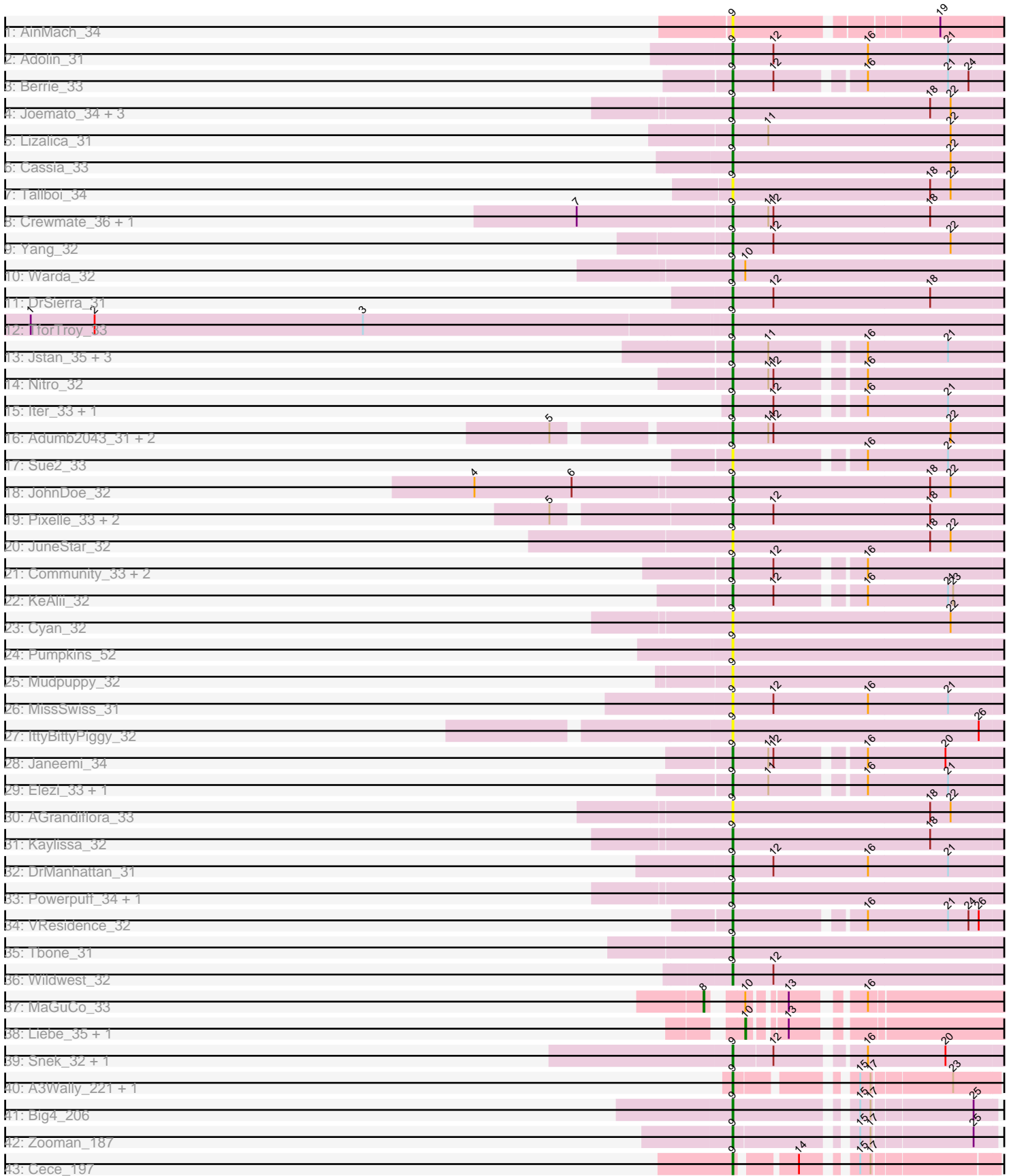


Pham 156377



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 156377 Report

This analysis was run 04/12/24 on database version 558.

Pham number 156377 has 62 members, 19 are drafts.

