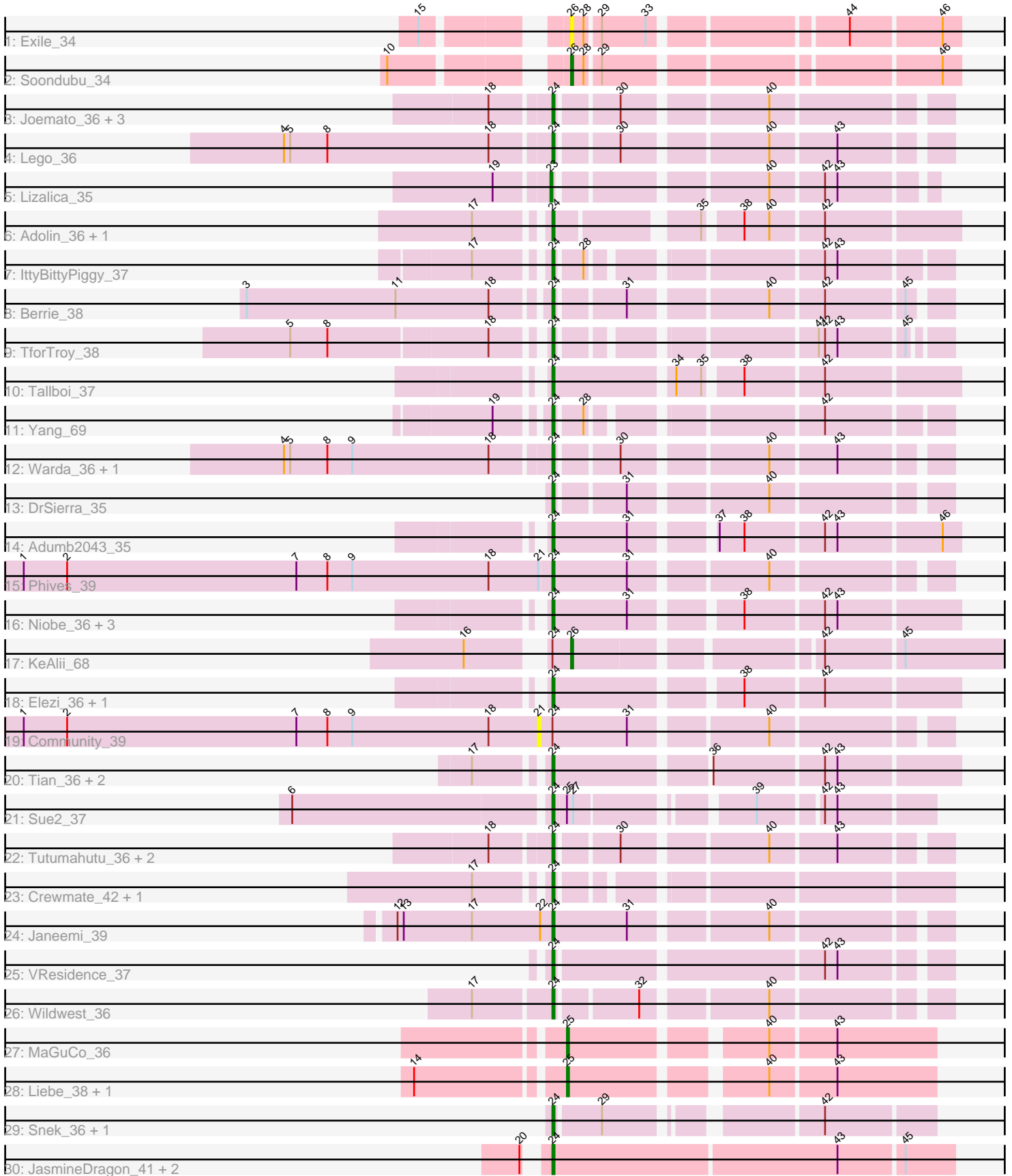


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 216261 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216261 has 48 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Exile\_34
- Track 2 : Soondubu\_34
- Track 3 : Joemato\_36, JohnDoe\_36, Simpson\_38, Cyan\_36
- Track 4 : Lego\_36
- Track 5 : Lizalica\_35
- Track 6 : Adolin\_36, DrManhattan\_36
- Track 7 : IttyBittyPiggy\_37
- Track 8 : Berrie\_38
- Track 9 : TforTroy\_38
- Track 10 : Tallboi\_37
- Track 11 : Yang\_69
- Track 12 : Warda\_36, Tbone\_35
- Track 13 : DrSierra\_35
- Track 14 : Adumb2043\_35
- Track 15 : Phives\_39
- Track 16 : Niobe\_36, Eraser\_36, Asa16\_36, London\_36
- Track 17 : KeAlii\_68
- Track 18 : Elezi\_36, Subaru\_37
- Track 19 : Community\_39
- Track 20 : Tian\_36, Amyev\_36, Pixelle\_36
- Track 21 : Sue2\_37
- Track 22 : Tutumahutu\_36, Kaylissa\_36, YesChef\_36
- Track 23 : Crewmate\_42, ObiToo\_41
- Track 24 : Janeemi\_39
- Track 25 : VResidence\_37
- Track 26 : Wildwest\_36
- Track 27 : MaGuCo\_36
- Track 28 : Liebe\_38, Maureen\_38
- Track 29 : Snek\_36, Tweety19\_36
- Track 30 : JasmineDragon\_41, ShakeltOph\_43, MiniMommy\_43

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

The start number called the most often in the published annotations is 24, it was called in 35 of the 41 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adolin\_36, Adumb2043\_35, Amyev\_36, Asa16\_36, Berrie\_38, Crewmate\_42, Cyan\_36, DrManhattan\_36, DrSierra\_35, Elezi\_36, Eraser\_36, IttyBittyPiggy\_37, Janeemi\_39, JasmineDragon\_41, Joemato\_36, JohnDoe\_36, Kaylissa\_36, Lego\_36, London\_36, MiniMommy\_43, Niobe\_36, ObiToo\_41, Phives\_39, Pixelle\_36, ShakeltOph\_43, Simpson\_38, Snek\_36, Subaru\_37, Sue2\_37, Tallboi\_37, Tbone\_35, TforTroy\_38, Tian\_36, Tutumahutu\_36, Tweety19\_36, VResidence\_37, Warda\_36, Wildwest\_36, Yang\_69, YesChef\_36,

