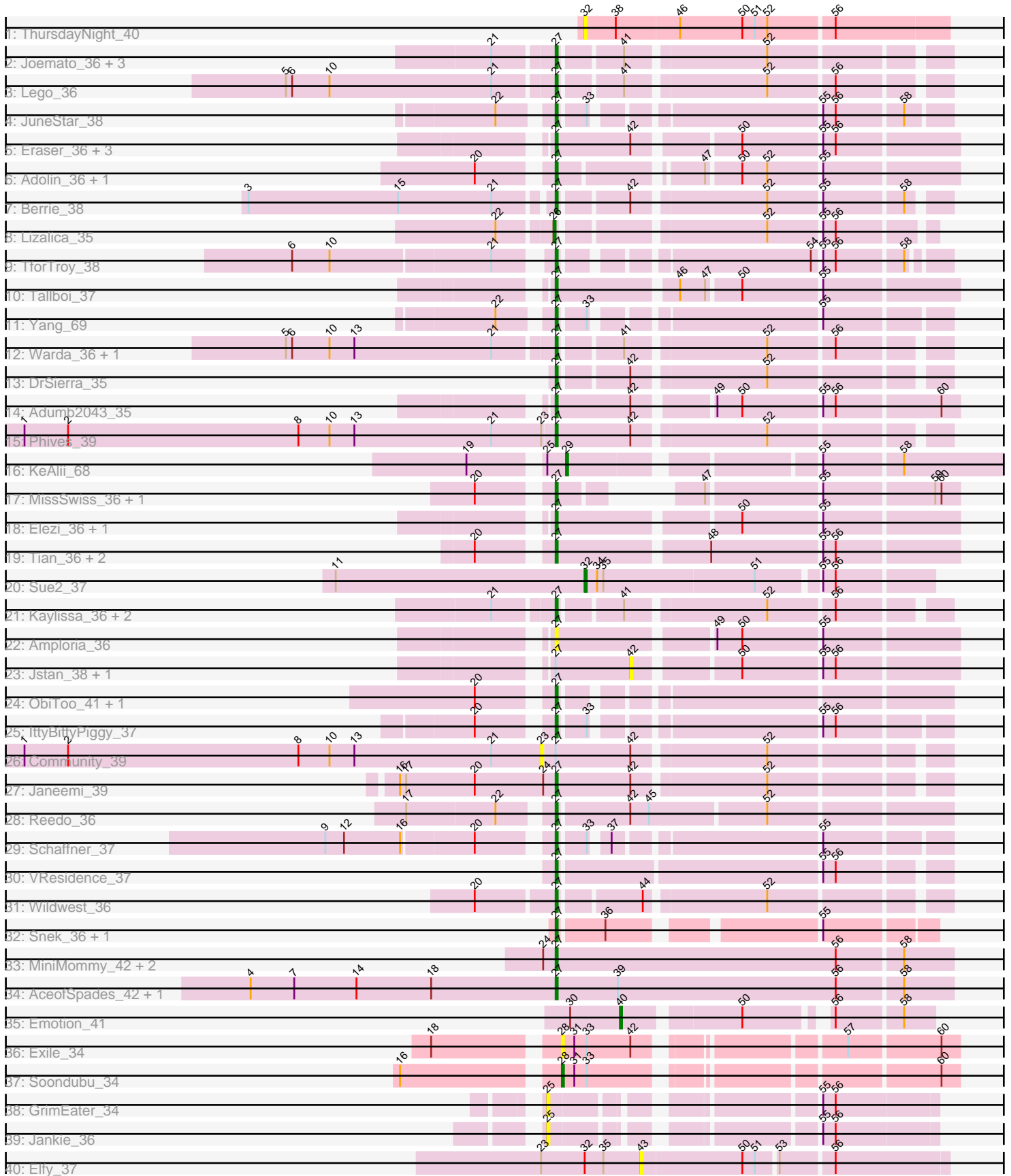


Pham 296591



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 296591 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296591 has 60 members, 14 are drafts.