Phages represented in each track:

- Track 1 : AinMach\_34
- Track 2 : Adolin\_31
- Track 3 : Berrie\_33
- Track 4 : Joemato\_34, Lego\_32, Simpson\_34, Tutumahutu\_34
- Track 5 : Lizalica\_31
- Track 6 : Cassia\_33
- Track 7 : Tallboi\_34
- Track 8 : Crewmate\_36, ObiToo\_35
- Track 9 : Yang\_32
- Track 10 : Warda\_32
- Track 11 : DrSierra\_31
- Track 12 : TforTroy\_33
- Track 13 : Jstan\_35, Asa16\_33, Eraser\_33, Niobe\_33
- Track 14 : Nitro\_32
- Track 15 : lter\_33, Ascela\_33
- Track 16 : Adumb2043\_31, Turab\_31, AEgle\_31
- Track 17 : Sue2\_33
- Track 18 : JohnDoe\_32
- Track 19 : Pixelle\_33, Tian\_32, Amyev\_32
- Track 20 : JuneStar\_32
- Track 21 : Community\_33, Tuck\_35, Phives\_34
- Track 22 : KeAlii\_32
- Track 23 : Cyan\_32
- Track 24 : Pumpkins\_52
- Track 25 : Mudpuppy\_32
- Track 26 : MissSwiss\_31
- Track 27 : IttyBittyPiggy\_32
- Track 28 : Janeemi\_34
- Track 29 : Elezi\_33, London\_33
- Track 30 : AGrandiflora\_33
- Track 31 : Kaylissa\_32
- Track 32 : DrManhattan\_31
- Track 33 : Powerpuff\_34, YesChef\_32
- Track 34 : VResidence\_32
- Track 35 : Tbone\_31
- Track 36 : Wildwest\_32
- Track 37 : MaGuCo\_33

- Track 38 : Liebe\_35, Maureen\_35
- Track 39 : Snek\_32, Tweety19\_32
- Track 40 : A3Wally\_221, PauloDiaboli\_221
- Track 41 : Big4\_206
- Track 42 : Zooman\_187
- Track 43 : Cece\_197

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

The start number called the most often in the published annotations is 9, it was called in 40 of the 43 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- A3Wally\_221, AEgle\_31, AGrandiflora\_33, Adolin\_31, Adumb2043\_31, AinMach\_34, Amyev\_32, Asa16\_33, Ascela\_33, Berrie\_33, Big4\_206, Cassia\_33, Cece\_197, Community\_33, Crewmate\_36, Cyan\_32, DrManhattan\_31, DrSierra\_31, Elezi\_33, Eraser\_33, Iter\_33, IttyBittyPiggy\_32, Janeemi\_34, Joemato\_34, JohnDoe\_32, Jstan\_35, JuneStar\_32, Kaylissa\_32, KeAlii\_32, Lego\_32, Lizalica\_31, London\_33, MissSwiss\_31, Mudpuppy\_32, Niobe\_33, Nitro\_32, ObiToo\_35, PauloDiaboli\_221, Phives\_34, Pixelle\_33, Powerpuff\_34, Pumpkins\_52, Simpson\_34, Snek\_32, Sue2\_33, Tallboi\_34, Tbone\_31, TforTroy\_33, Tian\_32, Tuck\_35, Turab\_31, Tutumahutu\_34, Tweety19\_32, VResidence\_32, Warda\_32, Wildwest\_32, Yang\_32, YesChef\_32, Zooman\_187,

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

- 

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

- Liebe\_35, MaGuCo\_33, Maureen\_35,

**Summary by start number:**

Start 8:

- Found in 1 of 62 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 1 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MaGuCo\_33 (AZ2),

Start 9:

- Found in 59 of 62 ( 95.2% ) of genes in pham
- Manual Annotations of this start: 40 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A3Wally\_221 (GD1), AEgle\_31 (AZ1), AGrandiflora\_33 (AZ1), Adolin\_31 (AZ1), Adumb2043\_31 (AZ1), AinMach\_34 (AZ), Amyev\_32 (AZ1), Asa16\_33 (AZ1), Ascela\_33 (AZ1), Berrie\_33 (AZ1), Big4\_206 (GD2), Cassia\_33 (AZ1), Cece\_197 (GD3), Community\_33 (AZ1), Crewmate\_36 (AZ1), Cyan\_32 (AZ1), DrManhattan\_31 (AZ1), DrSierra\_31 (AZ1), Elezi\_33 (AZ1), Eraser\_33 (AZ1), Iter\_33 (AZ1), IttyBittyPiggy\_32 (AZ1), Janeemi\_34 (AZ1), Joemato\_34 (AZ1), JohnDoe\_32 (AZ1), Jstan\_35 (AZ1), JuneStar\_32 (AZ1), Kaylissa\_32 (AZ1), KeAlii\_32 (AZ1), Lego\_32 (AZ1), Lizalica\_31 (AZ1), London\_33

(AZ1), MissSwiss\_31 (AZ1), Mudpuppy\_32 (AZ1), Niobe\_33 (AZ1), Nitro\_32 (AZ1), ObiToo\_35 (AZ1), PauloDiaboli\_221 (GD1), Phives\_34 (AZ1), Pixelle\_33 (AZ1), Powerpuff\_34 (AZ1), Pumpkins\_52 (AZ1), Simpson\_34 (AZ1), Sneak\_32 (AZ3), Sue2\_33 (AZ1), Tallboi\_34 (AZ1), Tbone\_31 (AZ1), TforTroy\_33 (AZ1), Tian\_32 (AZ1), Tuck\_35 (AZ1), Turab\_31 (AZ1), Tutumahutu\_34 (AZ1), Tweety19\_32 (AZ3), VResidence\_32 (AZ1), Warda\_32 (AZ1), Wildwest\_32 (AZ1), Yang\_32 (AZ1), YesChef\_32 (AZ1), Zooman\_187 (GD2),

Start 10:

- Found in 4 of 62 ( 6.5% ) of genes in pham
- Manual Annotations of this start: 2 of 43
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Liebe\_35 (AZ2), Maureen\_35 (AZ2),

### **Summary by clusters:**

There are 7 clusters represented in this pham: GD1, GD2, GD3, AZ3, AZ1, AZ2, AZ,

Info for manual annotations of cluster AZ1:

- Start number 9 was manually annotated 33 times for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 8 was manually annotated 1 time for cluster AZ2.
- Start number 10 was manually annotated 2 times for cluster AZ2.

Info for manual annotations of cluster AZ3:

- Start number 9 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster GD1:

- Start number 9 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD2:

- Start number 9 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:

- Start number 9 was manually annotated 1 time for cluster GD3.

### **Gene Information:**

Gene: A3Wally\_221 Start: 119347, Stop: 119087, Start Num: 9

Candidate Starts for A3Wally\_221:

(Start: 9 @119347 has 40 MA's), (15, 119239), (17, 119227), (23, 119140),

Gene: AEgle\_31 Start: 24089, Stop: 24439, Start Num: 9

Candidate Starts for AEgle\_31:

(5, 23912), (Start: 9 @24089 has 40 MA's), (11, 24131), (12, 24137), (22, 24344),

Gene: AGrandiflora\_33 Start: 24317, Stop: 24667, Start Num: 9

Candidate Starts for AGrandiflora\_33:

(Start: 9 @24317 has 40 MA's), (18, 24548), (22, 24572),

Gene: Adolin\_31 Start: 22754, Stop: 23104, Start Num: 9  
Candidate Starts for Adolin\_31:  
(Start: 9 @22754 has 40 MA's), (12, 22802), (16, 22913), (21, 23006),

Gene: Adumb2043\_31 Start: 24088, Stop: 24438, Start Num: 9  
Candidate Starts for Adumb2043\_31:  
(5, 23911), (Start: 9 @24088 has 40 MA's), (11, 24130), (12, 24136), (22, 24343),

Gene: AinMach\_34 Start: 25278, Stop: 25565, Start Num: 9  
Candidate Starts for AinMach\_34:  
(Start: 9 @25278 has 40 MA's), (19, 25494),

Gene: Amyev\_32 Start: 26024, Stop: 26374, Start Num: 9  
Candidate Starts for Amyev\_32:  
(5, 25835), (Start: 9 @26024 has 40 MA's), (12, 26072), (18, 26255),

