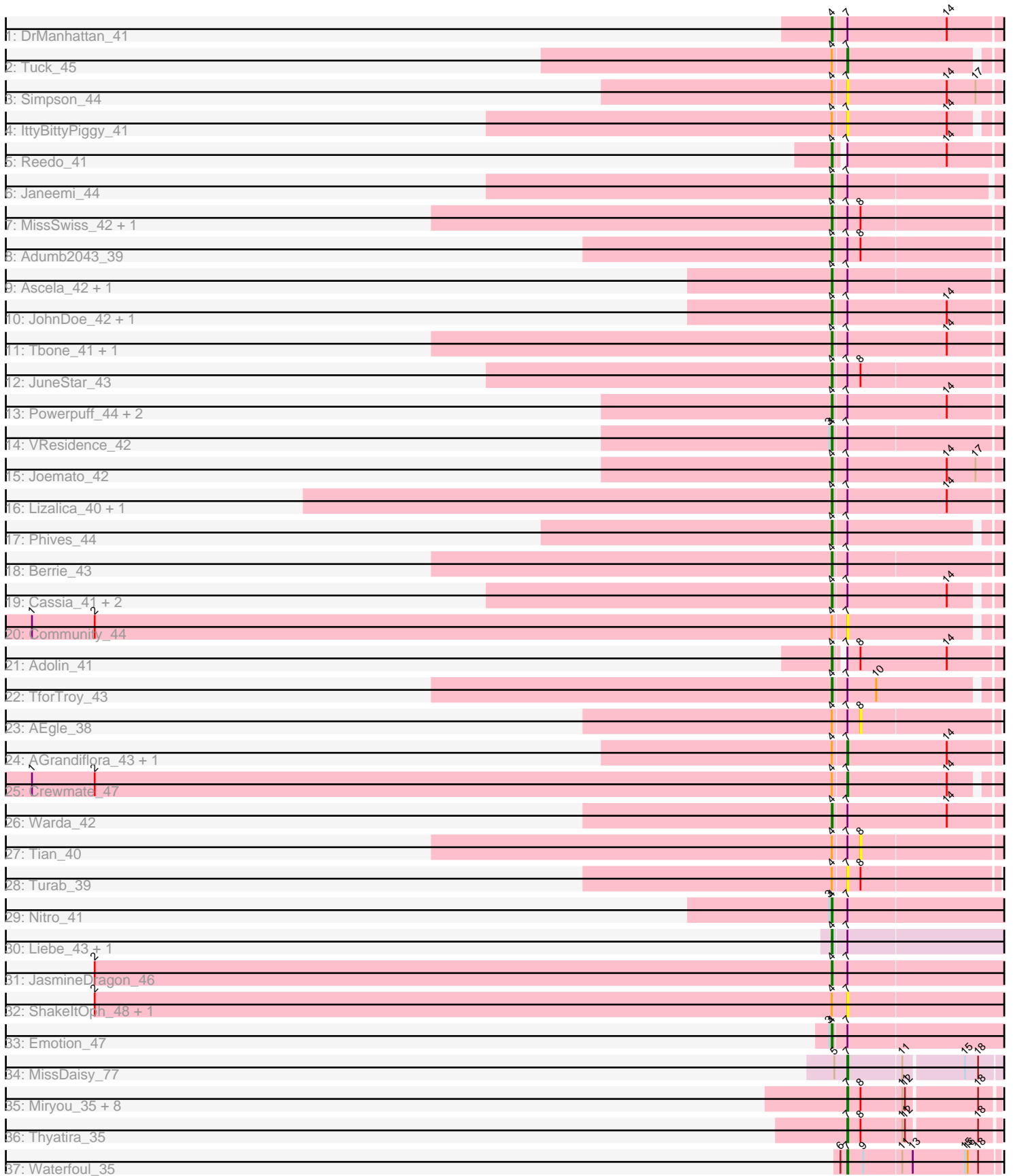


Pham 172899



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 172899 Report

This analysis was run 11/02/24 on database version 579.

Pham number 172899 has 57 members, 9 are drafts.