Phages represented in each track:

- Track 1 : ThursdayNight\_40
- Track 2 : Joemato\_36, JohnDoe\_36, Simpson\_38, Cyan\_36
- Track 3 : Lego\_36
- Track 4 : JuneStar\_38
- Track 5 : Eraser\_36, Niobe\_36, Asa16\_36, London\_36
- Track 6 : Adolin\_36, DrManhattan\_36
- Track 7 : Berrie\_38
- Track 8 : Lizalica\_35
- 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 : KeAlii\_68
- Track 17 : MissSwiss\_36, PandaPo\_36
- Track 18 : Elezi\_36, Subaru\_37
- Track 19 : Tian\_36, Amyev\_36, Pixelle\_36
- Track 20 : Sue2\_37
- Track 21 : Kaylissa\_36, Tutumahutu\_36, YesChef\_36
- Track 22 : Amploria\_36
- Track 23 : Jstan\_38, Skelbel\_37
- Track 24 : ObiToo\_41, Crewmate\_42
- Track 25 : IttyBittyPiggy\_37
- Track 26 : Community\_39
- Track 27 : Janeemi\_39
- Track 28 : Reedo\_36
- Track 29 : Schaffner\_37
- Track 30 : VResidence\_37
- Track 31 : Wildwest\_36
- Track 32 : Snek\_36, Tweety19\_36
- Track 33 : MiniMommy\_42, JasmineDragon\_41, ShakeltOph\_41
- Track 34 : AceofSpades\_42, VroomVroom\_41
- Track 35 : Emotion\_41
- Track 36 : Exile\_34
- Track 37 : Soondubu\_34

- Track 38 : GrimEater\_34
- Track 39 : Jankie\_36
- Track 40 : Elfy\_37

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

The start number called the most often in the published annotations is 27, it was called in 41 of the 46 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AceofSpades\_42, Adolin\_36, Adumb2043\_35, Amploria\_36, 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, JuneStar\_38, Kaylissa\_36, Lego\_36, London\_36, MiniMommy\_42, MissSwiss\_36, Niobe\_36, ObiToo\_41, PandaPo\_36, Phives\_39, Pixelle\_36, Reedo\_36, Schaffner\_37, ShakeltOph\_41, Simpson\_38, Snek\_36, Subaru\_37, Tallboi\_37, Tbone\_35, TforTroy\_38, Tian\_36, Tutumahutu\_36, Tweety19\_36, VResidence\_37, VroomVroom\_41, Warda\_36, Wildwest\_36, Yang\_69, YesChef\_36,

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

- Community\_39, Jstan\_38, Skelbel\_37,

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

- Elfy\_37, Emotion\_41, Exile\_34, GrimEater\_34, Jankie\_36, KeAlii\_68, Lizalica\_35, Soondubu\_34, Sue2\_37, ThursdayNight\_40,

**Summary by start number:**

Start 23:

- Found in 3 of 60 ( 5.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Community\_39 (AZ1),

Start 25:

- Found in 3 of 60 ( 5.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: GrimEater\_34 (FP), Jankie\_36 (FP),

Start 26:

- Found in 1 of 60 ( 1.7% ) 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: Lizalica\_35 (AZ1),

Start 27:

- Found in 50 of 60 ( 83.3% ) of genes in pham
- Manual Annotations of this start: 41 of 46
- Called 94.0% of time when present

- Phage (with cluster) where this start called: AceofSpades\_42 (AZ4), Adolin\_36 (AZ1), Adumb2043\_35 (AZ1), Amploria\_36 (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), JuneStar\_38 (AZ1), Kaylissa\_36 (AZ1), Lego\_36 (AZ1), London\_36 (AZ1), MiniMommy\_42 (AZ4), MissSwiss\_36 (AZ1), Niobe\_36 (AZ1), ObiToo\_41 (AZ1), PandaPo\_36 (AZ1), Phives\_39 (AZ1), Pixelle\_36 (AZ1), Reedo\_36 (AZ1), Schaffner\_37 (AZ1), ShakeltOph\_41 (AZ4), Simpson\_38 (AZ1), Snek\_36 (AZ3), Subaru\_37 (AZ1), Tallboi\_37 (AZ1), Tbone\_35 (AZ1), TforTroy\_38 (AZ1), Tian\_36 (AZ1), Tutumahutu\_36 (AZ1), Tweety19\_36 (AZ3), VResidence\_37 (AZ1), VroomVroom\_41 (AZ4), Warda\_36 (AZ1), Wildwest\_36 (AZ1), Yang\_69 (AZ1), YesChef\_36 (AZ1),

