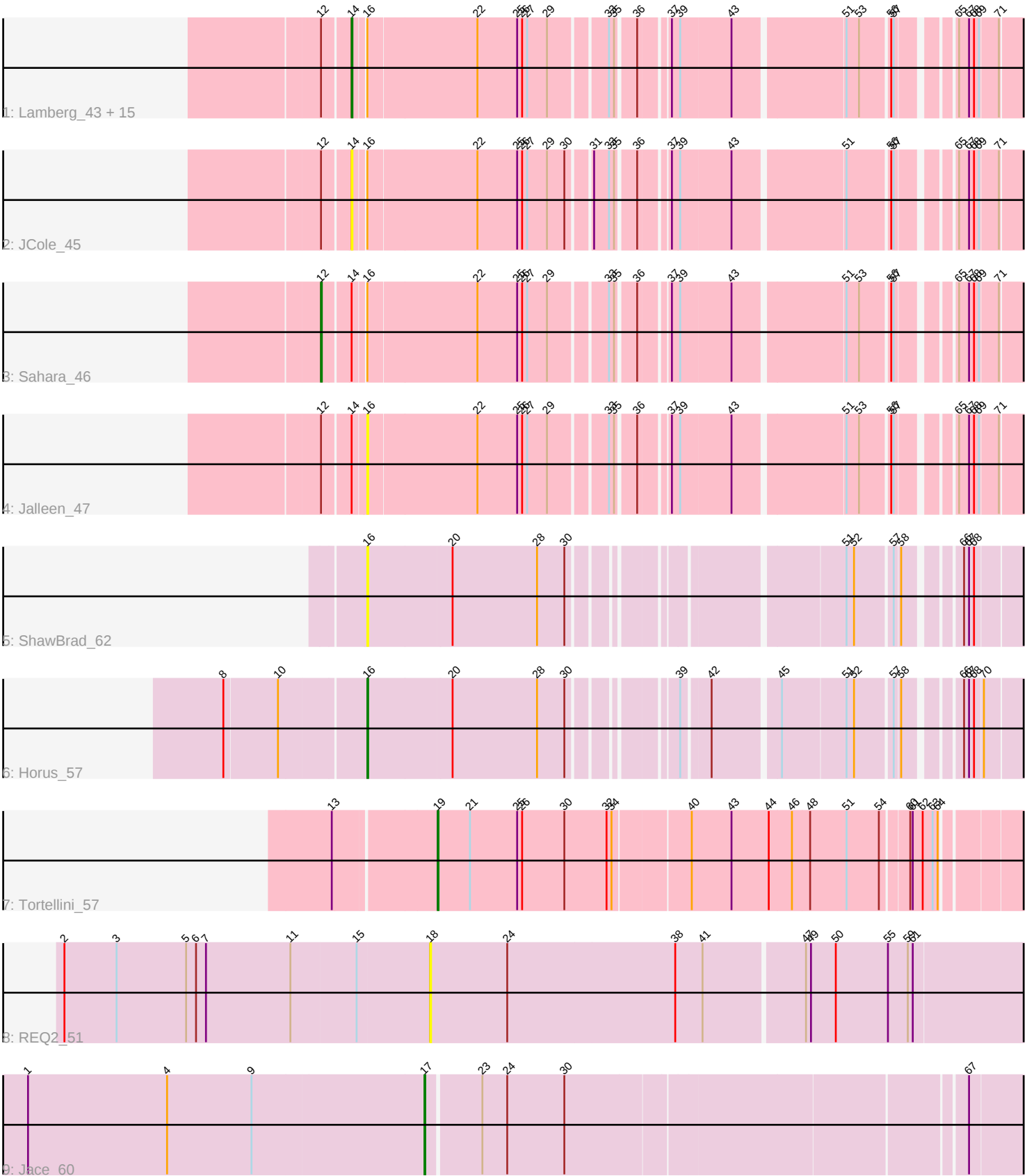


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 269878 Report

This analysis was run 02/07/26 on database version 634.

