

Pham 224488



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 224488 Report

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

Pham number 224488 has 89 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Maria1952\_31, Daiboju\_32, KingBob\_32, Temper16\_32, Herb\_32, Sergei\_32
- Track 2 : MamaPearl\_32, Huckleberry\_31, HeadNerd\_31, EstebanJulior\_32, Moki\_31, Bennie\_31, Urla\_32
- Track 3 : Lennox\_32, ChewChew\_32, WonderBoy\_31, PitaDog\_32, Bodacious\_32, Nancia\_32, Makoto\_32, BigMack\_31, CristinaYang\_32, Lucy\_32, LilStuart\_32, Christian\_32
- Track 4 : Wayne\_35, CallieOMalley\_35, Canowicakte\_35, Suppi\_35, Litotes\_35, PartyCup\_37
- Track 5 : Joann\_34, Nubia\_34, Albanese\_34
- Track 6 : DrRobert\_31, OurGirlNessie\_31, Lasagna\_31
- Track 7 : Lakshmi\_34, GreenHearts\_34
- Track 8 : Korra\_35, Zorro\_35, Wawa\_35, Pterodactyl\_32
- Track 9 : Fluke\_36
- Track 10 : Immaculata\_35, Carpal\_35, Potatoes\_35, Cholula\_35
- Track 11 : Jumboset\_35, Oxynfrius\_34, MeganNoll\_34, BrotherBLo\_35, Savage2526\_35, Scuttle\_35, RAP15\_35
- Track 12 : AppleCider\_35
- Track 13 : Glenn\_35, Gisselle\_32, DreamTeam\_32, Rozby\_35, Preamble\_31, Riverdale\_35, Beethoven\_35, Kittykat\_32, Vallejo\_35, TattModd\_35
- Track 14 : Kalizoi\_35, Dino\_35
- Track 15 : Supakev\_32, AustinPowers\_32, Vulture\_32, HunterDalle\_32, Chridison\_31
- Track 16 : Eunoia\_32, Riovina\_32, OMalley\_32, Aledel\_32
- Track 17 : MrGloopy\_35
- Track 18 : Pumancara\_31
- Track 19 : PinkFriday\_31
- Track 20 : Laroye\_61, LiSara\_58
- Track 21 : Kovu\_59
- Track 22 : ApoKipo\_61
- Track 23 : Salgado\_61
- Track 24 : Wheelbite\_57
- Track 25 : Edmundo\_60
- Track 26 : Waltz\_58
- Track 27 : Shrooms\_59

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

The start number called the most often in the published annotations is 13, it was called in 72 of the 87 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aledel\_32, AppleCider\_35, AustinPowers\_32, Beethoven\_35, Bennie\_31, BigMack\_31, Bodacious\_32, BrotherBLo\_35, CallieOMalley\_35, Canowicakte\_35, Carpal\_35, ChewChew\_32, Cholula\_35, Chridison\_31, Christian\_32, CristinaYang\_32, Daiboju\_32, DrRobert\_31, DreamTeam\_32, EstebanJulior\_32, Eunoia\_32, Gisselle\_32, Glenn\_35, GreenHearts\_34, HeadNerd\_31, Herb\_32, Huckleberry\_31, HunterDalle\_32, Immaculata\_35, Jumboset\_35, KingBob\_32, Kittykat\_32, Korra\_35, Lakshmi\_34, Lasagna\_31, Lennox\_32, LilStuart\_32, Litotes\_35, Lucy\_32, Makoto\_32, MamaPearl\_32, Maria1952\_31, MeganNoll\_34, Moki\_31, Nancia\_32, OMalley\_32, OurGirlNessie\_31, Oxynfrius\_34, PartyCup\_37, PinkFriday\_31, PitaDog\_32, Potatoes\_35, Preamble\_31, Pterodactyl\_32, Pumancara\_31, RAP15\_35, Riovina\_32, Riverdale\_35, Rozby\_35, Savage2526\_35, Scuttle\_35, Sergei\_32, Supakev\_32, Suppi\_35, TattModd\_35, Temper16\_32, Urla\_32, Vallejo\_35, Vulture\_32, Wawa\_35, Wayne\_35, WonderBoy\_31, Zorro\_35,

