



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 224373 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224373 has 142 members, 13 are drafts.

Phages represented in each track:

- Track 1 : MagicMan\_41, Eyes\_39
- Track 2 : Bowser\_41
- Track 3 : Danimal\_24, KyriosFaba\_24, Bradley2\_24, Picnic\_24, Majesty\_24, Anseraureola\_24, BarBear\_24, Dooby\_24, Luxx\_24, Goobery\_24, JaimeB\_24, Chatham\_24, Lola20\_24, JoBros\_24, Ciel\_24, Jahseh\_24, NeumannU\_24, GoldenBlanche\_25, Aztec\_24, Pondwater\_24, Jannah\_24, Witch\_24, Yubaba\_24, Astro16\_24, Baine\_25, Minima\_24, EdElric\_24, Yasuo\_24, Myram\_25, Dongwon\_24, Horacetta\_24, Octopus\_24, SeaWolves\_24, Slentz\_24, Gardevoir\_24, Jella\_26, PaoPu\_24, YertPhresh\_24, Hernandez44\_24, Alucard\_24, BurtonThePup\_24, ManAs\_24, Puddles3\_25, Sara\_24, Owens\_24, Cayde6\_25, Scrunchy\_24, LemonPepper\_24, BinkBonk\_24
- Track 4 : Efeko\_25
- Track 5 : Kevanna\_24, MelBee03\_24
- Track 6 : Biscayne\_24
- Track 7 : Stem\_24, JooneeDee\_24, Bintii\_24, MirimarMandM\_24, Niffler\_24, PoRanda\_24, Nobel\_24, Upsilon\_24
- Track 8 : TomBrady12\_25, Snuffles\_26, TinyTruffula\_24, Publix\_25, Clownery\_24, IzzyPants24\_24, Trireme\_24, Trackstar\_24, Namsahir\_26, Yami\_24, Bullzi2019\_25, Slizam\_24, Lunatic\_24, Cazares\_24, PuffyCat\_24, Miaurora\_24
- Track 9 : Kaijohn\_24
- Track 10 : Livingwater\_24, Loca\_24, Leafy\_24, Douggie\_24, Quaker\_24
- Track 11 : Eightball\_24
- Track 12 : JRok\_24, McShie\_24
- Track 13 : Avvas\_24, Scamander\_24, Kojax4\_24, Otwor\_24, Vanisius\_24, RoscoWindex\_24, LaviMo\_24, SantasSleigh\_24, Zahlia\_25, Maneater\_24, Godfather\_24, Sage7\_24, Cheesecake\_24, Rhysand\_24, Danno\_24, Charbie\_24, TimoTea\_24, Hulk\_24, Gabbspett\_24, Aries55\_24, Burgy\_24, Josuke\_24
- Track 14 : KillerTomato\_24, Concrete\_24, BoomRoasted\_24, Bri160\_24
- Track 15 : MrGreen\_24
- Track 16 : ELee24\_23
- Track 17 : Gillker\_24
- Track 18 : DirtPie\_26, Rhogar\_24, MasterPitts\_24, LionelHutz\_24, DaftyDuck\_24, HeadMave\_26, TeddyBoy\_24
- Track 19 : Naby\_25
- Track 20 : Erin\_24
- Track 21 : Azizam\_24, Oaklynn\_24
- Track 22 : Madebyisha\_27, Jerky\_24, VitulaEligans\_24

- Track 23 : Wolfpack\_24, Bodhi17\_24, KayPaulus\_24, Sippinontea\_24
- Track 24 : Elspeth\_25, Ekko14\_25, HarperAnne\_25
- Track 25 : BonaeVitae\_26
- Track 26 : Noelani\_24
- Track 27 : Belthelas\_24

**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 103 of the 129 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alucard\_24, Anseraureola\_24, Aries55\_24, Astro16\_24, Avvas\_24, Azizam\_24, Aztec\_24, Baine\_25, BarBear\_24, Belthelas\_24, BinkBonk\_24, Bintii\_24, Biscayne\_24, Bradley2\_24, Bullzi2019\_25, Burgy\_24, BurtonThePup\_24, Cayde6\_25, Cazares\_24, Charbie\_24, Chatham\_24, Cheesecake\_24, Ciel\_24, Clownery\_24, DaftyDuck\_24, Danimal\_24, Danno\_24, DirtPie\_26, Dongwon\_24, Dooby\_24, EdElric\_24, Eightball\_24, Ekko14\_25, Elspeth\_25, Gabbspett\_24, Gardevoir\_24, Godfather\_24, GoldenBlanche\_25, Goobery\_24, HarperAnne\_25, HeadMave\_26, Hernandez44\_24, Horacetta\_24, Hulk\_24, IzzyPants24\_24, JRok\_24, Jahseh\_24, JaimeB\_24, Jannah\_24, Jella\_26, Jerky\_24, JoBros\_24, JooneeDee\_24, Josuke\_24, Kojax4\_24, KyriosFaba\_24, LaviMo\_24, LemonPepper\_24, LionelHutz\_24, Lola20\_24, Lunatic\_24, Luxx\_24, Madebyisha\_27, Majesty\_24, ManAs\_24, Maneater\_24, MasterPitts\_24, McShie\_24, Miaurora\_24, Minima\_24, MirimarMandM\_24, Myram\_25, Namsahir\_26, NeumannU\_24, Niffler\_24, Nobel\_24, Oaklynn\_24, Octopus\_24, Otwor\_24, Owens\_24, PaoPu\_24, Picnic\_24, PoRanda\_24, Pondwater\_24, Publix\_25, Puddles3\_25, PuffyCat\_24, Rhogar\_24, Rhysand\_24, RoscoWindex\_24, Sage7\_24, SantasSleigh\_24, Sara\_24, Scamander\_24, Scrunchy\_24, SeaWolves\_24, Slentz\_24, Slizam\_24, Snuffles\_26, Stem\_24, TeddyBoy\_24, TimoTea\_24, TinyTruffula\_24, TomBrady12\_25, Trackstar\_24, Trireme\_24, Upsilon\_24, Vanisius\_24, VitulaEligans\_24, Witch\_24, Yami\_24, Yasuo\_24, YertPhresh\_24, Yubaba\_24, Zahlia\_25,