#### Start 28:

- Found in 2 of 60 ( 3.3% ) 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: Exile\_34 (AZ6), Soondubu\_34 (AZ6),

#### Start 29:

- Found in 1 of 60 ( 1.7% ) 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: KeAlii\_68 (AZ1),

#### Start 32:

- Found in 3 of 60 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Sue2\_37 (AZ1), ThursdayNight\_40 (AZ),

#### Start 40:

- Found in 1 of 60 ( 1.7% ) 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: Emotion\_41 (AZ4),

#### Start 42:

- Found in 14 of 60 ( 23.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Jstan\_38 (AZ1), Skelbel\_37 (AZ1),

#### Start 43:

- Found in 1 of 60 ( 1.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Elfy\_37 (FP),

### Summary by clusters:

There are 6 clusters represented in this pham: FP, AZ, AZ1, AZ3, AZ4, AZ6,

Info for manual annotations of cluster AZ1:

- Start number 26 was manually annotated 1 time for cluster AZ1.
- Start number 27 was manually annotated 35 times for cluster AZ1.
- Start number 29 was manually annotated 1 time for cluster AZ1.
- Start number 32 was manually annotated 1 time for cluster AZ1.

Info for manual annotations of cluster AZ3:

- Start number 27 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ4:

- Start number 27 was manually annotated 4 times for cluster AZ4.
- Start number 40 was manually annotated 1 time for cluster AZ4.

Info for manual annotations of cluster AZ6:

- Start number 28 was manually annotated 1 time for cluster AZ6.

### **Gene Information:**

Gene: AceofSpades\_42 Start: 27647, Stop: 27459, Start Num: 27

Candidate Starts for AceofSpades\_42:

(4, 27794), (7, 27773), (14, 27743), (18, 27707), (Start: 27 @27647 has 41 MA's), (39, 27617), (56, 27512), (58, 27482),

Gene: Adolin\_36 Start: 24646, Stop: 24473, Start Num: 27

Candidate Starts for Adolin\_36:

(20, 24676), (Start: 27 @24646 has 41 MA's), (47, 24586), (50, 24571), (52, 24559), (55, 24535),

Gene: Adumb2043\_35 Start: 25817, Stop: 25638, Start Num: 27

Candidate Starts for Adumb2043\_35:

(Start: 27 @25817 has 41 MA's), (42, 25781), (49, 25748), (50, 25736), (55, 25700), (56, 25694), (60, 25646),

Gene: Amploria\_36 Start: 26000, Stop: 25821, Start Num: 27

Candidate Starts for Amploria\_36:

(Start: 27 @26000 has 41 MA's), (49, 25931), (50, 25919), (55, 25883),

Gene: Amyev\_36 Start: 27343, Stop: 27161, Start Num: 27

Candidate Starts for Amyev\_36:

(20, 27373), (Start: 27 @27343 has 41 MA's), (48, 27274), (55, 27223), (56, 27217),

Gene: Asa16\_36 Start: 27387, Stop: 27208, Start Num: 27

Candidate Starts for Asa16\_36:

(Start: 27 @27387 has 41 MA's), (42, 27351), (50, 27306), (55, 27270), (56, 27264),

Gene: Berrie\_38 Start: 27347, Stop: 27180, Start Num: 27

Candidate Starts for Berrie\_38:

(3, 27488), (15, 27416), (21, 27371), (Start: 27 @27347 has 41 MA's), (42, 27317), (52, 27257), (55, 27233), (58, 27197),

Gene: Community\_39 Start: 28086, Stop: 27907, Start Num: 23  
Candidate Starts for Community\_39:  
(1, 28335), (2, 28314), (8, 28203), (10, 28188), (13, 28176), (21, 28110), (23, 28086), (Start: 27 @28080 has 41 MA's), (42, 28044), (52, 27984),

Gene: Crewmate\_42 Start: 26882, Stop: 26715, Start Num: 27  
Candidate Starts for Crewmate\_42:  
(20, 26912), (Start: 27 @26882 has 41 MA's),

Gene: Cyan\_36 Start: 25787, Stop: 25620, Start Num: 27  
Candidate Starts for Cyan\_36:  
(21, 25814), (Start: 27 @25787 has 41 MA's), (41, 25760), (52, 25697),