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

- Albanese\_34, Dino\_35, Fluke\_36, Joann\_34, Kalizoi\_35, Nubia\_34,

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

- ApoKipo\_61, Edmundo\_60, Kovu\_59, Laroye\_61, LiSara\_58, MrGloopy\_35, Salgado\_61, Shrooms\_59, Waltz\_58, Wheelbite\_57,

### **Summary by start number:**

Start 8:

- Found in 1 of 89 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 1 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kovu\_59 (AL),

Start 11:

- Found in 7 of 89 ( 7.9% ) of genes in pham
- Manual Annotations of this start: 7 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Edmundo\_60 (AL), Laroye\_61 (AL), LiSara\_58 (AL), Salgado\_61 (AL), Shrooms\_59 (AL), Waltz\_58 (AL), Wheelbite\_57 (AL),

Start 12:

- Found in 32 of 89 ( 36.0% ) of genes in pham
- Manual Annotations of this start: 6 of 87
- Called 18.8% of time when present
- Phage (with cluster) where this start called: Albanese\_34 (AK), Dino\_35 (AK), Fluke\_36 (AK), Joann\_34 (AK), Kalizoi\_35 (AK), Nubia\_34 (AK),

Start 13:

- Found in 79 of 89 ( 88.8% ) of genes in pham

- Manual Annotations of this start: 72 of 87
- Called 92.4% of time when present
- Phage (with cluster) where this start called: Aledel\_32 (AK), AppleCider\_35 (AK), AustinPowers\_32 (AK), Beethoven\_35 (AK), Bennie\_31 (AK), BigMack\_31 (AK), Bodacious\_32 (AK), BrotherBLo\_35 (AK), CallieOMalley\_35 (AK), Canowicakte\_35 (AK), Carpal\_35 (AK), ChewChew\_32 (AK), Cholula\_35 (AK), Chridison\_31 (AK), Christian\_32 (AK), CristinaYang\_32 (AK), Daiboju\_32 (AK), DrRobert\_31 (AK), DreamTeam\_32 (AK), EstebanJulior\_32 (AK), Eunoia\_32 (AK), Gisselle\_32 (AK), Glenn\_35 (AK), GreenHearts\_34 (AK), HeadNerd\_31 (AK), Herb\_32 (AK), Huckleberry\_31 (AK), HunterDalle\_32 (AK), Immaculata\_35 (AK), Jumboset\_35 (AK), KingBob\_32 (AK), Kittykat\_32 (AK), Korra\_35 (AK), Lakshmi\_34 (AK), Lasagna\_31 (AK), Lennox\_32 (AK), LilStuart\_32 (AK), Litotes\_35 (AK), Lucy\_32 (AK), Makoto\_32 (AK), MamaPearl\_32 (AK), Maria1952\_31 (AK), MeganNoll\_34 (AK), Moki\_31 (AK), Nancia\_32 (AK), OMalley\_32 (AK), OurGirlNessie\_31 (AK), Oxyfrius\_34 (AK), PartyCup\_37 (AK), PinkFriday\_31 (AK), PitaDog\_32 (AK), Potatoes\_35 (AK), Preamble\_31 (AK), Pterodactyl\_32 (AK), Pumancara\_31 (AK), RAP15\_35 (AK), Rivovina\_32 (AK), Riverdale\_35 (AK), Rozby\_35 (AK), Savage2526\_35 (AK), Scuttle\_35 (AK), Sergei\_32 (AK), Supakev\_32 (AK), Suppi\_35 (AK), TattModd\_35 (AK), Temper16\_32 (AK), Urla\_32 (AK), Vallejo\_35 (AK), Vulture\_32 (AK), Wawa\_35 (AK), Wayne\_35 (AK), WonderBoy\_31 (AK), Zorro\_35 (AK),

