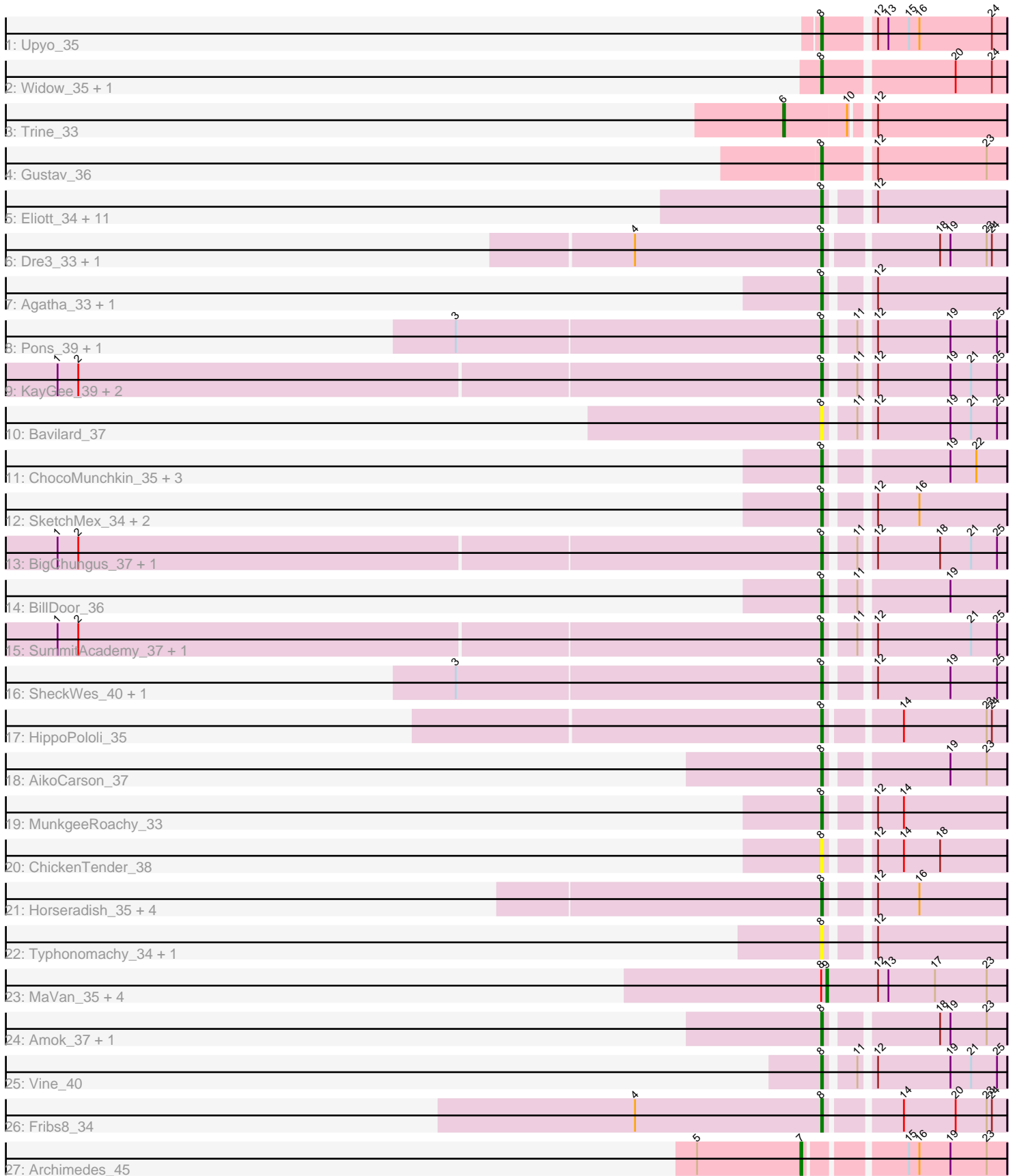


Pham 224584



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 224584 Report

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

Pham number 224584 has 62 members, 16 are drafts.

