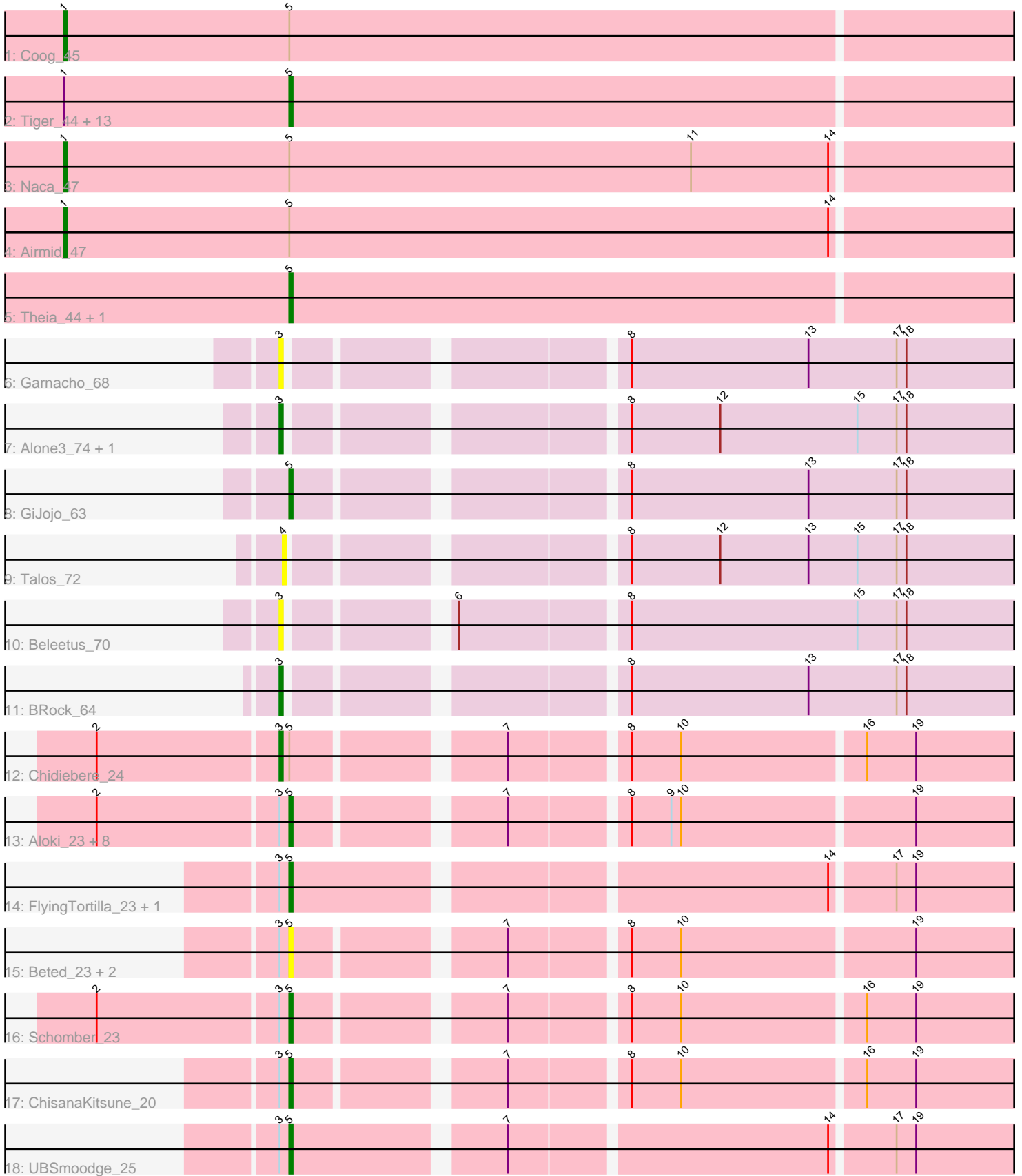


Pham 216300



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 216300 Report

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

Pham number 216300 has 44 members, 12 are drafts.