#### Start 14:

- Found in 1 of 89 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 1 of 87
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MrGloopy\_35 (AK),

#### Start 15:

- Found in 2 of 89 ( 2.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: ApoKipo\_61 (AL),

### Summary by clusters:

There are 2 clusters represented in this pham: AK, AL,

Info for manual annotations of cluster AK:

- Start number 12 was manually annotated 6 times for cluster AK.
- Start number 13 was manually annotated 72 times for cluster AK.
- Start number 14 was manually annotated 1 time for cluster AK.

Info for manual annotations of cluster AL:

- Start number 8 was manually annotated 1 time for cluster AL.
- Start number 11 was manually annotated 7 times for cluster AL.

### Gene Information:

Gene: Albanese\_34 Start: 25713, Stop: 25970, Start Num: 12

Candidate Starts for Albanese\_34:

(Start: 12 @25713 has 6 MA's), (Start: 13 @25755 has 72 MA's), (21, 25881), (22, 25887),

Gene: Aledel\_32 Start: 25408, Stop: 25623, Start Num: 13

Candidate Starts for Aledel\_32:

(Start: 13 @25408 has 72 MA's), (21, 25534), (22, 25540),

Gene: ApoKipo\_61 Start: 33630, Stop: 33848, Start Num: 15

Candidate Starts for ApoKipo\_61:

(7, 33531), (9, 33549), (15, 33630), (18, 33693), (22, 33750),

Gene: AppleCider\_35 Start: 25796, Stop: 26020, Start Num: 13

Candidate Starts for AppleCider\_35:

(Start: 12 @25754 has 6 MA's), (Start: 13 @25796 has 72 MA's), (16, 25835), (19, 25895), (20, 25910), (22, 25928),

Gene: AustinPowers\_32 Start: 25406, Stop: 25621, Start Num: 13

Candidate Starts for AustinPowers\_32:

(Start: 13 @25406 has 72 MA's), (21, 25532), (22, 25538),

Gene: Beethoven\_35 Start: 25775, Stop: 25990, Start Num: 13

Candidate Starts for Beethoven\_35:

(Start: 13 @25775 has 72 MA's), (16, 25814), (22, 25907), (23, 25922),

Gene: Bennie\_31 Start: 24232, Stop: 24453, Start Num: 13

Candidate Starts for Bennie\_31:

(Start: 13 @24232 has 72 MA's), (16, 24271), (22, 24367),

Gene: BigMack\_31 Start: 24254, Stop: 24469, Start Num: 13

Candidate Starts for BigMack\_31:

(Start: 12 @24212 has 6 MA's), (Start: 13 @24254 has 72 MA's), (16, 24293), (17, 24317), (22, 24386),

Gene: Bodacious\_32 Start: 24477, Stop: 24692, Start Num: 13

Candidate Starts for Bodacious\_32:

(Start: 12 @24435 has 6 MA's), (Start: 13 @24477 has 72 MA's), (16, 24516), (17, 24540), (22, 24609),

Gene: BrotherBLo\_35 Start: 25800, Stop: 26024, Start Num: 13

Candidate Starts for BrotherBLo\_35:

(Start: 12 @25758 has 6 MA's), (Start: 13 @25800 has 72 MA's), (16, 25839), (22, 25935),

Gene: CallieOMalley\_35 Start: 25796, Stop: 26020, Start Num: 13

Candidate Starts for CallieOMalley\_35:

(Start: 13 @25796 has 72 MA's), (16, 25835), (19, 25895), (20, 25910), (22, 25928),

Gene: Canowicakte\_35 Start: 25831, Stop: 26055, Start Num: 13

Candidate Starts for Canowicakte\_35:

(Start: 13 @25831 has 72 MA's), (16, 25870), (19, 25930), (20, 25945), (22, 25963),

