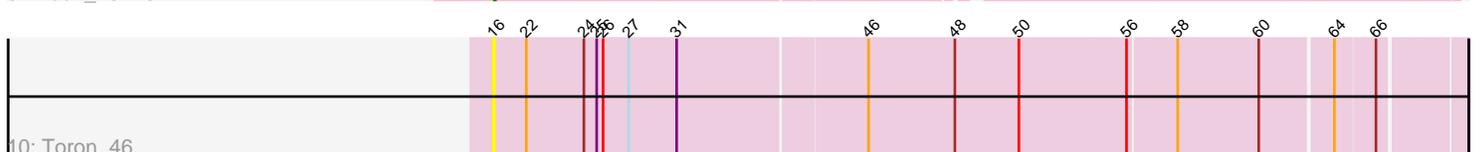
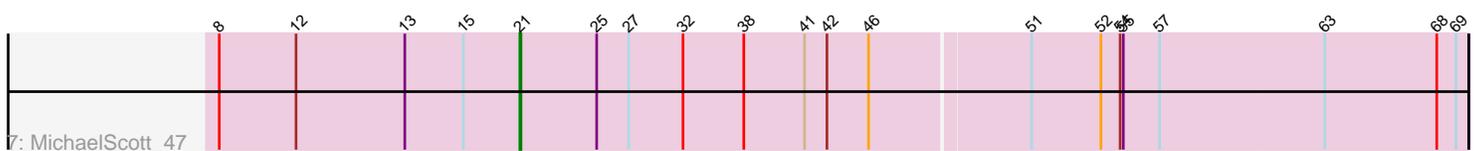
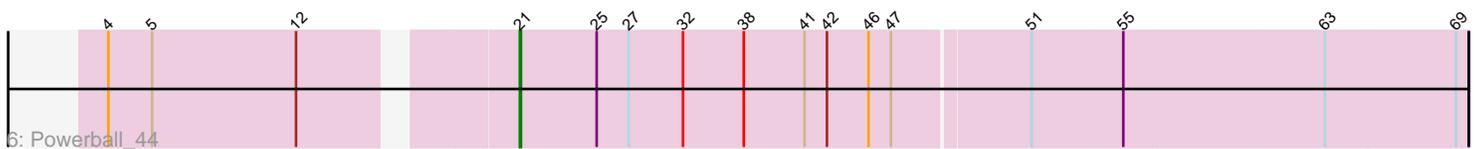
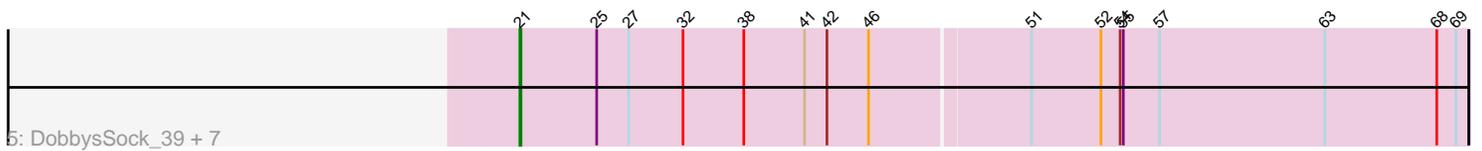
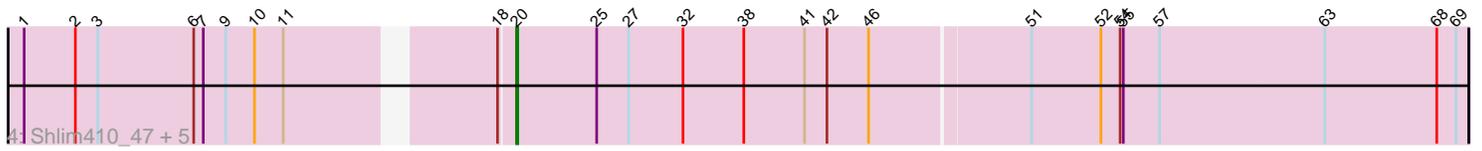
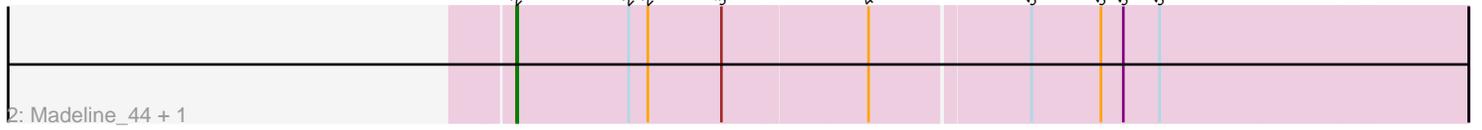
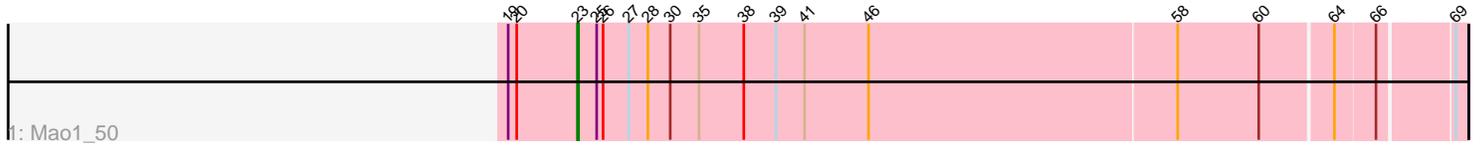