Pham number 269878 has 24 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Lamberg\_43, Nettuno\_43, GemG\_47, TuertoX\_47, Gizermo\_47, Ebert\_49, Bosnia\_49, Mocha12\_47, Sproutie\_47, Bjanés7\_44, Savage\_47, Whiteclaw\_47, Clap\_47, Matteo\_40, Cynthia\_47, Haley23\_47
- Track 2 : JCole\_45
- Track 3 : Sahara\_46
- Track 4 : Jalleen\_47
- Track 5 : ShawBrad\_62
- Track 6 : Horus\_57
- Track 7 : Tortellini\_57
- Track 8 : REQ2\_51
- Track 9 : Jace\_60

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

The start number called the most often in the published annotations is 14, it was called in 16 of the 20 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bjanés7\_44, Bosnia\_49, Clap\_47, Cynthia\_47, Ebert\_49, GemG\_47, Gizermo\_47, Haley23\_47, JCole\_45, Lamberg\_43, Matteo\_40, Mocha12\_47, Nettuno\_43, Savage\_47, Sproutie\_47, TuertoX\_47, Whiteclaw\_47,

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

- Jalleen\_47, Sahara\_46,

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

- Horus\_57, Jace\_60, REQ2\_51, ShawBrad\_62, Tortellini\_57,

### **Summary by start number:**

Start 12:

- Found in 19 of 24 ( 79.2% ) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 5.3% of time when present

- Phage (with cluster) where this start called: Sahara\_46 (CZ2),

Start 14:

- Found in 19 of 24 ( 79.2% ) of genes in pham
- Manual Annotations of this start: 16 of 20
- Called 89.5% of time when present
- Phage (with cluster) where this start called: Bjaner7\_44 (CZ2), Bosnia\_49 (CZ1), Clap\_47 (CZ2), Cynthia\_47 (CZ2), Ebert\_49 (CZ2), GemG\_47 (CZ2), Gizerno\_47 (CZ2), Haley23\_47 (CZ2), JCole\_45 (CZ2), Lamberg\_43 (CZ2), Matteo\_40 (CZ2), Mocha12\_47 (CZ2), Nettuno\_43 (CZ2), Savage\_47 (CZ2), Sproutie\_47 (CZ2), TuertoX\_47 (CZ2), Whiteclaw\_47 (CZ2),

Start 16:

- Found in 21 of 24 ( 87.5% ) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Horus\_57 (DN1), Jalleen\_47 (CZ2), ShawBrad\_62 (DN1),

Start 17:

- Found in 1 of 24 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jace\_60 (singleton),

Start 18:

- Found in 1 of 24 ( 4.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: REQ2\_51 (singleton),

Start 19:

- Found in 1 of 24 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 1 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tortellini\_57 (P2),

### Summary by clusters:

There are 5 clusters represented in this pham: CZ2, P2, singleton, CZ1, DN1,

Info for manual annotations of cluster CZ1:

- Start number 14 was manually annotated 1 time for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 12 was manually annotated 1 time for cluster CZ2.
- Start number 14 was manually annotated 15 times for cluster CZ2.

Info for manual annotations of cluster DN1:

- Start number 16 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster P2:

- Start number 19 was manually annotated 1 time for cluster P2.

### **Gene Information:**

Gene: Bjanese7\_44 Start: 32757, Stop: 33497, Start Num: 14

Candidate Starts for Bjanese7\_44:

(Start: 12 @32727 has 1 MA's), (Start: 14 @32757 has 16 MA's), (Start: 16 @32769 has 1 MA's), (22, 32898), (25, 32946), (26, 32952), (27, 32958), (29, 32982), (33, 33045), (35, 33051), (36, 33072), (37, 33102), (39, 33111), (43, 33171), (51, 33294), (53, 33309), (56, 33342), (57, 33345), (65, 33396), (67, 33408), (68, 33414), (69, 33420), (71, 33441),

Gene: Bosnia\_49 Start: 39121, Stop: 39861, Start Num: 14

Candidate Starts for Bosnia\_49:

(Start: 12 @39091 has 1 MA's), (Start: 14 @39121 has 16 MA's), (Start: 16 @39133 has 1 MA's), (22, 39262), (25, 39310), (26, 39316), (27, 39322), (29, 39346), (33, 39409), (35, 39415), (36, 39436), (37, 39466), (39, 39475), (43, 39535), (51, 39658), (53, 39673), (56, 39706), (57, 39709), (65, 39760), (67, 39772), (68, 39778), (69, 39784), (71, 39805),