Gene: DrManhattan\_36 Start: 24637, Stop: 24464, Start Num: 27  
Candidate Starts for DrManhattan\_36:  
(20, 24667), (Start: 27 @24637 has 41 MA's), (47, 24577), (50, 24562), (52, 24550), (55, 24526),

Gene: DrSierra\_35 Start: 24646, Stop: 24479, Start Num: 27  
Candidate Starts for DrSierra\_35:  
(Start: 27 @24646 has 41 MA's), (42, 24616), (52, 24556),

Gene: Elezi\_36 Start: 27403, Stop: 27224, Start Num: 27  
Candidate Starts for Elezi\_36:  
(Start: 27 @27403 has 41 MA's), (50, 27322), (55, 27286),

Gene: Elfy\_37 Start: 25651, Stop: 25511, Start Num: 43  
Candidate Starts for Elfy\_37:  
(23, 25699), (Start: 32 @25678 has 1 MA's), (35, 25669), (43, 25651), (50, 25603), (51, 25597), (53, 25588), (56, 25564),

Gene: Emotion\_41 Start: 27364, Stop: 27236, Start Num: 40  
Candidate Starts for Emotion\_41:  
(30, 27388), (Start: 40 @27364 has 1 MA's), (50, 27313), (56, 27280), (58, 27250),

Gene: Eraser\_36 Start: 27394, Stop: 27215, Start Num: 27  
Candidate Starts for Eraser\_36:  
(Start: 27 @27394 has 41 MA's), (42, 27358), (50, 27313), (55, 27277), (56, 27271),

Gene: Exile\_34 Start: 27957, Stop: 27790, Start Num: 28  
Candidate Starts for Exile\_34:  
(18, 28011), (Start: 28 @27957 has 1 MA's), (31, 27951), (33, 27945), (42, 27924), (57, 27840), (60, 27798),

Gene: GrimEater\_34 Start: 24905, Stop: 24747, Start Num: 25  
Candidate Starts for GrimEater\_34:  
(25, 24905), (55, 24800), (56, 24794),

Gene: IttyBittyPiggy\_37 Start: 25993, Stop: 25829, Start Num: 27  
Candidate Starts for IttyBittyPiggy\_37:  
(20, 26023), (Start: 27 @25993 has 41 MA's), (33, 25981), (55, 25885), (56, 25879),

Gene: Janeemi\_39 Start: 28091, Stop: 27918, Start Num: 27

Candidate Starts for Janeemi\_39:  
(16, 28166), (17, 28163), (20, 28130), (24, 28097), (Start: 27 @28091 has 41 MA's), (42, 28055), (52, 27995),

Gene: Jankie\_36 Start: 25085, Stop: 24927, Start Num: 25  
Candidate Starts for Jankie\_36:  
(25, 25085), (55, 24980), (56, 24974),

Gene: JasmineDragon\_41 Start: 27365, Stop: 27177, Start Num: 27  
Candidate Starts for JasmineDragon\_41:  
(24, 27371), (Start: 27 @27365 has 41 MA's), (56, 27230), (58, 27200),

Gene: Joemato\_36 Start: 25818, Stop: 25651, Start Num: 27  
Candidate Starts for Joemato\_36:  
(21, 25845), (Start: 27 @25818 has 41 MA's), (41, 25791), (52, 25728),

Gene: JohnDoe\_36 Start: 25809, Stop: 25642, Start Num: 27  
Candidate Starts for JohnDoe\_36:  
(21, 25836), (Start: 27 @25809 has 41 MA's), (41, 25782), (52, 25719),

Gene: Jstan\_38 Start: 27352, Stop: 27209, Start Num: 42  
Candidate Starts for Jstan\_38:  
(Start: 27 @27388 has 41 MA's), (42, 27352), (50, 27307), (55, 27271), (56, 27265),

Gene: JuneStar\_38 Start: 28123, Stop: 27959, Start Num: 27  
Candidate Starts for JuneStar\_38:  
(22, 28144), (Start: 27 @28123 has 41 MA's), (33, 28111), (55, 28015), (56, 28009), (58, 27979),

Gene: Kaylissa\_36 Start: 25754, Stop: 25587, Start Num: 27  
Candidate Starts for Kaylissa\_36:  
(21, 25781), (Start: 27 @25754 has 41 MA's), (41, 25727), (52, 25664), (56, 25634),