# Pham 284042



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 284042 Report

This analysis was run 02/23/26 on database version 636.

Pham number 284042 has 32 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Mao1\_50
- Track 2 : Madeline\_44, Ohgeesy\_47
- Track 3 : Yeezy\_44
- Track 4 : Shlim410\_47, Howe\_49, Twinkle\_48, Mcklovin\_45, Adora\_46, Hortense\_49
- Track 5 : DobbysSock\_39, Tuti\_48, Sekhmet\_47, Thimann\_44, Samman98\_47, Clark\_46, Beenie\_40, Invectra\_48
- Track 6 : Powerball\_44
- Track 7 : MichaelScott\_47
- Track 8 : Dorito\_42
- Track 9 : Aloeri\_46, DocMcStuffins\_45, Awesomesauce\_46, Misha28\_44, TootsiePop\_44, ChickenDinner\_45, Piper2020\_46
- Track 10 : Toron\_46
- Track 11 : MooMoo\_44, LunaStella\_45, TChen\_47

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

The start number called the most often in the published annotations is 17, it was called in 10 of the 30 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aloeri\_46, Awesomesauce\_46, ChickenDinner\_45, DocMcStuffins\_45, LunaStella\_45, Misha28\_44, MooMoo\_44, Piper2020\_46, TChen\_47, TootsiePop\_44,

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

- 

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

- Adora\_46, Beenie\_40, Clark\_46, DobbysSock\_39, Dorito\_42, Hortense\_49, Howe\_49, Invectra\_48, Madeline\_44, Mao1\_50, Mcklovin\_45, MichaelScott\_47, Ohgeesy\_47, Powerball\_44, Samman98\_47, Sekhmet\_47, Shlim410\_47, Thimann\_44, Toron\_46, Tuti\_48, Twinkle\_48, Yeezy\_44,

## Summary by start number:

### Start 15:

- Found in 2 of 32 ( 6.2% ) of genes in pham
- Manual Annotations of this start: 1 of 30
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Dorito\_42 (CZ4),

### Start 16:

- Found in 1 of 32 ( 3.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Toron\_46 (F6),

### Start 17:

- Found in 10 of 32 ( 31.2% ) of genes in pham
- Manual Annotations of this start: 10 of 30
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aloeri\_46 (F1), Awesomesauce\_46 (F1), ChickenDinner\_45 (F1), DocMcStuffins\_45 (F1), LunaStella\_45 (F4), Misha28\_44 (F1), MooMoo\_44 (singleton), Piper2020\_46 (F1), TChen\_47 (F4), TootsiePop\_44 (F1),

### Start 20:

- Found in 10 of 32 ( 31.2% ) of genes in pham
- Manual Annotations of this start: 9 of 30
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Adora\_46 (CZ4), Hortense\_49 (CZ4), Howe\_49 (CZ4), Madeline\_44 (CZ1), Mcklovin\_45 (CZ4), Ohgeesy\_47 (CZ), Shlim410\_47 (CZ4), Twinkle\_48 (CZ4), Yeezy\_44 (CZ3),