Phages represented in each track:

- Track 1 : Coog\_45
- Track 2 : Tiger\_44, Bluefalcon\_44, MarysWell\_45, AgentM\_44, Aragog\_44, Cuco\_45, Jovo\_45, PickleBack\_45, Ghoulboy\_48, Lev2\_45, SydNat\_48, Conspiracy\_45, Zolita\_47, ForGetIt\_45
- Track 3 : Naca\_47
- Track 4 : Airmid\_47
- Track 5 : Theia\_44, Dublin\_45
- Track 6 : Garnacho\_68
- Track 7 : Alone3\_74, LuckySocke\_72
- Track 8 : GiJojo\_63
- Track 9 : Talos\_72
- Track 10 : Beleetus\_70
- Track 11 : BRock\_64
- Track 12 : Chidiebere\_24
- Track 13 : Aloki\_23, Gray\_24, Toneprano\_23, EmoNemo\_23, Kabocha\_25, Pakusa\_23, Twin\_23, MintFritos\_23, Hanem\_24
- Track 14 : FlyingTortilla\_23, ScarletRaider\_23
- Track 15 : Beted\_23, Oogie\_23, Lenoshki\_23
- Track 16 : Schomber\_23
- Track 17 : ChisanaKitsune\_20
- Track 18 : UBSmoodge\_25

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

The start number called the most often in the published annotations is 5, it was called in 25 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AgentM\_44, Aloki\_23, Aragog\_44, Beted\_23, Bluefalcon\_44, ChisanaKitsune\_20, Conspiracy\_45, Cuco\_45, Dublin\_45, EmoNemo\_23, FlyingTortilla\_23, ForGetIt\_45, Ghoulboy\_48, GiJojo\_63, Gray\_24, Hanem\_24, Jovo\_45, Kabocha\_25, Lenoshki\_23, Lev2\_45, MarysWell\_45, MintFritos\_23, Oogie\_23, Pakusa\_23, PickleBack\_45, ScarletRaider\_23, Schomber\_23, SydNat\_48, Theia\_44, Tiger\_44, Toneprano\_23, Twin\_23, UBSmoodge\_25, Zolita\_47,

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

- Airmid\_47, Chidiebere\_24, Coog\_45, Naca\_47,

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

- Alone3\_74, BRock\_64, Beleetus\_70, Garnacho\_68, LuckySocke\_72, Talos\_72,

### Summary by start number:

Start 1:

- Found in 17 of 44 ( 38.6% ) of genes in pham
- Manual Annotations of this start: 3 of 32
- Called 17.6% of time when present
- Phage (with cluster) where this start called: Airmid\_47 (A5), Coog\_45 (A5), Naca\_47 (A5),

Start 3:

- Found in 23 of 44 ( 52.3% ) of genes in pham
- Manual Annotations of this start: 4 of 32
- Called 26.1% of time when present
- Phage (with cluster) where this start called: Alone3\_74 (BS), BRock\_64 (BS), Beleetus\_70 (BS), Chidiebere\_24 (DQ), Garnacho\_68 (BS), LuckySocke\_72 (BS),

Start 4:

- Found in 1 of 44 ( 2.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Talos\_72 (BS),

Start 5:

- Found in 38 of 44 ( 86.4% ) of genes in pham
- Manual Annotations of this start: 25 of 32
- Called 89.5% of time when present
- Phage (with cluster) where this start called: AgentM\_44 (A5), Aloki\_23 (DQ), Aragog\_44 (A5), Beted\_23 (DQ), Bluefalcon\_44 (A5), ChisanaKitsune\_20 (DQ), Conspiracy\_45 (A5), Cuco\_45 (A5), Dublin\_45 (A5), EmoNemo\_23 (DQ), FlyingTortilla\_23 (DQ), ForGetIt\_45 (A5), Ghoulboy\_48 (A5), GiJojo\_63 (BS), Gray\_24 (DQ), Hanem\_24 (DQ), Jovo\_45 (A5), Kabocha\_25 (DQ), Lenoshki\_23 (DQ), Lev2\_45 (A5), MarysWell\_45 (A5), MintFritos\_23 (DQ), Oogie\_23 (DQ), Pakusa\_23 (DQ), PickleBack\_45 (A5), ScarletRaider\_23 (DQ), Schomber\_23 (DQ), SydNat\_48 (A5), Theia\_44 (A5), Tiger\_44 (A5), Toneprano\_23 (DQ), Twin\_23 (DQ), UBSmoodge\_25 (DQ), Zolita\_47 (A5),

### Summary by clusters:

There are 3 clusters represented in this pham: BS, A5, DQ,

Info for manual annotations of cluster A5:

- Start number 1 was manually annotated 3 times for cluster A5.
- Start number 5 was manually annotated 16 times for cluster A5.