Gene: Carpal\_35 Start: 25783, Stop: 26004, Start Num: 13

Candidate Starts for Carpal\_35:

(10, 25720), (Start: 13 @25783 has 72 MA's), (16, 25822), (22, 25915), (23, 25930),

Gene: ChewChew\_32 Start: 24472, Stop: 24687, Start Num: 13

Candidate Starts for ChewChew\_32:

(Start: 12 @24430 has 6 MA's), (Start: 13 @24472 has 72 MA's), (16, 24511), (17, 24535), (22, 24604),

Gene: Cholula\_35 Start: 25829, Stop: 26050, Start Num: 13

Candidate Starts for Cholula\_35:

(10, 25766), (Start: 13 @25829 has 72 MA's), (16, 25868), (22, 25961), (23, 25976),

Gene: Chridison\_31 Start: 25406, Stop: 25621, Start Num: 13

Candidate Starts for Chridison\_31:

(Start: 13 @25406 has 72 MA's), (21, 25532), (22, 25538),

Gene: Christian\_32 Start: 24473, Stop: 24688, Start Num: 13

Candidate Starts for Christian\_32:

(Start: 12 @24431 has 6 MA's), (Start: 13 @24473 has 72 MA's), (16, 24512), (17, 24536), (22, 24605),

Gene: CristinaYang\_32 Start: 24477, Stop: 24692, Start Num: 13

Candidate Starts for CristinaYang\_32:

(Start: 12 @24435 has 6 MA's), (Start: 13 @24477 has 72 MA's), (16, 24516), (17, 24540), (22, 24609),

Gene: Daiboju\_32 Start: 25395, Stop: 25610, Start Num: 13

Candidate Starts for Daiboju\_32:

(Start: 13 @25395 has 72 MA's), (19, 25494), (22, 25527),

Gene: Dino\_35 Start: 25754, Stop: 26011, Start Num: 12

Candidate Starts for Dino\_35:

(Start: 12 @25754 has 6 MA's), (Start: 13 @25796 has 72 MA's), (16, 25835), (22, 25928), (23, 25943),

Gene: DrRobert\_31 Start: 24236, Stop: 24451, Start Num: 13

Candidate Starts for DrRobert\_31:

(Start: 13 @24236 has 72 MA's), (16, 24275), (17, 24299), (22, 24368),

Gene: DreamTeam\_32 Start: 24568, Stop: 24783, Start Num: 13

Candidate Starts for DreamTeam\_32:

(Start: 13 @24568 has 72 MA's), (16, 24607), (22, 24700), (23, 24715),

Gene: Edmundo\_60 Start: 34342, Stop: 34614, Start Num: 11

Candidate Starts for Edmundo\_60:

(Start: 11 @34342 has 7 MA's), (16, 34423), (22, 34519), (24, 34570), (25, 34585),

Gene: EstebanJulior\_32 Start: 25426, Stop: 25641, Start Num: 13

Candidate Starts for EstebanJulior\_32:

(Start: 13 @25426 has 72 MA's), (16, 25465), (22, 25558),

Gene: Eunoia\_32 Start: 25408, Stop: 25623, Start Num: 13

Candidate Starts for Eunoia\_32:

(Start: 13 @25408 has 72 MA's), (21, 25534), (22, 25540),

Gene: Fluke\_36 Start: 25895, Stop: 26161, Start Num: 12

Candidate Starts for Fluke\_36:

(Start: 12 @25895 has 6 MA's), (Start: 13 @25937 has 72 MA's), (16, 25976), (22, 26072),

Gene: Gisselle\_32 Start: 24568, Stop: 24783, Start Num: 13

Candidate Starts for Gisselle\_32:

(Start: 13 @24568 has 72 MA's), (16, 24607), (22, 24700), (23, 24715),

Gene: Glenn\_35 Start: 25832, Stop: 26047, Start Num: 13  
Candidate Starts for Glenn\_35:  
(Start: 13 @25832 has 72 MA's), (16, 25871), (22, 25964), (23, 25979),

