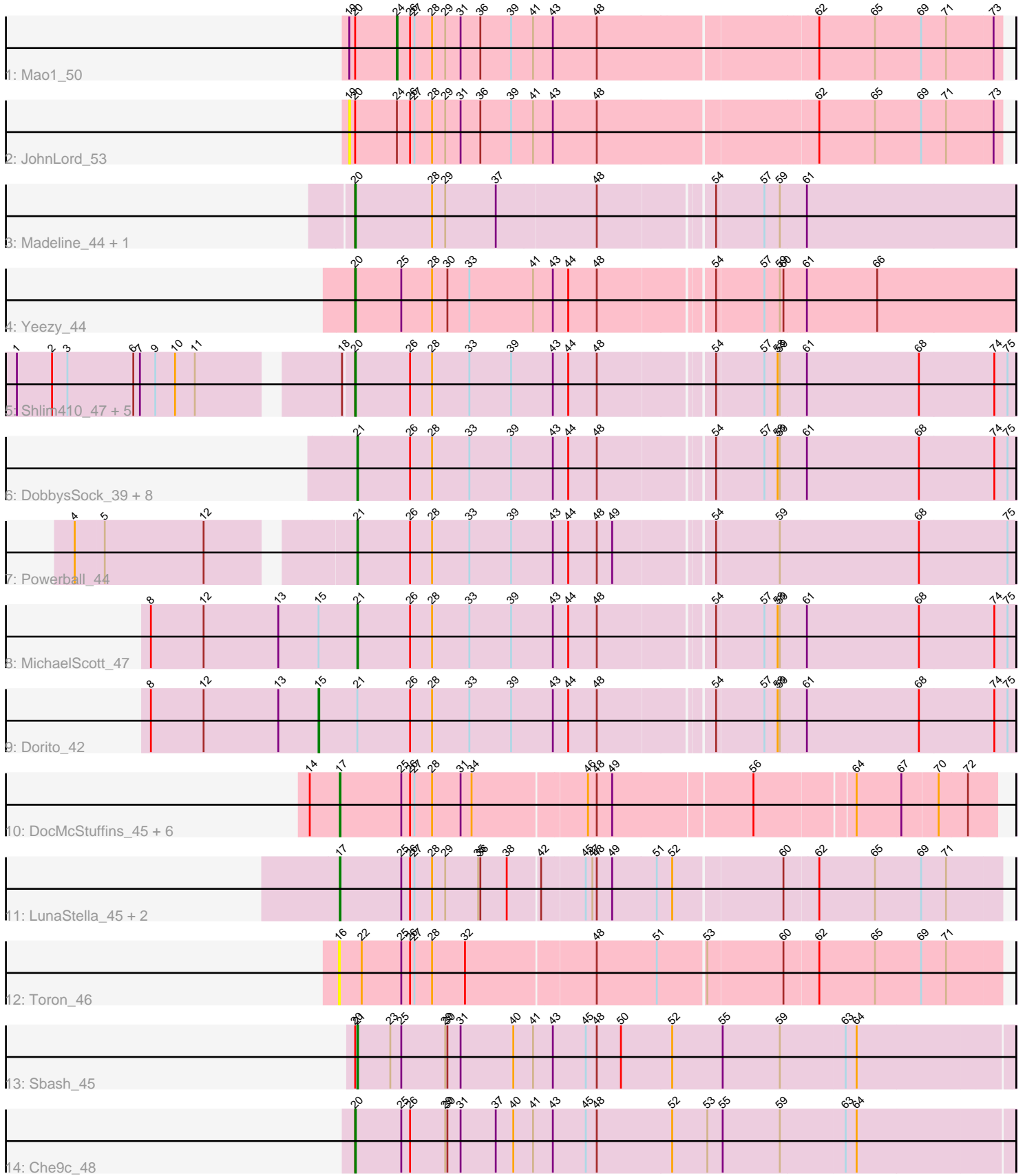


Pham 311810



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 311810 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311810 has 36 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Mao1\_50
- Track 2 : JohnLord\_53
- Track 3 : Madeline\_44, Ohgeesy\_47
- Track 4 : Yeezy\_44
- Track 5 : Shlim410\_47, Howe\_49, Twinkle\_48, Mcklovin\_45, Adora\_46, Hortense\_49
- Track 6 : DobbysSock\_39, Rizz\_47, Tuti\_42, Sekhmet\_47, Thimann\_44, Samman98\_47, Clark\_46, Beenie\_40, Invecetra\_48
- Track 7 : Powerball\_44
- Track 8 : MichaelScott\_47
- Track 9 : Dorito\_42
- Track 10 : DocMcStuffins\_45, Awesomesauce\_46, Aloeri\_46, Misha28\_44, TootsiePop\_44, ChickenDinner\_45, Piper2020\_46
- Track 11 : LunaStella\_45, MooMoo\_44, TChen\_47
- Track 12 : Toron\_46
- Track 13 : Sbash\_45
- Track 14 : Che9c\_48

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

The start number called the most often in the published annotations is 21, it was called in 11 of the 33 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Beenie\_40, Clark\_46, DobbysSock\_39, Invecetra\_48, MichaelScott\_47, Powerball\_44, Rizz\_47, Samman98\_47, Sbash\_45, Sekhmet\_47, Thimann\_44, Tuti\_42,

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

- Dorito\_42,

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

- Adora\_46, Aloeri\_46, Awesomesauce\_46, Che9c\_48, ChickenDinner\_45, DocMcStuffins\_45, Hortense\_49, Howe\_49, JohnLord\_53, LunaStella\_45,

Madeline\_44, Mao1\_50, Mcklovin\_45, Misha28\_44, MooMoo\_44, Ohgeesy\_47, Piper2020\_46, Shlim410\_47, TChen\_47, TootsiePop\_44, Toron\_46, Twinkle\_48, Yeezy\_44,

