop: 32033, Start Num: 8

Candidate Starts for Atkinbua\_43:

(Start: 8 @32341 has 4 MA's), (Start: 12 @32308 has 194 MA's), (31, 32146),

Gene: BK1\_39 Start: 31351, Stop: 31064, Start Num: 12

Candidate Starts for BK1\_39:

(Start: 12 @31351 has 194 MA's), (Start: 24 @31249 has 1 MA's), (32, 31165), (35, 31114),

Gene: BPBiabs31\_43 Start: 32462, Stop: 32184, Start Num: 12

Candidate Starts for BPBiabs31\_43:

(Start: 12 @32462 has 194 MA's), (17, 32414), (Start: 24 @32363 has 1 MA's), (32, 32285), (35, 32234),

Gene: BaconJack\_45 Start: 33097, Stop: 32810, Start Num: 12

Candidate Starts for BaconJack\_45:

(Start: 12 @33097 has 194 MA's), (22, 33010), (Start: 24 @32995 has 1 MA's), (32, 32911), (35, 32860),

Gene: Barriga\_42 Start: 31831, Stop: 31559, Start Num: 9  
Candidate Starts for Barriga\_42:  
(Start: 9 @31831 has 21 MA's), (16, 31786), (32, 31660), (35, 31609),

Gene: BarrowTuph\_42 Start: 32304, Stop: 32014, Start Num: 12  
Candidate Starts for BarrowTuph\_42:  
(Start: 12 @32304 has 194 MA's), (19, 32244), (31, 32127), (35, 32064),

Gene: Beatrix\_41 Start: 33308, Stop: 33030, Start Num: 12  
Candidate Starts for Beatrix\_41:  
(Start: 12 @33308 has 194 MA's), (17, 33260), (Start: 24 @33209 has 1 MA's), (32, 33131), (35, 33080),

Gene: BeesKnees\_42 Start: 31917, Stop: 31615, Start Num: 9  
Candidate Starts for BeesKnees\_42:  
(Start: 9 @31917 has 21 MA's), (Start: 12 @31884 has 194 MA's), (31, 31728), (35, 31665),

Gene: Bethlehem\_41 Start: 32590, Stop: 32318, Start Num: 9  
Candidate Starts for Bethlehem\_41:  
(Start: 9 @32590 has 21 MA's), (16, 32545), (32, 32419), (35, 32368),

Gene: Bexan\_40 Start: 32987, Stop: 32718, Start Num: 12  
Candidate Starts for Bexan\_40:  
(Start: 12 @32987 has 194 MA's), (Start: 24 @32903 has 1 MA's), (32, 32819), (35, 32768),

Gene: Big3\_41 Start: 32438, Stop: 32196, Start Num: 12  
Candidate Starts for Big3\_41:  
(Start: 12 @32438 has 194 MA's), (32, 32297), (35, 32246),

Gene: BigMau\_43 Start: 31979, Stop: 31692, Start Num: 12  
Candidate Starts for BigMau\_43:  
(Start: 12 @31979 has 194 MA's), (32, 31793), (35, 31742),

Gene: BigPaolini\_42 Start: 30984, Stop: 30688, Start Num: 12  
Candidate Starts for BigPaolini\_42:  
(Start: 12 @30984 has 194 MA's), (20, 30924), (30, 30834), (31, 30810),

Gene: Bigchungi\_41 Start: 31571, Stop: 31308, Start Num: 12  
Candidate Starts for Bigchungi\_41:  
(Start: 12 @31571 has 194 MA's), (32, 31409), (35, 31358),

Gene: Bigfoot\_39 Start: 31627, Stop: 31334, Start Num: 12  
Candidate Starts for Bigfoot\_39:  
(Start: 12 @31627 has 194 MA's), (19, 31567), (32, 31435), (35, 31384),

Gene: BillKnuckles\_42 Start: 32660, Stop: 32418, Start Num: 12  
Candidate Starts for BillKnuckles\_42:  
(Start: 12 @32660 has 194 MA's), (13, 32648), (16, 32645), (32, 32519), (35, 32468),

Gene: Bircsak\_42 Start: 32977, Stop: 32699, Start Num: 12  
Candidate Starts for Bircsak\_42:  
(Start: 12 @32977 has 194 MA's), (30, 32845), (31, 32821),

Gene: Blackflame\_42 Start: 31679, Stop: 31392, Start Num: 12  
Candidate Starts for Blackflame\_42:  
(Start: 12 @31679 has 194 MA's), (22, 31592), (Start: 24 @31577 has 1 MA's), (31, 31505), (35, 31442),

Gene: Blesser\_41 Start: 32354, Stop: 32091, Start Num: 12  
Candidate Starts for Blesser\_41:  
(Start: 12 @32354 has 194 MA's), (21, 32306), (32, 32192), (35, 32141),

Gene: BluSpix\_39 Start: 28079, Stop: 27792, Start Num: 12  
Candidate Starts for BluSpix\_39:  
(Start: 12 @28079 has 194 MA's), (Start: 24 @27977 has 1 MA's), (32, 27893), (35, 27842),

Gene: Blue\_42 Start: 32763, Stop: 32476, Start Num: 12  
Candidate Starts for Blue\_42:  
(Start: 12 @32763 has 194 MA's), (Start: 24 @32661 has 1 MA's), (32, 32577), (35, 32526),

Gene: Bob3\_40 Start: 31329, Stop: 31042, Start Num: 12  
Candidate Starts for Bob3\_40:  
(Start: 12 @31329 has 194 MA's), (32, 31143), (35, 31092),

Gene: Bones\_42 Start: 32480, Stop: 32184, Start Num: 12  
Candidate Starts for Bones\_42:  
(Start: 12 @32480 has 194 MA's), (20, 32420), (30, 32330), (31, 32306),

Gene: Briton15\_43 Start: 32176, Stop: 31868, Start Num: 8  
Candidate Starts for Briton15\_43:  
(Start: 8 @32176 has 4 MA's), (Start: 12 @32143 has 194 MA's), (31, 31981),

Gene: Bruns\_41 Start: 32058, Stop: 31774, Start Num: 12  
Candidate Starts for Bruns\_41:  
(Start: 12 @32058 has 194 MA's), (14, 32028), (17, 32010), (27, 31947), (31, 31887), (35, 31824),

Gene: Burton\_42 Start: 31887, Stop: 31612, Start Num: 12  
Candidate Starts for Burton\_42:  
(2, 32100), (Start: 12 @31887 has 194 MA's), (31, 31725), (35, 31662),

Gene: Buttons\_41 Start: 30867, Stop: 30580, Start Num: 12  
Candidate Starts for Buttons\_41:  
(Start: 12 @30867 has 194 MA's), (Start: 24 @30765 has 1 MA's), (32, 30681), (35, 30630),

Gene: Bxb1\_39 Start: 31929, Stop: 31642, Start Num: 12  
Candidate Starts for Bxb1\_39:  
(Start: 12 @31929 has 194 MA's), (Start: 24 @31827 has 1 MA's), (32, 31743), (35, 31692),