Phages represented in each track:

- Track 1 : Upyo\_35
- Track 2 : Widow\_35, Puppets\_34
- Track 3 : Trine\_33
- Track 4 : Gustav\_36
- Track 5 : Elliott\_34, Starburst\_35, Quasar\_34, Nina\_34, Socotra\_35, RedBaron\_36, PsychoKiller\_33, Sopespian\_33, SweatNTears\_35, Axym\_33, GoldHunter\_35, Burnsey\_33
- Track 6 : Dre3\_33, Gibbous\_33
- Track 7 : Agatha\_33, Cozz\_33
- Track 8 : Pons\_39, Mayweather\_41
- Track 9 : KayGee\_39, Elinal\_41, Yucky\_41
- Track 10 : Bavidard\_37
- Track 11 : ChocoMunchkin\_35, CanesSauce\_35, SteamedHams\_37, Tolls\_37
- Track 12 : SketchMex\_34, Troje\_35, Biskit\_36
- Track 13 : BigChungus\_37, Feastonyeet\_37
- Track 14 : BillDoor\_36
- Track 15 : SummitAcademy\_37, PotPie\_38
- Track 16 : SheckWes\_40, MAnor\_39
- Track 17 : HippoPololi\_35
- Track 18 : AikoCarson\_37
- Track 19 : MunkgeeRoachy\_33
- Track 20 : ChickenTender\_38
- Track 21 : Horseradish\_35, Yummy\_35, Buttrmlkdreams\_35, MScarn\_36, Blondies\_35
- Track 22 : Typhonmarchy\_34, Carsonalex\_33
- Track 23 : MaVan\_35, Nibbles\_34, Zareef\_37, Survivors\_35, Azira\_35
- Track 24 : Amok\_37, Emalyn\_36
- Track 25 : Vine\_40
- Track 26 : Fribs8\_34
- Track 27 : Archimedes\_45

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

The start number called the most often in the published annotations is 8, it was called in 40 of the 46 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agatha\_33, AikoCarson\_37, Amok\_37, Axym\_33, Bavidard\_37, BigChungus\_37, BillDoor\_36, Biskit\_36, Blondies\_35, Burnsey\_33, Buttrmlkdreams\_35, CanesSauce\_35, Carsonalex\_33, ChickenTender\_38, ChocoMunchkin\_35, Cozz\_33, Dre3\_33, Elinal\_41, Elliott\_34, Emalyn\_36, Feastonyeet\_37, Fribs8\_34, Gibbous\_33, GoldHunter\_35, Gustav\_36, HippoPololi\_35, Horseradish\_35, KayGee\_39, MAnor\_39, MScarn\_36, Mayweather\_41, MunkgeeRoachy\_33, Nina\_34, Pons\_39, PotPie\_38, PsychoKiller\_33, Puppies\_34, Quasar\_34, RedBaron\_36, SheckWes\_40, SketchMex\_34, Socotra\_35, Sopespian\_33, Starburst\_35, SteamedHams\_37, SummitAcademy\_37, SweatNTears\_35, Tolls\_37, Troje\_35, Typhonmarchy\_34, Upyo\_35, Vine\_40, Widow\_35, Yucky\_41, Yummy\_35,

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

- Azira\_35, MaVan\_35, Nibbles\_34, Survivors\_35, Zareef\_37,

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

- Archimedes\_45, Trine\_33,

### Summary by start number:

Start 6:

- Found in 1 of 62 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Trine\_33 (CD),

Start 7:

- Found in 1 of 62 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archimedes\_45 (DA),

Start 8:

- Found in 60 of 62 ( 96.8% ) of genes in pham
- Manual Annotations of this start: 40 of 46
- Called 91.7% of time when present
- Phage (with cluster) where this start called: Agatha\_33 (CT), AikoCarson\_37 (CT), Amok\_37 (CT), Axym\_33 (CT), Bavidard\_37 (CT), BigChungus\_37 (CT), BillDoor\_36 (CT), Biskit\_36 (CT), Blondies\_35 (CT), Burnsey\_33 (CT), Buttrmlkdreams\_35 (CT), CanesSauce\_35 (CT), Carsonalex\_33 (CT), ChickenTender\_38 (CT), ChocoMunchkin\_35 (CT), Cozz\_33 (CT), Dre3\_33 (CT), Elinal\_41 (CT), Elliott\_34 (CT), Emalyn\_36 (CT), Feastonyeet\_37 (CT), Fribs8\_34 (CT), Gibbous\_33 (CT), GoldHunter\_35 (CT), Gustav\_36 (CD), HippoPololi\_35 (CT), Horseradish\_35 (CT), KayGee\_39 (CT), MAnor\_39 (CT), MScarn\_36 (CT), Mayweather\_41 (CT), MunkgeeRoachy\_33 (CT), Nina\_34 (CT), Pons\_39 (CT), PotPie\_38 (CT), PsychoKiller\_33 (CT), Puppies\_34 (CD), Quasar\_34 (CT), RedBaron\_36 (CT), SheckWes\_40 (CT), SketchMex\_34 (CT), Socotra\_35 (CT), Sopespian\_33 (CT), Starburst\_35 (CT), SteamedHams\_37 (CT), SummitAcademy\_37 (CT), SweatNTears\_35 (CT), Tolls\_37 (CT), Troje\_35 (CT), Typhonmarchy\_34 (CT), Upyo\_35 (CD), Vine\_40 (CT), Widow\_35 (CD), Yucky\_41 (CT), Yummy\_35 (CT),

Start 9:

- Found in 5 of 62 ( 8.1% ) of genes in pham
- Manual Annotations of this start: 4 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azira\_35 (CT), MaVan\_35 (CT), Nibbles\_34 (CT), Survivors\_35 (CT), Zareef\_37 (CT),

### **Summary by clusters:**

There are 3 clusters represented in this pham: CD, DA, CT,

Info for manual annotations of cluster CD:

- Start number 6 was manually annotated 1 time for cluster CD.
- Start number 8 was manually annotated 4 times for cluster CD.

Info for manual annotations of cluster CT:

- Start number 8 was manually annotated 36 times for cluster CT.
- Start number 9 was manually annotated 4 times for cluster CT.

Info for manual annotations of cluster DA:

- Start number 7 was manually annotated 1 time for cluster DA.

### **Gene Information:**

Gene: Agatha\_33 Start: 25902, Stop: 25997, Start Num: 8

Candidate Starts for Agatha\_33:

(Start: 8 @25902 has 40 MA's), (12, 25923),

Gene: AikoCarson\_37 Start: 27016, Stop: 27111, Start Num: 8

Candidate Starts for AikoCarson\_37:

(Start: 8 @27016 has 40 MA's), (19, 27079), (23, 27100),

Gene: Amok\_37 Start: 27040, Stop: 27135, Start Num: 8

Candidate Starts for Amok\_37:

(Start: 8 @27040 has 40 MA's), (18, 27097), (19, 27103), (23, 27124),

Gene: Archimedes\_45 Start: 38693, Stop: 38800, Start Num: 7

Candidate Starts for Archimedes\_45:

(5, 38633), (Start: 7 @38693 has 1 MA's), (15, 38744), (16, 38750), (19, 38768), (23, 38789),

Gene: Axym\_33 Start: 25881, Stop: 25976, Start Num: 8

Candidate Starts for Axym\_33:

(Start: 8 @25881 has 40 MA's), (12, 25902),

Gene: Azira\_35 Start: 26826, Stop: 26930, Start Num: 9

Candidate Starts for Azira\_35:

(Start: 8 @26823 has 40 MA's), (Start: 9 @26826 has 4 MA's), (12, 26856), (13, 26862), (17, 26889), (23, 26919),

Gene: Bavidard\_37 Start: 27949, Stop: 28044, Start Num: 8

Candidate Starts for Bavilard\_37:

(Start: 8 @27949 has 40 MA's), (11, 27964), (12, 27970), (19, 28012), (21, 28024), (25, 28039),

Gene: BigChungus\_37 Start: 28139, Stop: 28234, Start Num: 8

Candidate Starts for BigChungus\_37:

(1, 27701), (2, 27713), (Start: 8 @28139 has 40 MA's), (11, 28154), (12, 28160), (18, 28196), (21, 28214), (25, 28229),

Gene: BillDoor\_36 Start: 26120, Stop: 26215, Start Num: 8

Candidate Starts for BillDoor\_36:

(Start: 8 @26120 has 40 MA's), (11, 26135), (19, 26183),

Gene: Biskit\_36 Start: 26209, Stop: 26304, Start Num: 8

Candidate Starts for Biskit\_36:

(Start: 8 @26209 has 40 MA's), (12, 26230), (16, 26254),

Gene: Blondies\_35 Start: 26185, Stop: 26280, Start Num: 8

Candidate Starts for Blondies\_35:

(Start: 8 @26185 has 40 MA's), (12, 26206), (16, 26230),

Gene: Burnsey\_33 Start: 25894, Stop: 25989, Start Num: 8

Candidate Starts for Burnsey\_33:

(Start: 8 @25894 has 40 MA's), (12, 25915),

Gene: Buttrmlkdreams\_35 Start: 26191, Stop: 26286, Start Num: 8

Candidate Starts for Buttrmlkdreams\_35:

(Start: 8 @26191 has 40 MA's), (12, 26212), (16, 26236),

Gene: CanesSauce\_35 Start: 26616, Stop: 26711, Start Num: 8

Candidate Starts for CanesSauce\_35:

(Start: 8 @26616 has 40 MA's), (19, 26679), (22, 26694),

Gene: Carsonalex\_33 Start: 23980, Stop: 23885, Start Num: 8

Candidate Starts for Carsonalex\_33:

(Start: 8 @23980 has 40 MA's), (12, 23959),

Gene: ChickenTender\_38 Start: 26436, Stop: 26531, Start Num: 8

Candidate Starts for ChickenTender\_38:

(Start: 8 @26436 has 40 MA's), (12, 26457), (14, 26472), (18, 26493),

Gene: ChocoMunchkin\_35 Start: 26616, Stop: 26711, Start Num: 8

Candidate Starts for ChocoMunchkin\_35:

(Start: 8 @26616 has 40 MA's), (19, 26679), (22, 26694),

Gene: Cozz\_33 Start: 25883, Stop: 25978, Start Num: 8

Candidate Starts for Cozz\_33:

(Start: 8 @25883 has 40 MA's), (12, 25904),

Gene: Dre3\_33 Start: 26127, Stop: 26225, Start Num: 8

Candidate Starts for Dre3\_33:

(4, 26019), (Start: 8 @26127 has 40 MA's), (18, 26187), (19, 26193), (23, 26214), (24, 26217),

Gene: Elinal\_41 Start: 28517, Stop: 28612, Start Num: 8

Candidate Starts for Elinal\_41:

(1, 28079), (2, 28091), (Start: 8 @28517 has 40 MA's), (11, 28532), (12, 28538), (19, 28580), (21, 28592), (25, 28607),

Gene: Elliott\_34 Start: 25902, Stop: 25997, Start Num: 8

Candidate Starts for Elliott\_34:

(Start: 8 @25902 has 40 MA's), (12, 25923),

Gene: Emalyn\_36 Start: 26211, Stop: 26306, Start Num: 8

Candidate Starts for Emalyn\_36:

(Start: 8 @26211 has 40 MA's), (18, 26268), (19, 26274), (23, 26295),

Gene: Feastonyeet\_37 Start: 28139, Stop: 28234, Start Num: 8

Candidate Starts for Feastonyeet\_37:

(1, 27701), (2, 27713), (Start: 8 @28139 has 40 MA's), (11, 28154), (12, 28160), (18, 28196), (21, 28214), (25, 28229),

Gene: Fribs8\_34 Start: 26556, Stop: 26654, Start Num: 8

Candidate Starts for Fribs8\_34:

(4, 26448), (Start: 8 @26556 has 40 MA's), (14, 26595), (20, 26625), (23, 26643), (24, 26646),

Gene: Gibbous\_33 Start: 26127, Stop: 26225, Start Num: 8

Candidate Starts for Gibbous\_33:

(4, 26019), (Start: 8 @26127 has 40 MA's), (18, 26187), (19, 26193), (23, 26214), (24, 26217),

Gene: GoldHunter\_35 Start: 25903, Stop: 25998, Start Num: 8

Candidate Starts for GoldHunter\_35:

(Start: 8 @25903 has 40 MA's), (12, 25924),

Gene: Gustav\_36 Start: 28099, Stop: 27998, Start Num: 8

Candidate Starts for Gustav\_36:

(Start: 8 @28099 has 40 MA's), (12, 28072), (23, 28009),

Gene: HippoPololi\_35 Start: 26580, Stop: 26678, Start Num: 8

Candidate Starts for HippoPololi\_35:

(Start: 8 @26580 has 40 MA's), (14, 26619), (23, 26667), (24, 26670),

Gene: Horseradish\_35 Start: 25719, Stop: 25814, Start Num: 8

Candidate Starts for Horseradish\_35:

(Start: 8 @25719 has 40 MA's), (12, 25740), (16, 25764),

Gene: KayGee\_39 Start: 28517, Stop: 28612, Start Num: 8

Candidate Starts for KayGee\_39:

(1, 28079), (2, 28091), (Start: 8 @28517 has 40 MA's), (11, 28532), (12, 28538), (19, 28580), (21, 28592), (25, 28607),

Gene: MAnor\_39 Start: 28918, Stop: 29013, Start Num: 8

Candidate Starts for MAnor\_39:

(3, 28708), (Start: 8 @28918 has 40 MA's), (12, 28939), (19, 28981), (25, 29008),

Gene: MScarn\_36 Start: 25859, Stop: 25954, Start Num: 8

Candidate Starts for MScarn\_36:

(Start: 8 @25859 has 40 MA's), (12, 25880), (16, 25904),

Gene: MaVan\_35 Start: 26859, Stop: 26963, Start Num: 9  
Candidate Starts for MaVan\_35:  
(Start: 8 @26856 has 40 MA's), (Start: 9 @26859 has 4 MA's), (12, 26889), (13, 26895), (17, 26922),  
(23, 26952),

Gene: Mayweather\_41 Start: 29142, Stop: 29237, Start Num: 8  
Candidate Starts for Mayweather\_41:  
(3, 28932), (Start: 8 @29142 has 40 MA's), (11, 29157), (12, 29163), (19, 29205), (25, 29232),

Gene: MunkgeeRoachy\_33 Start: 25757, Stop: 25852, Start Num: 8  
Candidate Starts for MunkgeeRoachy\_33:  
(Start: 8 @25757 has 40 MA's), (12, 25778), (14, 25793),

Gene: Nibbles\_34 Start: 26543, Stop: 26647, Start Num: 9  
Candidate Starts for Nibbles\_34:  
(Start: 8 @26540 has 40 MA's), (Start: 9 @26543 has 4 MA's), (12, 26573), (13, 26579), (17, 26606),  
(23, 26636),

Gene: Nina\_34 Start: 26419, Stop: 26514, Start Num: 8  
Candidate Starts for Nina\_34:  
(Start: 8 @26419 has 40 MA's), (12, 26440),

Gene: Pons\_39 Start: 28493, Stop: 28588, Start Num: 8  
Candidate Starts for Pons\_39:  
(3, 28283), (Start: 8 @28493 has 40 MA's), (11, 28508), (12, 28514), (19, 28556), (25, 28583),

Gene: PotPie\_38 Start: 29430, Stop: 29525, Start Num: 8  
Candidate Starts for PotPie\_38:  
(1, 28992), (2, 29004), (Start: 8 @29430 has 40 MA's), (11, 29445), (12, 29451), (21, 29505), (25,  
29520),

Gene: PsychoKiller\_33 Start: 25903, Stop: 25998, Start Num: 8  
Candidate Starts for PsychoKiller\_33:  
(Start: 8 @25903 has 40 MA's), (12, 25924),

Gene: Puppies\_34 Start: 26854, Stop: 26753, Start Num: 8  
Candidate Starts for Puppies\_34:  
(Start: 8 @26854 has 40 MA's), (20, 26782), (24, 26761),

Gene: Quasar\_34 Start: 26505, Stop: 26600, Start Num: 8  
Candidate Starts for Quasar\_34:  
(Start: 8 @26505 has 40 MA's), (12, 26526),

Gene: RedBaron\_36 Start: 26138, Stop: 26233, Start Num: 8  
Candidate Starts for RedBaron\_36:  
(Start: 8 @26138 has 40 MA's), (12, 26159),

Gene: SheckWes\_40 Start: 28014, Stop: 28109, Start Num: 8  
Candidate Starts for SheckWes\_40:  
(3, 27804), (Start: 8 @28014 has 40 MA's), (12, 28035), (19, 28077), (25, 28104),