### Summary by start number:

#### Start 15:

- Found in 2 of 36 ( 5.6% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Dorito\_42 (CZ4),

#### Start 16:

- Found in 1 of 36 ( 2.8% ) 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 36 ( 27.8% ) of genes in pham
- Manual Annotations of this start: 10 of 33
- 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 19:

- Found in 2 of 36 ( 5.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: JohnLord\_53 (AD),

#### Start 20:

- Found in 13 of 36 ( 36.1% ) of genes in pham
- Manual Annotations of this start: 10 of 33
- Called 76.9% of time when present
- Phage (with cluster) where this start called: Adora\_46 (CZ4), Che9c\_48 (I2), 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 13 of 36 ( 36.1% ) of genes in pham
- Manual Annotations of this start: 11 of 33
- Called 92.3% 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), Rizz\_47 (CZ4), Samman98\_47 (CZ4), Sbash\_45 (I2), Sekhmet\_47 (CZ4), Thimann\_44 (CZ4), Tuti\_42 (CZ4),

#### Start 24:

- Found in 2 of 36 ( 5.6% ) of genes in pham
- Manual Annotations of this start: 1 of 33

- Called 50.0% of time when present
- Phage (with cluster) where this start called: Mao1\_50 (AD),

### **Summary by clusters:**

There are 10 clusters represented in this pham: F1, singleton, CZ1, F4, AD, F6, CZ3, I2, CZ4, CZ,

Info for manual annotations of cluster AD:

- Start number 24 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 10 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.

Info for manual annotations of cluster I2:

- Start number 20 was manually annotated 1 time for cluster I2.
- Start number 21 was manually annotated 1 time for cluster I2.