Gene: GreenHearts\_34 Start: 25847, Stop: 26062, Start Num: 13  
Candidate Starts for GreenHearts\_34:  
(Start: 12 @25805 has 6 MA's), (Start: 13 @25847 has 72 MA's), (21, 25973), (22, 25979),

Gene: HeadNerd\_31 Start: 24232, Stop: 24453, Start Num: 13  
Candidate Starts for HeadNerd\_31:  
(Start: 13 @24232 has 72 MA's), (16, 24271), (22, 24367),

Gene: Herb\_32 Start: 25394, Stop: 25609, Start Num: 13  
Candidate Starts for Herb\_32:  
(Start: 13 @25394 has 72 MA's), (19, 25493), (22, 25526),

Gene: Huckleberry\_31 Start: 24220, Stop: 24435, Start Num: 13  
Candidate Starts for Huckleberry\_31:  
(Start: 13 @24220 has 72 MA's), (16, 24259), (22, 24352),

Gene: HunterDalle\_32 Start: 25405, Stop: 25620, Start Num: 13  
Candidate Starts for HunterDalle\_32:  
(Start: 13 @25405 has 72 MA's), (21, 25531), (22, 25537),

Gene: Immaculata\_35 Start: 25828, Stop: 26049, Start Num: 13  
Candidate Starts for Immaculata\_35:  
(10, 25765), (Start: 13 @25828 has 72 MA's), (16, 25867), (22, 25960), (23, 25975),

Gene: Joann\_34 Start: 25690, Stop: 25947, Start Num: 12  
Candidate Starts for Joann\_34:  
(Start: 12 @25690 has 6 MA's), (Start: 13 @25732 has 72 MA's), (21, 25858), (22, 25864),

Gene: Jumboset\_35 Start: 25772, Stop: 25993, Start Num: 13  
Candidate Starts for Jumboset\_35:  
(Start: 12 @25730 has 6 MA's), (Start: 13 @25772 has 72 MA's), (16, 25811), (22, 25907),

Gene: Kalizoi\_35 Start: 25732, Stop: 25989, Start Num: 12  
Candidate Starts for Kalizoi\_35:  
(Start: 12 @25732 has 6 MA's), (Start: 13 @25774 has 72 MA's), (16, 25813), (22, 25906), (23, 25921),

Gene: KingBob\_32 Start: 25395, Stop: 25610, Start Num: 13  
Candidate Starts for KingBob\_32:  
(Start: 13 @25395 has 72 MA's), (19, 25494), (22, 25527),

Gene: Kittykat\_32 Start: 24433, Stop: 24648, Start Num: 13  
Candidate Starts for Kittykat\_32:  
(Start: 13 @24433 has 72 MA's), (16, 24472), (22, 24565), (23, 24580),

Gene: Korra\_35 Start: 25796, Stop: 26017, Start Num: 13  
Candidate Starts for Korra\_35:  
(Start: 12 @25754 has 6 MA's), (Start: 13 @25796 has 72 MA's), (16, 25835), (22, 25928), (23, 25943),

Gene: Kovu\_59 Start: 33848, Stop: 34150, Start Num: 8

Candidate Starts for Kovu\_59:

(1, 33404), (2, 33584), (3, 33596), (5, 33758), (7, 33833), (Start: 8 @33848 has 1 MA's), (9, 33851), (15, 33932), (18, 33995), (22, 34061),

Gene: Lakshmi\_34 Start: 25731, Stop: 25946, Start Num: 13

Candidate Starts for Lakshmi\_34:

(Start: 12 @25689 has 6 MA's), (Start: 13 @25731 has 72 MA's), (21, 25857), (22, 25863),

Gene: Laroye\_61 Start: 33745, Stop: 34017, Start Num: 11

Candidate Starts for Laroye\_61:

(Start: 11 @33745 has 7 MA's), (22, 33922), (24, 33973), (25, 33988), (26, 33994),

Gene: Lasagna\_31 Start: 24251, Stop: 24466, Start Num: 13

Candidate Starts for Lasagna\_31:

(Start: 13 @24251 has 72 MA's), (16, 24290), (17, 24314), (22, 24383),

Gene: Lennox\_32 Start: 24461, Stop: 24676, Start Num: 13

Candidate Starts for Lennox\_32:

(Start: 12 @24419 has 6 MA's), (Start: 13 @24461 has 72 MA's), (16, 24500), (17, 24524), (22, 24593),

Gene: LiSara\_58 Start: 33907, Stop: 34179, Start Num: 11

Candidate Starts for LiSara\_58:

(Start: 11 @33907 has 7 MA's), (22, 34084), (24, 34135), (25, 34150), (26, 34156),

Gene: LilStuart\_32 Start: 24465, Stop: 24680, Start Num: 13

Candidate Starts for LilStuart\_32:

(Start: 12 @24423 has 6 MA's), (Start: 13 @24465 has 72 MA's), (16, 24504), (17, 24528), (22, 24597),

Gene: Litotes\_35 Start: 25781, Stop: 26005, Start Num: 13

Candidate Starts for Litotes\_35:

(Start: 13 @25781 has 72 MA's), (16, 25820), (19, 25880), (20, 25895), (22, 25913),

Gene: Lucy\_32 Start: 24453, Stop: 24668, Start Num: 13

Candidate Starts for Lucy\_32:

(Start: 12 @24411 has 6 MA's), (Start: 13 @24453 has 72 MA's), (16, 24492), (17, 24516), (22, 24585),

Gene: Makoto\_32 Start: 24473, Stop: 24688, Start Num: 13

Candidate Starts for Makoto\_32:

(Start: 12 @24431 has 6 MA's), (Start: 13 @24473 has 72 MA's), (16, 24512), (17, 24536), (22, 24605),

Gene: MamaPearl\_32 Start: 25426, Stop: 25641, Start Num: 13

Candidate Starts for MamaPearl\_32:

(Start: 13 @25426 has 72 MA's), (16, 25465), (22, 25558),

Gene: Maria1952\_31 Start: 25394, Stop: 25609, Start Num: 13

Candidate Starts for Maria1952\_31:

(Start: 13 @25394 has 72 MA's), (19, 25493), (22, 25526),

Gene: MeganNoll\_34 Start: 25829, Stop: 26050, Start Num: 13

Candidate Starts for MeganNoll\_34:

(Start: 12 @25787 has 6 MA's), (Start: 13 @25829 has 72 MA's), (16, 25868), (22, 25964),

Gene: Moki\_31 Start: 24220, Stop: 24435, Start Num: 13



Candidate Starts for Moki\_31:

(Start: 13 @24220 has 72 MA's), (16, 24259), (22, 24352),

Gene: MrGloopy\_35 Start: 25764, Stop: 25979, Start Num: 14

Candidate Starts for MrGloopy\_35:

(Start: 14 @25764 has 1 MA's), (16, 25803), (22, 25896), (23, 25911),

Gene: Nancia\_32 Start: 24477, Stop: 24692, Start Num: 13

Candidate Starts for Nancia\_32:

(Start: 12 @24435 has 6 MA's), (Start: 13 @24477 has 72 MA's), (16, 24516), (17, 24540), (22, 24609),

Gene: Nubia\_34 Start: 25638, Stop: 25895, Start Num: 12

Candidate Starts for Nubia\_34:

(Start: 12 @25638 has 6 MA's), (Start: 13 @25680 has 72 MA's), (21, 25806), (22, 25812),

Gene: OMalley\_32 Start: 25408, Stop: 25623, Start Num: 13

Candidate Starts for OMalley\_32:

(Start: 13 @25408 has 72 MA's), (21, 25534), (22, 25540),

Gene: OurGirlNessie\_31 Start: 24217, Stop: 24432, Start Num: 13

Candidate Starts for OurGirlNessie\_31:

(Start: 13 @24217 has 72 MA's), (16, 24256), (17, 24280), (22, 24349),

Gene: Oxynfrius\_34 Start: 25705, Stop: 25923, Start Num: 13

Candidate Starts for Oxynfrius\_34:

(Start: 12 @25663 has 6 MA's), (Start: 13 @25705 has 72 MA's), (16, 25744), (22, 25840),

Gene: PartyCup\_37 Start: 25828, Stop: 26043, Start Num: 13

Candidate Starts for PartyCup\_37:

(Start: 13 @25828 has 72 MA's), (16, 25867), (19, 25927), (20, 25942), (22, 25960),

Gene: PinkFriday\_31 Start: 24285, Stop: 24500, Start Num: 13

Candidate Starts for PinkFriday\_31:

(Start: 13 @24285 has 72 MA's), (19, 24384), (22, 24417),

Gene: PitaDog\_32 Start: 24464, Stop: 24679, Start Num: 13

Candidate Starts for PitaDog\_32:

(Start: 12 @24422 has 6 MA's), (Start: 13 @24464 has 72 MA's), (16, 24503), (17, 24527), (22, 24596),

Gene: Potatoes\_35 Start: 25829, Stop: 26050, Start Num: 13

Candidate Starts for Potatoes\_35:

(10, 25766), (Start: 13 @25829 has 72 MA's), (16, 25868), (22, 25961), (23, 25976),

Gene: Preamble\_31 Start: 24287, Stop: 24502, Start Num: 13

Candidate Starts for Preamble\_31:

(Start: 13 @24287 has 72 MA's), (16, 24326), (22, 24419), (23, 24434),

Gene: Pterodactyl\_32 Start: 24455, Stop: 24670, Start Num: 13

Candidate Starts for Pterodactyl\_32:

(Start: 12 @24413 has 6 MA's), (Start: 13 @24455 has 72 MA's), (16, 24494), (22, 24587), (23, 24602),

Gene: Pumancara\_31 Start: 24204, Stop: 24419, Start Num: 13

Candidate Starts for Pumancara\_31:

(Start: 13 @24204 has 72 MA's), (19, 24303), (20, 24318), (22, 24336),

Gene: RAP15\_35 Start: 25829, Stop: 26050, Start Num: 13

Candidate Starts for RAP15\_35:

(Start: 12 @25787 has 6 MA's), (Start: 13 @25829 has 72 MA's), (16, 25868), (22, 25964),

Gene: Riovina\_32 Start: 25408, Stop: 25623, Start Num: 13

Candidate Starts for Riovina\_32:

(Start: 13 @25408 has 72 MA's), (21, 25534), (22, 25540),

Gene: Riverdale\_35 Start: 25762, Stop: 25977, Start Num: 13

Candidate Starts for Riverdale\_35:

(Start: 13 @25762 has 72 MA's), (16, 25801), (22, 25894), (23, 25909),

Gene: Rozby\_35 Start: 25763, Stop: 25978, Start Num: 13

Candidate Starts for Rozby\_35:

(Start: 13 @25763 has 72 MA's), (16, 25802), (22, 25895), (23, 25910),

Gene: Salgado\_61 Start: 33561, Stop: 33833, Start Num: 11

Candidate Starts for Salgado\_61:

(Start: 11 @33561 has 7 MA's), (16, 33642), (22, 33738), (24, 33789), (25, 33804), (26, 33810),

Gene: Savage2526\_35 Start: 25823, Stop: 26044, Start Num: 13

Candidate Starts for Savage2526\_35:

(Start: 12 @25781 has 6 MA's), (Start: 13 @25823 has 72 MA's), (16, 25862), (22, 25958),

Gene: Scuttle\_35 Start: 25847, Stop: 26071, Start Num: 13

Candidate Starts for Scuttle\_35:

(Start: 12 @25805 has 6 MA's), (Start: 13 @25847 has 72 MA's), (16, 25886), (22, 25982),

Gene: Sergei\_32 Start: 25395, Stop: 25610, Start Num: 13

Candidate Starts for Sergei\_32:

(Start: 13 @25395 has 72 MA's), (19, 25494), (22, 25527),

Gene: Shrooms\_59 Start: 31690, Stop: 31962, Start Num: 11

Candidate Starts for Shrooms\_59:

(Start: 11 @31690 has 7 MA's), (16, 31771), (22, 31867), (24, 31918), (25, 31933),

Gene: Supakev\_32 Start: 25408, Stop: 25623, Start Num: 13

Candidate Starts for Supakev\_32:

(Start: 13 @25408 has 72 MA's), (21, 25534), (22, 25540),

Gene: Suppi\_35 Start: 25831, Stop: 26055, Start Num: 13

Candidate Starts for Suppi\_35:

(Start: 13 @25831 has 72 MA's), (16, 25870), (19, 25930), (20, 25945), (22, 25963),

Gene: TattModd\_35 Start: 25825, Stop: 26046, Start Num: 13

Candidate Starts for TattModd\_35:

(Start: 13 @25825 has 72 MA's), (16, 25864), (22, 25957), (23, 25972),

Gene: Temper16\_32 Start: 25395, Stop: 25610, Start Num: 13

Candidate Starts for Temper16\_32:

(Start: 13 @25395 has 72 MA's), (19, 25494), (22, 25527),

Gene: Urla\_32 Start: 25433, Stop: 25654, Start Num: 13  
Candidate Starts for Urla\_32:  
(Start: 13 @25433 has 72 MA's), (16, 25472), (22, 25568),

Gene: Vallejo\_35 Start: 25765, Stop: 25980, Start Num: 13  
Candidate Starts for Vallejo\_35:  
(Start: 13 @25765 has 72 MA's), (16, 25804), (22, 25897), (23, 25912),

Gene: Vulture\_32 Start: 25405, Stop: 25620, Start Num: 13  
Candidate Starts for Vulture\_32:  
(Start: 13 @25405 has 72 MA's), (21, 25531), (22, 25537),

Gene: Waltz\_58 Start: 31979, Stop: 32251, Start Num: 11  
Candidate Starts for Waltz\_58:  
(Start: 11 @31979 has 7 MA's), (16, 32060), (22, 32156), (24, 32207),

Gene: Wawa\_35 Start: 25817, Stop: 26038, Start Num: 13  
Candidate Starts for Wawa\_35:  
(Start: 12 @25775 has 6 MA's), (Start: 13 @25817 has 72 MA's), (16, 25856), (22, 25949), (23, 25964),

Gene: Wayne\_35 Start: 25877, Stop: 26101, Start Num: 13  
Candidate Starts for Wayne\_35:  
(Start: 13 @25877 has 72 MA's), (16, 25916), (19, 25976), (20, 25991), (22, 26009),

Gene: Wheelbite\_57 Start: 33697, Stop: 33981, Start Num: 11  
Candidate Starts for Wheelbite\_57:  
(4, 33538), (6, 33616), (Start: 11 @33697 has 7 MA's), (16, 33790), (22, 33886), (24, 33937), (25, 33952),

Gene: WonderBoy\_31 Start: 24445, Stop: 24660, Start Num: 13  
Candidate Starts for WonderBoy\_31:  
(Start: 12 @24403 has 6 MA's), (Start: 13 @24445 has 72 MA's), (16, 24484), (17, 24508), (22, 24577),

Gene: Zorro\_35 Start: 25796, Stop: 26011, Start Num: 13  
Candidate Starts for Zorro\_35:  
(Start: 12 @25754 has 6 MA's), (Start: 13 @25796 has 72 MA's), (16, 25835), (22, 25928), (23, 25943),