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

- Erin\_24, Gillker\_24,

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

- Bodhi17\_24, BonaeVitae\_26, BoomRoasted\_24, Bowser\_41, Bri160\_24, Concrete\_24, Duggie\_24, ELee24\_23, Efeko\_25, Eyes\_39, Kaijohn\_24, KayPaulus\_24, Kevanna\_24, KillerTomato\_24, Leafy\_24, Livingwater\_24, Loca\_24, MagicMan\_41, MelBee03\_24, MrGreen\_24, Naby\_25, Noelani\_24, Quaker\_24, Sippinontea\_24, Wolfpack\_24,

**Summary by start number:**

Start 6:

- Found in 2 of 142 ( 1.4% ) of genes in pham
- Manual Annotations of this start: 2 of 129
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BonaeVitae\_26 (EE), Naby\_25 (EE),

Start 10:

- Found in 2 of 142 ( 1.4% ) of genes in pham
- Manual Annotations of this start: 1 of 129
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ELee24\_23 (EE), Noelani\_24 (EE),

Start 11:

- Found in 17 of 142 ( 12.0% ) of genes in pham
- Manual Annotations of this start: 17 of 129
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bodhi17\_24 (EE), BoomRoasted\_24 (EE), Bri160\_24 (EE), Concrete\_24 (EE), Douggie\_24 (EE), Kaijohn\_24 (EE), KayPaulus\_24 (EE), Kevanna\_24 (EE), KillerTomato\_24 (EE), Leafy\_24 (EE), Livingwater\_24 (EE), Loca\_24 (EE), MelBee03\_24 (EE), MrGreen\_24 (EE), Quaker\_24 (EE), Sippinontea\_24 (EE), Wolfpack\_24 (EE),

Start 12:

- Found in 117 of 142 ( 82.4% ) of genes in pham
- Manual Annotations of this start: 103 of 129
- Called 98.3% of time when present
- Phage (with cluster) where this start called: Alucard\_24 (EE), Anseraureola\_24 (EE), Aries55\_24 (EE), Astro16\_24 (EE), Avvas\_24 (EE), Azizam\_24 (EE), Aztec\_24 (EE), Baine\_25 (EE), BarBear\_24 (EE), Belthelas\_24 (EE), BinkBonk\_24 (EE), Bintii\_24 (EE), Biscayne\_24 (EE), Bradley2\_24 (EE), Bullzi2019\_25 (EE), Burgy\_24 (EE), BurtonThePup\_24 (EE), Cayde6\_25 (EE), Cazares\_24 (EE), Charbie\_24 (EE), Chatham\_24 (EE), Cheesecake\_24 (EE), Ciel\_24 (EE), Clownery\_24 (EE), DaftyDuck\_24 (EE), Danimal\_24 (EE), Danno\_24 (EE), DirtPie\_26 (EE), Dongwon\_24 (EE), Dooby\_24 (EE), EdElric\_24 (EE), Eightball\_24 (EE), Ekko14\_25 (EE), Elspeth\_25 (EE), Gabbspett\_24 (EE), Gardevoir\_24 (EE), Godfather\_24 (EE), GoldenBlanche\_25 (EE), Goobery\_24 (EE), HarperAnne\_25 (EE), HeadMave\_26 (EE), Hernandez44\_24 (EE), Horacetta\_24 (EE), Hulk\_24 (EE), IzzyPants24\_24 (EE), JRok\_24 (EE), Jahseh\_24 (EE), JaimeB\_24 (EE), Jannah\_24 (EE), Jella\_26 (EE), Jerky\_24 (EE), JoBros\_24 (EE), JooneeDee\_24 (EE), Josuke\_24 (EE), Kojax4\_24 (EE), KyriosFaba\_24 (EE), LaviMo\_24 (EE), LemonPepper\_24 (EE), LionelHutz\_24 (EE), Lola20\_24 (EE), Lunatic\_24 (EE), Luxx\_24 (EE), Madebyisha\_27 (EE), Majesty\_24 (EE), ManAs\_24 (EE), Maneater\_24 (EE), MasterPitts\_24 (EE), McShie\_24 (EE), Miaurora\_24 (EE), Minima\_24 (EE), MirimarMandM\_24 (EE), Myram\_25 (EE), Namsahir\_26 (EE), NeumannU\_24 (EE), Niffler\_24 (EE), Nobel\_24 (EE), Oaklynn\_24 (EE), Octopus\_24 (EE), Otwor\_24 (EE), Owens\_24 (EE), PaoPu\_24 (EE), Picnic\_24 (EE), PoRanda\_24 (EE), Pondwater\_24 (EE), Publix\_25 (EE), Puddles3\_25 (EE), PuffyCat\_24 (EE), Rhogar\_24 (EE), Rhysand\_24 (EE), RoscoWindex\_24 (EE), Sage7\_24 (EE), SantasSleigh\_24 (EE), Sara\_24 (EE), Scamander\_24 (EE), Scrunchy\_24 (EE), SeaWolves\_24 (EE), Slentz\_24 (EE), Slizam\_24 (EE), Snuffles\_26 (EE), Stem\_24 (EE), TeddyBoy\_24 (EE), TimoTea\_24 (EE), TinyTruffula\_24 (EE), TomBrady12\_25 (EE), Trackstar\_24 (EE), Trireme\_24 (EE), Upsilon\_24 (EE), Vanisius\_24 (EE), VitulaEligans\_24 (EE), Witch\_24 (EE), Yami\_24 (EE), Yasuo\_24 (EE), YertPhresh\_24 (EE), Yubaba\_24 (EE), Zahlia\_25 (EE),

Start 14:

- Found in 138 of 142 ( 97.2% ) of genes in pham
- Manual Annotations of this start: 3 of 129

- Called 2.2% of time when present
- Phage (with cluster) where this start called: Efeko\_25 (EE), Erin\_24 (EE), Gillker\_24 (EE),

Start 16:

- Found in 4 of 142 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 3 of 129
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Bowser\_41 (DB), Eyes\_39 (DB), MagicMan\_41 (DB),

### **Summary by clusters:**

There are 2 clusters represented in this pham: EE, DB,

Info for manual annotations of cluster DB:

- Start number 16 was manually annotated 3 times for cluster DB.

Info for manual annotations of cluster EE:

- Start number 6 was manually annotated 2 times for cluster EE.
- Start number 10 was manually annotated 1 time for cluster EE.
- Start number 11 was manually annotated 17 times for cluster EE.
- Start number 12 was manually annotated 103 times for cluster EE.
- Start number 14 was manually annotated 3 times for cluster EE.