Info for manual annotations of cluster BS:

- Start number 3 was manually annotated 3 times for cluster BS.

- Start number 5 was manually annotated 1 time for cluster BS.

Info for manual annotations of cluster DQ:

- Start number 3 was manually annotated 1 time for cluster DQ.
- Start number 5 was manually annotated 8 times for cluster DQ.

### **Gene Information:**

Gene: AgentM\_44 Start: 34563, Stop: 34327, Start Num: 5

Candidate Starts for AgentM\_44:

(Start: 1 @34632 has 3 MA's), (Start: 5 @34563 has 25 MA's),

Gene: Airmid\_47 Start: 34794, Stop: 34489, Start Num: 1

Candidate Starts for Airmid\_47:

(Start: 1 @34794 has 3 MA's), (Start: 5 @34725 has 25 MA's), (14, 34560),

Gene: Alok\_23 Start: 11841, Stop: 12056, Start Num: 5

Candidate Starts for Alok\_23:

(2, 11784), (Start: 3 @11838 has 4 MA's), (Start: 5 @11841 has 25 MA's), (7, 11898), (8, 11931), (9, 11943), (10, 11946), (19, 12015),

Gene: Alone3\_74 Start: 28535, Stop: 28747, Start Num: 3

Candidate Starts for Alone3\_74:

(Start: 3 @28535 has 4 MA's), (8, 28625), (12, 28652), (15, 28694), (17, 28706), (18, 28709),

Gene: Aragog\_44 Start: 34583, Stop: 34347, Start Num: 5

Candidate Starts for Aragog\_44:

(Start: 1 @34652 has 3 MA's), (Start: 5 @34583 has 25 MA's),

Gene: BRock\_64 Start: 24495, Stop: 24707, Start Num: 3

Candidate Starts for BRock\_64:

(Start: 3 @24495 has 4 MA's), (8, 24585), (13, 24639), (17, 24666), (18, 24669),

Gene: Beleetus\_70 Start: 26659, Stop: 26871, Start Num: 3

Candidate Starts for Beleetus\_70:

(Start: 3 @26659 has 4 MA's), (6, 26701), (8, 26749), (15, 26818), (17, 26830), (18, 26833),

Gene: Beted\_23 Start: 11467, Stop: 11682, Start Num: 5

Candidate Starts for Beted\_23:

(Start: 3 @11464 has 4 MA's), (Start: 5 @11467 has 25 MA's), (7, 11524), (8, 11557), (10, 11572), (19, 11641),

Gene: Bluefalcon\_44 Start: 35138, Stop: 34902, Start Num: 5

Candidate Starts for Bluefalcon\_44:

(Start: 1 @35207 has 3 MA's), (Start: 5 @35138 has 25 MA's),

Gene: Chidiebere\_24 Start: 11838, Stop: 12056, Start Num: 3

Candidate Starts for Chidiebere\_24:

(2, 11784), (Start: 3 @11838 has 4 MA's), (Start: 5 @11841 has 25 MA's), (7, 11898), (8, 11931), (10, 11946), (16, 12000), (19, 12015),

Gene: ChisanaKitsune\_20 Start: 10536, Stop: 10751, Start Num: 5  
Candidate Starts for ChisanaKitsune\_20:  
(Start: 3 @10533 has 4 MA's), (Start: 5 @10536 has 25 MA's), (7, 10593), (8, 10626), (10, 10641), (16, 10695), (19, 10710),

Gene: Conspiracy\_45 Start: 34805, Stop: 34569, Start Num: 5  
Candidate Starts for Conspiracy\_45:  
(Start: 1 @34874 has 3 MA's), (Start: 5 @34805 has 25 MA's),

Gene: Coog\_45 Start: 35035, Stop: 34730, Start Num: 1  
Candidate Starts for Coog\_45:  
(Start: 1 @35035 has 3 MA's), (Start: 5 @34966 has 25 MA's),