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

- Community\_39, KeAlii\_68,

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

- Exile\_34, Liebe\_38, Lizalica\_35, MaGuCo\_36, Maureen\_38, Soondubu\_34,

### Summary by start number:

Start 21:

- Found in 2 of 48 ( 4.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Community\_39 (AZ1),

Start 23:

- Found in 1 of 48 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lizalica\_35 (AZ1),

Start 24:

- Found in 42 of 48 ( 87.5% ) of genes in pham
- Manual Annotations of this start: 35 of 41
- Called 95.2% of time when present
- Phage (with cluster) where this start called: Adolin\_36 (AZ1), Adumb2043\_35 (AZ1), Amyev\_36 (AZ1), Asa16\_36 (AZ1), Berrie\_38 (AZ1), Crewmate\_42 (AZ1), Cyan\_36 (AZ1), DrManhattan\_36 (AZ1), DrSierra\_35 (AZ1), Elezi\_36 (AZ1), Eraser\_36 (AZ1), IttyBittyPiggy\_37 (AZ1), Janeemi\_39 (AZ1), JasmineDragon\_41 (AZ4), Joemato\_36 (AZ1), JohnDoe\_36 (AZ1), Kaylissa\_36 (AZ1), Lego\_36 (AZ1), London\_36 (AZ1), MiniMommy\_43 (AZ4), Niobe\_36 (AZ1), ObiToo\_41 (AZ1), Phives\_39 (AZ1), Pixelle\_36 (AZ1), ShakeltOph\_43 (AZ4), Simpson\_38 (AZ1), Snek\_36 (AZ3), Subaru\_37 (AZ), Sue2\_37 (AZ1), Tallboi\_37 (AZ1), Tbone\_35 (AZ1), TforTroy\_38 (AZ1), Tian\_36 (AZ1), Tutumahutu\_36 (AZ1), Tweety19\_36 (AZ3), VResidence\_37 (AZ1), Warda\_36 (AZ1), Wildwest\_36 (AZ1), Yang\_69 (AZ1), YesChef\_36 (AZ1),

Start 25:

- Found in 4 of 48 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 3 of 41
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Liebe\_38 (AZ2), MaGuCo\_36 (AZ2), Maureen\_38 (AZ2),

Start 26:

- Found in 3 of 48 ( 6.2% ) of genes in pham
- Manual Annotations of this start: 2 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Exile\_34 (AZ), KeAlii\_68 (AZ1), Soondubu\_34 (AZ),

### **Summary by clusters:**

There are 5 clusters represented in this pham: AZ1, AZ2, AZ3, AZ4, AZ,

Info for manual annotations of cluster AZ:

- Start number 26 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ1:

- Start number 23 was manually annotated 1 time for cluster AZ1.
- Start number 24 was manually annotated 32 times for cluster AZ1.
- Start number 26 was manually annotated 1 time for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 25 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster AZ3:

- Start number 24 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ4:

- Start number 24 was manually annotated 1 time for cluster AZ4.

### **Gene Information:**

Gene: Adolin\_36 Start: 24646, Stop: 24473, Start Num: 24

Candidate Starts for Adolin\_36:

(17, 24676), (Start: 24 @24646 has 35 MA's), (35, 24586), (38, 24571), (40, 24559), (42, 24535),

Gene: Adumb2043\_35 Start: 25817, Stop: 25638, Start Num: 24

Candidate Starts for Adumb2043\_35:

(Start: 24 @25817 has 35 MA's), (31, 25781), (37, 25748), (38, 25736), (42, 25700), (43, 25694), (46, 25646),

Gene: Amyev\_36 Start: 27343, Stop: 27161, Start Num: 24

Candidate Starts for Amyev\_36:

(17, 27373), (Start: 24 @27343 has 35 MA's), (36, 27274), (42, 27223), (43, 27217),

Gene: Asa16\_36 Start: 27387, Stop: 27208, Start Num: 24

Candidate Starts for Asa16\_36:

(Start: 24 @27387 has 35 MA's), (31, 27351), (38, 27306), (42, 27270), (43, 27264),

Gene: Berrie\_38 Start: 27347, Stop: 27180, Start Num: 24

Candidate Starts for Berrie\_38:

(3, 27488), (11, 27416), (18, 27371), (Start: 24 @27347 has 35 MA's), (31, 27317), (40, 27257), (42, 27233), (45, 27197),

Gene: Community\_39 Start: 28086, Stop: 27907, Start Num: 21

Candidate Starts for Community\_39:

(1, 28335), (2, 28314), (7, 28203), (8, 28188), (9, 28176), (18, 28110), (21, 28086), (Start: 24 @28080 has 35 MA's), (31, 28044), (40, 27984),

Gene: Crewmate\_42 Start: 26882, Stop: 26715, Start Num: 24

Candidate Starts for Crewmate\_42:

(17, 26912), (Start: 24 @26882 has 35 MA's),

Gene: Cyan\_36 Start: 25787, Stop: 25620, Start Num: 24

Candidate Starts for Cyan\_36:

(18, 25814), (Start: 24 @25787 has 35 MA's), (30, 25760), (40, 25697),

Gene: DrManhattan\_36 Start: 24637, Stop: 24464, Start Num: 24

Candidate Starts for DrManhattan\_36:

(17, 24667), (Start: 24 @24637 has 35 MA's), (35, 24577), (38, 24562), (40, 24550), (42, 24526),

Gene: DrSierra\_35 Start: 24646, Stop: 24479, Start Num: 24

Candidate Starts for DrSierra\_35:

(Start: 24 @24646 has 35 MA's), (31, 24616), (40, 24556),

Gene: Elezi\_36 Start: 27403, Stop: 27224, Start Num: 24

Candidate Starts for Elezi\_36:

(Start: 24 @27403 has 35 MA's), (38, 27322), (42, 27286),

Gene: Eraser\_36 Start: 27394, Stop: 27215, Start Num: 24

Candidate Starts for Eraser\_36:

(Start: 24 @27394 has 35 MA's), (31, 27358), (38, 27313), (42, 27277), (43, 27271),

Gene: Exile\_34 Start: 27957, Stop: 27790, Start Num: 26

Candidate Starts for Exile\_34:

(15, 28011), (Start: 26 @27957 has 2 MA's), (28, 27951), (29, 27945), (33, 27924), (44, 27840), (46, 27798),

Gene: IttyBittyPiggy\_37 Start: 25993, Stop: 25829, Start Num: 24

Candidate Starts for IttyBittyPiggy\_37:

(17, 26023), (Start: 24 @25993 has 35 MA's), (28, 25981), (42, 25885), (43, 25879),