### **Gene Information:**

Gene: Alucard\_24 Start: 16775, Stop: 16993, Start Num: 12

Candidate Starts for Alucard\_24:

(Start: 12 @16775 has 103 MA's), (Start: 14 @16784 has 3 MA's), (18, 16847), (23, 16955), (24, 16958), (27, 16979),

Gene: Anseraureola\_24 Start: 16837, Stop: 17055, Start Num: 12

Candidate Starts for Anseraureola\_24:

(Start: 12 @16837 has 103 MA's), (Start: 14 @16846 has 3 MA's), (18, 16909), (23, 17017), (24, 17020), (27, 17041),

Gene: Aries55\_24 Start: 16864, Stop: 17082, Start Num: 12

Candidate Starts for Aries55\_24:

(Start: 12 @16864 has 103 MA's), (Start: 14 @16873 has 3 MA's), (18, 16936), (23, 17044), (24, 17047), (27, 17068),

Gene: Astro16\_24 Start: 16857, Stop: 17075, Start Num: 12

Candidate Starts for Astro16\_24:

(Start: 12 @16857 has 103 MA's), (Start: 14 @16866 has 3 MA's), (18, 16929), (23, 17037), (24, 17040), (27, 17061),

Gene: Avvas\_24 Start: 16864, Stop: 17082, Start Num: 12

Candidate Starts for Avvas\_24:

(Start: 12 @16864 has 103 MA's), (Start: 14 @16873 has 3 MA's), (18, 16936), (23, 17044), (24, 17047), (27, 17068),

Gene: Azizam\_24 Start: 16797, Stop: 17015, Start Num: 12

Candidate Starts for Azizam\_24:

(Start: 12 @16797 has 103 MA's), (Start: 14 @16806 has 3 MA's), (18, 16869), (19, 16902), (23, 16977), (24, 16980),

Gene: Aztec\_24 Start: 16780, Stop: 16998, Start Num: 12

Candidate Starts for Aztec\_24:

(Start: 12 @16780 has 103 MA's), (Start: 14 @16789 has 3 MA's), (18, 16852), (23, 16960), (24, 16963), (27, 16984),

Gene: Baine\_25 Start: 16800, Stop: 17018, Start Num: 12

Candidate Starts for Baine\_25:

(Start: 12 @16800 has 103 MA's), (Start: 14 @16809 has 3 MA's), (18, 16872), (23, 16980), (24, 16983), (27, 17004),

Gene: BarBear\_24 Start: 16857, Stop: 17075, Start Num: 12

Candidate Starts for BarBear\_24:

(Start: 12 @16857 has 103 MA's), (Start: 14 @16866 has 3 MA's), (18, 16929), (23, 17037), (24, 17040), (27, 17061),

Gene: Belthelas\_24 Start: 16913, Stop: 17131, Start Num: 12

Candidate Starts for Belthelas\_24:

(4, 16754), (5, 16763), (Start: 12 @16913 has 103 MA's), (Start: 14 @16922 has 3 MA's), (18, 16985), (23, 17093), (24, 17096), (27, 17117),

Gene: BinkBonk\_24 Start: 16857, Stop: 17075, Start Num: 12

Candidate Starts for BinkBonk\_24:

(Start: 12 @16857 has 103 MA's), (Start: 14 @16866 has 3 MA's), (18, 16929), (23, 17037), (24, 17040), (27, 17061),

Gene: Bintii\_24 Start: 16879, Stop: 17097, Start Num: 12

Candidate Starts for Bintii\_24:

(4, 16708), (5, 16717), (Start: 12 @16879 has 103 MA's), (Start: 14 @16888 has 3 MA's), (18, 16951), (19, 16984), (23, 17059), (24, 17062),

Gene: Biscayne\_24 Start: 16940, Stop: 17158, Start Num: 12

Candidate Starts for Biscayne\_24:

(Start: 12 @16940 has 103 MA's), (Start: 14 @16949 has 3 MA's), (18, 17012), (19, 17045), (22, 17081), (23, 17120), (24, 17123),

Gene: Bodhi17\_24 Start: 16894, Stop: 17112, Start Num: 11

Candidate Starts for Bodhi17\_24:

(7, 16819), (Start: 11 @16894 has 17 MA's), (Start: 14 @16903 has 3 MA's), (17, 16951), (18, 16966), (19, 16999), (23, 17074), (24, 17077), (27, 17098),

Gene: BonaeVitae\_26 Start: 16801, Stop: 17085, Start Num: 6

Candidate Starts for BonaeVitae\_26:

(5, 16729), (Start: 6 @16801 has 2 MA's), (Start: 14 @16882 has 3 MA's), (18, 16942), (19, 16975), (23, 17050), (24, 17053),

Gene: BoomRoasted\_24 Start: 16867, Stop: 17085, Start Num: 11

Candidate Starts for BoomRoasted\_24:

(Start: 11 @16867 has 17 MA's), (Start: 14 @16876 has 3 MA's), (18, 16939), (23, 17047), (24, 17050),

Gene: Bowser\_41 Start: 32656, Stop: 32847, Start Num: 16

Candidate Starts for Bowser\_41:

(15, 32641), (Start: 16 @32656 has 3 MA's), (20, 32740), (21, 32755), (24, 32809),

Gene: Bradley2\_24 Start: 16779, Stop: 16997, Start Num: 12

Candidate Starts for Bradley2\_24:

(Start: 12 @16779 has 103 MA's), (Start: 14 @16788 has 3 MA's), (18, 16851), (23, 16959), (24, 16962), (27, 16983),

Gene: Bri160\_24 Start: 16854, Stop: 17072, Start Num: 11

Candidate Starts for Bri160\_24:

(Start: 11 @16854 has 17 MA's), (Start: 14 @16863 has 3 MA's), (18, 16926), (23, 17034), (24, 17037),

Gene: Bullzi2019\_25 Start: 16555, Stop: 16773, Start Num: 12

Candidate Starts for Bullzi2019\_25:

(Start: 12 @16555 has 103 MA's), (Start: 14 @16564 has 3 MA's), (18, 16627), (19, 16660), (23, 16735), (24, 16738),

Gene: Burgy\_24 Start: 16865, Stop: 17083, Start Num: 12

Candidate Starts for Burgy\_24:

(Start: 12 @16865 has 103 MA's), (Start: 14 @16874 has 3 MA's), (18, 16937), (23, 17045), (24, 17048), (27, 17069),

Gene: BurtonThePup\_24 Start: 16857, Stop: 17075, Start Num: 12

Candidate Starts for BurtonThePup\_24:

(Start: 12 @16857 has 103 MA's), (Start: 14 @16866 has 3 MA's), (18, 16929), (23, 17037), (24, 17040), (27, 17061),