Gene: Asa16\_33 Start: 26275, Stop: 26604, Start Num: 9  
Candidate Starts for Asa16\_33:  
(Start: 9 @26275 has 40 MA's), (11, 26317), (16, 26413), (21, 26506),

Gene: Ascela\_33 Start: 24466, Stop: 24795, Start Num: 9  
Candidate Starts for Ascela\_33:  
(Start: 9 @24466 has 40 MA's), (12, 24514), (16, 24604), (21, 24697),

Gene: Berrie\_33 Start: 25350, Stop: 25679, Start Num: 9  
Candidate Starts for Berrie\_33:  
(Start: 9 @25350 has 40 MA's), (12, 25398), (16, 25488), (21, 25581), (24, 25605),

Gene: Big4\_206 Start: 115772, Stop: 115500, Start Num: 9  
Candidate Starts for Big4\_206:  
(Start: 9 @115772 has 40 MA's), (15, 115649), (17, 115637), (25, 115526),

Gene: Cassia\_33 Start: 24921, Stop: 25271, Start Num: 9  
Candidate Starts for Cassia\_33:  
(Start: 9 @24921 has 40 MA's), (22, 25176),

Gene: Cece\_197 Start: 120223, Stop: 119972, Start Num: 9  
Candidate Starts for Cece\_197:  
(Start: 9 @120223 has 40 MA's), (14, 120166), (15, 120121), (17, 120109),

Gene: Community\_33 Start: 26474, Stop: 26803, Start Num: 9  
Candidate Starts for Community\_33:  
(Start: 9 @26474 has 40 MA's), (12, 26522), (16, 26612),

Gene: Crewmate\_36 Start: 25183, Stop: 25533, Start Num: 9  
Candidate Starts for Crewmate\_36:  
(7, 25009), (Start: 9 @25183 has 40 MA's), (11, 25225), (12, 25231), (18, 25414),

Gene: Cyan\_32 Start: 24399, Stop: 24749, Start Num: 9  
Candidate Starts for Cyan\_32:  
(Start: 9 @24399 has 40 MA's), (22, 24654),

Gene: DrManhattan\_31 Start: 22745, Stop: 23095, Start Num: 9  
Candidate Starts for DrManhattan\_31:  
(Start: 9 @22745 has 40 MA's), (12, 22793), (16, 22904), (21, 22997),

Gene: DrSierra\_31 Start: 23230, Stop: 23580, Start Num: 9  
Candidate Starts for DrSierra\_31:  
(Start: 9 @23230 has 40 MA's), (12, 23278), (18, 23461),

Gene: Elezi\_33 Start: 26291, Stop: 26620, Start Num: 9  
Candidate Starts for Elezi\_33:  
(Start: 9 @26291 has 40 MA's), (11, 26333), (16, 26429), (21, 26522),

Gene: Eraser\_33 Start: 26282, Stop: 26611, Start Num: 9  
Candidate Starts for Eraser\_33:  
(Start: 9 @26282 has 40 MA's), (11, 26324), (16, 26420), (21, 26513),

Gene: Iter\_33 Start: 24465, Stop: 24794, Start Num: 9  
Candidate Starts for Iter\_33:  
(Start: 9 @24465 has 40 MA's), (12, 24513), (16, 24603), (21, 24696),

Gene: IttyBittyPiggy\_32 Start: 24503, Stop: 24853, Start Num: 9  
Candidate Starts for IttyBittyPiggy\_32:  
(Start: 9 @24503 has 40 MA's), (26, 24791),

Gene: Janeemi\_34 Start: 26490, Stop: 26819, Start Num: 9  
Candidate Starts for Janeemi\_34:  
(Start: 9 @26490 has 40 MA's), (11, 26532), (12, 26538), (16, 26628), (20, 26718),

Gene: Joemato\_34 Start: 24402, Stop: 24752, Start Num: 9  
Candidate Starts for Joemato\_34:  
(Start: 9 @24402 has 40 MA's), (18, 24633), (22, 24657),

Gene: JohnDoe\_32 Start: 24393, Stop: 24743, Start Num: 9  
Candidate Starts for JohnDoe\_32:  
(4, 24102), (6, 24216), (Start: 9 @24393 has 40 MA's), (18, 24624), (22, 24648),