Phages represented in each track:

- Track 1 : DrManhattan\_41
- Track 2 : Tuck\_45
- Track 3 : Simpson\_44
- Track 4 : IttyBittyPiggy\_41
- Track 5 : Reedo\_41
- Track 6 : Janeemi\_44
- Track 7 : MissSwiss\_42, Amyev\_41
- Track 8 : Adumb2043\_39
- Track 9 : Ascela\_42, Iter\_42
- Track 10 : JohnDoe\_42, ObiToo\_47
- Track 11 : Tbone\_41, Kaylissa\_43
- Track 12 : JuneStar\_43
- Track 13 : Powerpuff\_44, YesChef\_42, Tutumahutu\_43
- Track 14 : VResidence\_42
- Track 15 : Joemato\_42
- Track 16 : Lizalica\_40, Tallboi\_41
- Track 17 : Phives\_44
- Track 18 : Berrie\_43
- Track 19 : Cassia\_41, Pixelle\_42, Pumpkins\_41
- Track 20 : Community\_44
- Track 21 : Adolin\_41
- Track 22 : TforTroy\_43
- Track 23 : AEgle\_38
- Track 24 : AGrandiflora\_43, Cyan\_42
- Track 25 : Crewmate\_47
- Track 26 : Warda\_42
- Track 27 : Tian\_40
- Track 28 : Turab\_39
- Track 29 : Nitro\_41
- Track 30 : Liebe\_43, Maureen\_43
- Track 31 : JasmineDragon\_46
- Track 32 : ShakeltOph\_48, MiniMommy\_48
- Track 33 : Emotion\_47
- Track 34 : MissDaisy\_77
- Track 35 : Miryou\_35, Guillsminger\_35, Gengar\_35, SoSeph\_35, OkiRoe\_35, Feyre\_35, Heftyboy\_35, Paola\_35, Leston\_35
- Track 36 : Thyatira\_35

- Track 37 : Waterfoul\_35

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

The start number called the most often in the published annotations is 4, it was called in 33 of the 48 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adolin\_41, Adumb2043\_39, Amyev\_41, Ascela\_42, Berrie\_43, Cassia\_41, DrManhattan\_41, Emotion\_47, Iter\_42, Janeemi\_44, JasmineDragon\_46, Joemato\_42, JohnDoe\_42, JuneStar\_43, Kaylissa\_43, Liebe\_43, Lizalica\_40, Maureen\_43, MissSwiss\_42, Nitro\_41, ObiToo\_47, Phives\_44, Pixelle\_42, Powerpuff\_44, Pumpkins\_41, Reedo\_41, Tallboi\_41, Tbone\_41, TforTroy\_43, Tutumahutu\_43, VResidence\_42, Warda\_42, YesChef\_42,

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

- AEgle\_38, AGrandiflora\_43, Community\_44, Crewmate\_47, Cyan\_42, IttyBittyPiggy\_41, MiniMommy\_48, ShakeltOph\_48, Simpson\_44, Tian\_40, Tuck\_45, Turab\_39,

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

- Feyre\_35, Gengar\_35, Guillsminger\_35, Heftyboy\_35, Leston\_35, Miryou\_35, MissDaisy\_77, OkiRoe\_35, Paola\_35, SoSeph\_35, Thyatira\_35, Waterfoul\_35,

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

Start 4:

- Found in 45 of 57 ( 78.9% ) of genes in pham
- Manual Annotations of this start: 33 of 48
- Called 73.3% of time when present
- Phage (with cluster) where this start called: Adolin\_41 (AZ1), Adumb2043\_39 (AZ1), Amyev\_41 (AZ1), Ascela\_42 (AZ1), Berrie\_43 (AZ1), Cassia\_41 (AZ1), DrManhattan\_41 (AZ1), Emotion\_47 (AZ4), Iter\_42 (AZ1), Janeemi\_44 (AZ1), JasmineDragon\_46 (AZ4), Joemato\_42 (AZ1), JohnDoe\_42 (AZ1), JuneStar\_43 (AZ1), Kaylissa\_43 (AZ1), Liebe\_43 (AZ2), Lizalica\_40 (AZ1), Maureen\_43 (AZ2), MissSwiss\_42 (AZ1), Nitro\_41 (AZ1), ObiToo\_47 (AZ1), Phives\_44 (AZ1), Pixelle\_42 (AZ1), Powerpuff\_44 (AZ1), Pumpkins\_41 (AZ1), Reedo\_41 (AZ1), Tallboi\_41 (AZ1), Tbone\_41 (AZ1), TforTroy\_43 (AZ1), Tutumahutu\_43 (AZ1), VResidence\_42 (AZ1), Warda\_42 (AZ1), YesChef\_42 (AZ1),