Gene: Cayde6\_25 Start: 16800, Stop: 17018, Start Num: 12

Candidate Starts for Cayde6\_25:

(Start: 12 @16800 has 103 MA's), (Start: 14 @16809 has 3 MA's), (18, 16872), (23, 16980), (24, 16983), (27, 17004),

Gene: Cazares\_24 Start: 16327, Stop: 16545, Start Num: 12

Candidate Starts for Cazares\_24:

(Start: 12 @16327 has 103 MA's), (Start: 14 @16336 has 3 MA's), (18, 16399), (19, 16432), (23, 16507), (24, 16510),

Gene: Charbie\_24 Start: 16840, Stop: 17058, Start Num: 12

Candidate Starts for Charbie\_24:

(Start: 12 @16840 has 103 MA's), (Start: 14 @16849 has 3 MA's), (18, 16912), (23, 17020), (24, 17023), (27, 17044),

Gene: Chatham\_24 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for Chatham\_24:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: Cheesecake\_24 Start: 16865, Stop: 17083, Start Num: 12

Candidate Starts for Cheesecake\_24:

(Start: 12 @16865 has 103 MA's), (Start: 14 @16874 has 3 MA's), (18, 16937), (23, 17045), (24, 17048), (27, 17069),

Gene: Ciel\_24 Start: 16857, Stop: 17075, Start Num: 12

Candidate Starts for Ciel\_24:

(Start: 12 @16857 has 103 MA's), (Start: 14 @16866 has 3 MA's), (18, 16929), (23, 17037), (24, 17040), (27, 17061),

Gene: Clownery\_24 Start: 16453, Stop: 16671, Start Num: 12

Candidate Starts for Clownery\_24:

(Start: 12 @16453 has 103 MA's), (Start: 14 @16462 has 3 MA's), (18, 16525), (19, 16558), (23, 16633), (24, 16636),

Gene: Concrete\_24 Start: 16844, Stop: 17062, Start Num: 11

Candidate Starts for Concrete\_24:

(Start: 11 @16844 has 17 MA's), (Start: 14 @16853 has 3 MA's), (18, 16916), (23, 17024), (24, 17027),

Gene: DaftyDuck\_24 Start: 16797, Stop: 17015, Start Num: 12

Candidate Starts for DaftyDuck\_24:

(Start: 12 @16797 has 103 MA's), (Start: 14 @16806 has 3 MA's), (18, 16869), (23, 16977), (24, 16980), (27, 17001),

Gene: Danimal\_24 Start: 16776, Stop: 16994, Start Num: 12

Candidate Starts for Danimal\_24:

(Start: 12 @16776 has 103 MA's), (Start: 14 @16785 has 3 MA's), (18, 16848), (23, 16956), (24, 16959), (27, 16980),

Gene: Danno\_24 Start: 16864, Stop: 17082, Start Num: 12

Candidate Starts for Danno\_24:

(Start: 12 @16864 has 103 MA's), (Start: 14 @16873 has 3 MA's), (18, 16936), (23, 17044), (24, 17047), (27, 17068),

Gene: DirtPie\_26 Start: 16890, Stop: 17108, Start Num: 12

Candidate Starts for DirtPie\_26:

(Start: 12 @16890 has 103 MA's), (Start: 14 @16899 has 3 MA's), (18, 16962), (23, 17070), (24, 17073), (27, 17094),

Gene: Dongwon\_24 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for Dongwon\_24:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: Dooby\_24 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for Dooby\_24:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: Douggie\_24 Start: 16850, Stop: 17068, Start Num: 11

Candidate Starts for Douggie\_24:

(Start: 11 @16850 has 17 MA's), (Start: 14 @16859 has 3 MA's), (18, 16922), (23, 17030), (24, 17033), (27, 17054),

Gene: ELee24\_23 Start: 16643, Stop: 16861, Start Num: 10



Candidate Starts for ELee24\_23:

(Start: 10 @16643 has 1 MA's), (Start: 16 @16673 has 3 MA's), (18, 16715), (23, 16823), (24, 16826),

Gene: EdElric\_24 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for EdElric\_24:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: Efeko\_25 Start: 16548, Stop: 16751, Start Num: 14

Candidate Starts for Efeko\_25:

(9, 16509), (Start: 14 @16548 has 3 MA's), (15, 16554), (25, 16725),

Gene: Eightball\_24 Start: 16851, Stop: 17069, Start Num: 12

Candidate Starts for Eightball\_24:

(Start: 12 @16851 has 103 MA's), (Start: 14 @16860 has 3 MA's), (18, 16923), (23, 17031), (24, 17034), (27, 17055),

Gene: Ekko14\_25 Start: 16529, Stop: 16747, Start Num: 12

Candidate Starts for Ekko14\_25:

(Start: 12 @16529 has 103 MA's), (Start: 14 @16538 has 3 MA's), (18, 16601), (19, 16634), (23, 16709), (24, 16712),

Gene: Elspeth\_25 Start: 16529, Stop: 16747, Start Num: 12

Candidate Starts for Elspeth\_25:

(Start: 12 @16529 has 103 MA's), (Start: 14 @16538 has 3 MA's), (18, 16601), (19, 16634), (23, 16709), (24, 16712),

Gene: Erin\_24 Start: 16781, Stop: 16990, Start Num: 14

Candidate Starts for Erin\_24:

(Start: 12 @16772 has 103 MA's), (Start: 14 @16781 has 3 MA's), (18, 16844), (23, 16952), (24, 16955), (27, 16976),

Gene: Eyes\_39 Start: 32432, Stop: 32626, Start Num: 16

Candidate Starts for Eyes\_39:

(15, 32417), (Start: 16 @32432 has 3 MA's), (20, 32516),

Gene: Gabbspett\_24 Start: 16894, Stop: 17112, Start Num: 12

Candidate Starts for Gabbspett\_24:

(Start: 12 @16894 has 103 MA's), (Start: 14 @16903 has 3 MA's), (18, 16966), (23, 17074), (24, 17077), (27, 17098),

Gene: Gardevoir\_24 Start: 16808, Stop: 17026, Start Num: 12

Candidate Starts for Gardevoir\_24:

(Start: 12 @16808 has 103 MA's), (Start: 14 @16817 has 3 MA's), (18, 16880), (23, 16988), (24, 16991), (27, 17012),

Gene: Gillker\_24 Start: 16782, Stop: 16991, Start Num: 14

Candidate Starts for Gillker\_24:

(Start: 12 @16773 has 103 MA's), (Start: 14 @16782 has 3 MA's), (18, 16845), (23, 16953), (24, 16956), (27, 16977),

Gene: Godfather\_24 Start: 16864, Stop: 17082, Start Num: 12

Candidate Starts for Godfather\_24:

(Start: 12 @16864 has 103 MA's), (Start: 14 @16873 has 3 MA's), (18, 16936), (23, 17044), (24, 17047), (27, 17068),

Gene: GoldenBlanche\_25 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for GoldenBlanche\_25:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: Goobery\_24 Start: 16857, Stop: 17075, Start Num: 12

Candidate Starts for Goobery\_24:

(Start: 12 @16857 has 103 MA's), (Start: 14 @16866 has 3 MA's), (18, 16929), (23, 17037), (24, 17040), (27, 17061),

Gene: HarperAnne\_25 Start: 16528, Stop: 16746, Start Num: 12

Candidate Starts for HarperAnne\_25:

(Start: 12 @16528 has 103 MA's), (Start: 14 @16537 has 3 MA's), (18, 16600), (19, 16633), (23, 16708), (24, 16711),

Gene: HeadMave\_26 Start: 16860, Stop: 17078, Start Num: 12

Candidate Starts for HeadMave\_26:

(Start: 12 @16860 has 103 MA's), (Start: 14 @16869 has 3 MA's), (18, 16932), (23, 17040), (24, 17043), (27, 17064),

Gene: Hernandez44\_24 Start: 16889, Stop: 17107, Start Num: 12

Candidate Starts for Hernandez44\_24:

(Start: 12 @16889 has 103 MA's), (Start: 14 @16898 has 3 MA's), (18, 16961), (23, 17069), (24, 17072), (27, 17093),

Gene: Horacetta\_24 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for Horacetta\_24:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: Hulk\_24 Start: 16807, Stop: 17025, Start Num: 12

Candidate Starts for Hulk\_24:

(Start: 12 @16807 has 103 MA's), (Start: 14 @16816 has 3 MA's), (18, 16879), (23, 16987), (24, 16990), (27, 17011),

Gene: IzzyPants24\_24 Start: 16383, Stop: 16601, Start Num: 12

Candidate Starts for IzzyPants24\_24:

(Start: 12 @16383 has 103 MA's), (Start: 14 @16392 has 3 MA's), (18, 16455), (19, 16488), (23, 16563), (24, 16566),

Gene: JRok\_24 Start: 16794, Stop: 17012, Start Num: 12

Candidate Starts for JRok\_24:

(4, 16629), (5, 16638), (Start: 12 @16794 has 103 MA's), (Start: 14 @16803 has 3 MA's), (18, 16866), (19, 16899), (23, 16974), (24, 16977),

Gene: Jahseh\_24 Start: 16780, Stop: 16998, Start Num: 12

Candidate Starts for Jahseh\_24:

(Start: 12 @16780 has 103 MA's), (Start: 14 @16789 has 3 MA's), (18, 16852), (23, 16960), (24, 16963), (27, 16984),

Gene: JaimeB\_24 Start: 16857, Stop: 17075, Start Num: 12

Candidate Starts for JaimeB\_24:

(Start: 12 @16857 has 103 MA's), (Start: 14 @16866 has 3 MA's), (18, 16929), (23, 17037), (24, 17040), (27, 17061),

Gene: Jannah\_24 Start: 16840, Stop: 17058, Start Num: 12

Candidate Starts for Jannah\_24:

(Start: 12 @16840 has 103 MA's), (Start: 14 @16849 has 3 MA's), (18, 16912), (23, 17020), (24, 17023), (27, 17044),

Gene: Jella\_26 Start: 16875, Stop: 17093, Start Num: 12

Candidate Starts for Jella\_26:

(Start: 12 @16875 has 103 MA's), (Start: 14 @16884 has 3 MA's), (18, 16947), (23, 17055), (24, 17058), (27, 17079),

Gene: Jerky\_24 Start: 16939, Stop: 17157, Start Num: 12

Candidate Starts for Jerky\_24:

(4, 16783), (5, 16792), (Start: 12 @16939 has 103 MA's), (Start: 14 @16948 has 3 MA's), (18, 17011), (23, 17119), (24, 17122),

Gene: JoBros\_24 Start: 16775, Stop: 16993, Start Num: 12

Candidate Starts for JoBros\_24:

(Start: 12 @16775 has 103 MA's), (Start: 14 @16784 has 3 MA's), (18, 16847), (23, 16955), (24, 16958), (27, 16979),

Gene: JooneeDee\_24 Start: 16879, Stop: 17097, Start Num: 12

Candidate Starts for JooneeDee\_24:

(4, 16708), (5, 16717), (Start: 12 @16879 has 103 MA's), (Start: 14 @16888 has 3 MA's), (18, 16951), (19, 16984), (23, 17059), (24, 17062),

Gene: Josuke\_24 Start: 16865, Stop: 17083, Start Num: 12

Candidate Starts for Josuke\_24:

(Start: 12 @16865 has 103 MA's), (Start: 14 @16874 has 3 MA's), (18, 16937), (23, 17045), (24, 17048), (27, 17069),

Gene: Kaijohn\_24 Start: 16837, Stop: 17055, Start Num: 11

Candidate Starts for Kaijohn\_24:

(7, 16762), (Start: 11 @16837 has 17 MA's), (Start: 14 @16846 has 3 MA's), (18, 16909), (19, 16942), (22, 16978), (23, 17017), (24, 17020),

Gene: KayPaulus\_24 Start: 16867, Stop: 17085, Start Num: 11

Candidate Starts for KayPaulus\_24:

(7, 16792), (Start: 11 @16867 has 17 MA's), (Start: 14 @16876 has 3 MA's), (17, 16924), (18, 16939), (19, 16972), (23, 17047), (24, 17050), (27, 17071),

Gene: Kevanna\_24 Start: 16853, Stop: 17071, Start Num: 11

Candidate Starts for Kevanna\_24:

(Start: 11 @16853 has 17 MA's), (Start: 14 @16862 has 3 MA's), (18, 16925), (23, 17033), (24, 17036),

Gene: KillerTomato\_24 Start: 16854, Stop: 17072, Start Num: 11

Candidate Starts for KillerTomato\_24:

(Start: 11 @16854 has 17 MA's), (Start: 14 @16863 has 3 MA's), (18, 16926), (23, 17034), (24, 17037),