Gene: Clap\_47 Start: 32936, Stop: 33676, Start Num: 14

Candidate Starts for Clap\_47:

(Start: 12 @32906 has 1 MA's), (Start: 14 @32936 has 16 MA's), (Start: 16 @32948 has 1 MA's), (22, 33077), (25, 33125), (26, 33131), (27, 33137), (29, 33161), (33, 33224), (35, 33230), (36, 33251), (37, 33281), (39, 33290), (43, 33350), (51, 33473), (53, 33488), (56, 33521), (57, 33524), (65, 33575), (67, 33587), (68, 33593), (69, 33599), (71, 33620),

Gene: Cynthia\_47 Start: 32934, Stop: 33674, Start Num: 14

Candidate Starts for Cynthia\_47:

(Start: 12 @32904 has 1 MA's), (Start: 14 @32934 has 16 MA's), (Start: 16 @32946 has 1 MA's), (22, 33075), (25, 33123), (26, 33129), (27, 33135), (29, 33159), (33, 33222), (35, 33228), (36, 33249), (37, 33279), (39, 33288), (43, 33348), (51, 33471), (53, 33486), (56, 33519), (57, 33522), (65, 33573), (67, 33585), (68, 33591), (69, 33597), (71, 33618),

Gene: Ebert\_49 Start: 32860, Stop: 33600, Start Num: 14

Candidate Starts for Ebert\_49:

(Start: 12 @32830 has 1 MA's), (Start: 14 @32860 has 16 MA's), (Start: 16 @32872 has 1 MA's), (22, 33001), (25, 33049), (26, 33055), (27, 33061), (29, 33085), (33, 33148), (35, 33154), (36, 33175), (37, 33205), (39, 33214), (43, 33274), (51, 33397), (53, 33412), (56, 33445), (57, 33448), (65, 33499), (67, 33511), (68, 33517), (69, 33523), (71, 33544),

Gene: GemG\_47 Start: 32940, Stop: 33680, Start Num: 14

Candidate Starts for GemG\_47:

(Start: 12 @32910 has 1 MA's), (Start: 14 @32940 has 16 MA's), (Start: 16 @32952 has 1 MA's), (22, 33081), (25, 33129), (26, 33135), (27, 33141), (29, 33165), (33, 33228), (35, 33234), (36, 33255), (37, 33285), (39, 33294), (43, 33354), (51, 33477), (53, 33492), (56, 33525), (57, 33528), (65, 33579), (67, 33591), (68, 33597), (69, 33603), (71, 33624),

Gene: Gizermo\_47 Start: 32936, Stop: 33676, Start Num: 14

Candidate Starts for Gizermo\_47:

(Start: 12 @32906 has 1 MA's), (Start: 14 @32936 has 16 MA's), (Start: 16 @32948 has 1 MA's), (22, 33077), (25, 33125), (26, 33131), (27, 33137), (29, 33161), (33, 33224), (35, 33230), (36, 33251), (37, 33281), (39, 33290), (43, 33350), (51, 33473), (53, 33488), (56, 33521), (57, 33524), (65, 33575), (67, 33587), (68, 33593), (69, 33599), (71, 33620),

Gene: Haley23\_47 Start: 32936, Stop: 33676, Start Num: 14

Candidate Starts for Haley23\_47:

(Start: 12 @32906 has 1 MA's), (Start: 14 @32936 has 16 MA's), (Start: 16 @32948 has 1 MA's), (22, 33077), (25, 33125), (26, 33131), (27, 33137), (29, 33161), (33, 33224), (35, 33230), (36, 33251), (37, 33281), (39, 33290), (43, 33350), (51, 33473), (53, 33488), (56, 33521), (57, 33524), (65, 33575), (67, 33587), (68, 33593), (69, 33599), (71, 33620),

Gene: Horus\_57 Start: 37729, Stop: 38445, Start Num: 16

Candidate Starts for Horus\_57:

(8, 37570), (10, 37633), (Start: 16 @37729 has 1 MA's), (20, 37828), (28, 37930), (30, 37963), (39, 38065), (42, 38095), (45, 38167), (51, 38242), (52, 38251), (57, 38293), (58, 38299), (66, 38350), (67, 38356), (68, 38362), (70, 38371),

