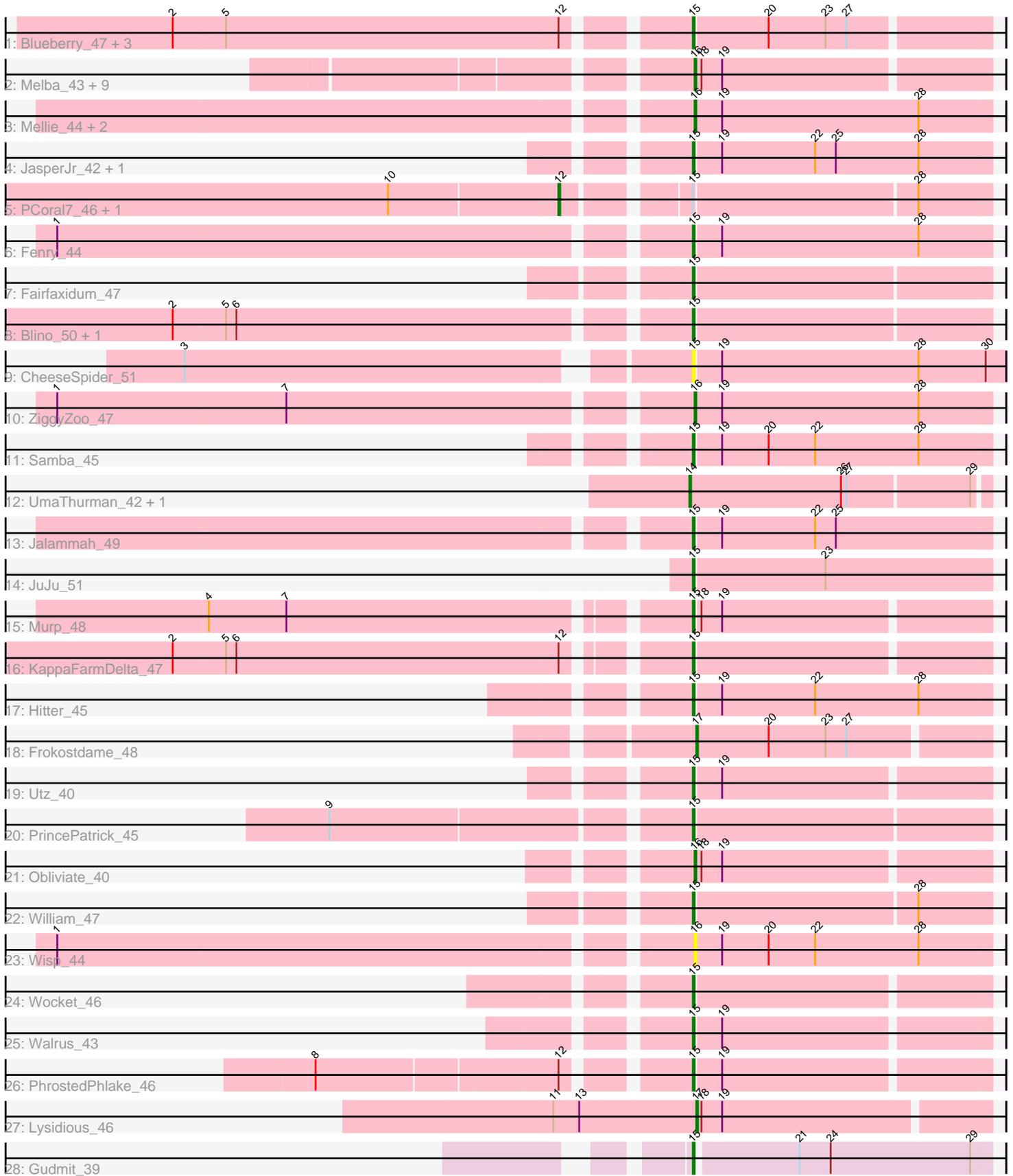


Pham 291285



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 291285 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291285 has 46 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Blueberry\_47, Gambino\_50, Azula\_48, MissRona\_48
- Track 2 : Melba\_43, Delian\_47, Zilla\_43, CaptainKirk2\_44, Petra\_41, Zarbodnamra\_43, Barco\_42, Archis\_47, BlingBling\_41, MintFen\_44
- Track 3 : Mellie\_44, Malachai\_45, Begonia\_45
- Track 4 : JasperJr\_42, Guacamole\_42
- Track 5 : PCoral7\_46, Toast\_46
- Track 6 : Fenry\_44
- Track 7 : Fairfaxidum\_47
- Track 8 : Blino\_50, CarolAnn\_49
- Track 9 : CheeseSpider\_51
- Track 10 : ZiggyZoo\_47
- Track 11 : Samba\_45
- Track 12 : UmaThurman\_42, Pipp\_45
- Track 13 : Jalammah\_49
- Track 14 : JuJu\_51
- Track 15 : Murp\_48
- Track 16 : KappaFarmDelta\_47
- Track 17 : Hitter\_45
- Track 18 : Frokostdame\_48
- Track 19 : Utz\_40
- Track 20 : PrincePatrick\_45
- Track 21 : Obliviate\_40
- Track 22 : William\_47
- Track 23 : Wisp\_44
- Track 24 : Wocket\_46
- Track 25 : Walrus\_43
- Track 26 : PhrostedPhlake\_46
- Track 27 : Lysidious\_46
- Track 28 : Gudmit\_39

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

The start number called the most often in the published annotations is 15, it was called in 23 of the 43 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Azula\_48, Blino\_50, Blueberry\_47, CarolAnn\_49, CheeseSpider\_51, Fairfaxidum\_47, Ferry\_44, Gambino\_50, Guacamole\_42, Gudmit\_39, Hitter\_45, Jalammah\_49, JasperJr\_42, JuJu\_51, KappaFarmDelta\_47, MissRona\_48, Murp\_48, PhrostedPhlake\_46, PrincePatrick\_45, Samba\_45, Utz\_40, Walrus\_43, William\_47, Wocket\_46,

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

- PCoral7\_46, Toast\_46,

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