Start 7:

- Found in 57 of 57 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 15 of 48
- Called 38.6% of time when present
- Phage (with cluster) where this start called: AGrandiflora\_43 (AZ1), Community\_44 (AZ1), Crewmate\_47 (AZ1), Cyan\_42 (AZ1), Feyre\_35 (K5), Gengar\_35 (K5), Guillsminger\_35 (K5), Heftyboy\_35 (K5), IttyBittyPiggy\_41 (AZ1), Leston\_35 (K5), MiniMommy\_48 (AZ4), Miryou\_35 (K5), MissDaisy\_77 (K4), OkiRoe\_35 (K5), Paola\_35 (K5), ShakeltOph\_48 (AZ4), Simpson\_44 (AZ1), SoSeph\_35 (K5), Thyatira\_35 (K5), Tuck\_45 (AZ1), Turab\_39 (AZ1), Waterfoul\_35 (K5),

Start 8:

- Found in 18 of 57 ( 31.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 11.1% of time when present
- Phage (with cluster) where this start called: AEgle\_38 (AZ1), Tian\_40 (AZ1),

### **Summary by clusters:**

There are 5 clusters represented in this pham: AZ1, AZ2, AZ4, K5, K4,

Info for manual annotations of cluster AZ1:

- Start number 4 was manually annotated 29 times for cluster AZ1.
- Start number 7 was manually annotated 3 times for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 4 was manually annotated 2 times for cluster AZ2.

Info for manual annotations of cluster AZ4:

- Start number 4 was manually annotated 2 times for cluster AZ4.

Info for manual annotations of cluster K4:

- Start number 7 was manually annotated 1 time for cluster K4.

Info for manual annotations of cluster K5:

- Start number 7 was manually annotated 11 times for cluster K5.

### **Gene Information:**

Gene: AEgle\_38 Start: 30681, Stop: 30833, Start Num: 8

Candidate Starts for AEgle\_38:

(Start: 4 @30651 has 33 MA's), (Start: 7 @30666 has 15 MA's), (8, 30681),

Gene: AGrandiflora\_43 Start: 31946, Stop: 32116, Start Num: 7

Candidate Starts for AGrandiflora\_43:

(Start: 4 @31931 has 33 MA's), (Start: 7 @31946 has 15 MA's), (14, 32060),

Gene: Adolin\_41 Start: 29698, Stop: 29877, Start Num: 4

Candidate Starts for Adolin\_41:

(Start: 4 @29698 has 33 MA's), (Start: 7 @29704 has 15 MA's), (8, 29719), (14, 29818),

Gene: Adumb2043\_39 Start: 30670, Stop: 30852, Start Num: 4

Candidate Starts for Adumb2043\_39:

(Start: 4 @30670 has 33 MA's), (Start: 7 @30685 has 15 MA's), (8, 30700),

Gene: Amyev\_41 Start: 32225, Stop: 32410, Start Num: 4

Candidate Starts for Amyev\_41:

(Start: 4 @32225 has 33 MA's), (Start: 7 @32240 has 15 MA's), (8, 32255),

Gene: Ascela\_42 Start: 31469, Stop: 31672, Start Num: 4

Candidate Starts for Ascela\_42:

(Start: 4 @31469 has 33 MA's), (Start: 7 @31487 has 15 MA's),

Gene: Berrie\_43 Start: 32374, Stop: 32559, Start Num: 4

Candidate Starts for Berrie\_43:

(Start: 4 @32374 has 33 MA's), (Start: 7 @32389 has 15 MA's),

Gene: Cassia\_41 Start: 31213, Stop: 31389, Start Num: 4

Candidate Starts for Cassia\_41:

(Start: 4 @31213 has 33 MA's), (Start: 7 @31228 has 15 MA's), (14, 31342),

Gene: Community\_44 Start: 33211, Stop: 33372, Start Num: 7

Candidate Starts for Community\_44:

(1, 32278), (2, 32350), (Start: 4 @33196 has 33 MA's), (Start: 7 @33211 has 15 MA's),

Gene: Crewmate\_47 Start: 31902, Stop: 32063, Start Num: 7

Candidate Starts for Crewmate\_47:

(1, 30969), (2, 31041), (Start: 4 @31887 has 33 MA's), (Start: 7 @31902 has 15 MA's), (14, 32016),

Gene: Cyan\_42 Start: 31554, Stop: 31724, Start Num: 7

Candidate Starts for Cyan\_42:

(Start: 4 @31539 has 33 MA's), (Start: 7 @31554 has 15 MA's), (14, 31668),

Gene: DrManhattan\_41 Start: 29689, Stop: 29880, Start Num: 4

Candidate Starts for DrManhattan\_41:

(Start: 4 @29689 has 33 MA's), (Start: 7 @29704 has 15 MA's), (14, 29818),

Gene: Emotion\_47 Start: 33180, Stop: 33395, Start Num: 4

Candidate Starts for Emotion\_47:

(3, 33177), (Start: 4 @33180 has 33 MA's), (Start: 7 @33195 has 15 MA's),

Gene: Feyre\_35 Start: 30060, Stop: 30221, Start Num: 7

Candidate Starts for Feyre\_35:

(Start: 7 @30060 has 15 MA's), (8, 30075), (11, 30120), (12, 30123), (18, 30201),

Gene: Gengar\_35 Start: 30170, Stop: 30331, Start Num: 7

Candidate Starts for Gengar\_35:

(Start: 7 @30170 has 15 MA's), (8, 30185), (11, 30230), (12, 30233), (18, 30311),

Gene: Guillsminger\_35 Start: 30141, Stop: 30302, Start Num: 7

Candidate Starts for Guillsminger\_35:

(Start: 7 @30141 has 15 MA's), (8, 30156), (11, 30201), (12, 30204), (18, 30282),

Gene: Heftyboy\_35 Start: 30287, Stop: 30448, Start Num: 7

Candidate Starts for Heftyboy\_35:

(Start: 7 @30287 has 15 MA's), (8, 30302), (11, 30347), (12, 30350), (18, 30428),

Gene: Iter\_42 Start: 31465, Stop: 31668, Start Num: 4

Candidate Starts for Iter\_42:

(Start: 4 @31465 has 33 MA's), (Start: 7 @31483 has 15 MA's),

Gene: IttyBittyPiggy\_41 Start: 31021, Stop: 31182, Start Num: 7

Candidate Starts for IttyBittyPiggy\_41:

(Start: 4 @31006 has 33 MA's), (Start: 7 @31021 has 15 MA's), (14, 31135),

Gene: Janeemi\_44 Start: 33187, Stop: 33369, Start Num: 4

Candidate Starts for Janeemi\_44:

(Start: 4 @33187 has 33 MA's), (Start: 7 @33202 has 15 MA's),

Gene: JasmineDragon\_46 Start: 32416, Stop: 32613, Start Num: 4

Candidate Starts for JasmineDragon\_46:

(2, 31570), (Start: 4 @32416 has 33 MA's), (Start: 7 @32434 has 15 MA's),

Gene: Joemato\_42 Start: 31566, Stop: 31751, Start Num: 4

Candidate Starts for Joemato\_42:

(Start: 4 @31566 has 33 MA's), (Start: 7 @31581 has 15 MA's), (14, 31695), (17, 31728),

Gene: JohnDoe\_42 Start: 31562, Stop: 31747, Start Num: 4

Candidate Starts for JohnDoe\_42:

(Start: 4 @31562 has 33 MA's), (Start: 7 @31577 has 15 MA's), (14, 31691),

Gene: JuneStar\_43 Start: 33108, Stop: 33290, Start Num: 4

Candidate Starts for JuneStar\_43:

(Start: 4 @33108 has 33 MA's), (Start: 7 @33123 has 15 MA's), (8, 33138),

Gene: Kaylissa\_43 Start: 31952, Stop: 32137, Start Num: 4

Candidate Starts for Kaylissa\_43:

(Start: 4 @31952 has 33 MA's), (Start: 7 @31967 has 15 MA's), (14, 32081),

Gene: Leston\_35 Start: 30271, Stop: 30432, Start Num: 7

Candidate Starts for Leston\_35:

(Start: 7 @30271 has 15 MA's), (8, 30286), (11, 30331), (12, 30334), (18, 30412),

Gene: Liebe\_43 Start: 33220, Stop: 33411, Start Num: 4

Candidate Starts for Liebe\_43:

(Start: 4 @33220 has 33 MA's), (Start: 7 @33235 has 15 MA's),

Gene: Lizalica\_40 Start: 30647, Stop: 30835, Start Num: 4

Candidate Starts for Lizalica\_40:

(Start: 4 @30647 has 33 MA's), (Start: 7 @30662 has 15 MA's), (14, 30776),

Gene: Maureen\_43 Start: 33220, Stop: 33411, Start Num: 4

Candidate Starts for Maureen\_43:

(Start: 4 @33220 has 33 MA's), (Start: 7 @33235 has 15 MA's),

Gene: MiniMommy\_48 Start: 32435, Stop: 32614, Start Num: 7

Candidate Starts for MiniMommy\_48:

(2, 31571), (Start: 4 @32417 has 33 MA's), (Start: 7 @32435 has 15 MA's),

Gene: Miryou\_35 Start: 30126, Stop: 30287, Start Num: 7

Candidate Starts for Miryou\_35:

(Start: 7 @30126 has 15 MA's), (8, 30141), (11, 30186), (12, 30189), (18, 30267),

Gene: MissDaisy\_77 Start: 48998, Stop: 49168, Start Num: 7

Candidate Starts for MissDaisy\_77:

(5, 48983), (Start: 7 @48998 has 15 MA's), (11, 49058), (15, 49124), (18, 49139),

Gene: MissSwiss\_42 Start: 30190, Stop: 30375, Start Num: 4  
Candidate Starts for MissSwiss\_42:  
(Start: 4 @30190 has 33 MA's), (Start: 7 @30205 has 15 MA's), (8, 30220),

Gene: Nitro\_41 Start: 32074, Stop: 32274, Start Num: 4  
Candidate Starts for Nitro\_41:  
(3, 32071), (Start: 4 @32074 has 33 MA's), (Start: 7 @32089 has 15 MA's),

Gene: ObiToo\_47 Start: 32330, Stop: 32506, Start Num: 4  
Candidate Starts for ObiToo\_47:  
(Start: 4 @32330 has 33 MA's), (Start: 7 @32345 has 15 MA's), (14, 32459),

Gene: OkiRoe\_35 Start: 30143, Stop: 30304, Start Num: 7  
Candidate Starts for OkiRoe\_35:  
(Start: 7 @30143 has 15 MA's), (8, 30158), (11, 30203), (12, 30206), (18, 30284),

Gene: Paola\_35 Start: 30141, Stop: 30302, Start Num: 7  
Candidate Starts for Paola\_35:  
(Start: 7 @30141 has 15 MA's), (8, 30156), (11, 30201), (12, 30204), (18, 30282),

Gene: Phives\_44 Start: 33024, Stop: 33200, Start Num: 4  
Candidate Starts for Phives\_44:  
(Start: 4 @33024 has 33 MA's), (Start: 7 @33039 has 15 MA's),

Gene: Pixelle\_42 Start: 32248, Stop: 32436, Start Num: 4  
Candidate Starts for Pixelle\_42:  
(Start: 4 @32248 has 33 MA's), (Start: 7 @32263 has 15 MA's), (14, 32377),

Gene: Powerpuff\_44 Start: 32654, Stop: 32839, Start Num: 4  
Candidate Starts for Powerpuff\_44:  
(Start: 4 @32654 has 33 MA's), (Start: 7 @32669 has 15 MA's), (14, 32783),

Gene: Pumpkins\_41 Start: 31677, Stop: 31853, Start Num: 4  
Candidate Starts for Pumpkins\_41:  
(Start: 4 @31677 has 33 MA's), (Start: 7 @31692 has 15 MA's), (14, 31806),