### **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 10 MA's), (26, 36174), (28, 36204), (33, 36255), (39, 36312), (43, 36369), (44, 36390), (48, 36429), (54, 36573), (57, 36636), (58, 36654), (59, 36657), (61, 36690), (68, 36843), (74, 36945), (75, 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), (25, 34700), (26, 34712), (27, 34718), (28, 34742), (31, 34781), (34, 34796), (46, 34946), (48, 34958), (49, 34979), (56, 35162), (64, 35291), (67, 35351), (70, 35399), (72, 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), (25, 33962), (26, 33974), (27, 33980), (28, 34004), (31, 34043), (34, 34058), (46, 34208), (48, 34220), (49, 34241), (56, 34424), (64, 34553), (67, 34613), (70, 34661), (72, 34700),

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

Candidate Starts for Beenie\_40:

(Start: 21 @33513 has 11 MA's), (26, 33585), (28, 33615), (33, 33666), (39, 33723), (43, 33780), (44, 33801), (48, 33840), (54, 33984), (57, 34047), (58, 34065), (59, 34068), (61, 34101), (68, 34254), (74, 34356), (75, 34374),

Gene: Che9c\_48 Start: 38675, Stop: 39562, Start Num: 20

Candidate Starts for Che9c\_48:

(Start: 20 @38675 has 10 MA's), (25, 38738), (26, 38750), (29, 38798), (30, 38801), (31, 38819), (37, 38867), (40, 38891), (41, 38918), (43, 38945), (45, 38990), (48, 39005), (52, 39107), (53, 39155), (55, 39176), (59, 39254), (63, 39341), (64, 39356),

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

Candidate Starts for ChickenDinner\_45:

(14, 34577), (Start: 17 @34616 has 10 MA's), (25, 34700), (26, 34712), (27, 34718), (28, 34742), (31, 34781), (34, 34796), (46, 34946), (48, 34958), (49, 34979), (56, 35162), (64, 35291), (67, 35351), (70, 35399), (72, 35438),

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

Candidate Starts for Clark\_46:

(Start: 21 @33330 has 11 MA's), (26, 33402), (28, 33432), (33, 33483), (39, 33540), (43, 33597), (44, 33618), (48, 33657), (54, 33801), (57, 33864), (58, 33882), (59, 33885), (61, 33918), (68, 34071), (74, 34173), (75, 34191),

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

Candidate Starts for DobbysSock\_39:

(Start: 21 @32172 has 11 MA's), (26, 32244), (28, 32274), (33, 32325), (39, 32382), (43, 32439), (44, 32460), (48, 32499), (54, 32643), (57, 32706), (58, 32724), (59, 32727), (61, 32760), (68, 32913), (74, 33015), (75, 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), (25, 34700), (26, 34712), (27, 34718), (28, 34742), (31, 34781), (34, 34796), (46, 34946), (48, 34958), (49, 34979), (56, 35162), (64, 35291), (67, 35351), (70, 35399), (72, 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 11 MA's), (26, 31889), (28, 31919), (33, 31970), (39, 32027), (43, 32084), (44, 32105), (48, 32144), (54, 32288), (57, 32351), (58, 32369), (59, 32372), (61, 32405), (68, 32558), (74, 32660), (75, 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 10 MA's), (26, 37529), (28, 37559), (33, 37610), (39, 37667), (43, 37724), (44, 37745), (48, 37784), (54, 37928), (57, 37991), (58, 38009), (59, 38012), (61, 38045), (68,

38198), (74, 38300), (75, 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 10 MA's), (26, 37529), (28, 37559), (33, 37610), (39, 37667), (43, 37724), (44, 37745), (48, 37784), (54, 37928), (57, 37991), (58, 38009), (59, 38012), (61, 38045), (68, 38198), (74, 38300), (75, 38318),

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

Candidate Starts for Invectra\_48:

(Start: 21 @34904 has 11 MA's), (26, 34976), (28, 35006), (33, 35057), (39, 35114), (43, 35171), (44, 35192), (48, 35231), (54, 35375), (57, 35438), (58, 35456), (59, 35459), (61, 35492), (68, 35645), (74, 35747), (75, 35765),

Gene: JohnLord\_53 Start: 44026, Stop: 44889, Start Num: 19

Candidate Starts for JohnLord\_53:

(19, 44026), (Start: 20 @44032 has 10 MA's), (Start: 24 @44089 has 1 MA's), (26, 44107), (27, 44113), (28, 44137), (29, 44155), (31, 44176), (36, 44203), (39, 44245), (41, 44275), (43, 44302), (48, 44362), (62, 44644), (65, 44719), (69, 44782), (71, 44815), (73, 44878),

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

Candidate Starts for LunaStella\_45:

(Start: 17 @34115 has 10 MA's), (25, 34199), (26, 34211), (27, 34217), (28, 34241), (29, 34259), (35, 34304), (36, 34307), (38, 34343), (42, 34385), (45, 34439), (47, 34448), (48, 34454), (49, 34475), (51, 34535), (52, 34553), (60, 34694), (62, 34736), (65, 34811), (69, 34874), (71, 34907),

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

Candidate Starts for Madeline\_44:

(Start: 20 @35552 has 10 MA's), (28, 35657), (29, 35675), (37, 35744), (48, 35876), (54, 36020), (57, 36083), (59, 36104), (61, 36137),

Gene: Mao1\_50 Start: 43092, Stop: 43892, Start Num: 24

Candidate Starts for Mao1\_50:

(19, 43029), (Start: 20 @43035 has 10 MA's), (Start: 24 @43092 has 1 MA's), (26, 43110), (27, 43116), (28, 43140), (29, 43158), (31, 43179), (36, 43206), (39, 43248), (41, 43278), (43, 43305), (48, 43365), (62, 43647), (65, 43722), (69, 43785), (71, 43818), (73, 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 10 MA's), (26, 38996), (28, 39026), (33, 39077), (39, 39134), (43, 39191), (44, 39212), (48, 39251), (54, 39395), (57, 39458), (58, 39476), (59, 39479), (61, 39512), (68, 39665), (74, 39767), (75, 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 11 MA's), (26, 34879), (28, 34909), (33, 34960), (39, 35017), (43, 35074), (44, 35095), (48, 35134), (54, 35278), (57, 35341), (58, 35359), (59, 35362), (61, 35395), (68, 35548), (74, 35650), (75, 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), (25, 33967), (26, 33979), (27, 33985), (28, 34009), (31, 34048), (34, 34063), (46, 34213), (48, 34225), (49, 34246), (56, 34429), (64, 34558), (67, 34618), (70, 34666), (72, 34705),

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

Candidate Starts for MooMoo\_44:

(Start: 17 @34391 has 10 MA's), (25, 34475), (26, 34487), (27, 34493), (28, 34517), (29, 34535), (35, 34580), (36, 34583), (38, 34619), (42, 34661), (45, 34715), (47, 34724), (48, 34730), (49, 34751), (51, 34811), (52, 34829), (60, 34970), (62, 35012), (65, 35087), (69, 35150), (71, 35183),

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

Candidate Starts for Ohgeesy\_47:

(Start: 20 @36347 has 10 MA's), (28, 36452), (29, 36470), (37, 36539), (48, 36671), (54, 36815), (57, 36878), (59, 36899), (61, 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), (25, 34683), (26, 34695), (27, 34701), (28, 34725), (31, 34764), (34, 34779), (46, 34929), (48, 34941), (49, 34962), (56, 35145), (64, 35274), (67, 35334), (70, 35382), (72, 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 11 MA's), (26, 33746), (28, 33776), (33, 33827), (39, 33884), (43, 33941), (44, 33962), (48, 34001), (49, 34022), (54, 34145), (59, 34229), (68, 34415), (75, 34535),

Gene: Rizz\_47 Start: 34116, Stop: 34988, Start Num: 21

Candidate Starts for Rizz\_47:

(Start: 21 @34116 has 11 MA's), (26, 34188), (28, 34218), (33, 34269), (39, 34326), (43, 34383), (44, 34404), (48, 34443), (54, 34587), (57, 34650), (58, 34668), (59, 34671), (61, 34704), (68, 34857), (74, 34959), (75, 34977),