Gene: Kojax4\_24 Start: 16864, Stop: 17082, Start Num: 12

Candidate Starts for Kojax4\_24:

(Start: 12 @16864 has 103 MA's), (Start: 14 @16873 has 3 MA's), (18, 16936), (23, 17044), (24, 17047), (27, 17068),

Gene: KyriosFaba\_24 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for KyriosFaba\_24:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: LaviMo\_24 Start: 16865, Stop: 17083, Start Num: 12

Candidate Starts for LaviMo\_24:

(Start: 12 @16865 has 103 MA's), (Start: 14 @16874 has 3 MA's), (18, 16937), (23, 17045), (24, 17048), (27, 17069),

Gene: Leafy\_24 Start: 16819, Stop: 17037, Start Num: 11

Candidate Starts for Leafy\_24:

(Start: 11 @16819 has 17 MA's), (Start: 14 @16828 has 3 MA's), (18, 16891), (23, 16999), (24, 17002), (27, 17023),

Gene: LemonPepper\_24 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for LemonPepper\_24:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: LionelHutz\_24 Start: 16860, Stop: 17078, Start Num: 12

Candidate Starts for LionelHutz\_24:

(Start: 12 @16860 has 103 MA's), (Start: 14 @16869 has 3 MA's), (18, 16932), (23, 17040), (24, 17043), (27, 17064),

Gene: Livingwater\_24 Start: 16862, Stop: 17080, Start Num: 11

Candidate Starts for Livingwater\_24:

(Start: 11 @16862 has 17 MA's), (Start: 14 @16871 has 3 MA's), (18, 16934), (23, 17042), (24, 17045), (27, 17066),

Gene: Loca\_24 Start: 16887, Stop: 17105, Start Num: 11

Candidate Starts for Loca\_24:

(Start: 11 @16887 has 17 MA's), (Start: 14 @16896 has 3 MA's), (18, 16959), (23, 17067), (24, 17070), (27, 17091),

Gene: Lola20\_24 Start: 16800, Stop: 17018, Start Num: 12

Candidate Starts for Lola20\_24:

(Start: 12 @16800 has 103 MA's), (Start: 14 @16809 has 3 MA's), (18, 16872), (23, 16980), (24, 16983), (27, 17004),

Gene: Lunatic\_24 Start: 16327, Stop: 16545, Start Num: 12

Candidate Starts for Lunatic\_24:

(Start: 12 @16327 has 103 MA's), (Start: 14 @16336 has 3 MA's), (18, 16399), (19, 16432), (23, 16507), (24, 16510),

Gene: Luxx\_24 Start: 16875, Stop: 17093, Start Num: 12

Candidate Starts for Luxx\_24:

(Start: 12 @16875 has 103 MA's), (Start: 14 @16884 has 3 MA's), (18, 16947), (23, 17055), (24, 17058), (27, 17079),

Gene: Madebyisha\_27 Start: 16939, Stop: 17157, Start Num: 12

Candidate Starts for Madebyisha\_27:

(4, 16783), (5, 16792), (Start: 12 @16939 has 103 MA's), (Start: 14 @16948 has 3 MA's), (18, 17011), (23, 17119), (24, 17122),

Gene: MagicMan\_41 Start: 32979, Stop: 33173, Start Num: 16

Candidate Starts for MagicMan\_41:

(15, 32964), (Start: 16 @32979 has 3 MA's), (20, 33063),

Gene: Majesty\_24 Start: 16856, Stop: 17074, Start Num: 12

Candidate Starts for Majesty\_24:

(Start: 12 @16856 has 103 MA's), (Start: 14 @16865 has 3 MA's), (18, 16928), (23, 17036), (24, 17039), (27, 17060),

Gene: ManAs\_24 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for ManAs\_24:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: Maneater\_24 Start: 16839, Stop: 17057, Start Num: 12

Candidate Starts for Maneater\_24:

(Start: 12 @16839 has 103 MA's), (Start: 14 @16848 has 3 MA's), (18, 16911), (23, 17019), (24, 17022), (27, 17043),

Gene: MasterPitts\_24 Start: 16797, Stop: 17015, Start Num: 12

Candidate Starts for MasterPitts\_24:

(Start: 12 @16797 has 103 MA's), (Start: 14 @16806 has 3 MA's), (18, 16869), (23, 16977), (24, 16980), (27, 17001),

Gene: McShie\_24 Start: 16846, Stop: 17064, Start Num: 12

Candidate Starts for McShie\_24:

(4, 16681), (5, 16690), (Start: 12 @16846 has 103 MA's), (Start: 14 @16855 has 3 MA's), (18, 16918), (19, 16951), (23, 17026), (24, 17029),

Gene: MelBee03\_24 Start: 16853, Stop: 17071, Start Num: 11

Candidate Starts for MelBee03\_24:

(Start: 11 @16853 has 17 MA's), (Start: 14 @16862 has 3 MA's), (18, 16925), (23, 17033), (24, 17036),

Gene: Miaurora\_24 Start: 16444, Stop: 16662, Start Num: 12

Candidate Starts for Miaurora\_24:

(Start: 12 @16444 has 103 MA's), (Start: 14 @16453 has 3 MA's), (18, 16516), (19, 16549), (23, 16624), (24, 16627),

Gene: Minima\_24 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for Minima\_24:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: MirimarMandM\_24 Start: 16922, Stop: 17140, Start Num: 12

Candidate Starts for MirimarMandM\_24:

(4, 16751), (5, 16760), (Start: 12 @16922 has 103 MA's), (Start: 14 @16931 has 3 MA's), (18, 16994), (19, 17027), (23, 17102), (24, 17105),

Gene: MrGreen\_24 Start: 16833, Stop: 17051, Start Num: 11

Candidate Starts for MrGreen\_24:

(1, 16536), (2, 16569), (3, 16641), (7, 16758), (Start: 11 @16833 has 17 MA's), (Start: 14 @16842 has 3 MA's), (17, 16890), (18, 16905), (23, 17013), (24, 17016), (27, 17037),

Gene: Myram\_25 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for Myram\_25:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: Naby\_25 Start: 16798, Stop: 17082, Start Num: 6

Candidate Starts for Naby\_25:

(5, 16726), (Start: 6 @16798 has 2 MA's), (Start: 14 @16879 has 3 MA's), (15, 16885), (18, 16939), (19, 16972), (23, 17047), (24, 17050),

Gene: Namsahir\_26 Start: 16588, Stop: 16806, Start Num: 12

Candidate Starts for Namsahir\_26:

(Start: 12 @16588 has 103 MA's), (Start: 14 @16597 has 3 MA's), (18, 16660), (19, 16693), (23, 16768), (24, 16771),

Gene: NeumannU\_24 Start: 16857, Stop: 17075, Start Num: 12

Candidate Starts for NeumannU\_24:

(Start: 12 @16857 has 103 MA's), (Start: 14 @16866 has 3 MA's), (18, 16929), (23, 17037), (24, 17040), (27, 17061),

Gene: Niffler\_24 Start: 16435, Stop: 16653, Start Num: 12

Candidate Starts for Niffler\_24:

(4, 16264), (5, 16273), (Start: 12 @16435 has 103 MA's), (Start: 14 @16444 has 3 MA's), (18, 16507), (19, 16540), (23, 16615), (24, 16618),

Gene: Nobel\_24 Start: 16461, Stop: 16679, Start Num: 12

Candidate Starts for Nobel\_24:

(4, 16290), (5, 16299), (Start: 12 @16461 has 103 MA's), (Start: 14 @16470 has 3 MA's), (18, 16533), (19, 16566), (23, 16641), (24, 16644),

Gene: Noelani\_24 Start: 16760, Stop: 16978, Start Num: 10

Candidate Starts for Noelani\_24:

(4, 16598), (5, 16607), (8, 16694), (Start: 10 @16760 has 1 MA's), (13, 16766), (Start: 14 @16769 has 3 MA's), (18, 16832), (19, 16865), (22, 16901), (23, 16940), (24, 16943), (26, 16955),

Gene: Oaklynn\_24 Start: 16797, Stop: 17015, Start Num: 12

Candidate Starts for Oaklynn\_24:

(Start: 12 @16797 has 103 MA's), (Start: 14 @16806 has 3 MA's), (18, 16869), (19, 16902), (23, 16977), (24, 16980),

Gene: Octopus\_24 Start: 16780, Stop: 16998, Start Num: 12

Candidate Starts for Octopus\_24:

(Start: 12 @16780 has 103 MA's), (Start: 14 @16789 has 3 MA's), (18, 16852), (23, 16960), (24, 16963), (27, 16984),

Gene: Otwor\_24 Start: 16866, Stop: 17084, Start Num: 12

Candidate Starts for Otwor\_24:

(Start: 12 @16866 has 103 MA's), (Start: 14 @16875 has 3 MA's), (18, 16938), (23, 17046), (24, 17049), (27, 17070),

Gene: Owens\_24 Start: 16857, Stop: 17075, Start Num: 12

Candidate Starts for Owens\_24:

(Start: 12 @16857 has 103 MA's), (Start: 14 @16866 has 3 MA's), (18, 16929), (23, 17037), (24, 17040), (27, 17061),

Gene: PaoPu\_24 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for PaoPu\_24:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: Picnic\_24 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for Picnic\_24:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: PoRanda\_24 Start: 16922, Stop: 17140, Start Num: 12

Candidate Starts for PoRanda\_24:

(4, 16751), (5, 16760), (Start: 12 @16922 has 103 MA's), (Start: 14 @16931 has 3 MA's), (18, 16994), (19, 17027), (23, 17102), (24, 17105),

Gene: Pondwater\_24 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for Pondwater\_24:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: Publix\_25 Start: 16588, Stop: 16806, Start Num: 12

Candidate Starts for Publix\_25:

(Start: 12 @16588 has 103 MA's), (Start: 14 @16597 has 3 MA's), (18, 16660), (19, 16693), (23, 16768), (24, 16771),

Gene: Puddles3\_25 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for Puddles3\_25:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: PuffyCat\_24 Start: 16378, Stop: 16596, Start Num: 12

Candidate Starts for PuffyCat\_24:

(Start: 12 @16378 has 103 MA's), (Start: 14 @16387 has 3 MA's), (18, 16450), (19, 16483), (23, 16558), (24, 16561),

Gene: Quaker\_24 Start: 16862, Stop: 17080, Start Num: 11

Candidate Starts for Quaker\_24:

(Start: 11 @16862 has 17 MA's), (Start: 14 @16871 has 3 MA's), (18, 16934), (23, 17042), (24, 17045), (27, 17066),

Gene: Rhogar\_24 Start: 16860, Stop: 17078, Start Num: 12

Candidate Starts for Rhogar\_24:

(Start: 12 @16860 has 103 MA's), (Start: 14 @16869 has 3 MA's), (18, 16932), (23, 17040), (24, 17043), (27, 17064),

Gene: Rhysand\_24 Start: 16865, Stop: 17083, Start Num: 12

Candidate Starts for Rhysand\_24:

(Start: 12 @16865 has 103 MA's), (Start: 14 @16874 has 3 MA's), (18, 16937), (23, 17045), (24, 17048), (27, 17069),

Gene: RoscoWindex\_24 Start: 16865, Stop: 17083, Start Num: 12

Candidate Starts for RoscoWindex\_24:

(Start: 12 @16865 has 103 MA's), (Start: 14 @16874 has 3 MA's), (18, 16937), (23, 17045), (24, 17048), (27, 17069),

Gene: Sage7\_24 Start: 16864, Stop: 17082, Start Num: 12

Candidate Starts for Sage7\_24:

(Start: 12 @16864 has 103 MA's), (Start: 14 @16873 has 3 MA's), (18, 16936), (23, 17044), (24, 17047), (27, 17068),

Gene: SantasSleigh\_24 Start: 16888, Stop: 17106, Start Num: 12

Candidate Starts for SantasSleigh\_24:

(Start: 12 @16888 has 103 MA's), (Start: 14 @16897 has 3 MA's), (18, 16960), (23, 17068), (24, 17071), (27, 17092),

Gene: Sara\_24 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for Sara\_24:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: Scamander\_24 Start: 16864, Stop: 17082, Start Num: 12

Candidate Starts for Scamander\_24:

(Start: 12 @16864 has 103 MA's), (Start: 14 @16873 has 3 MA's), (18, 16936), (23, 17044), (24, 17047), (27, 17068),

Gene: Scrunchy\_24 Start: 16857, Stop: 17075, Start Num: 12

Candidate Starts for Scrunchy\_24:

(Start: 12 @16857 has 103 MA's), (Start: 14 @16866 has 3 MA's), (18, 16929), (23, 17037), (24, 17040), (27, 17061),

Gene: SeaWolves\_24 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for SeaWolves\_24:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: Sippinontea\_24 Start: 16885, Stop: 17103, Start Num: 11