Gene: Cuco\_45 Start: 34838, Stop: 34602, Start Num: 5  
Candidate Starts for Cuco\_45:  
(Start: 1 @34907 has 3 MA's), (Start: 5 @34838 has 25 MA's),

Gene: Dublin\_45 Start: 34974, Stop: 34738, Start Num: 5  
Candidate Starts for Dublin\_45:  
(Start: 5 @34974 has 25 MA's),

Gene: EmoNemo\_23 Start: 11841, Stop: 12056, Start Num: 5  
Candidate Starts for EmoNemo\_23:  
(2, 11784), (Start: 3 @11838 has 4 MA's), (Start: 5 @11841 has 25 MA's), (7, 11898), (8, 11931), (9, 11943), (10, 11946), (19, 12015),

Gene: FlyingTortilla\_23 Start: 12855, Stop: 13073, Start Num: 5  
Candidate Starts for FlyingTortilla\_23:  
(Start: 3 @12852 has 4 MA's), (Start: 5 @12855 has 25 MA's), (14, 13008), (17, 13026), (19, 13032),

Gene: ForGetIt\_45 Start: 34830, Stop: 34594, Start Num: 5  
Candidate Starts for ForGetIt\_45:  
(Start: 1 @34899 has 3 MA's), (Start: 5 @34830 has 25 MA's),

Gene: Garnacho\_68 Start: 26235, Stop: 26447, Start Num: 3  
Candidate Starts for Garnacho\_68:  
(Start: 3 @26235 has 4 MA's), (8, 26325), (13, 26379), (17, 26406), (18, 26409),

Gene: Ghouboy\_48 Start: 35709, Stop: 35473, Start Num: 5  
Candidate Starts for Ghouboy\_48:  
(Start: 1 @35778 has 3 MA's), (Start: 5 @35709 has 25 MA's),

Gene: GiJojo\_63 Start: 26714, Stop: 26926, Start Num: 5  
Candidate Starts for GiJojo\_63:  
(Start: 5 @26714 has 25 MA's), (8, 26804), (13, 26858), (17, 26885), (18, 26888),

Gene: Gray\_24 Start: 11841, Stop: 12056, Start Num: 5  
Candidate Starts for Gray\_24:  
(2, 11784), (Start: 3 @11838 has 4 MA's), (Start: 5 @11841 has 25 MA's), (7, 11898), (8, 11931), (9, 11943), (10, 11946), (19, 12015),

Gene: Hanem\_24 Start: 11841, Stop: 12056, Start Num: 5  
Candidate Starts for Hanem\_24:

(2, 11784), (Start: 3 @11838 has 4 MA's), (Start: 5 @11841 has 25 MA's), (7, 11898), (8, 11931), (9, 11943), (10, 11946), (19, 12015),

Gene: Jovo\_45 Start: 35086, Stop: 34850, Start Num: 5

Candidate Starts for Jovo\_45:

(Start: 1 @35155 has 3 MA's), (Start: 5 @35086 has 25 MA's),

Gene: Kabocha\_25 Start: 12654, Stop: 12869, Start Num: 5

Candidate Starts for Kabocha\_25:

(2, 12597), (Start: 3 @12651 has 4 MA's), (Start: 5 @12654 has 25 MA's), (7, 12711), (8, 12744), (9, 12756), (10, 12759), (19, 12828),

Gene: Lenoshki\_23 Start: 11467, Stop: 11682, Start Num: 5

Candidate Starts for Lenoshki\_23:

(Start: 3 @11464 has 4 MA's), (Start: 5 @11467 has 25 MA's), (7, 11524), (8, 11557), (10, 11572), (19, 11641),

Gene: Lev2\_45 Start: 34718, Stop: 34482, Start Num: 5

Candidate Starts for Lev2\_45:

(Start: 1 @34787 has 3 MA's), (Start: 5 @34718 has 25 MA's),

Gene: LuckySocke\_72 Start: 27277, Stop: 27489, Start Num: 3

Candidate Starts for LuckySocke\_72:

(Start: 3 @27277 has 4 MA's), (8, 27367), (12, 27394), (15, 27436), (17, 27448), (18, 27451),

Gene: MarysWell\_45 Start: 35217, Stop: 34981, Start Num: 5

Candidate Starts for MarysWell\_45:

(Start: 1 @35286 has 3 MA's), (Start: 5 @35217 has 25 MA's),

Gene: MintFritos\_23 Start: 11841, Stop: 12056, Start Num: 5

Candidate Starts for MintFritos\_23:

(2, 11784), (Start: 3 @11838 has 4 MA's), (Start: 5 @11841 has 25 MA's), (7, 11898), (8, 11931), (9, 11943), (10, 11946), (19, 12015),

Gene: Naca\_47 Start: 35412, Stop: 35107, Start Num: 1

Candidate Starts for Naca\_47:

(Start: 1 @35412 has 3 MA's), (Start: 5 @35343 has 25 MA's), (11, 35220), (14, 35178),

Gene: Oogie\_23 Start: 11493, Stop: 11708, Start Num: 5

Candidate Starts for Oogie\_23:

(Start: 3 @11490 has 4 MA's), (Start: 5 @11493 has 25 MA's), (7, 11550), (8, 11583), (10, 11598), (19, 11667),

Gene: Pakusa\_23 Start: 11583, Stop: 11798, Start Num: 5

Candidate Starts for Pakusa\_23:

(2, 11526), (Start: 3 @11580 has 4 MA's), (Start: 5 @11583 has 25 MA's), (7, 11640), (8, 11673), (9, 11685), (10, 11688), (19, 11757),

Gene: PickleBack\_45 Start: 34710, Stop: 34474, Start Num: 5

Candidate Starts for PickleBack\_45:

(Start: 1 @34779 has 3 MA's), (Start: 5 @34710 has 25 MA's),

Gene: ScarletRaider\_23 Start: 12882, Stop: 13100, Start Num: 5

Candidate Starts for ScarletRaider\_23:

(Start: 3 @12879 has 4 MA's), (Start: 5 @12882 has 25 MA's), (14, 13035), (17, 13053), (19, 13059),

Gene: Schomber\_23 Start: 11591, Stop: 11806, Start Num: 5

Candidate Starts for Schomber\_23:

(2, 11534), (Start: 3 @11588 has 4 MA's), (Start: 5 @11591 has 25 MA's), (7, 11648), (8, 11681), (10, 11696), (16, 11750), (19, 11765),

Gene: SydNat\_48 Start: 35718, Stop: 35482, Start Num: 5

Candidate Starts for SydNat\_48:

(Start: 1 @35787 has 3 MA's), (Start: 5 @35718 has 25 MA's),

Gene: Talos\_72 Start: 27089, Stop: 27301, Start Num: 4

Candidate Starts for Talos\_72:

(4, 27089), (8, 27179), (12, 27206), (13, 27233), (15, 27248), (17, 27260), (18, 27263),

Gene: Theia\_44 Start: 35195, Stop: 34959, Start Num: 5

Candidate Starts for Theia\_44:

(Start: 5 @35195 has 25 MA's),

Gene: Tiger\_44 Start: 34384, Stop: 34148, Start Num: 5

Candidate Starts for Tiger\_44:

(Start: 1 @34453 has 3 MA's), (Start: 5 @34384 has 25 MA's),

Gene: Toneprano\_23 Start: 11841, Stop: 12056, Start Num: 5

Candidate Starts for Toneprano\_23:

(2, 11784), (Start: 3 @11838 has 4 MA's), (Start: 5 @11841 has 25 MA's), (7, 11898), (8, 11931), (9, 11943), (10, 11946), (19, 12015),

Gene: Twin\_23 Start: 11841, Stop: 12056, Start Num: 5

Candidate Starts for Twin\_23:

(2, 11784), (Start: 3 @11838 has 4 MA's), (Start: 5 @11841 has 25 MA's), (7, 11898), (8, 11931), (9, 11943), (10, 11946), (19, 12015),

Gene: UBSmoodge\_25 Start: 13351, Stop: 13569, Start Num: 5

Candidate Starts for UBSmoodge\_25:

(Start: 3 @13348 has 4 MA's), (Start: 5 @13351 has 25 MA's), (7, 13411), (14, 13504), (17, 13522), (19, 13528),

Gene: Zolita\_47 Start: 35722, Stop: 35486, Start Num: 5

Candidate Starts for Zolita\_47:

(Start: 1 @35791 has 3 MA's), (Start: 5 @35722 has 25 MA's),