### Start 21:

- Found in 11 of 32 ( 34.4% ) of genes in pham
- Manual Annotations of this start: 9 of 30
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Beenie\_40 (CZ4), Clark\_46 (CZ4), DobbysSock\_39 (CZ4), Invectra\_48 (CZ4), MichaelScott\_47 (CZ4), Powerball\_44 (CZ4), Samman98\_47 (CZ4), Sekhmet\_47 (CZ4), Thimann\_44 (CZ4), Tuti\_48 (CZ4),

### Start 23:

- Found in 1 of 32 ( 3.1% ) of genes in pham
- Manual Annotations of this start: 1 of 30
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mao1\_50 (AD),

## Summary by clusters:

There are 9 clusters represented in this pham: F1, singleton, F4, AD, F6, CZ3, CZ1, CZ4, CZ,

Info for manual annotations of cluster AD:

- Start number 23 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster CZ:

- Start number 20 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 20 was manually annotated 1 time for cluster CZ1.

Info for manual annotations of cluster CZ3:

- Start number 20 was manually annotated 1 time for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 15 was manually annotated 1 time for cluster CZ4.
- Start number 20 was manually annotated 6 times for cluster CZ4.
- Start number 21 was manually annotated 9 times for cluster CZ4.

Info for manual annotations of cluster F1:

- Start number 17 was manually annotated 7 times for cluster F1.

Info for manual annotations of cluster F4:

- Start number 17 was manually annotated 2 times for cluster F4.

### **Gene Information:**

Gene: Adora\_46 Start: 36099, Stop: 36974, Start Num: 20

Candidate Starts for Adora\_46:

(1, 35676), (2, 35724), (3, 35745), (6, 35835), (7, 35844), (9, 35865), (10, 35892), (11, 35919), (18, 36087), (Start: 20 @36099 has 9 MA's), (25, 36174), (27, 36204), (32, 36255), (38, 36312), (41, 36369), (42, 36390), (46, 36429), (51, 36573), (52, 36636), (54, 36654), (55, 36657), (57, 36690), (63, 36843), (68, 36945), (69, 36963),

Gene: Aloeri\_46 Start: 34616, Stop: 35476, Start Num: 17

Candidate Starts for Aloeri\_46:

(14, 34577), (Start: 17 @34616 has 10 MA's), (24, 34700), (25, 34712), (26, 34718), (27, 34742), (30, 34781), (33, 34796), (44, 34946), (46, 34958), (47, 34979), (53, 35162), (59, 35291), (62, 35351), (65, 35399), (67, 35438),

Gene: Awesomesauce\_46 Start: 33878, Stop: 34738, Start Num: 17

Candidate Starts for Awesomesauce\_46:

(14, 33839), (Start: 17 @33878 has 10 MA's), (24, 33962), (25, 33974), (26, 33980), (27, 34004), (30, 34043), (33, 34058), (44, 34208), (46, 34220), (47, 34241), (53, 34424), (59, 34553), (62, 34613), (65, 34661), (67, 34700),

Gene: Beenie\_40 Start: 33513, Stop: 34385, Start Num: 21

Candidate Starts for Beenie\_40:

(Start: 21 @33513 has 9 MA's), (25, 33585), (27, 33615), (32, 33666), (38, 33723), (41, 33780), (42, 33801), (46, 33840), (51, 33984), (52, 34047), (54, 34065), (55, 34068), (57, 34101), (63, 34254), (68, 34356), (69, 34374),

Gene: ChickenDinner\_45 Start: 34616, Stop: 35476, Start Num: 17

Candidate Starts for ChickenDinner\_45:

(14, 34577), (Start: 17 @34616 has 10 MA's), (24, 34700), (25, 34712), (26, 34718), (27, 34742), (30, 34781), (33, 34796), (44, 34946), (46, 34958), (47, 34979), (53, 35162), (59, 35291), (62, 35351), (65, 35399), (67, 35438),

Gene: Clark\_46 Start: 33330, Stop: 34202, Start Num: 21

Candidate Starts for Clark\_46:

(Start: 21 @33330 has 9 MA's), (25, 33402), (27, 33432), (32, 33483), (38, 33540), (41, 33597), (42, 33618), (46, 33657), (51, 33801), (52, 33864), (54, 33882), (55, 33885), (57, 33918), (63, 34071), (68, 34173), (69, 34191),