Candidate Starts for Sippinontea\_24:

(7, 16810), (Start: 11 @16885 has 17 MA's), (Start: 14 @16894 has 3 MA's), (17, 16942), (18, 16957), (19, 16990), (23, 17065), (24, 17068), (27, 17089),

Gene: Slentz\_24 Start: 16857, Stop: 17075, Start Num: 12

Candidate Starts for Slentz\_24:

(Start: 12 @16857 has 103 MA's), (Start: 14 @16866 has 3 MA's), (18, 16929), (23, 17037), (24, 17040), (27, 17061),



Gene: Slizam\_24 Start: 16383, Stop: 16601, Start Num: 12

Candidate Starts for Slizam\_24:

(Start: 12 @16383 has 103 MA's), (Start: 14 @16392 has 3 MA's), (18, 16455), (19, 16488), (23, 16563), (24, 16566),

Gene: Snuffles\_26 Start: 16736, Stop: 16954, Start Num: 12

Candidate Starts for Snuffles\_26:

(Start: 12 @16736 has 103 MA's), (Start: 14 @16745 has 3 MA's), (18, 16808), (19, 16841), (23, 16916), (24, 16919),

Gene: Stem\_24 Start: 16393, Stop: 16611, Start Num: 12

Candidate Starts for Stem\_24:

(4, 16222), (5, 16231), (Start: 12 @16393 has 103 MA's), (Start: 14 @16402 has 3 MA's), (18, 16465), (19, 16498), (23, 16573), (24, 16576),

Gene: TeddyBoy\_24 Start: 16861, Stop: 17079, Start Num: 12

Candidate Starts for TeddyBoy\_24:

(Start: 12 @16861 has 103 MA's), (Start: 14 @16870 has 3 MA's), (18, 16933), (23, 17041), (24, 17044), (27, 17065),

Gene: TimoTea\_24 Start: 16839, Stop: 17057, Start Num: 12

Candidate Starts for TimoTea\_24:

(Start: 12 @16839 has 103 MA's), (Start: 14 @16848 has 3 MA's), (18, 16911), (23, 17019), (24, 17022), (27, 17043),

Gene: TinyTruffula\_24 Start: 16462, Stop: 16680, Start Num: 12

Candidate Starts for TinyTruffula\_24:

(Start: 12 @16462 has 103 MA's), (Start: 14 @16471 has 3 MA's), (18, 16534), (19, 16567), (23, 16642), (24, 16645),

Gene: TomBrady12\_25 Start: 16565, Stop: 16783, Start Num: 12

Candidate Starts for TomBrady12\_25:

(Start: 12 @16565 has 103 MA's), (Start: 14 @16574 has 3 MA's), (18, 16637), (19, 16670), (23, 16745), (24, 16748),

Gene: Trackstar\_24 Start: 16445, Stop: 16663, Start Num: 12

Candidate Starts for Trackstar\_24:

(Start: 12 @16445 has 103 MA's), (Start: 14 @16454 has 3 MA's), (18, 16517), (19, 16550), (23, 16625), (24, 16628),

Gene: Trireme\_24 Start: 16442, Stop: 16660, Start Num: 12

Candidate Starts for Trireme\_24:

(Start: 12 @16442 has 103 MA's), (Start: 14 @16451 has 3 MA's), (18, 16514), (19, 16547), (23, 16622), (24, 16625),

Gene: Upsilon\_24 Start: 16922, Stop: 17140, Start Num: 12

Candidate Starts for Upsilon\_24:

(4, 16751), (5, 16760), (Start: 12 @16922 has 103 MA's), (Start: 14 @16931 has 3 MA's), (18, 16994), (19, 17027), (23, 17102), (24, 17105),

Gene: Vanisius\_24 Start: 16865, Stop: 17083, Start Num: 12

Candidate Starts for Vanisius\_24:

(Start: 12 @16865 has 103 MA's), (Start: 14 @16874 has 3 MA's), (18, 16937), (23, 17045), (24, 17048), (27, 17069),

Gene: VitulaEligans\_24 Start: 16946, Stop: 17164, Start Num: 12

Candidate Starts for VitulaEligans\_24:

(4, 16790), (5, 16799), (Start: 12 @16946 has 103 MA's), (Start: 14 @16955 has 3 MA's), (18, 17018), (23, 17126), (24, 17129),

Gene: Witch\_24 Start: 16775, Stop: 16993, Start Num: 12

Candidate Starts for Witch\_24:

(Start: 12 @16775 has 103 MA's), (Start: 14 @16784 has 3 MA's), (18, 16847), (23, 16955), (24, 16958), (27, 16979),

Gene: Wolfpack\_24 Start: 16867, Stop: 17085, Start Num: 11

Candidate Starts for Wolfpack\_24:

(7, 16792), (Start: 11 @16867 has 17 MA's), (Start: 14 @16876 has 3 MA's), (17, 16924), (18, 16939), (19, 16972), (23, 17047), (24, 17050), (27, 17071),

Gene: Yami\_24 Start: 16336, Stop: 16554, Start Num: 12

Candidate Starts for Yami\_24:

(Start: 12 @16336 has 103 MA's), (Start: 14 @16345 has 3 MA's), (18, 16408), (19, 16441), (23, 16516), (24, 16519),

Gene: Yasuo\_24 Start: 16845, Stop: 17063, Start Num: 12

Candidate Starts for Yasuo\_24:

(Start: 12 @16845 has 103 MA's), (Start: 14 @16854 has 3 MA's), (18, 16917), (23, 17025), (24, 17028), (27, 17049),

Gene: YertPhresh\_24 Start: 16774, Stop: 16992, Start Num: 12

Candidate Starts for YertPhresh\_24:

(Start: 12 @16774 has 103 MA's), (Start: 14 @16783 has 3 MA's), (18, 16846), (23, 16954), (24, 16957), (27, 16978),

Gene: Yubaba\_24 Start: 16808, Stop: 17026, Start Num: 12

Candidate Starts for Yubaba\_24:

(Start: 12 @16808 has 103 MA's), (Start: 14 @16817 has 3 MA's), (18, 16880), (23, 16988), (24, 16991), (27, 17012),

Gene: Zahlia\_25 Start: 16893, Stop: 17111, Start Num: 12

Candidate Starts for Zahlia\_25:

(Start: 12 @16893 has 103 MA's), (Start: 14 @16902 has 3 MA's), (18, 16965), (23, 17073), (24, 17076), (27, 17097),