Gene: CactusRose\_40 Start: 31757, Stop: 31464, Start Num: 12  
Candidate Starts for CactusRose\_40:  
(Start: 12 @31757 has 194 MA's), (19, 31697), (32, 31565), (35, 31514),

Gene: Carlyle\_42 Start: 30593, Stop: 30324, Start Num: 12  
Candidate Starts for Carlyle\_42:  
(Start: 12 @30593 has 194 MA's), (32, 30425), (35, 30374),

Gene: CartmannCramer\_42 Start: 34472, Stop: 34185, Start Num: 12

Candidate Starts for CartmannCramer\_42:

(Start: 12 @34472 has 194 MA's), (Start: 24 @34370 has 1 MA's), (32, 34286), (35, 34235),

Gene: CatBus\_43 Start: 33346, Stop: 33059, Start Num: 12

Candidate Starts for CatBus\_43:

(Start: 12 @33346 has 194 MA's), (Start: 24 @33244 has 1 MA's), (32, 33160), (35, 33109),

Gene: Chanagan\_40 Start: 31424, Stop: 31164, Start Num: 12

Candidate Starts for Chanagan\_40:

(Start: 12 @31424 has 194 MA's), (31, 31277), (35, 31214),

Gene: ChristmasHams\_39 Start: 29874, Stop: 29578, Start Num: 12

Candidate Starts for ChristmasHams\_39:

(Start: 12 @29874 has 194 MA's), (20, 29814), (30, 29724), (31, 29700),

Gene: Ciao\_42 Start: 32124, Stop: 31837, Start Num: 12

Candidate Starts for Ciao\_42:

(Start: 12 @32124 has 194 MA's), (Start: 24 @32022 has 1 MA's), (32, 31938), (35, 31887),

Gene: ConceptII\_44 Start: 33141, Stop: 32854, Start Num: 12

Candidate Starts for ConceptII\_44:

(2, 33354), (Start: 12 @33141 has 194 MA's), (Start: 24 @33039 has 1 MA's), (32, 32955), (35, 32904),

Gene: Corvo\_43 Start: 32998, Stop: 32714, Start Num: 12

Candidate Starts for Corvo\_43:

(Start: 12 @32998 has 194 MA's), (14, 32968), (17, 32950), (27, 32887), (31, 32827), (35, 32764),

Gene: Crispicous1\_41 Start: 31747, Stop: 31478, Start Num: 12

Candidate Starts for Crispicous1\_41:

(Start: 12 @31747 has 194 MA's), (32, 31579), (35, 31528),

Gene: Cueyllyss\_43 Start: 32715, Stop: 32416, Start Num: 11

Candidate Starts for Cueyllyss\_43:

(1, 32931), (Start: 11 @32715 has 1 MA's), (Start: 12 @32706 has 194 MA's), (25, 32604), (30, 32562), (31, 32538),

Gene: DD5\_42 Start: 33007, Stop: 32720, Start Num: 12

Candidate Starts for DD5\_42:

(Start: 12 @33007 has 194 MA's), (32, 32821), (35, 32770),

Gene: Dexes\_42 Start: 32732, Stop: 32454, Start Num: 12

Candidate Starts for Dexes\_42:

(2, 32945), (Start: 12 @32732 has 194 MA's), (Start: 15 @32699 has 1 MA's), (32, 32555), (35, 32504),

Gene: DirtDevil\_43 Start: 33154, Stop: 32867, Start Num: 12

Candidate Starts for DirtDevil\_43:

(Start: 12 @33154 has 194 MA's), (Start: 24 @33052 has 1 MA's), (32, 32968), (35, 32917),

Gene: Doom\_43 Start: 32905, Stop: 32609, Start Num: 12

Candidate Starts for Doom\_43:

(Start: 12 @32905 has 194 MA's), (20, 32845), (30, 32755), (31, 32731),

Gene: DrFeelGood\_41 Start: 32592, Stop: 32350, Start Num: 12  
Candidate Starts for DrFeelGood\_41:  
(3, 32802), (Start: 12 @32592 has 194 MA's), (13, 32580), (16, 32577), (32, 32451), (35, 32400),

Gene: DreamCatcher\_44 Start: 33224, Stop: 32916, Start Num: 8  
Candidate Starts for DreamCatcher\_44:  
(Start: 8 @33224 has 4 MA's), (Start: 12 @33191 has 194 MA's), (31, 33029), (35, 32966),

Gene: Dreamboat\_43 Start: 31963, Stop: 31688, Start Num: 12  
Candidate Starts for Dreamboat\_43:  
(Start: 8 @31996 has 4 MA's), (Start: 12 @31963 has 194 MA's), (31, 31801), (33, 31780), (35, 31738),

Gene: Dulcie\_41 Start: 31878, Stop: 31591, Start Num: 12  
Candidate Starts for Dulcie\_41:  
(7, 31920), (Start: 12 @31878 has 194 MA's), (Start: 24 @31776 has 1 MA's), (32, 31692), (35, 31641),

Gene: Dussy\_44 Start: 32576, Stop: 32283, Start Num: 12  
Candidate Starts for Dussy\_44:  
(Start: 12 @32576 has 194 MA's), (19, 32516), (32, 32384), (35, 32333),

Gene: Dynamix\_42 Start: 31903, Stop: 31601, Start Num: 9  
Candidate Starts for Dynamix\_42:  
(Start: 9 @31903 has 21 MA's), (Start: 12 @31870 has 194 MA's), (31, 31714), (35, 31651),

Gene: Edtherson\_43 Start: 33072, Stop: 32794, Start Num: 12  
Candidate Starts for Edtherson\_43:  
(3, 33282), (Start: 12 @33072 has 194 MA's), (32, 32895), (35, 32844),

Gene: EnzoK\_41 Start: 30176, Stop: 29889, Start Num: 12  
Candidate Starts for EnzoK\_41:  
(Start: 12 @30176 has 194 MA's), (Start: 24 @30074 has 1 MA's), (32, 29990), (35, 29939),

Gene: Espresso\_42 Start: 32440, Stop: 32171, Start Num: 12  
Candidate Starts for Espresso\_42:  
(Start: 12 @32440 has 194 MA's), (32, 32272), (35, 32221),

Gene: Euphoria\_41 Start: 31928, Stop: 31635, Start Num: 12  
Candidate Starts for Euphoria\_41:  
(Start: 12 @31928 has 194 MA's), (19, 31868), (32, 31736), (35, 31685),

Gene: Eyeball\_43 Start: 32382, Stop: 32086, Start Num: 12  
Candidate Starts for Eyeball\_43:  
(Start: 12 @32382 has 194 MA's), (20, 32322), (30, 32232), (31, 32208),

Gene: Fajezeel\_44 Start: 32497, Stop: 32210, Start Num: 12  
Candidate Starts for Fajezeel\_44:  
(Start: 12 @32497 has 194 MA's), (Start: 24 @32395 has 1 MA's), (32, 32311), (35, 32260),

Gene: Fenn\_43 Start: 33821, Stop: 33534, Start Num: 12  
Candidate Starts for Fenn\_43:  
(Start: 12 @33821 has 194 MA's), (Start: 24 @33719 has 1 MA's), (32, 33635), (35, 33584),