Gene: JCole\_45 Start: 31954, Stop: 32694, Start Num: 14

Candidate Starts for JCole\_45:

(Start: 12 @31924 has 1 MA's), (Start: 14 @31954 has 16 MA's), (Start: 16 @31966 has 1 MA's), (22, 32095), (25, 32143), (26, 32149), (27, 32155), (29, 32179), (30, 32200), (31, 32224), (33, 32242), (35, 32248), (36, 32269), (37, 32299), (39, 32308), (43, 32368), (51, 32491), (56, 32539), (57, 32542), (65, 32593), (67, 32605), (68, 32611), (69, 32617), (71, 32638),

Gene: Jace\_60 Start: 37621, Stop: 38346, Start Num: 17

Candidate Starts for Jace\_60:

(1, 37147), (4, 37315), (9, 37417), (Start: 17 @37621 has 1 MA's), (23, 37684), (24, 37714), (30, 37783), (67, 38239),

Gene: Jalleen\_47 Start: 32587, Stop: 33315, Start Num: 16

Candidate Starts for Jalleen\_47:

(Start: 12 @32545 has 1 MA's), (Start: 14 @32575 has 16 MA's), (Start: 16 @32587 has 1 MA's), (22, 32716), (25, 32764), (26, 32770), (27, 32776), (29, 32800), (33, 32863), (35, 32869), (36, 32890), (37, 32920), (39, 32929), (43, 32989), (51, 33112), (53, 33127), (56, 33160), (57, 33163), (65, 33214), (67, 33226), (68, 33232), (69, 33238), (71, 33259),

Gene: Lamberg\_43 Start: 31445, Stop: 32185, Start Num: 14

Candidate Starts for Lamberg\_43:

(Start: 12 @31415 has 1 MA's), (Start: 14 @31445 has 16 MA's), (Start: 16 @31457 has 1 MA's), (22, 31586), (25, 31634), (26, 31640), (27, 31646), (29, 31670), (33, 31733), (35, 31739), (36, 31760), (37, 31790), (39, 31799), (43, 31859), (51, 31982), (53, 31997), (56, 32030), (57, 32033), (65, 32084), (67, 32096), (68, 32102), (69, 32108), (71, 32129),

Gene: Matteo\_40 Start: 30487, Stop: 31227, Start Num: 14

Candidate Starts for Matteo\_40:

(Start: 12 @30457 has 1 MA's), (Start: 14 @30487 has 16 MA's), (Start: 16 @30499 has 1 MA's), (22, 30628), (25, 30676), (26, 30682), (27, 30688), (29, 30712), (33, 30775), (35, 30781), (36, 30802), (37, 30832), (39, 30841), (43, 30901), (51, 31024), (53, 31039), (56, 31072), (57, 31075), (65, 31126), (67, 31138), (68, 31144), (69, 31150), (71, 31171),

Gene: Mocha12\_47 Start: 32936, Stop: 33676, Start Num: 14

Candidate Starts for Mocha12\_47:

(Start: 12 @32906 has 1 MA's), (Start: 14 @32936 has 16 MA's), (Start: 16 @32948 has 1 MA's), (22, 33077), (25, 33125), (26, 33131), (27, 33137), (29, 33161), (33, 33224), (35, 33230), (36, 33251), (37, 33281), (39, 33290), (43, 33350), (51, 33473), (53, 33488), (56, 33521), (57, 33524), (65, 33575), (67, 33587), (68, 33593), (69, 33599), (71, 33620),

Gene: Nettuno\_43 Start: 31445, Stop: 32185, Start Num: 14

Candidate Starts for Nettuno\_43:

(Start: 12 @31415 has 1 MA's), (Start: 14 @31445 has 16 MA's), (Start: 16 @31457 has 1 MA's), (22, 31586), (25, 31634), (26, 31640), (27, 31646), (29, 31670), (33, 31733), (35, 31739), (36, 31760), (37, 31790), (39, 31799), (43, 31859), (51, 31982), (53, 31997), (56, 32030), (57, 32033), (65, 32084), (67, 32096), (68, 32102), (69, 32108), (71, 32129),

Gene: REQ2\_51 Start: 36591, Stop: 37391, Start Num: 18

Candidate Starts for REQ2\_51:

(2, 36153), (3, 36216), (5, 36300), (6, 36312), (7, 36324), (11, 36426), (15, 36504), (18, 36591), (24, 36684), (38, 36885), (41, 36918), (47, 37035), (49, 37041), (50, 37071), (55, 37134), (59, 37158), (61, 37164),

Gene: Sahara\_46 Start: 32653, Stop: 33423, Start Num: 12

Candidate Starts for Sahara\_46:

(Start: 12 @32653 has 1 MA's), (Start: 14 @32683 has 16 MA's), (Start: 16 @32695 has 1 MA's), (22, 32824), (25, 32872), (26, 32878), (27, 32884), (29, 32908), (33, 32971), (35, 32977), (36, 32998), (37, 33028), (39, 33037), (43, 33097), (51, 33220), (53, 33235), (56, 33268), (57, 33271), (65, 33322), (67, 33334), (68, 33340), (69, 33346), (71, 33367),

Gene: Savage\_47 Start: 32936, Stop: 33676, Start Num: 14

Candidate Starts for Savage\_47:

(Start: 12 @32906 has 1 MA's), (Start: 14 @32936 has 16 MA's), (Start: 16 @32948 has 1 MA's), (22, 33077), (25, 33125), (26, 33131), (27, 33137), (29, 33161), (33, 33224), (35, 33230), (36, 33251), (37, 33281), (39, 33290), (43, 33350), (51, 33473), (53, 33488), (56, 33521), (57, 33524), (65, 33575), (67, 33587), (68, 33593), (69, 33599), (71, 33620),

Gene: ShawBrad\_62 Start: 37256, Stop: 37972, Start Num: 16

Candidate Starts for ShawBrad\_62:

(Start: 16 @37256 has 1 MA's), (20, 37355), (28, 37457), (30, 37490), (51, 37769), (52, 37778), (57, 37820), (58, 37826), (66, 37877), (67, 37883), (68, 37889),

Gene: Sproutie\_47 Start: 32936, Stop: 33676, Start Num: 14

Candidate Starts for Sproutie\_47:

(Start: 12 @32906 has 1 MA's), (Start: 14 @32936 has 16 MA's), (Start: 16 @32948 has 1 MA's), (22, 33077), (25, 33125), (26, 33131), (27, 33137), (29, 33161), (33, 33224), (35, 33230), (36, 33251), (37, 33281), (39, 33290), (43, 33350), (51, 33473), (53, 33488), (56, 33521), (57, 33524), (65, 33575), (67, 33587), (68, 33593), (69, 33599), (71, 33620),

Gene: Tortellini\_57 Start: 40962, Stop: 41663, Start Num: 19

Candidate Starts for Tortellini\_57:

(13, 40845), (Start: 19 @40962 has 1 MA's), (21, 41001), (25, 41058), (26, 41064), (30, 41115), (32, 41166), (34, 41172), (40, 41259), (43, 41307), (44, 41352), (46, 41379), (48, 41400), (51, 41442), (54, 41481), (60, 41511), (61, 41514), (62, 41526), (63, 41538), (64, 41544),

Gene: TuertoX\_47 Start: 32936, Stop: 33676, Start Num: 14

Candidate Starts for TuertoX\_47:

(Start: 12 @32906 has 1 MA's), (Start: 14 @32936 has 16 MA's), (Start: 16 @32948 has 1 MA's), (22, 33077), (25, 33125), (26, 33131), (27, 33137), (29, 33161), (33, 33224), (35, 33230), (36, 33251), (37, 33281), (39, 33290), (43, 33350), (51, 33473), (53, 33488), (56, 33521), (57, 33524), (65, 33575), (67, 33587), (68, 33593), (69, 33599), (71, 33620),

Gene: Whiteclaw\_47 Start: 32936, Stop: 33676, Start Num: 14

Candidate Starts for Whiteclaw\_47:

(Start: 12 @32906 has 1 MA's), (Start: 14 @32936 has 16 MA's), (Start: 16 @32948 has 1 MA's), (22, 33077), (25, 33125), (26, 33131), (27, 33137), (29, 33161), (33, 33224), (35, 33230), (36, 33251), (37, 33281), (39, 33290), (43, 33350), (51, 33473), (53, 33488), (56, 33521), (57, 33524), (65, 33575), (67, 33587), (68, 33593), (69, 33599), (71, 33620),