Gene: Janeemi\_39 Start: 28091, Stop: 27918, Start Num: 24

Candidate Starts for Janeemi\_39:

(12, 28166), (13, 28163), (17, 28130), (22, 28097), (Start: 24 @28091 has 35 MA's), (31, 28055), (40, 27995),

Gene: JasmineDragon\_41 Start: 27365, Stop: 27177, Start Num: 24

Candidate Starts for JasmineDragon\_41:

(20, 27371), (Start: 24 @27365 has 35 MA's), (43, 27230), (45, 27200),

Gene: Joemato\_36 Start: 25818, Stop: 25651, Start Num: 24

Candidate Starts for Joemato\_36:

(18, 25845), (Start: 24 @25818 has 35 MA's), (30, 25791), (40, 25728),

Gene: JohnDoe\_36 Start: 25809, Stop: 25642, Start Num: 24  
Candidate Starts for JohnDoe\_36:  
(18, 25836), (Start: 24 @25809 has 35 MA's), (30, 25782), (40, 25719),

Gene: Kaylissa\_36 Start: 25754, Stop: 25587, Start Num: 24  
Candidate Starts for Kaylissa\_36:  
(18, 25781), (Start: 24 @25754 has 35 MA's), (30, 25727), (40, 25664), (43, 25634),

Gene: KeAlii\_68 Start: 26504, Stop: 26304, Start Num: 26  
Candidate Starts for KeAlii\_68:  
(16, 26543), (Start: 24 @26513 has 35 MA's), (Start: 26 @26504 has 2 MA's), (42, 26399), (45, 26363),

Gene: Lego\_36 Start: 25700, Stop: 25533, Start Num: 24  
Candidate Starts for Lego\_36:  
(4, 25826), (5, 25823), (8, 25805), (18, 25727), (Start: 24 @25700 has 35 MA's), (30, 25673), (40, 25610), (43, 25580),

Gene: Liebe\_38 Start: 27588, Stop: 27427, Start Num: 25  
Candidate Starts for Liebe\_38:  
(14, 27654), (Start: 25 @27588 has 3 MA's), (40, 27504), (43, 27474),

Gene: Lizalica\_35 Start: 25602, Stop: 25441, Start Num: 23  
Candidate Starts for Lizalica\_35:  
(19, 25626), (Start: 23 @25602 has 1 MA's), (40, 25512), (42, 25488), (43, 25482),

Gene: London\_36 Start: 27403, Stop: 27224, Start Num: 24  
Candidate Starts for London\_36:  
(Start: 24 @27403 has 35 MA's), (31, 27367), (38, 27322), (42, 27286), (43, 27280),

Gene: MaGuCo\_36 Start: 26435, Stop: 26274, Start Num: 25  
Candidate Starts for MaGuCo\_36:  
(Start: 25 @26435 has 3 MA's), (40, 26351), (43, 26321),

Gene: Maureen\_38 Start: 27588, Stop: 27427, Start Num: 25  
Candidate Starts for Maureen\_38:  
(14, 27654), (Start: 25 @27588 has 3 MA's), (40, 27504), (43, 27474),

Gene: MiniMommy\_43 Start: 27366, Stop: 27178, Start Num: 24  
Candidate Starts for MiniMommy\_43:  
(20, 27372), (Start: 24 @27366 has 35 MA's), (43, 27231), (45, 27201),

Gene: Niobe\_36 Start: 27388, Stop: 27209, Start Num: 24  
Candidate Starts for Niobe\_36:  
(Start: 24 @27388 has 35 MA's), (31, 27352), (38, 27307), (42, 27271), (43, 27265),

Gene: ObiToo\_41 Start: 26622, Stop: 26455, Start Num: 24  
Candidate Starts for ObiToo\_41:  
(17, 26652), (Start: 24 @26622 has 35 MA's),

Gene: Phives\_39 Start: 27908, Stop: 27735, Start Num: 24  
Candidate Starts for Phives\_39:

(1, 28163), (2, 28142), (7, 28031), (8, 28016), (9, 28004), (18, 27938), (21, 27914), (Start: 24 @27908 has 35 MA's), (31, 27872), (40, 27812),

Gene: Pixelle\_36 Start: 27363, Stop: 27181, Start Num: 24

Candidate Starts for Pixelle\_36:

(17, 27393), (Start: 24 @27363 has 35 MA's), (36, 27294), (42, 27243), (43, 27237),

