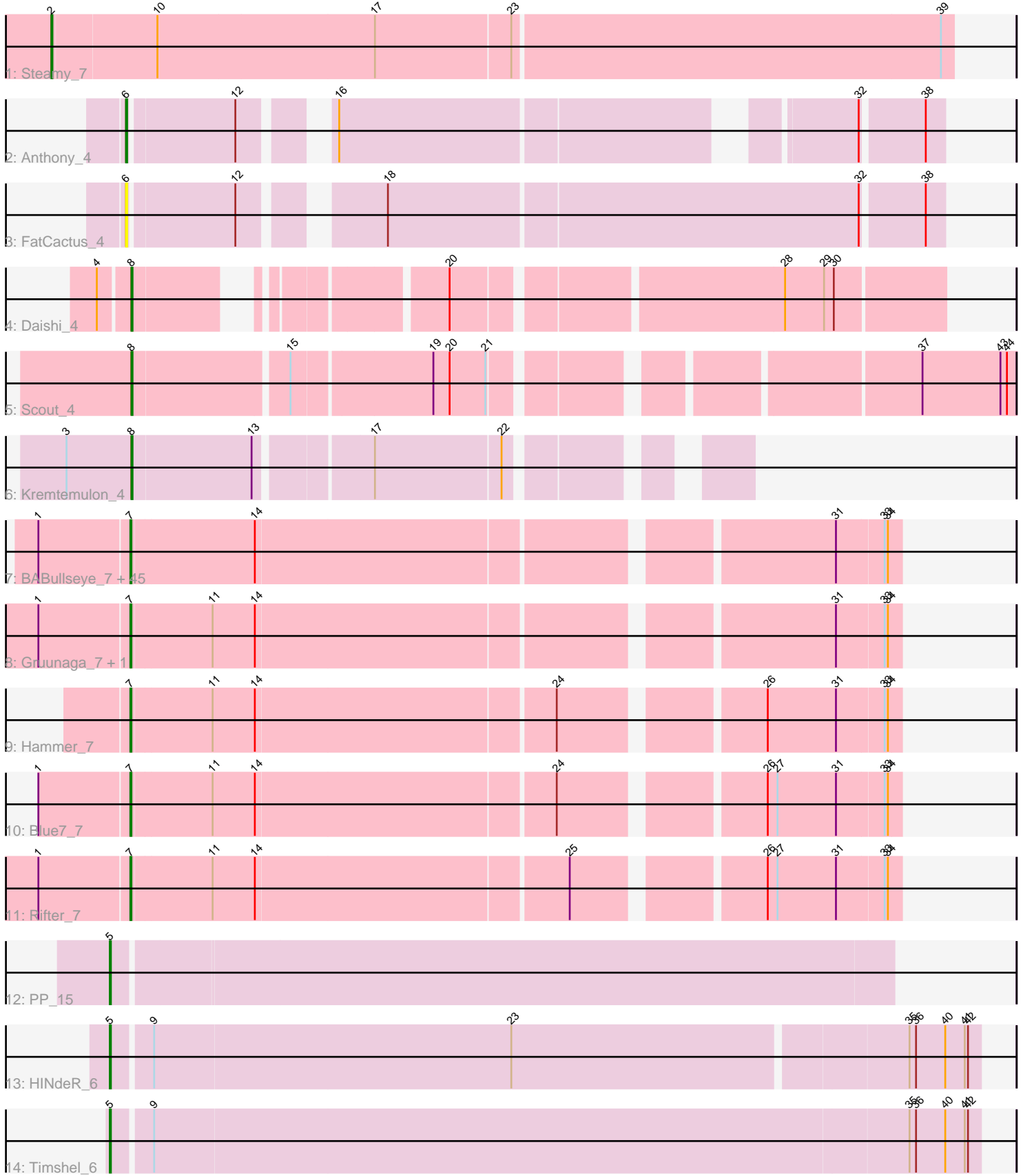


Pham 311615



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 311615 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311615 has 60 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Steamy\_7
- Track 2 : Anthony\_4
- Track 3 : FatCactus\_4
- Track 4 : Daishi\_4
- Track 5 : Scout\_4
- Track 6 : Kremtemulon\_4
- Track 7 : BABullseye\_7, SmellyB\_7, Jeffabunny\_7, Dorothea\_7, Isiphiwo\_7, Indra\_7, Kipper29\_7, Koko\_7, Artemis2UCLA\_7, Priamo\_7, DaVinci\_7, Helmet\_7, Blinn1\_7, DelvinSonDorr\_6, Hexamo\_7, Yokurt\_7, Jordennis\_7, EricB\_7, Zaka\_7, Roksolana\_7, ToneTone\_6, Temprado\_7, VohminGhazi\_7, Cookiedough\_7, Zulu\_7, CloudWang3\_7, SuperAwesome\_7, Pmask\_7, Candra\_7, Garak\_7, Hoot\_7, Lilbunny\_7, WunderPhul\_7, GreedyLawyer\_7, Polyphemus\_7, Wiks\_7, Kazan\_7, Tucker\_7, JewelBug\_7, BlessJoy\_7, Chartreuse\_7, BennyP\_7, SuperCallie99\_7, Neeharika16\_7, McFly\_7, Newrala\_7
- Track 8 : Gruunaga\_7, Gladiator\_7
- Track 9 : Hammer\_7
- Track 10 : Blue7\_7
- Track 11 : Rifter\_7
- Track 12 : PP\_15
- Track 13 : HINdeR\_6
- Track 14 : Timshel\_6

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

The start number called the most often in the published annotations is 7, it was called in 48 of the 56 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Artemis2UCLA\_7, BABullseye\_7, BennyP\_7, BlessJoy\_7, Blinn1\_7, Blue7\_7, Candra\_7, Chartreuse\_7, CloudWang3\_7, Cookiedough\_7, DaVinci\_7, DelvinSonDorr\_6, Dorothea\_7, EricB\_7, Garak\_7, Gladiator\_7, GreedyLawyer\_7, Gruunaga\_7, Hammer\_7, Helmet\_7, Hexamo\_7, Hoot\_7, Indra\_7, Isiphiwo\_7, Jeffabunny\_7, JewelBug\_7, Jordennis\_7, Kazan\_7, Kipper29\_7, Koko\_7, Lilbunny\_7, McFly\_7, Neeharika16\_7, Newrala\_7, Pmask\_7, Polyphemus\_7, Priamo\_7, Rifter\_7,

Roksolana\_7, SmellyB\_7, SuperAwesome\_7, SuperCallie99\_7, Temprado\_7, ToneTone\_6, Tucker\_7, VohminGhazi\_7, Wiks\_7, WunderPhul\_7, Yokurt\_7, Zaka\_7, Zulu\_7,

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

- 

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

• Anthony\_4, Daishi\_4, FatCactus\_4, HINdeR\_6, Kremtemulon\_4, PP\_15, Scout\_4, Steamy\_7, Timshel\_6,

### Summary by start number:

Start 2:

- Found in 1 of 60 ( 1.7% ) of genes in pham
- Manual Annotations of this start: 1 of 56
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Steamy\_7 (A12),

Start 5:

- Found in 3 of 60 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 3 of 56
- Called 100.0% of time when present
- Phage (with cluster) where this start called: HINdeR\_6 (A7), PP\_15 (A7), Timshel\_6 (A7),

Start 6:

- Found in 2 of 60 ( 3.3% ) of genes in pham
- Manual Annotations of this start: 1 of 56
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anthony\_4 (A20), FatCactus\_4 (A20),

Start 7:

- Found in 51 of 60 ( 85.0% ) of genes in pham
- Manual Annotations of this start: 48 of 56
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Artemis2UCLA\_7 (A6), BABullseye\_7 (A6), BennyP\_7 (A6), BlessJoy\_7 (A6), Blinn1\_7 (A6), Blue7\_7 (A6), Candra\_7 (A6), Chartreuse\_7 (A6), CloudWang3\_7 (A6), Cookiedough\_7 (A6), DaVinci\_7 (A6), DelvinSonDorr\_6 (A6), Dorothea\_7 (A6), EricB\_7 (A6), Garak\_7 (A6), Gladiator\_7 (A6), GreedyLawyer\_7 (A6), Gruunaga\_7 (A6), Hammer\_7 (A6), Helmet\_7 (A6), Hexamo\_7 (A6), Hoot\_7 (A6), Indra\_7 (A6), Isiphiwo\_7 (A6), Jeffabunny\_7 (A6), JewelBug\_7 (A6), Jordennis\_7 (A6), Kazan\_7 (A6), Kipper29\_7 (A6), Koko\_7 (A6), Lilbunny\_7 (A6), McFly\_7 (A6), Neeharika16\_7 (A6), Newrala\_7 (A6), Pmask\_7 (A6), Polyphemos\_7 (A6), Priamo\_7 (A6), Rifter\_7 (A6), Roksolana\_7 (A6), SmellyB\_7 (A6), SuperAwesome\_7 (A6), SuperCallie99\_7 (A6), Temprado\_7 (A6), ToneTone\_6 (A6), Tucker\_7 (A6), VohminGhazi\_7 (A6), Wiks\_7 (A6), WunderPhul\_7 (A6), Yokurt\_7 (A6), Zaka\_7 (A6), Zulu\_7 (A6),

Start 8:

- Found in 3 of 60 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 3 of 56
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Daishi\_4 (A3), Kremtemulon\_4 (A4), Scout\_4 (A3),

### **Summary by clusters:**

There are 6 clusters represented in this pham: A20, A12, A3, A4, A7, A6,

Info for manual annotations of cluster A12:

- Start number 2 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A20:

- Start number 6 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 8 was manually annotated 2 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 8 was manually annotated 1 time for cluster A4.