Gene: Forsytheast\_42 Start: 32276, Stop: 31992, Start Num: 12  
Candidate Starts for Forsytheast\_42:  
(Start: 12 @32276 has 194 MA's), (14, 32246), (17, 32228), (27, 32165), (31, 32105), (35, 32042),

Gene: Francis47\_42 Start: 33244, Stop: 32948, Start Num: 12  
Candidate Starts for Francis47\_42:  
(Start: 12 @33244 has 194 MA's), (20, 33184), (30, 33094), (31, 33070),

Gene: Froghopper\_41 Start: 31912, Stop: 31643, Start Num: 12  
Candidate Starts for Froghopper\_41:  
(Start: 12 @31912 has 194 MA's), (32, 31744), (35, 31693),

Gene: Fushigi\_40 Start: 30062, Stop: 29820, Start Num: 12  
Candidate Starts for Fushigi\_40:  
(Start: 12 @30062 has 194 MA's), (13, 30050), (16, 30047), (32, 29921), (35, 29870),

Gene: GMonster\_40 Start: 31221, Stop: 30937, Start Num: 12  
Candidate Starts for GMonster\_40:  
(Start: 12 @31221 has 194 MA's), (14, 31191), (17, 31173), (27, 31110), (31, 31050), (35, 30987),

Gene: Gachnar\_43 Start: 31996, Stop: 31709, Start Num: 12  
Candidate Starts for Gachnar\_43:  
(Start: 12 @31996 has 194 MA's), (Start: 24 @31894 has 1 MA's), (32, 31810), (35, 31759),

Gene: GageAP\_43 Start: 32207, Stop: 31920, Start Num: 12  
Candidate Starts for GageAP\_43:  
(Start: 12 @32207 has 194 MA's), (22, 32120), (Start: 24 @32105 has 1 MA's), (32, 32021), (35, 31970),

Gene: Gandalf20\_43 Start: 32955, Stop: 32689, Start Num: 12  
Candidate Starts for Gandalf20\_43:  
(Start: 12 @32955 has 194 MA's), (32, 32790), (35, 32739),

Gene: Gompeii16\_42 Start: 32978, Stop: 32700, Start Num: 12  
Candidate Starts for Gompeii16\_42:  
(Start: 12 @32978 has 194 MA's), (30, 32846), (31, 32822),

Gene: Graduation\_45 Start: 33299, Stop: 33003, Start Num: 12  
Candidate Starts for Graduation\_45:  
(Start: 12 @33299 has 194 MA's), (20, 33239), (30, 33149), (31, 33125),

Gene: GrecoEtereo\_43 Start: 32600, Stop: 32331, Start Num: 12  
Candidate Starts for GrecoEtereo\_43:  
(Start: 12 @32600 has 194 MA's), (Start: 24 @32516 has 1 MA's), (32, 32432), (35, 32381),

Gene: Greg\_44 Start: 32497, Stop: 32210, Start Num: 12  
Candidate Starts for Greg\_44:  
(Start: 12 @32497 has 194 MA's), (Start: 24 @32395 has 1 MA's), (32, 32311), (35, 32260),

Gene: GroundGoblin\_43 Start: 33296, Stop: 33009, Start Num: 12  
Candidate Starts for GroundGoblin\_43:  
(Start: 12 @33296 has 194 MA's), (Start: 24 @33194 has 1 MA's), (32, 33110), (35, 33059),

Gene: Gwendoluna\_44 Start: 34030, Stop: 33788, Start Num: 12  
Candidate Starts for Gwendoluna\_44:  
(Start: 12 @34030 has 194 MA's), (16, 34015), (32, 33889), (35, 33838),

Gene: Gyzlar\_39 Start: 30598, Stop: 30311, Start Num: 12  
Candidate Starts for Gyzlar\_39:  
(Start: 12 @30598 has 194 MA's), (Start: 24 @30496 has 1 MA's), (32, 30412), (35, 30361),

Gene: Hami1\_37 Start: 27036, Stop: 26749, Start Num: 12  
Candidate Starts for Hami1\_37:  
(Start: 12 @27036 has 194 MA's), (Start: 24 @26934 has 1 MA's), (32, 26850), (35, 26799),

Gene: HanShotFirst\_41 Start: 31631, Stop: 31344, Start Num: 12  
Candidate Starts for HanShotFirst\_41:  
(Start: 12 @31631 has 194 MA's), (Start: 24 @31529 has 1 MA's), (26, 31517), (32, 31445), (35, 31394),

Gene: HarryOW\_41 Start: 31772, Stop: 31503, Start Num: 12  
Candidate Starts for HarryOW\_41:  
(Start: 12 @31772 has 194 MA's), (Start: 24 @31688 has 1 MA's), (32, 31604), (35, 31553),

Gene: Hermia\_44 Start: 33346, Stop: 33059, Start Num: 12  
Candidate Starts for Hermia\_44:  
(Start: 12 @33346 has 194 MA's), (Start: 24 @33244 has 1 MA's), (32, 33160), (35, 33109),

Gene: HermioneGrange\_42 Start: 32473, Stop: 32186, Start Num: 12  
Candidate Starts for HermioneGrange\_42:  
(Start: 12 @32473 has 194 MA's), (32, 32287), (35, 32236),

Gene: Homines\_35 Start: 28560, Stop: 28273, Start Num: 12  
Candidate Starts for Homines\_35:  
(Start: 12 @28560 has 194 MA's), (22, 28473), (Start: 24 @28458 has 1 MA's), (32, 28374), (35, 28323),

Gene: Hope4ever\_43 Start: 32649, Stop: 32377, Start Num: 9  
Candidate Starts for Hope4ever\_43:  
(Start: 9 @32649 has 21 MA's), (16, 32604), (32, 32478), (35, 32427),

Gene: ILeeKay\_46 Start: 33003, Stop: 32734, Start Num: 12  
Candidate Starts for ILeeKay\_46:  
(Start: 12 @33003 has 194 MA's), (32, 32835), (35, 32784),

Gene: ILeeKay\_45 Start: 32737, Stop: 32453, Start Num: 12  
Candidate Starts for ILeeKay\_45:  
(5, 32788), (Start: 12 @32737 has 194 MA's), (16, 32704), (31, 32575),

Gene: Ichabod\_42 Start: 32035, Stop: 31742, Start Num: 9  
Candidate Starts for Ichabod\_42:  
(Start: 9 @32035 has 21 MA's), (32, 31843), (35, 31792),

Gene: IgnatiusPatJac\_41 Start: 32024, Stop: 31737, Start Num: 12  
Candidate Starts for IgnatiusPatJac\_41:  
(Start: 12 @32024 has 194 MA's), (Start: 24 @31922 has 1 MA's), (32, 31838), (35, 31787),

Gene: Inyanga\_40 Start: 31370, Stop: 31083, Start Num: 12  
Candidate Starts for Inyanga\_40:  
(Start: 12 @31370 has 194 MA's), (Start: 24 @31268 has 1 MA's), (32, 31184), (35, 31133),