Gene: DobbysSock\_39 Start: 32172, Stop: 33044, Start Num: 21

Candidate Starts for DobbysSock\_39:

(Start: 21 @32172 has 9 MA's), (25, 32244), (27, 32274), (32, 32325), (38, 32382), (41, 32439), (42, 32460), (46, 32499), (51, 32643), (52, 32706), (54, 32724), (55, 32727), (57, 32760), (63, 32913), (68, 33015), (69, 33033),

Gene: DocMcStuffins\_45 Start: 34616, Stop: 35476, Start Num: 17

Candidate Starts for DocMcStuffins\_45:

(14, 34577), (Start: 17 @34616 has 10 MA's), (24, 34700), (25, 34712), (26, 34718), (27, 34742), (30, 34781), (33, 34796), (44, 34946), (46, 34958), (47, 34979), (53, 35162), (59, 35291), (62, 35351), (65, 35399), (67, 35438),

Gene: Dorito\_42 Start: 31766, Stop: 32689, Start Num: 15

Candidate Starts for Dorito\_42:

(8, 31538), (12, 31610), (13, 31712), (Start: 15 @31766 has 1 MA's), (Start: 21 @31817 has 9 MA's), (25, 31889), (27, 31919), (32, 31970), (38, 32027), (41, 32084), (42, 32105), (46, 32144), (51, 32288), (52, 32351), (54, 32369), (55, 32372), (57, 32405), (63, 32558), (68, 32660), (69, 32678),

Gene: Hortense\_49 Start: 37454, Stop: 38329, Start Num: 20

Candidate Starts for Hortense\_49:

(1, 37031), (2, 37079), (3, 37100), (6, 37190), (7, 37199), (9, 37220), (10, 37247), (11, 37274), (18, 37442), (Start: 20 @37454 has 9 MA's), (25, 37529), (27, 37559), (32, 37610), (38, 37667), (41, 37724), (42, 37745), (46, 37784), (51, 37928), (52, 37991), (54, 38009), (55, 38012), (57, 38045), (63, 38198), (68, 38300), (69, 38318),

Gene: Howe\_49 Start: 37454, Stop: 38329, Start Num: 20

Candidate Starts for Howe\_49:

(1, 37031), (2, 37079), (3, 37100), (6, 37190), (7, 37199), (9, 37220), (10, 37247), (11, 37274), (18, 37442), (Start: 20 @37454 has 9 MA's), (25, 37529), (27, 37559), (32, 37610), (38, 37667), (41, 37724), (42, 37745), (46, 37784), (51, 37928), (52, 37991), (54, 38009), (55, 38012), (57, 38045), (63, 38198), (68, 38300), (69, 38318),

Gene: Invectra\_48 Start: 34904, Stop: 35776, Start Num: 21

Candidate Starts for Invectra\_48:

(Start: 21 @34904 has 9 MA's), (25, 34976), (27, 35006), (32, 35057), (38, 35114), (41, 35171), (42, 35192), (46, 35231), (51, 35375), (52, 35438), (54, 35456), (55, 35459), (57, 35492), (63, 35645), (68, 35747), (69, 35765),

Gene: LunaStella\_45 Start: 34115, Stop: 34981, Start Num: 17

Candidate Starts for LunaStella\_45:

(Start: 17 @34115 has 10 MA's), (24, 34199), (25, 34211), (26, 34217), (27, 34241), (28, 34259), (34, 34304), (35, 34307), (37, 34343), (40, 34385), (43, 34439), (45, 34448), (46, 34454), (47, 34475), (48, 34535), (49, 34553), (56, 34694), (58, 34736), (60, 34811), (64, 34874), (66, 34907),

Gene: Madeline\_44 Start: 35552, Stop: 36421, Start Num: 20

Candidate Starts for Madeline\_44:

(Start: 20 @35552 has 9 MA's), (27, 35657), (28, 35675), (36, 35744), (46, 35876), (51, 36020), (52, 36083), (55, 36104), (57, 36137),

Gene: Mao1\_50 Start: 43092, Stop: 43892, Start Num: 23

Candidate Starts for Mao1\_50:

(19, 43029), (Start: 20 @43035 has 9 MA's), (Start: 23 @43092 has 1 MA's), (25, 43110), (26, 43116), (27, 43140), (28, 43158), (30, 43179), (35, 43206), (38, 43248), (39, 43278), (41, 43305), (46, 43365), (58, 43647), (60, 43722), (64, 43785), (66, 43818), (69, 43881),

Gene: Mcklovin\_45 Start: 38921, Stop: 39796, Start Num: 20

Candidate Starts for Mcklovin\_45:

(1, 38498), (2, 38546), (3, 38567), (6, 38657), (7, 38666), (9, 38687), (10, 38714), (11, 38741), (18, 38909), (Start: 20 @38921 has 9 MA's), (25, 38996), (27, 39026), (32, 39077), (38, 39134), (41, 39191), (42, 39212), (46, 39251), (51, 39395), (52, 39458), (54, 39476), (55, 39479), (57, 39512), (63, 39665), (68, 39767), (69, 39785),

Gene: MichaelScott\_47 Start: 34807, Stop: 35679, Start Num: 21

Candidate Starts for MichaelScott\_47:

(8, 34528), (12, 34600), (13, 34702), (Start: 15 @34756 has 1 MA's), (Start: 21 @34807 has 9 MA's), (25, 34879), (27, 34909), (32, 34960), (38, 35017), (41, 35074), (42, 35095), (46, 35134), (51, 35278), (52, 35341), (54, 35359), (55, 35362), (57, 35395), (63, 35548), (68, 35650), (69, 35668),

Gene: Misha28\_44 Start: 33883, Stop: 34743, Start Num: 17

Candidate Starts for Misha28\_44:

(14, 33844), (Start: 17 @33883 has 10 MA's), (24, 33967), (25, 33979), (26, 33985), (27, 34009), (30, 34048), (33, 34063), (44, 34213), (46, 34225), (47, 34246), (53, 34429), (59, 34558), (62, 34618), (65, 34666), (67, 34705),

Gene: MooMoo\_44 Start: 34391, Stop: 35257, Start Num: 17

Candidate Starts for MooMoo\_44:

(Start: 17 @34391 has 10 MA's), (24, 34475), (25, 34487), (26, 34493), (27, 34517), (28, 34535), (34, 34580), (35, 34583), (37, 34619), (40, 34661), (43, 34715), (45, 34724), (46, 34730), (47, 34751), (48, 34811), (49, 34829), (56, 34970), (58, 35012), (60, 35087), (64, 35150), (66, 35183),

Gene: Ohgeesy\_47 Start: 36347, Stop: 37216, Start Num: 20

Candidate Starts for Ohgeesy\_47:

(Start: 20 @36347 has 9 MA's), (27, 36452), (28, 36470), (36, 36539), (46, 36671), (51, 36815), (52, 36878), (55, 36899), (57, 36932),

Gene: Piper2020\_46 Start: 34599, Stop: 35459, Start Num: 17

Candidate Starts for Piper2020\_46:

(14, 34560), (Start: 17 @34599 has 10 MA's), (24, 34683), (25, 34695), (26, 34701), (27, 34725), (30, 34764), (33, 34779), (44, 34929), (46, 34941), (47, 34962), (53, 35145), (59, 35274), (62, 35334), (65, 35382), (67, 35421),

Gene: Powerball\_44 Start: 33674, Stop: 34546, Start Num: 21

Candidate Starts for Powerball\_44:

(4, 33329), (5, 33368), (12, 33503), (Start: 21 @33674 has 9 MA's), (25, 33746), (27, 33776), (32, 33827), (38, 33884), (41, 33941), (42, 33962), (46, 34001), (47, 34022), (51, 34145), (55, 34229), (63, 34415), (69, 34535),

Gene: Samman98\_47 Start: 33433, Stop: 34305, Start Num: 21

Candidate Starts for Samman98\_47:

(Start: 21 @33433 has 9 MA's), (25, 33505), (27, 33535), (32, 33586), (38, 33643), (41, 33700), (42, 33721), (46, 33760), (51, 33904), (52, 33967), (54, 33985), (55, 33988), (57, 34021), (63, 34174), (68, 34276), (69, 34294),

Gene: Sekhmet\_47 Start: 34333, Stop: 35205, Start Num: 21

Candidate Starts for Sekhmet\_47:

(Start: 21 @34333 has 9 MA's), (25, 34405), (27, 34435), (32, 34486), (38, 34543), (41, 34600), (42, 34621), (46, 34660), (51, 34804), (52, 34867), (54, 34885), (55, 34888), (57, 34921), (63, 35074), (68, 35176), (69, 35194),

Gene: Shlim410\_47 Start: 37454, Stop: 38329, Start Num: 20

Candidate Starts for Shlim410\_47:

(1, 37031), (2, 37079), (3, 37100), (6, 37190), (7, 37199), (9, 37220), (10, 37247), (11, 37274), (18, 37442), (Start: 20 @37454 has 9 MA's), (25, 37529), (27, 37559), (32, 37610), (38, 37667), (41, 37724), (42, 37745), (46, 37784), (51, 37928), (52, 37991), (54, 38009), (55, 38012), (57, 38045), (63, 38198), (68, 38300), (69, 38318),

Gene: TChen\_47 Start: 36066, Stop: 36932, Start Num: 17

Candidate Starts for TChen\_47:

(Start: 17 @36066 has 10 MA's), (24, 36150), (25, 36162), (26, 36168), (27, 36192), (28, 36210), (34, 36255), (35, 36258), (37, 36294), (40, 36336), (43, 36390), (45, 36399), (46, 36405), (47, 36426), (48, 36486), (49, 36504), (56, 36645), (58, 36687), (60, 36762), (64, 36825), (66, 36858),

Gene: Thimann\_44 Start: 32698, Stop: 33570, Start Num: 21

Candidate Starts for Thimann\_44:

(Start: 21 @32698 has 9 MA's), (25, 32770), (27, 32800), (32, 32851), (38, 32908), (41, 32965), (42, 32986), (46, 33025), (51, 33169), (52, 33232), (54, 33250), (55, 33253), (57, 33286), (63, 33439), (68, 33541), (69, 33559),

Gene: TootsiePop\_44 Start: 33883, Stop: 34743, Start Num: 17

Candidate Starts for TootsiePop\_44:

(14, 33844), (Start: 17 @33883 has 10 MA's), (24, 33967), (25, 33979), (26, 33985), (27, 34009), (30, 34048), (33, 34063), (44, 34213), (46, 34225), (47, 34246), (53, 34429), (59, 34558), (62, 34618), (65, 34666), (67, 34705),

Gene: Toron\_46 Start: 35382, Stop: 36251, Start Num: 16

Candidate Starts for Toron\_46:

(16, 35382), (22, 35412), (24, 35466), (25, 35478), (26, 35484), (27, 35508), (31, 35553), (46, 35724), (48, 35805), (50, 35865), (56, 35964), (58, 36006), (60, 36081), (64, 36144), (66, 36177),

Gene: Tuti\_48 Start: 34148, Stop: 35020, Start Num: 21

Candidate Starts for Tuti\_48:

(Start: 21 @34148 has 9 MA's), (25, 34220), (27, 34250), (32, 34301), (38, 34358), (41, 34415), (42, 34436), (46, 34475), (51, 34619), (52, 34682), (54, 34700), (55, 34703), (57, 34736), (63, 34889), (68, 34991), (69, 35009),

Gene: Twinkle\_48 Start: 38513, Stop: 39388, Start Num: 20

Candidate Starts for Twinkle\_48:

(1, 38090), (2, 38138), (3, 38159), (6, 38249), (7, 38258), (9, 38279), (10, 38306), (11, 38333), (18, 38501), (Start: 20 @38513 has 9 MA's), (25, 38588), (27, 38618), (32, 38669), (38, 38726), (41,

38783), (42, 38804), (46, 38843), (51, 38987), (52, 39050), (54, 39068), (55, 39071), (57, 39104), (63, 39257), (68, 39359), (69, 39377),

Gene: Yeezy\_44 Start: 33390, Stop: 34265, Start Num: 20

Candidate Starts for Yeezy\_44:

(Start: 20 @33390 has 9 MA's), (24, 33453), (27, 33495), (29, 33516), (32, 33546), (39, 33633), (41, 33660), (42, 33681), (46, 33720), (51, 33864), (52, 33927), (55, 33948), (56, 33951), (57, 33981), (61, 34077),