Gene: Reedo\_41 Start: 29794, Stop: 29988, Start Num: 4  
Candidate Starts for Reedo\_41:  
(Start: 4 @29794 has 33 MA's), (Start: 7 @29800 has 15 MA's), (14, 29914),

Gene: ShakeltOph\_48 Start: 32434, Stop: 32613, Start Num: 7  
Candidate Starts for ShakeltOph\_48:  
(2, 31570), (Start: 4 @32416 has 33 MA's), (Start: 7 @32434 has 15 MA's),

Gene: Simpson\_44 Start: 31585, Stop: 31755, Start Num: 7  
Candidate Starts for Simpson\_44:  
(Start: 4 @31570 has 33 MA's), (Start: 7 @31585 has 15 MA's), (14, 31699), (17, 31732),

Gene: SoSeph\_35 Start: 30287, Stop: 30448, Start Num: 7  
Candidate Starts for SoSeph\_35:  
(Start: 7 @30287 has 15 MA's), (8, 30302), (11, 30347), (12, 30350), (18, 30428),

Gene: Tallboi\_41 Start: 32404, Stop: 32592, Start Num: 4

Candidate Starts for Tallboi\_41:  
(Start: 4 @32404 has 33 MA's), (Start: 7 @32419 has 15 MA's), (14, 32533),

Gene: Tbone\_41 Start: 31365, Stop: 31553, Start Num: 4  
Candidate Starts for Tbone\_41:  
(Start: 4 @31365 has 33 MA's), (Start: 7 @31380 has 15 MA's), (14, 31494),

Gene: TforTroy\_43 Start: 31539, Stop: 31715, Start Num: 4  
Candidate Starts for TforTroy\_43:  
(Start: 4 @31539 has 33 MA's), (Start: 7 @31554 has 15 MA's), (10, 31587),

Gene: Thyatira\_35 Start: 30141, Stop: 30302, Start Num: 7  
Candidate Starts for Thyatira\_35:  
(Start: 7 @30141 has 15 MA's), (8, 30156), (11, 30201), (12, 30204), (18, 30282),

Gene: Tian\_40 Start: 32255, Stop: 32410, Start Num: 8  
Candidate Starts for Tian\_40:  
(Start: 4 @32225 has 33 MA's), (Start: 7 @32240 has 15 MA's), (8, 32255),

Gene: Tuck\_45 Start: 33591, Stop: 33752, Start Num: 7  
Candidate Starts for Tuck\_45:  
(Start: 4 @33576 has 33 MA's), (Start: 7 @33591 has 15 MA's),

Gene: Turab\_39 Start: 30685, Stop: 30852, Start Num: 7  
Candidate Starts for Turab\_39:  
(Start: 4 @30670 has 33 MA's), (Start: 7 @30685 has 15 MA's), (8, 30700),

Gene: Tutumahutu\_43 Start: 31537, Stop: 31722, Start Num: 4  
Candidate Starts for Tutumahutu\_43:  
(Start: 4 @31537 has 33 MA's), (Start: 7 @31552 has 15 MA's), (14, 31666),

Gene: VResidence\_42 Start: 31016, Stop: 31201, Start Num: 4  
Candidate Starts for VResidence\_42:  
(3, 31013), (Start: 4 @31016 has 33 MA's), (Start: 7 @31031 has 15 MA's),

Gene: Warda\_42 Start: 31541, Stop: 31729, Start Num: 4  
Candidate Starts for Warda\_42:  
(Start: 4 @31541 has 33 MA's), (Start: 7 @31556 has 15 MA's), (14, 31670),

Gene: Waterfoul\_35 Start: 30197, Stop: 30364, Start Num: 7  
Candidate Starts for Waterfoul\_35:  
(6, 30191), (Start: 7 @30197 has 15 MA's), (9, 30215), (11, 30257), (13, 30269), (15, 30329), (16, 30332), (18, 30344),

Gene: YesChef\_42 Start: 31513, Stop: 31698, Start Num: 4  
Candidate Starts for YesChef\_42:  
(Start: 4 @31513 has 33 MA's), (Start: 7 @31528 has 15 MA's), (14, 31642),