Gene: KeAlii\_68 Start: 26504, Stop: 26304, Start Num: 29  
Candidate Starts for KeAlii\_68:  
(19, 26543), (25, 26513), (Start: 29 @26504 has 1 MA's), (55, 26399), (58, 26363),

Gene: Lego\_36 Start: 25700, Stop: 25533, Start Num: 27  
Candidate Starts for Lego\_36:  
(5, 25826), (6, 25823), (10, 25805), (21, 25727), (Start: 27 @25700 has 41 MA's), (41, 25673), (52, 25610), (56, 25580),

Gene: Lizalica\_35 Start: 25602, Stop: 25441, Start Num: 26  
Candidate Starts for Lizalica\_35:  
(22, 25626), (Start: 26 @25602 has 1 MA's), (52, 25512), (55, 25488), (56, 25482),

Gene: London\_36 Start: 27403, Stop: 27224, Start Num: 27  
Candidate Starts for London\_36:  
(Start: 27 @27403 has 41 MA's), (42, 27367), (50, 27322), (55, 27286), (56, 27280),

Gene: MiniMommy\_42 Start: 27366, Stop: 27178, Start Num: 27  
Candidate Starts for MiniMommy\_42:  
(24, 27372), (Start: 27 @27366 has 41 MA's), (56, 27231), (58, 27201),

Gene: MissSwiss\_36 Start: 24686, Stop: 24537, Start Num: 27

Candidate Starts for MissSwiss\_36:

(20, 24716), (Start: 27 @24686 has 41 MA's), (47, 24650), (55, 24599), (59, 24548), (60, 24545),

Gene: Niobe\_36 Start: 27388, Stop: 27209, Start Num: 27

Candidate Starts for Niobe\_36:

(Start: 27 @27388 has 41 MA's), (42, 27352), (50, 27307), (55, 27271), (56, 27265),

Gene: ObiToo\_41 Start: 26622, Stop: 26455, Start Num: 27

Candidate Starts for ObiToo\_41:

(20, 26652), (Start: 27 @26622 has 41 MA's),

Gene: PandaPo\_36 Start: 24689, Stop: 24540, Start Num: 27

Candidate Starts for PandaPo\_36:

(20, 24719), (Start: 27 @24689 has 41 MA's), (47, 24653), (55, 24602), (59, 24551), (60, 24548),

Gene: Phives\_39 Start: 27908, Stop: 27735, Start Num: 27

Candidate Starts for Phives\_39:

(1, 28163), (2, 28142), (8, 28031), (10, 28016), (13, 28004), (21, 27938), (23, 27914), (Start: 27 @27908 has 41 MA's), (42, 27872), (52, 27812),

Gene: Pixelle\_36 Start: 27363, Stop: 27181, Start Num: 27

Candidate Starts for Pixelle\_36:

(20, 27393), (Start: 27 @27363 has 41 MA's), (48, 27294), (55, 27243), (56, 27237),

Gene: Reedo\_36 Start: 24760, Stop: 24581, Start Num: 27

Candidate Starts for Reedo\_36:

(17, 24823), (22, 24781), (Start: 27 @24760 has 41 MA's), (42, 24727), (45, 24718), (52, 24664),

Gene: Schaffner\_37 Start: 26900, Stop: 26736, Start Num: 27

Candidate Starts for Schaffner\_37:

(9, 26999), (12, 26990), (16, 26963), (20, 26930), (Start: 27 @26900 has 41 MA's), (33, 26888), (37, 26882), (55, 26792),

Gene: ShakeltOph\_41 Start: 27365, Stop: 27177, Start Num: 27

Candidate Starts for ShakeltOph\_41:

(24, 27371), (Start: 27 @27365 has 41 MA's), (56, 27230), (58, 27200),

Gene: Simpson\_38 Start: 25818, Stop: 25651, Start Num: 27

Candidate Starts for Simpson\_38:

(21, 25845), (Start: 27 @25818 has 41 MA's), (41, 25791), (52, 25728),

Gene: Skelbel\_37 Start: 27352, Stop: 27209, Start Num: 42

Candidate Starts for Skelbel\_37:

(Start: 27 @27388 has 41 MA's), (42, 27352), (50, 27307), (55, 27271), (56, 27265),

Gene: Snek\_36 Start: 25070, Stop: 24912, Start Num: 27

Candidate Starts for Snek\_36:

(Start: 27 @25070 has 41 MA's), (36, 25049), (55, 24962),

Gene: Soondubu\_34 Start: 27961, Stop: 27794, Start Num: 28

Candidate Starts for Soondubu\_34:

(16, 28030), (Start: 28 @27961 has 1 MA's), (31, 27955), (33, 27949), (60, 27802),

Gene: Subaru\_37 Start: 27403, Stop: 27224, Start Num: 27  
Candidate Starts for Subaru\_37:  
(Start: 27 @27403 has 41 MA's), (50, 27322), (55, 27286),

Gene: Sue2\_37 Start: 26877, Stop: 26719, Start Num: 32  
Candidate Starts for Sue2\_37:  
(11, 26997), (Start: 32 @26877 has 1 MA's), (34, 26871), (35, 26868), (51, 26796), (55, 26769), (56, 26763),

Gene: Tallboi\_37 Start: 27555, Stop: 27376, Start Num: 27  
Candidate Starts for Tallboi\_37:  
(Start: 27 @27555 has 41 MA's), (46, 27501), (47, 27489), (50, 27474), (55, 27438),

Gene: Tbone\_35 Start: 25613, Stop: 25446, Start Num: 27  
Candidate Starts for Tbone\_35:  
(5, 25739), (6, 25736), (10, 25718), (13, 25706), (21, 25640), (Start: 27 @25613 has 41 MA's), (41, 25586), (52, 25523), (56, 25493),

Gene: TforTroy\_38 Start: 26539, Stop: 26378, Start Num: 27  
Candidate Starts for TforTroy\_38:  
(6, 26653), (10, 26635), (21, 26560), (Start: 27 @26539 has 41 MA's), (54, 26434), (55, 26431), (56, 26425), (58, 26395),

Gene: ThursdayNight\_40 Start: 27462, Stop: 27292, Start Num: 32  
Candidate Starts for ThursdayNight\_40:  
(Start: 32 @27462 has 1 MA's), (38, 27447), (46, 27417), (50, 27387), (51, 27381), (52, 27375), (56, 27345),

Gene: Tian\_36 Start: 27343, Stop: 27161, Start Num: 27  
Candidate Starts for Tian\_36:  
(20, 27373), (Start: 27 @27343 has 41 MA's), (48, 27274), (55, 27223), (56, 27217),

Gene: Tutumahutu\_36 Start: 25785, Stop: 25618, Start Num: 27  
Candidate Starts for Tutumahutu\_36:  
(21, 25812), (Start: 27 @25785 has 41 MA's), (41, 25758), (52, 25695), (56, 25665),

Gene: Tweety19\_36 Start: 25069, Stop: 24911, Start Num: 27  
Candidate Starts for Tweety19\_36:  
(Start: 27 @25069 has 41 MA's), (36, 25048), (55, 24961),

Gene: VResidence\_37 Start: 25954, Stop: 25781, Start Num: 27  
Candidate Starts for VResidence\_37:  
(Start: 27 @25954 has 41 MA's), (55, 25834), (56, 25828),

Gene: VroomVroom\_41 Start: 27510, Stop: 27322, Start Num: 27  
Candidate Starts for VroomVroom\_41:  
(4, 27657), (7, 27636), (14, 27606), (18, 27570), (Start: 27 @27510 has 41 MA's), (39, 27480), (56, 27375), (58, 27345),

Gene: Warda\_36 Start: 25789, Stop: 25622, Start Num: 27  
Candidate Starts for Warda\_36:

(5, 25915), (6, 25912), (10, 25894), (13, 25882), (21, 25816), (Start: 27 @25789 has 41 MA's), (41, 25762), (52, 25699), (56, 25669),

Gene: Wildwest\_36 Start: 25977, Stop: 25810, Start Num: 27

Candidate Starts for Wildwest\_36:

(20, 26013), (Start: 27 @25977 has 41 MA's), (44, 25941), (52, 25887),

Gene: Yang\_69 Start: 26035, Stop: 25871, Start Num: 27

Candidate Starts for Yang\_69:

(22, 26056), (Start: 27 @26035 has 41 MA's), (33, 26023), (55, 25927),

Gene: YesChef\_36 Start: 25762, Stop: 25595, Start Num: 27

Candidate Starts for YesChef\_36:

(21, 25789), (Start: 27 @25762 has 41 MA's), (41, 25735), (52, 25672), (56, 25642),