Gene: Iqorha\_40 Start: 31369, Stop: 31082, Start Num: 12  
Candidate Starts for Iqorha\_40:  
(Start: 12 @31369 has 194 MA's), (Start: 24 @31267 has 1 MA's), (32, 31183), (35, 31132),

Gene: JC27\_43 Start: 32694, Stop: 32407, Start Num: 12  
Candidate Starts for JC27\_43:  
(Start: 12 @32694 has 194 MA's), (Start: 24 @32592 has 1 MA's), (32, 32508), (35, 32457),

Gene: JackSparrow\_44 Start: 32959, Stop: 32717, Start Num: 12  
Candidate Starts for JackSparrow\_44:  
(Start: 12 @32959 has 194 MA's), (16, 32944), (32, 32818), (35, 32767),

Gene: Jasper\_43 Start: 31849, Stop: 31574, Start Num: 12  
Candidate Starts for Jasper\_43:  
(Start: 8 @31882 has 4 MA's), (Start: 12 @31849 has 194 MA's), (31, 31687), (33, 31666), (35, 31624),

Gene: Jerm2\_43 Start: 32728, Stop: 32441, Start Num: 12  
Candidate Starts for Jerm2\_43:  
(Start: 12 @32728 has 194 MA's), (32, 32542), (35, 32491),

Gene: Jorgensen\_42 Start: 32074, Stop: 31832, Start Num: 12  
Candidate Starts for Jorgensen\_42:  
(Start: 12 @32074 has 194 MA's), (16, 32059), (32, 31933), (35, 31882),

Gene: JuliaChild\_43 Start: 32464, Stop: 32177, Start Num: 12  
Candidate Starts for JuliaChild\_43:  
(Start: 12 @32464 has 194 MA's), (32, 32278), (35, 32227),

Gene: KBG\_44 Start: 33689, Stop: 33393, Start Num: 12  
Candidate Starts for KBG\_44:  
(Start: 12 @33689 has 194 MA's), (20, 33629), (30, 33539), (31, 33515),

Gene: KSSJEB\_40 Start: 31672, Stop: 31355, Start Num: 10  
Candidate Starts for KSSJEB\_40:  
(Start: 10 @31672 has 2 MA's), (Start: 24 @31540 has 1 MA's), (32, 31456), (35, 31405),

Gene: Kanely\_43 Start: 32751, Stop: 32476, Start Num: 12  
Candidate Starts for Kanely\_43:  
(Start: 12 @32751 has 194 MA's), (31, 32589),

Gene: Kenmech\_46 Start: 33702, Stop: 33409, Start Num: 12  
Candidate Starts for Kenmech\_46:  
(Start: 12 @33702 has 194 MA's), (19, 33642), (32, 33510), (35, 33459),

Gene: KikiBouba\_44 Start: 33155, Stop: 32868, Start Num: 12  
Candidate Starts for KikiBouba\_44:  
(Start: 12 @33155 has 194 MA's), (Start: 24 @33053 has 1 MA's), (32, 32969), (35, 32918),

Gene: Killigrew\_42 Start: 32390, Stop: 32124, Start Num: 12  
Candidate Starts for Killigrew\_42:  
(Start: 12 @32390 has 194 MA's), (32, 32225), (35, 32174),

Gene: Kugel\_44 Start: 32894, Stop: 32625, Start Num: 12  
Candidate Starts for Kugel\_44:  
(Start: 12 @32894 has 194 MA's), (Start: 24 @32810 has 1 MA's), (32, 32726), (35, 32675),

Gene: KyMonks1A\_45 Start: 32790, Stop: 32497, Start Num: 12  
Candidate Starts for KyMonks1A\_45:  
(Start: 12 @32790 has 194 MA's), (19, 32730), (32, 32598), (35, 32547),

Gene: Kykar\_42 Start: 32080, Stop: 31793, Start Num: 12  
Candidate Starts for Kykar\_42:  
(Start: 12 @32080 has 194 MA's), (32, 31894), (35, 31843),

Gene: Lamina13\_42 Start: 31873, Stop: 31586, Start Num: 12  
Candidate Starts for Lamina13\_42:  
(Start: 12 @31873 has 194 MA's), (22, 31786), (Start: 24 @31771 has 1 MA's), (32, 31687), (35, 31636),

Gene: Lesedi\_40 Start: 31735, Stop: 31466, Start Num: 12  
Candidate Starts for Lesedi\_40:  
(Start: 12 @31735 has 194 MA's), (32, 31567), (35, 31516),

Gene: Levia\_39 Start: 31925, Stop: 31635, Start Num: 12  
Candidate Starts for Levia\_39:  
(Start: 12 @31925 has 194 MA's), (19, 31865), (31, 31748), (35, 31685),

Gene: Licorice\_45 Start: 33580, Stop: 33284, Start Num: 12  
Candidate Starts for Licorice\_45:  
(Start: 12 @33580 has 194 MA's), (20, 33520), (30, 33430), (31, 33406),

Gene: LilBib\_42 Start: 32838, Stop: 32551, Start Num: 12  
Candidate Starts for LilBib\_42:  
(Start: 8 @32871 has 4 MA's), (Start: 12 @32838 has 194 MA's), (Start: 24 @32736 has 1 MA's), (32, 32652), (35, 32601),

Gene: Lockley\_42 Start: 32169, Stop: 31882, Start Num: 12  
Candidate Starts for Lockley\_42:  
(Start: 12 @32169 has 194 MA's), (32, 31983), (35, 31932),

Gene: Lopton\_43 Start: 33670, Stop: 33383, Start Num: 12  
Candidate Starts for Lopton\_43:  
(Start: 12 @33670 has 194 MA's), (32, 33484), (35, 33433),

Gene: LunarLander\_44 Start: 32700, Stop: 32410, Start Num: 12  
Candidate Starts for LunarLander\_44:  
(Start: 12 @32700 has 194 MA's), (25, 32598), (30, 32556), (31, 32532),

Gene: MPlant7149\_41 Start: 31538, Stop: 31251, Start Num: 12  
Candidate Starts for MPlant7149\_41:  
(Start: 12 @31538 has 194 MA's), (32, 31352), (35, 31301),

Gene: Magnar\_41 Start: 32111, Stop: 31824, Start Num: 12  
Candidate Starts for Magnar\_41:  
(Start: 12 @32111 has 194 MA's), (Start: 24 @32009 has 1 MA's), (32, 31925), (35, 31874),

Gene: Magnito\_40 Start: 31519, Stop: 31256, Start Num: 12  
Candidate Starts for Magnito\_40:  
(4, 31672), (Start: 12 @31519 has 194 MA's), (31, 31369), (35, 31306),

Gene: Makemake\_42 Start: 33140, Stop: 32898, Start Num: 12  
Candidate Starts for Makemake\_42:  
(Start: 12 @33140 has 194 MA's), (16, 33125), (32, 32999), (35, 32948),

Gene: Manatee\_42 Start: 31549, Stop: 31277, Start Num: 9  
Candidate Starts for Manatee\_42:  
(Start: 9 @31549 has 21 MA's), (16, 31504), (32, 31378), (35, 31327),