Gene: SketchMex\_34 Start: 26209, Stop: 26304, Start Num: 8

Candidate Starts for SketchMex\_34:  
(Start: 8 @26209 has 40 MA's), (12, 26230), (16, 26254),

Gene: Socotra\_35 Start: 25902, Stop: 25997, Start Num: 8  
Candidate Starts for Socotra\_35:  
(Start: 8 @25902 has 40 MA's), (12, 25923),

Gene: Sopespian\_33 Start: 25904, Stop: 25999, Start Num: 8  
Candidate Starts for Sopespian\_33:  
(Start: 8 @25904 has 40 MA's), (12, 25925),

Gene: Starburst\_35 Start: 25897, Stop: 25992, Start Num: 8  
Candidate Starts for Starburst\_35:  
(Start: 8 @25897 has 40 MA's), (12, 25918),

Gene: SteamedHams\_37 Start: 26589, Stop: 26684, Start Num: 8  
Candidate Starts for SteamedHams\_37:  
(Start: 8 @26589 has 40 MA's), (19, 26652), (22, 26667),

Gene: SummitAcademy\_37 Start: 28059, Stop: 28154, Start Num: 8  
Candidate Starts for SummitAcademy\_37:  
(1, 27621), (2, 27633), (Start: 8 @28059 has 40 MA's), (11, 28074), (12, 28080), (21, 28134), (25, 28149),

Gene: Survivors\_35 Start: 26752, Stop: 26856, Start Num: 9  
Candidate Starts for Survivors\_35:  
(Start: 8 @26749 has 40 MA's), (Start: 9 @26752 has 4 MA's), (12, 26782), (13, 26788), (17, 26815), (23, 26845),

Gene: SweatNTears\_35 Start: 25800, Stop: 25895, Start Num: 8  
Candidate Starts for SweatNTears\_35:  
(Start: 8 @25800 has 40 MA's), (12, 25821),

Gene: Tolls\_37 Start: 26688, Stop: 26783, Start Num: 8  
Candidate Starts for Tolls\_37:  
(Start: 8 @26688 has 40 MA's), (19, 26751), (22, 26766),

Gene: Trine\_33 Start: 26841, Stop: 26722, Start Num: 6  
Candidate Starts for Trine\_33:  
(Start: 6 @26841 has 1 MA's), (10, 26805), (12, 26796),

Gene: Troje\_35 Start: 26216, Stop: 26311, Start Num: 8  
Candidate Starts for Troje\_35:  
(Start: 8 @26216 has 40 MA's), (12, 26237), (16, 26261),

Gene: Typhonomachy\_34 Start: 25914, Stop: 26009, Start Num: 8  
Candidate Starts for Typhonomachy\_34:  
(Start: 8 @25914 has 40 MA's), (12, 25935),

Gene: Upyo\_35 Start: 28180, Stop: 28079, Start Num: 8  
Candidate Starts for Upyo\_35:  
(Start: 8 @28180 has 40 MA's), (12, 28153), (13, 28147), (15, 28135), (16, 28129), (24, 28087),



Gene: Vine\_40 Start: 28791, Stop: 28886, Start Num: 8

Candidate Starts for Vine\_40:

(Start: 8 @28791 has 40 MA's), (11, 28806), (12, 28812), (19, 28854), (21, 28866), (25, 28881),

Gene: Widow\_35 Start: 27935, Stop: 27834, Start Num: 8

Candidate Starts for Widow\_35:

(Start: 8 @27935 has 40 MA's), (20, 27863), (24, 27842),

Gene: Yucky\_41 Start: 28731, Stop: 28826, Start Num: 8

Candidate Starts for Yucky\_41:

(1, 28293), (2, 28305), (Start: 8 @28731 has 40 MA's), (11, 28746), (12, 28752), (19, 28794), (21, 28806), (25, 28821),

Gene: Yummy\_35 Start: 25833, Stop: 25928, Start Num: 8

Candidate Starts for Yummy\_35:

(Start: 8 @25833 has 40 MA's), (12, 25854), (16, 25878),

Gene: Zareef\_37 Start: 26846, Stop: 26950, Start Num: 9

Candidate Starts for Zareef\_37:

(Start: 8 @26843 has 40 MA's), (Start: 9 @26846 has 4 MA's), (12, 26876), (13, 26882), (17, 26909), (23, 26939),