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

Candidate Starts for Samman98\_47:

(Start: 21 @33433 has 11 MA's), (26, 33505), (28, 33535), (33, 33586), (39, 33643), (43, 33700), (44, 33721), (48, 33760), (54, 33904), (57, 33967), (58, 33985), (59, 33988), (61, 34021), (68, 34174), (74, 34276), (75, 34294),

Gene: Sbash\_45 Start: 36382, Stop: 37266, Start Num: 21

Candidate Starts for Sbash\_45:

(Start: 20 @36379 has 10 MA's), (Start: 21 @36382 has 11 MA's), (23, 36427), (25, 36442), (29, 36502), (30, 36505), (31, 36523), (40, 36595), (41, 36622), (43, 36649), (45, 36694), (48, 36709), (50, 36742), (52, 36811), (55, 36880), (59, 36958), (63, 37045), (64, 37060),

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

Candidate Starts for Sekhmet\_47:

(Start: 21 @34333 has 11 MA's), (26, 34405), (28, 34435), (33, 34486), (39, 34543), (43, 34600), (44, 34621), (48, 34660), (54, 34804), (57, 34867), (58, 34885), (59, 34888), (61, 34921), (68, 35074), (74, 35176), (75, 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 10 MA's), (26, 37529), (28, 37559), (33, 37610), (39, 37667), (43, 37724), (44, 37745), (48, 37784), (54, 37928), (57, 37991), (58, 38009), (59, 38012), (61, 38045), (68, 38198), (74, 38300), (75, 38318),

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

Candidate Starts for TChen\_47:

(Start: 17 @36066 has 10 MA's), (25, 36150), (26, 36162), (27, 36168), (28, 36192), (29, 36210), (35, 36255), (36, 36258), (38, 36294), (42, 36336), (45, 36390), (47, 36399), (48, 36405), (49, 36426), (51, 36486), (52, 36504), (60, 36645), (62, 36687), (65, 36762), (69, 36825), (71, 36858),

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

Candidate Starts for Thimann\_44:

(Start: 21 @32698 has 11 MA's), (26, 32770), (28, 32800), (33, 32851), (39, 32908), (43, 32965), (44, 32986), (48, 33025), (54, 33169), (57, 33232), (58, 33250), (59, 33253), (61, 33286), (68, 33439), (74, 33541), (75, 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), (25, 33967), (26, 33979), (27, 33985), (28, 34009), (31, 34048), (34, 34063), (46, 34213), (48, 34225), (49, 34246), (56, 34429), (64, 34558), (67, 34618), (70, 34666), (72, 34705),

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

Candidate Starts for Toron\_46:

(16, 35382), (22, 35412), (25, 35466), (26, 35478), (27, 35484), (28, 35508), (32, 35553), (48, 35724), (51, 35805), (53, 35865), (60, 35964), (62, 36006), (65, 36081), (69, 36144), (71, 36177),

Gene: Tuti\_42 Start: 34148, Stop: 35020, Start Num: 21

Candidate Starts for Tuti\_42:

(Start: 21 @34148 has 11 MA's), (26, 34220), (28, 34250), (33, 34301), (39, 34358), (43, 34415), (44, 34436), (48, 34475), (54, 34619), (57, 34682), (58, 34700), (59, 34703), (61, 34736), (68, 34889), (74, 34991), (75, 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 10 MA's), (26, 38588), (28, 38618), (33, 38669), (39, 38726), (43, 38783), (44, 38804), (48, 38843), (54, 38987), (57, 39050), (58, 39068), (59, 39071), (61, 39104), (68, 39257), (74, 39359), (75, 39377),

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

Candidate Starts for Yeezy\_44:

(Start: 20 @33390 has 10 MA's), (25, 33453), (28, 33495), (30, 33516), (33, 33546), (41, 33633), (43, 33660), (44, 33681), (48, 33720), (54, 33864), (57, 33927), (59, 33948), (60, 33951), (61, 33981), (66, 34077),