Gene: Marcell\_41 Start: 32228, Stop: 31941, Start Num: 12  
Candidate Starts for Marcell\_41:  
(Start: 12 @32228 has 194 MA's), (32, 32042), (35, 31991),

Gene: Marchy\_37 Start: 28991, Stop: 28716, Start Num: 12  
Candidate Starts for Marchy\_37:  
(Start: 12 @28991 has 194 MA's), (31, 28829), (35, 28766),

Gene: Marco3\_43 Start: 32597, Stop: 32304, Start Num: 12  
Candidate Starts for Marco3\_43:  
(Start: 8 @32630 has 4 MA's), (Start: 12 @32597 has 194 MA's), (19, 32537), (31, 32417), (35, 32354),

Gene: Marge\_42 Start: 32616, Stop: 32329, Start Num: 12  
Candidate Starts for Marge\_42:  
(Start: 12 @32616 has 194 MA's), (32, 32430), (35, 32379),

Gene: Maroc7\_41 Start: 32085, Stop: 31792, Start Num: 12  
Candidate Starts for Maroc7\_41:  
(Start: 12 @32085 has 194 MA's), (19, 32025), (32, 31893), (35, 31842),

Gene: Marsha\_42 Start: 33305, Stop: 33012, Start Num: 9  
Candidate Starts for Marsha\_42:  
(Start: 9 @33305 has 21 MA's), (31, 33125), (35, 33062),

Gene: MaryBeth\_42 Start: 32218, Stop: 31931, Start Num: 12  
Candidate Starts for MaryBeth\_42:  
(Start: 12 @32218 has 194 MA's), (Start: 24 @32116 has 1 MA's), (32, 32032), (35, 31981),

Gene: McGuire\_42 Start: 31890, Stop: 31573, Start Num: 10  
Candidate Starts for McGuire\_42:  
(Start: 10 @31890 has 2 MA's), (Start: 24 @31758 has 1 MA's), (32, 31674), (35, 31623),

Gene: McSinger\_43 Start: 32592, Stop: 32317, Start Num: 12  
Candidate Starts for McSinger\_43:  
(4, 32745), (Start: 12 @32592 has 194 MA's), (32, 32418), (35, 32367),

Gene: MetalQZJ\_41 Start: 32218, Stop: 31931, Start Num: 12

Candidate Starts for MetalQZJ\_41:

(Start: 12 @32218 has 194 MA's), (Start: 24 @32116 has 1 MA's), (32, 32032), (35, 31981),

Gene: Michley\_41 Start: 31705, Stop: 31418, Start Num: 12

Candidate Starts for Michley\_41:

(Start: 12 @31705 has 194 MA's), (22, 31618), (Start: 24 @31603 has 1 MA's), (32, 31519), (35, 31468),

Gene: MilleFeuille\_41 Start: 32219, Stop: 31947, Start Num: 12

Candidate Starts for MilleFeuille\_41:

(Start: 9 @32252 has 21 MA's), (Start: 12 @32219 has 194 MA's), (18, 32180), (31, 32060), (35, 31997),

Gene: Mkhuseleli\_42 Start: 31904, Stop: 31617, Start Num: 12

Candidate Starts for Mkhuseleli\_42:

(Start: 12 @31904 has 194 MA's), (Start: 24 @31802 has 1 MA's), (32, 31718), (35, 31667),

Gene: Molly\_43 Start: 31772, Stop: 31485, Start Num: 12

Candidate Starts for Molly\_43:

(Start: 12 @31772 has 194 MA's), (32, 31586), (35, 31535),

Gene: Monet\_46 Start: 34034, Stop: 33747, Start Num: 12

Candidate Starts for Monet\_46:

(Start: 12 @34034 has 194 MA's), (22, 33947), (Start: 24 @33932 has 1 MA's), (32, 33848), (35, 33797),

Gene: Moose\_42 Start: 32276, Stop: 31992, Start Num: 12

Candidate Starts for Moose\_42:

(Start: 12 @32276 has 194 MA's), (14, 32246), (17, 32228), (27, 32165), (31, 32105), (35, 32042),

Gene: MrGordo\_41 Start: 31553, Stop: 31281, Start Num: 12

Candidate Starts for MrGordo\_41:

(Start: 12 @31553 has 194 MA's), (29, 31424), (31, 31394), (34, 31364), (35, 31331),

Gene: Mryolo\_40 Start: 31754, Stop: 31476, Start Num: 12

Candidate Starts for Mryolo\_40:

(Start: 12 @31754 has 194 MA's), (17, 31706), (Start: 24 @31655 has 1 MA's), (32, 31577), (35, 31526),

Gene: Mule\_40 Start: 30066, Stop: 29797, Start Num: 12

Candidate Starts for Mule\_40:

(Start: 12 @30066 has 194 MA's), (Start: 24 @29982 has 1 MA's), (32, 29898), (35, 29847),

Gene: Museum\_43 Start: 31826, Stop: 31551, Start Num: 12

Candidate Starts for Museum\_43:

(2, 32039), (Start: 12 @31826 has 194 MA's), (31, 31664), (35, 31601),

Gene: NEHalo\_41 Start: 31803, Stop: 31510, Start Num: 12

Candidate Starts for NEHalo\_41:

(Start: 12 @31803 has 194 MA's), (19, 31743), (32, 31611), (35, 31560),

Gene: Naira\_43 Start: 33868, Stop: 33581, Start Num: 12

Candidate Starts for Naira\_43:

(Start: 12 @33868 has 194 MA's), (Start: 24 @33766 has 1 MA's), (32, 33682), (35, 33631),

Gene: Nhonho\_42 Start: 32575, Stop: 32303, Start Num: 9

Candidate Starts for Nhonho\_42:

(Start: 9 @32575 has 21 MA's), (16, 32530), (32, 32404), (35, 32353),

Gene: Niza\_44 Start: 33243, Stop: 32980, Start Num: 12

Candidate Starts for Niza\_44:

(Start: 12 @33243 has 194 MA's), (31, 33093), (35, 33030),

Gene: Norz\_43 Start: 32715, Stop: 32428, Start Num: 12

Candidate Starts for Norz\_43:

(Start: 12 @32715 has 194 MA's), (22, 32628), (Start: 24 @32613 has 1 MA's), (32, 32529), (35, 32478),

Gene: Noxious\_44 Start: 33346, Stop: 33059, Start Num: 12

Candidate Starts for Noxious\_44:

(Start: 12 @33346 has 194 MA's), (Start: 24 @33244 has 1 MA's), (32, 33160), (35, 33109),

Gene: Ohno789\_43 Start: 32978, Stop: 32691, Start Num: 12

Candidate Starts for Ohno789\_43:

(Start: 12 @32978 has 194 MA's), (Start: 24 @32876 has 1 MA's), (32, 32792), (35, 32741),

Gene: Oogway\_40 Start: 31353, Stop: 31111, Start Num: 12

Candidate Starts for Oogway\_40:

(Start: 12 @31353 has 194 MA's), (16, 31338), (32, 31212), (35, 31161),

Gene: PSullivan\_42 Start: 31747, Stop: 31505, Start Num: 12

Candidate Starts for PSullivan\_42:

(Start: 12 @31747 has 194 MA's), (16, 31732), (32, 31606), (35, 31555),

Gene: PacerPaul\_43 Start: 32611, Stop: 32315, Start Num: 12

Candidate Starts for PacerPaul\_43:

(Start: 12 @32611 has 194 MA's), (20, 32551), (30, 32461), (31, 32437),

Gene: Papez\_44 Start: 33929, Stop: 33642, Start Num: 12

Candidate Starts for Papez\_44:

(Start: 12 @33929 has 194 MA's), (Start: 24 @33827 has 1 MA's), (32, 33743), (35, 33692),

Gene: Paphu\_41 Start: 32017, Stop: 31832, Start Num: 24

Candidate Starts for Paphu\_41:

(Start: 24 @32017 has 1 MA's), (32, 31933), (35, 31882),

Gene: Paraselene\_40 Start: 32250, Stop: 31978, Start Num: 12

Candidate Starts for Paraselene\_40:

(Start: 9 @32283 has 21 MA's), (Start: 12 @32250 has 194 MA's), (18, 32211), (31, 32091), (35, 32028),

Gene: Pari\_42 Start: 31615, Stop: 31343, Start Num: 9

Candidate Starts for Pari\_42:

(Start: 9 @31615 has 21 MA's), (16, 31570), (32, 31444), (35, 31393),

Gene: Parliament\_41 Start: 32362, Stop: 32120, Start Num: 12  
Candidate Starts for Parliament\_41:  
(Start: 12 @32362 has 194 MA's), (16, 32347), (32, 32221), (35, 32170),

Gene: PascalRango\_42 Start: 31959, Stop: 31651, Start Num: 8  
Candidate Starts for PascalRango\_42:  
(Start: 8 @31959 has 4 MA's), (Start: 12 @31926 has 194 MA's), (31, 31764),

Gene: PattyP\_43 Start: 32119, Stop: 31841, Start Num: 12  
Candidate Starts for PattyP\_43:  
(Start: 12 @32119 has 194 MA's), (31, 31954),

Gene: Payneful\_42 Start: 31708, Stop: 31433, Start Num: 12  
Candidate Starts for Payneful\_42:  
(Start: 12 @31708 has 194 MA's), (31, 31546), (35, 31483),

Gene: Pelly\_42 Start: 32653, Stop: 32375, Start Num: 12  
Candidate Starts for Pelly\_42:  
(3, 32863), (Start: 12 @32653 has 194 MA's), (Start: 15 @32620 has 1 MA's), (32, 32476), (35, 32425),

Gene: Pepe\_39 Start: 30383, Stop: 30090, Start Num: 12  
Candidate Starts for Pepe\_39:  
(Start: 12 @30383 has 194 MA's), (19, 30323), (32, 30191), (35, 30140),

Gene: Perseus\_43 Start: 32944, Stop: 32657, Start Num: 12  
Candidate Starts for Perseus\_43:  
(Start: 12 @32944 has 194 MA's), (Start: 24 @32842 has 1 MA's), (32, 32758), (35, 32707),

Gene: Peterson\_45 Start: 34507, Stop: 34229, Start Num: 12  
Candidate Starts for Peterson\_45:  
(Start: 12 @34507 has 194 MA's), (32, 34330), (35, 34279),

Gene: Petp2012\_43 Start: 32744, Stop: 32469, Start Num: 12  
Candidate Starts for Petp2012\_43:  
(2, 32957), (Start: 12 @32744 has 194 MA's), (31, 32582), (35, 32519),

Gene: Petruccio\_42 Start: 32089, Stop: 31823, Start Num: 12  
Candidate Starts for Petruccio\_42:  
(Start: 12 @32089 has 194 MA's), (32, 31924), (35, 31873),

Gene: PherrisBueller\_42 Start: 31714, Stop: 31439, Start Num: 12  
Candidate Starts for PherrisBueller\_42:  
(Start: 12 @31714 has 194 MA's), (31, 31552),

Gene: PhineBark\_41 Start: 32943, Stop: 32653, Start Num: 12  
Candidate Starts for PhineBark\_41:  
(Start: 12 @32943 has 194 MA's), (19, 32883), (31, 32766), (35, 32703),

Gene: Phlippers\_41 Start: 33149, Stop: 32871, Start Num: 12  
Candidate Starts for Phlippers\_41:  
(Start: 12 @33149 has 194 MA's), (30, 33017), (31, 32993),

Gene: PhrostyMug\_42 Start: 32222, Stop: 31953, Start Num: 12

Candidate Starts for PhrostyMug\_42:  
(2, 32435), (Start: 12 @32222 has 194 MA's), (Start: 24 @32138 has 1 MA's), (32, 32054), (35, 32003),

Gene: PinkPlastic\_40 Start: 31628, Stop: 31353, Start Num: 12  
Candidate Starts for PinkPlastic\_40:  
(Start: 8 @31661 has 4 MA's), (Start: 12 @31628 has 194 MA's), (31, 31466),

Gene: Pinto\_43 Start: 32048, Stop: 31785, Start Num: 12  
Candidate Starts for Pinto\_43:  
(Start: 12 @32048 has 194 MA's), (32, 31886), (35, 31835),

Gene: Pippin\_44 Start: 32541, Stop: 32254, Start Num: 12  
Candidate Starts for Pippin\_44:  
(Start: 12 @32541 has 194 MA's), (Start: 24 @32439 has 1 MA's), (32, 32355), (35, 32304),

Gene: Pita2\_45 Start: 33244, Stop: 33002, Start Num: 12  
Candidate Starts for Pita2\_45:  
(Start: 12 @33244 has 194 MA's), (16, 33229), (32, 33103), (35, 33052),

Gene: PowerRanger\_43 Start: 33283, Stop: 32996, Start Num: 12  
Candidate Starts for PowerRanger\_43:  
(Start: 12 @33283 has 194 MA's), (Start: 24 @33181 has 1 MA's), (32, 33097), (35, 33046),

Gene: ProMouse\_41 Start: 32226, Stop: 31951, Start Num: 12  
Candidate Starts for ProMouse\_41:  
(6, 32268), (Start: 12 @32226 has 194 MA's), (31, 32064), (35, 32001),

Gene: Puppet\_43 Start: 32652, Stop: 32356, Start Num: 12  
Candidate Starts for Puppet\_43:  
(Start: 12 @32652 has 194 MA's), (20, 32592), (30, 32502), (31, 32478),

Gene: QTRlifeCrisis\_43 Start: 33063, Stop: 32776, Start Num: 12  
Candidate Starts for QTRlifeCrisis\_43:  
(Start: 12 @33063 has 194 MA's), (Start: 24 @32961 has 1 MA's), (32, 32877), (35, 32826),

Gene: Raid\_42 Start: 32526, Stop: 32233, Start Num: 12  
Candidate Starts for Raid\_42:  
(Start: 12 @32526 has 194 MA's), (19, 32466), (32, 32334), (35, 32283),