Gene: ShakeltOph\_43 Start: 27365, Stop: 27177, Start Num: 24

Candidate Starts for ShakeltOph\_43:

(20, 27371), (Start: 24 @27365 has 35 MA's), (43, 27230), (45, 27200),

Gene: Simpson\_38 Start: 25818, Stop: 25651, Start Num: 24

Candidate Starts for Simpson\_38:

(18, 25845), (Start: 24 @25818 has 35 MA's), (30, 25791), (40, 25728),

Gene: Snek\_36 Start: 25070, Stop: 24912, Start Num: 24

Candidate Starts for Snek\_36:

(Start: 24 @25070 has 35 MA's), (29, 25049), (42, 24962),

Gene: Soondubu\_34 Start: 27961, Stop: 27794, Start Num: 26

Candidate Starts for Soondubu\_34:

(10, 28030), (Start: 26 @27961 has 2 MA's), (28, 27955), (29, 27949), (46, 27802),

Gene: Subaru\_37 Start: 27403, Stop: 27224, Start Num: 24

Candidate Starts for Subaru\_37:

(Start: 24 @27403 has 35 MA's), (38, 27322), (42, 27286),

Gene: Sue2\_37 Start: 26877, Stop: 26719, Start Num: 24

Candidate Starts for Sue2\_37:

(6, 26997), (Start: 24 @26877 has 35 MA's), (Start: 25 @26871 has 3 MA's), (27, 26868), (39, 26796), (42, 26769), (43, 26763),

Gene: Tallboi\_37 Start: 27555, Stop: 27376, Start Num: 24

Candidate Starts for Tallboi\_37:

(Start: 24 @27555 has 35 MA's), (34, 27501), (35, 27489), (38, 27474), (42, 27438),

Gene: Tbone\_35 Start: 25613, Stop: 25446, Start Num: 24

Candidate Starts for Tbone\_35:

(4, 25739), (5, 25736), (8, 25718), (9, 25706), (18, 25640), (Start: 24 @25613 has 35 MA's), (30, 25586), (40, 25523), (43, 25493),

Gene: TforTroy\_38 Start: 26539, Stop: 26378, Start Num: 24

Candidate Starts for TforTroy\_38:

(5, 26653), (8, 26635), (18, 26560), (Start: 24 @26539 has 35 MA's), (41, 26434), (42, 26431), (43, 26425), (45, 26395),

Gene: Tian\_36 Start: 27343, Stop: 27161, Start Num: 24

Candidate Starts for Tian\_36:

(17, 27373), (Start: 24 @27343 has 35 MA's), (36, 27274), (42, 27223), (43, 27217),

Gene: Tutumahutu\_36 Start: 25785, Stop: 25618, Start Num: 24

Candidate Starts for Tutumahutu\_36:

(18, 25812), (Start: 24 @25785 has 35 MA's), (30, 25758), (40, 25695), (43, 25665),

Gene: Tweety19\_36 Start: 25069, Stop: 24911, Start Num: 24

Candidate Starts for Tweety19\_36:

(Start: 24 @25069 has 35 MA's), (29, 25048), (42, 24961),

Gene: VResidence\_37 Start: 25954, Stop: 25781, Start Num: 24

Candidate Starts for VResidence\_37:

(Start: 24 @25954 has 35 MA's), (42, 25834), (43, 25828),

Gene: Warda\_36 Start: 25789, Stop: 25622, Start Num: 24

Candidate Starts for Warda\_36:

(4, 25915), (5, 25912), (8, 25894), (9, 25882), (18, 25816), (Start: 24 @25789 has 35 MA's), (30, 25762), (40, 25699), (43, 25669),

Gene: Wildwest\_36 Start: 25977, Stop: 25810, Start Num: 24

Candidate Starts for Wildwest\_36:

(17, 26013), (Start: 24 @25977 has 35 MA's), (32, 25941), (40, 25887),

Gene: Yang\_69 Start: 26035, Stop: 25871, Start Num: 24

Candidate Starts for Yang\_69:

(19, 26056), (Start: 24 @26035 has 35 MA's), (28, 26023), (42, 25927),

Gene: YesChef\_36 Start: 25762, Stop: 25595, Start Num: 24

Candidate Starts for YesChef\_36:

(18, 25789), (Start: 24 @25762 has 35 MA's), (30, 25735), (40, 25672), (43, 25642),