Info for manual annotations of cluster A6:

- Start number 7 was manually annotated 48 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 5 was manually annotated 3 times for cluster A7.

### **Gene Information:**

Gene: Anthony\_4 Start: 2193, Stop: 2843, Start Num: 6

Candidate Starts for Anthony\_4:

(Start: 6 @2193 has 1 MA's), (12, 2286), (16, 2346), (32, 2772), (38, 2826),

Gene: Artemis2UCLA\_7 Start: 3999, Stop: 4547, Start Num: 7

Candidate Starts for Artemis2UCLA\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4491), (33, 4533), (34, 4536),

Gene: BABullseye\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for BABullseye\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: BennyP\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for BennyP\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: BlessJoy\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for BlessJoy\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Blinn1\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Blinn1\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Blue7\_7 Start: 3993, Stop: 4658, Start Num: 7

Candidate Starts for Blue7\_7:

(1, 3912), (Start: 7 @3993 has 48 MA's), (11, 4065), (14, 4104), (24, 4371), (26, 4539), (27, 4548), (31, 4602), (33, 4644), (34, 4647),

Gene: Candra\_7 Start: 4032, Stop: 4697, Start Num: 7

Candidate Starts for Candra\_7:

(1, 3951), (Start: 7 @4032 has 48 MA's), (14, 4143), (31, 4641), (33, 4683), (34, 4686),

Gene: Chartreuse\_7 Start: 4000, Stop: 4611, Start Num: 7

Candidate Starts for Chartreuse\_7:

(1, 3919), (Start: 7 @4000 has 48 MA's), (14, 4111), (31, 4555), (33, 4597), (34, 4600),

Gene: CloudWang3\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for CloudWang3\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Cookiedough\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Cookiedough\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: DaVinci\_7 Start: 4000, Stop: 4665, Start Num: 7

Candidate Starts for DaVinci\_7:

(1, 3919), (Start: 7 @4000 has 48 MA's), (14, 4111), (31, 4609), (33, 4651), (34, 4654),

Gene: Daishi\_4 Start: 1682, Stop: 2335, Start Num: 8

Candidate Starts for Daishi\_4:

(4, 1655), (Start: 8 @1682 has 3 MA's), (20, 1910), (28, 2192), (29, 2228), (30, 2237),

Gene: DelvinSonDorr\_6 Start: 4001, Stop: 4666, Start Num: 7

Candidate Starts for DelvinSonDorr\_6:

(1, 3920), (Start: 7 @4001 has 48 MA's), (14, 4112), (31, 4610), (33, 4652), (34, 4655),

Gene: Dorothea\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Dorothea\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: EricB\_7 Start: 4000, Stop: 4665, Start Num: 7

Candidate Starts for EricB\_7:

(1, 3919), (Start: 7 @4000 has 48 MA's), (14, 4111), (31, 4609), (33, 4651), (34, 4654),

Gene: FatCactus\_4 Start: 2188, Stop: 2883, Start Num: 6

Candidate Starts for FatCactus\_4:

(Start: 6 @2188 has 1 MA's), (12, 2281), (18, 2386), (32, 2812), (38, 2866),

Gene: Garak\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Garak\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Gladiator\_7 Start: 3993, Stop: 4658, Start Num: 7

Candidate Starts for Gladiator\_7:

(1, 3912), (Start: 7 @3993 has 48 MA's), (11, 4065), (14, 4104), (31, 4602), (33, 4644), (34, 4647),

Gene: GreedyLawyer\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for GreedyLawyer\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Gruunaga\_7 Start: 3993, Stop: 4658, Start Num: 7

Candidate Starts for Gruunaga\_7:

(1, 3912), (Start: 7 @3993 has 48 MA's), (11, 4065), (14, 4104), (31, 4602), (33, 4644), (34, 4647),

Gene: HINdeR\_6 Start: 3588, Stop: 4367, Start Num: 5

Candidate Starts for HINdeR\_6:

(Start: 5 @3588 has 3 MA's), (9, 3621), (23, 3948), (35, 4302), (36, 4308), (40, 4335), (41, 4353), (42, 4356),

Gene: Hammer\_7 Start: 3993, Stop: 4658, Start Num: 7

Candidate Starts for Hammer\_7:

(Start: 7 @3993 has 48 MA's), (11, 4065), (14, 4104), (24, 4371), (26, 4539), (31, 4602), (33, 4644), (34, 4647),

Gene: Helmet\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Helmet\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Hexamo\_7 Start: 3999, Stop: 4619, Start Num: 7

Candidate Starts for Hexamo\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4563), (33, 4605), (34, 4608),

Gene: Hoot\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Hoot\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Indra\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Indra\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Isiphiwo\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Isiphiwo\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Jeffabunny\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Jeffabunny\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: JewelBug\_7 Start: 4000, Stop: 4665, Start Num: 7

Candidate Starts for JewelBug\_7:

(1, 3919), (Start: 7 @4000 has 48 MA's), (14, 4111), (31, 4609), (33, 4651), (34, 4654),

Gene: Jordennis\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Jordennis\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Kazan\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Kazan\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Kipper29\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Kipper29\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Koko\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Koko\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Kremtemulon\_4 Start: 1645, Stop: 2136, Start Num: 8

Candidate Starts for Kremtemulon\_4:

(3, 1585), (Start: 8 @1645 has 3 MA's), (13, 1753), (17, 1849), (22, 1963),

Gene: Lilbunny\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Lilbunny\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: McFly\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for McFly\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Neeharika16\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Neeharika16\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Newrala\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Newrala\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: PP\_15 Start: 6781, Stop: 7488, Start Num: 5

Candidate Starts for PP\_15:

(Start: 5 @6781 has 3 MA's),

Gene: Pmask\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Pmask\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Polyphemus\_7 Start: 4001, Stop: 4666, Start Num: 7

Candidate Starts for Polyphemus\_7:

(1, 3920), (Start: 7 @4001 has 48 MA's), (14, 4112), (31, 4610), (33, 4652), (34, 4655),

Gene: Priamo\_7 Start: 4014, Stop: 4679, Start Num: 7

Candidate Starts for Priamo\_7:

(1, 3933), (Start: 7 @4014 has 48 MA's), (14, 4125), (31, 4623), (33, 4665), (34, 4668),

Gene: Rifter\_7 Start: 3992, Stop: 4657, Start Num: 7

Candidate Starts for Rifter\_7:

(1, 3911), (Start: 7 @3992 has 48 MA's), (11, 4064), (14, 4103), (25, 4382), (26, 4538), (27, 4547), (31, 4601), (33, 4643), (34, 4646),

Gene: Roksolana\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Roksolana\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Scout\_4 Start: 1605, Stop: 2342, Start Num: 8

Candidate Starts for Scout\_4:

(Start: 8 @1605 has 3 MA's), (15, 1740), (19, 1863), (20, 1878), (21, 1911), (37, 2256), (43, 2328), (44, 2334),

Gene: SmellyB\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for SmellyB\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Steamy\_7 Start: 4480, Stop: 5295, Start Num: 2

Candidate Starts for Steamy\_7:

(Start: 2 @4480 has 1 MA's), (10, 4573), (17, 4771), (23, 4894), (39, 5284),

Gene: SuperAwesome\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for SuperAwesome\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: SuperCallie99\_7 Start: 4000, Stop: 4665, Start Num: 7

Candidate Starts for SuperCallie99\_7:

(1, 3919), (Start: 7 @4000 has 48 MA's), (14, 4111), (31, 4609), (33, 4651), (34, 4654),

Gene: Temprado\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Temprado\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Timshel\_6 Start: 3592, Stop: 4380, Start Num: 5

Candidate Starts for Timshel\_6:

(Start: 5 @3592 has 3 MA's), (9, 3625), (35, 4315), (36, 4321), (40, 4348), (41, 4366), (42, 4369),

Gene: ToneTone\_6 Start: 3999, Stop: 4574, Start Num: 7

Candidate Starts for ToneTone\_6:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4518), (33, 4560), (34, 4563),

Gene: Tucker\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Tucker\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: VohminGhazi\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for VohminGhazi\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Wiks\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Wiks\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: WunderPhul\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for WunderPhul\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Yokurt\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Yokurt\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Zaka\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Zaka\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),

Gene: Zulu\_7 Start: 3999, Stop: 4664, Start Num: 7

Candidate Starts for Zulu\_7:

(1, 3918), (Start: 7 @3999 has 48 MA's), (14, 4110), (31, 4608), (33, 4650), (34, 4653),