Gene: Jstan\_35 Start: 26276, Stop: 26605, Start Num: 9  
Candidate Starts for Jstan\_35:  
(Start: 9 @26276 has 40 MA's), (11, 26318), (16, 26414), (21, 26507),

Gene: JuneStar\_32 Start: 26409, Stop: 26759, Start Num: 9  
Candidate Starts for JuneStar\_32:  
(Start: 9 @26409 has 40 MA's), (18, 26640), (22, 26664),

Gene: Kaylissa\_32 Start: 24365, Stop: 24715, Start Num: 9  
Candidate Starts for Kaylissa\_32:  
(Start: 9 @24365 has 40 MA's), (18, 24596),

Gene: KeAlii\_32 Start: 24404, Stop: 24733, Start Num: 9  
Candidate Starts for KeAlii\_32:  
(Start: 9 @24404 has 40 MA's), (12, 24452), (16, 24542), (21, 24635), (23, 24641),

Gene: Lego\_32 Start: 24319, Stop: 24669, Start Num: 9

Candidate Starts for Lego\_32:  
(Start: 9 @24319 has 40 MA's), (18, 24550), (22, 24574),

Gene: Liebe\_35 Start: 26482, Stop: 26733, Start Num: 10  
Candidate Starts for Liebe\_35:  
(Start: 10 @26482 has 2 MA's), (13, 26515),

Gene: Lizalica\_31 Start: 24193, Stop: 24543, Start Num: 9  
Candidate Starts for Lizalica\_31:  
(Start: 9 @24193 has 40 MA's), (11, 24235), (22, 24448),

Gene: London\_33 Start: 26291, Stop: 26620, Start Num: 9  
Candidate Starts for London\_33:  
(Start: 9 @26291 has 40 MA's), (11, 26333), (16, 26429), (21, 26522),

Gene: MaGuCo\_33 Start: 25302, Stop: 25580, Start Num: 8  
Candidate Starts for MaGuCo\_33:  
(Start: 8 @25302 has 1 MA's), (Start: 10 @25329 has 2 MA's), (13, 25362), (16, 25428),

Gene: Maureen\_35 Start: 26482, Stop: 26733, Start Num: 10  
Candidate Starts for Maureen\_35:  
(Start: 10 @26482 has 2 MA's), (13, 26515),

Gene: MissSwiss\_31 Start: 22798, Stop: 23148, Start Num: 9  
Candidate Starts for MissSwiss\_31:  
(Start: 9 @22798 has 40 MA's), (12, 22846), (16, 22957), (21, 23050),

Gene: Mudpuppy\_32 Start: 24182, Stop: 24532, Start Num: 9  
Candidate Starts for Mudpuppy\_32:  
(Start: 9 @24182 has 40 MA's),

Gene: Niobe\_33 Start: 26276, Stop: 26605, Start Num: 9  
Candidate Starts for Niobe\_33:  
(Start: 9 @26276 has 40 MA's), (11, 26318), (16, 26414), (21, 26507),

Gene: Nitro\_32 Start: 25590, Stop: 25919, Start Num: 9  
Candidate Starts for Nitro\_32:  
(Start: 9 @25590 has 40 MA's), (11, 25632), (12, 25638), (16, 25728),

Gene: ObiToo\_35 Start: 24923, Stop: 25273, Start Num: 9  
Candidate Starts for ObiToo\_35:  
(7, 24749), (Start: 9 @24923 has 40 MA's), (11, 24965), (12, 24971), (18, 25154),

Gene: PauloDiaboli\_221 Start: 117560, Stop: 117300, Start Num: 9  
Candidate Starts for PauloDiaboli\_221:  
(Start: 9 @117560 has 40 MA's), (15, 117452), (17, 117440), (23, 117353),

Gene: Phives\_34 Start: 26311, Stop: 26640, Start Num: 9  
Candidate Starts for Phives\_34:  
(Start: 9 @26311 has 40 MA's), (12, 26359), (16, 26449),

Gene: Pixelle\_33 Start: 26044, Stop: 26394, Start Num: 9  
Candidate Starts for Pixelle\_33:

(5, 25855), (Start: 9 @26044 has 40 MA's), (12, 26092), (18, 26275),

Gene: Powerpuff\_34 Start: 25514, Stop: 25864, Start Num: 9

Candidate Starts for Powerpuff\_34:

(Start: 9 @25514 has 40 MA's),

Gene: Pumpkins\_52 Start: 25142, Stop: 25492, Start Num: 9

Candidate Starts for Pumpkins\_52:

(Start: 9 @25142 has 40 MA's),

Gene: Simpson\_34 Start: 24402, Stop: 24752, Start Num: 9

Candidate Starts for Simpson\_34:

(Start: 9 @24402 has 40 MA's), (18, 24633), (22, 24657),

Gene: Snek\_32 Start: 23329, Stop: 23622, Start Num: 9

Candidate Starts for Snek\_32:

(Start: 9 @23329 has 40 MA's), (12, 23374), (16, 23464), (20, 23554),

Gene: Sue2\_33 Start: 25042, Stop: 25371, Start Num: 9

Candidate Starts for Sue2\_33:

(Start: 9 @25042 has 40 MA's), (16, 25180), (21, 25273),

Gene: Tallboi\_34 Start: 25621, Stop: 25971, Start Num: 9

Candidate Starts for Tallboi\_34:

(Start: 9 @25621 has 40 MA's), (18, 25852), (22, 25876),

Gene: Tbone\_31 Start: 24197, Stop: 24547, Start Num: 9

Candidate Starts for Tbone\_31:

(Start: 9 @24197 has 40 MA's),

Gene: TforTroy\_33 Start: 25014, Stop: 25364, Start Num: 9

Candidate Starts for TforTroy\_33:

(1, 24204), (2, 24279), (3, 24594), (Start: 9 @25014 has 40 MA's),

Gene: Tian\_32 Start: 26024, Stop: 26374, Start Num: 9

Candidate Starts for Tian\_32:

(5, 25835), (Start: 9 @26024 has 40 MA's), (12, 26072), (18, 26255),

Gene: Tuck\_35 Start: 26855, Stop: 27184, Start Num: 9

Candidate Starts for Tuck\_35:

(Start: 9 @26855 has 40 MA's), (12, 26903), (16, 26993),

Gene: Turab\_31 Start: 24088, Stop: 24438, Start Num: 9

Candidate Starts for Turab\_31:

(5, 23911), (Start: 9 @24088 has 40 MA's), (11, 24130), (12, 24136), (22, 24343),

Gene: Tutumahutu\_34 Start: 24369, Stop: 24719, Start Num: 9

Candidate Starts for Tutumahutu\_34:

(Start: 9 @24369 has 40 MA's), (18, 24600), (22, 24624),

Gene: Tweety19\_32 Start: 23328, Stop: 23621, Start Num: 9

Candidate Starts for Tweety19\_32:

(Start: 9 @23328 has 40 MA's), (12, 23373), (16, 23463), (20, 23553),



Gene: VResidence\_32 Start: 24360, Stop: 24689, Start Num: 9  
Candidate Starts for VResidence\_32:  
(Start: 9 @24360 has 40 MA's), (16, 24498), (21, 24591), (24, 24615), (26, 24627),

Gene: Warda\_32 Start: 24373, Stop: 24723, Start Num: 9  
Candidate Starts for Warda\_32:  
(Start: 9 @24373 has 40 MA's), (Start: 10 @24388 has 2 MA's),

Gene: Wildwest\_32 Start: 24171, Stop: 24521, Start Num: 9  
Candidate Starts for Wildwest\_32:  
(Start: 9 @24171 has 40 MA's), (12, 24219),

Gene: Yang\_32 Start: 24514, Stop: 24864, Start Num: 9  
Candidate Starts for Yang\_32:  
(Start: 9 @24514 has 40 MA's), (12, 24562), (22, 24769),

Gene: YesChef\_32 Start: 24373, Stop: 24723, Start Num: 9  
Candidate Starts for YesChef\_32:  
(Start: 9 @24373 has 40 MA's),

Gene: Zooman\_187 Start: 111993, Stop: 111724, Start Num: 9  
Candidate Starts for Zooman\_187:  
(Start: 9 @111993 has 40 MA's), (15, 111873), (17, 111861), (25, 111750),