Gene: Rajelicia\_41 Start: 32011, Stop: 31739, Start Num: 9  
Candidate Starts for Rajelicia\_41:  
(Start: 9 @32011 has 21 MA's), (16, 31966), (32, 31840), (35, 31789),

Gene: Rhynn\_41 Start: 32026, Stop: 31754, Start Num: 9  
Candidate Starts for Rhynn\_41:  
(Start: 9 @32026 has 21 MA's), (16, 31981), (32, 31855), (35, 31804),

Gene: RidgeCB\_42 Start: 32076, Stop: 31789, Start Num: 12  
Candidate Starts for RidgeCB\_42:  
(Start: 12 @32076 has 194 MA's), (Start: 24 @31974 has 1 MA's), (32, 31890), (35, 31839),

Gene: Ringer\_43 Start: 32905, Stop: 32642, Start Num: 12  
Candidate Starts for Ringer\_43:

(3, 33115), (Start: 12 @32905 has 194 MA's), (32, 32743), (35, 32692),

Gene: Rohr\_43 Start: 32774, Stop: 32487, Start Num: 12

Candidate Starts for Rohr\_43:

(Start: 12 @32774 has 194 MA's), (32, 32588), (35, 32537),

Gene: Rubeus\_42 Start: 30560, Stop: 30267, Start Num: 12

Candidate Starts for Rubeus\_42:

(Start: 12 @30560 has 194 MA's), (19, 30500), (32, 30368), (35, 30317),

Gene: Rufus\_43 Start: 32397, Stop: 32110, Start Num: 12

Candidate Starts for Rufus\_43:

(Start: 12 @32397 has 194 MA's), (32, 32211), (35, 32160),

Gene: Ruotula\_44 Start: 33384, Stop: 33091, Start Num: 12

Candidate Starts for Ruotula\_44:

(Start: 12 @33384 has 194 MA's), (19, 33324), (32, 33192), (35, 33141),

Gene: Rutherferd\_44 Start: 33293, Stop: 33021, Start Num: 12

Candidate Starts for Rutherferd\_44:

(Start: 9 @33326 has 21 MA's), (Start: 12 @33293 has 194 MA's), (18, 33254), (31, 33134), (35, 33071),

Gene: STLscum\_43 Start: 33104, Stop: 32826, Start Num: 12

Candidate Starts for STLscum\_43:

(Start: 12 @33104 has 194 MA's), (17, 33056), (Start: 24 @33005 has 1 MA's), (32, 32927),

Gene: Sagefire\_44 Start: 33226, Stop: 32954, Start Num: 12

Candidate Starts for Sagefire\_44:

(Start: 9 @33259 has 21 MA's), (Start: 12 @33226 has 194 MA's), (18, 33187), (31, 33067), (35, 33004),

Gene: Sandaddy\_42 Start: 32672, Stop: 32394, Start Num: 12

Candidate Starts for Sandaddy\_42:

(Start: 12 @32672 has 194 MA's), (17, 32624), (Start: 24 @32573 has 1 MA's), (32, 32495), (35, 32444),

Gene: Sanya\_41 Start: 32962, Stop: 32687, Start Num: 12

Candidate Starts for Sanya\_41:

(Start: 12 @32962 has 194 MA's), (31, 32800), (35, 32737),

Gene: SarFire\_41 Start: 32238, Stop: 31951, Start Num: 12

Candidate Starts for SarFire\_41:

(Start: 12 @32238 has 194 MA's), (22, 32154), (23, 32145), (Start: 24 @32136 has 1 MA's), (26, 32124), (32, 32052), (35, 32001),

Gene: Scowl\_42 Start: 32734, Stop: 32462, Start Num: 9

Candidate Starts for Scowl\_42:

(Start: 9 @32734 has 21 MA's), (16, 32689), (32, 32563),

Gene: Seabiscuit\_43 Start: 31886, Stop: 31584, Start Num: 9

Candidate Starts for Seabiscuit\_43:

(Start: 9 @31886 has 21 MA's), (Start: 12 @31853 has 194 MA's), (31, 31697), (35, 31634),

Gene: Seanderson\_44 Start: 33065, Stop: 32796, Start Num: 12  
Candidate Starts for Seanderson\_44:  
(Start: 12 @33065 has 194 MA's), (22, 32996), (Start: 24 @32981 has 1 MA's), (32, 32897), (35, 32846),

Gene: ShortQueendom\_38 Start: 28736, Stop: 28473, Start Num: 12  
Candidate Starts for ShortQueendom\_38:  
(Start: 12 @28736 has 194 MA's), (32, 28574), (35, 28523),

Gene: Sibs6\_43 Start: 31379, Stop: 31137, Start Num: 12  
Candidate Starts for Sibs6\_43:  
(Start: 12 @31379 has 194 MA's), (16, 31364), (32, 31238), (35, 31187),

Gene: SkiPole\_45 Start: 33095, Stop: 32808, Start Num: 12  
Candidate Starts for SkiPole\_45:  
(Start: 12 @33095 has 194 MA's), (14, 33065), (17, 33047), (27, 32984), (31, 32921),

Gene: Slagathor\_42 Start: 31936, Stop: 31664, Start Num: 9  
Candidate Starts for Slagathor\_42:  
(Start: 9 @31936 has 21 MA's), (16, 31891), (32, 31765), (35, 31714),

Gene: Smairt\_44 Start: 32800, Stop: 32504, Start Num: 12  
Candidate Starts for Smairt\_44:  
(Start: 12 @32800 has 194 MA's), (20, 32740), (30, 32650), (31, 32626),

Gene: Smeagol\_43 Start: 33429, Stop: 33124, Start Num: 12  
Candidate Starts for Smeagol\_43:  
(Start: 12 @33429 has 194 MA's),

Gene: Snazzy\_40 Start: 31803, Stop: 31540, Start Num: 12  
Candidate Starts for Snazzy\_40:  
(Start: 12 @31803 has 194 MA's), (32, 31641), (35, 31590),

Gene: Solon\_42 Start: 32559, Stop: 32266, Start Num: 12  
Candidate Starts for Solon\_42:  
(Start: 12 @32559 has 194 MA's), (19, 32499), (32, 32367), (35, 32316),

Gene: Sorpresa\_42 Start: 32674, Stop: 32396, Start Num: 12  
Candidate Starts for Sorpresa\_42:  
(Start: 12 @32674 has 194 MA's), (17, 32626), (Start: 24 @32575 has 1 MA's), (32, 32497), (35, 32446),

Gene: SpikeBT\_43 Start: 32904, Stop: 32617, Start Num: 12  
Candidate Starts for SpikeBT\_43:  
(Start: 12 @32904 has 194 MA's), (22, 32817), (Start: 24 @32802 has 1 MA's), (32, 32718), (35, 32667),

Gene: Squee\_42 Start: 32648, Stop: 32391, Start Num: 12  
Candidate Starts for Squee\_42:  
(Start: 12 @32648 has 194 MA's), (Start: 24 @32576 has 1 MA's), (32, 32492), (35, 32441),

Gene: StewieG\_41 Start: 30093, Stop: 29824, Start Num: 12

Candidate Starts for StewieG\_41:

(Start: 12 @30093 has 194 MA's), (Start: 24 @30009 has 1 MA's), (32, 29925), (35, 29874),

Gene: StrongArm\_41 Start: 33115, Stop: 32846, Start Num: 12

Candidate Starts for StrongArm\_41:

(Start: 12 @33115 has 194 MA's), (Start: 24 @33031 has 1 MA's), (32, 32947), (35, 32896),

Gene: Sumter\_40 Start: 32264, Stop: 31995, Start Num: 12

Candidate Starts for Sumter\_40:

(Start: 12 @32264 has 194 MA's), (32, 32096), (35, 32045),

Gene: Sunshine924\_43 Start: 31944, Stop: 31675, Start Num: 12

Candidate Starts for Sunshine924\_43:

(Start: 12 @31944 has 194 MA's), (Start: 24 @31860 has 1 MA's), (32, 31776), (35, 31725),

Gene: SwissCheese\_44 Start: 32776, Stop: 32492, Start Num: 12

Candidate Starts for SwissCheese\_44:

(Start: 12 @32776 has 194 MA's), (14, 32746), (17, 32728), (27, 32665), (31, 32605), (35, 32542),

Gene: Switzer\_42 Start: 31952, Stop: 31680, Start Num: 9

Candidate Starts for Switzer\_42:

(Start: 9 @31952 has 21 MA's), (16, 31907), (32, 31781), (35, 31730),

Gene: Swole\_43 Start: 31939, Stop: 31652, Start Num: 12

Candidate Starts for Swole\_43:

(Start: 12 @31939 has 194 MA's), (32, 31753), (35, 31702),

Gene: Target\_43 Start: 31342, Stop: 31049, Start Num: 12

Candidate Starts for Target\_43:

(Start: 12 @31342 has 194 MA's), (19, 31282), (32, 31150), (35, 31099),

Gene: Tasp14\_43 Start: 32497, Stop: 32210, Start Num: 12

Candidate Starts for Tasp14\_43:

(Start: 12 @32497 has 194 MA's), (22, 32410), (Start: 24 @32395 has 1 MA's), (32, 32311), (35, 32260),

Gene: Teodoridan\_40 Start: 31572, Stop: 31282, Start Num: 12

Candidate Starts for Teodoridan\_40:

(Start: 12 @31572 has 194 MA's), (19, 31512), (31, 31395), (35, 31332),

Gene: TheloniousMonk\_43 Start: 33509, Stop: 33222, Start Num: 12

Candidate Starts for TheloniousMonk\_43:

(Start: 12 @33509 has 194 MA's), (22, 33422), (Start: 24 @33407 has 1 MA's), (32, 33323), (35, 33272),

Gene: Thor\_41 Start: 31596, Stop: 31309, Start Num: 12

Candidate Starts for Thor\_41:

(Start: 12 @31596 has 194 MA's), (22, 31512), (23, 31503), (Start: 24 @31494 has 1 MA's), (26, 31482), (32, 31410), (35, 31359),

Gene: Topgun\_42 Start: 32088, Stop: 31810, Start Num: 12

Candidate Starts for Topgun\_42:

(Start: 12 @32088 has 194 MA's), (30, 31956), (31, 31932),

Gene: Tote\_38 Start: 29206, Stop: 28919, Start Num: 12

Candidate Starts for Tote\_38:

(Start: 12 @29206 has 194 MA's), (32, 29020), (35, 28969),

Gene: Traft412\_43 Start: 33023, Stop: 32742, Start Num: 12

Candidate Starts for Traft412\_43:

(Start: 12 @33023 has 194 MA's), (Start: 24 @32921 has 1 MA's), (32, 32843), (35, 32792),

Gene: Treddle\_44 Start: 33543, Stop: 33265, Start Num: 12

Candidate Starts for Treddle\_44:

(3, 33753), (Start: 12 @33543 has 194 MA's), (32, 33366), (35, 33315),

Gene: Tripl3t\_42 Start: 32942, Stop: 32670, Start Num: 9

Candidate Starts for Tripl3t\_42:

(Start: 9 @32942 has 21 MA's), (16, 32897), (32, 32771), (35, 32720),

Gene: Trouble\_43 Start: 33193, Stop: 32909, Start Num: 12

Candidate Starts for Trouble\_43:

(3, 33403), (Start: 12 @33193 has 194 MA's), (22, 33109), (32, 33010), (35, 32959),

Gene: Turj99\_40 Start: 31789, Stop: 31526, Start Num: 12

Candidate Starts for Turj99\_40:

(4, 31942), (Start: 12 @31789 has 194 MA's), (31, 31639), (35, 31576),

Gene: TwoPeat\_42 Start: 32242, Stop: 31970, Start Num: 9

Candidate Starts for TwoPeat\_42:

(Start: 9 @32242 has 21 MA's), (16, 32197), (32, 32071), (35, 32020),

Gene: U2\_41 Start: 31935, Stop: 31663, Start Num: 9

Candidate Starts for U2\_41:

(Start: 9 @31935 has 21 MA's), (16, 31890), (28, 31818), (32, 31764), (35, 31713),

Gene: Violet\_40 Start: 32375, Stop: 32088, Start Num: 12

Candidate Starts for Violet\_40:

(Start: 12 @32375 has 194 MA's), (Start: 24 @32273 has 1 MA's), (32, 32189), (35, 32138),

Gene: Watermelon\_44 Start: 32965, Stop: 32696, Start Num: 12

Candidate Starts for Watermelon\_44:

(Start: 12 @32965 has 194 MA's), (Start: 24 @32881 has 1 MA's), (32, 32797), (35, 32746),

Gene: Wheeler\_43 Start: 32673, Stop: 32386, Start Num: 12

Candidate Starts for Wheeler\_43:

(Start: 12 @32673 has 194 MA's), (Start: 24 @32571 has 1 MA's), (32, 32487), (35, 32436),

Gene: Whitspit\_40 Start: 30389, Stop: 30120, Start Num: 12

Candidate Starts for Whitspit\_40:

(Start: 12 @30389 has 194 MA's), (Start: 24 @30305 has 1 MA's), (32, 30221), (35, 30170),

Gene: Wilkins\_42 Start: 32021, Stop: 31743, Start Num: 12

Candidate Starts for Wilkins\_42:

(Start: 12 @32021 has 194 MA's), (30, 31889), (31, 31865),

Gene: Zeeculate\_41 Start: 32615, Stop: 32361, Start Num: 15

Candidate Starts for Zeeculate\_41:

(14, 32621), (Start: 15 @32615 has 1 MA's), (31, 32474), (34, 32444), (35, 32411),

Gene: Zephyr\_42 Start: 32359, Stop: 32072, Start Num: 12

Candidate Starts for Zephyr\_42:

(Start: 12 @32359 has 194 MA's), (Start: 24 @32257 has 1 MA's), (32, 32173), (35, 32122),

Gene: Zeuska\_42 Start: 32583, Stop: 32314, Start Num: 12

Candidate Starts for Zeuska\_42:

(Start: 12 @32583 has 194 MA's), (Start: 24 @32499 has 1 MA's), (32, 32415), (35, 32364),