- Archis\_47, Barco\_42, Begonia\_45, BlingBling\_41, CaptainKirk2\_44, Delian\_47, Frokostdame\_48, Lysidious\_46, Malachai\_45, Melba\_43, Mellie\_44, MintFen\_44, Obliviate\_40, Petra\_41, Pipp\_45, UmaThurman\_42, Wisp\_44, Zarbodnamra\_43, ZiggyZoo\_47, Zilla\_43,

### Summary by start number:

Start 12:

- Found in 8 of 46 ( 17.4% ) of genes in pham
- Manual Annotations of this start: 2 of 43
- Called 25.0% of time when present
- Phage (with cluster) where this start called: PCoral7\_46 (CV), Toast\_46 (CV),

Start 14:

- Found in 2 of 46 ( 4.3% ) of genes in pham
- Manual Annotations of this start: 2 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pipp\_45 (CV), UmaThurman\_42 (CV),

Start 15:

- Found in 26 of 46 ( 56.5% ) of genes in pham
- Manual Annotations of this start: 23 of 43
- Called 92.3% of time when present
- Phage (with cluster) where this start called: Azula\_48 (CV), Blino\_50 (CV), Blueberry\_47 (CV), CarolAnn\_49 (CV), CheeseSpider\_51 (CV), Fairfaxidum\_47 (CV), Ferry\_44 (CV), Gambino\_50 (CV), Guacamole\_42 (CV), Gudmit\_39 (singleton), Hitter\_45 (CV), Jalammah\_49 (CV), JasperJr\_42 (CV), JuJu\_51 (CV), KappaFarmDelta\_47 (CV), MissRona\_48 (CV), Murp\_48 (CV), PhrostedPhlake\_46 (CV), PrincePatrick\_45 (CV), Samba\_45 (CV), Utz\_40 (CV), Walrus\_43 (CV), William\_47 (CV), Wocket\_46 (CV),

Start 16:

- Found in 16 of 46 ( 34.8% ) of genes in pham
- Manual Annotations of this start: 14 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archis\_47 (CV), Barco\_42 (CV), Begonia\_45 (CV), BlingBling\_41 (CV), CaptainKirk2\_44 (CV), Delian\_47 (CV), Malachai\_45 (CV), Melba\_43 (CV), Mellie\_44 (CV), MintFen\_44 (CV), Obliviate\_40 (CV), Petra\_41 (CV), Wisp\_44 (CV), Zarbodnamra\_43 (CV), ZiggyZoo\_47 (CV), Zilla\_43 (CV),

Start 17:

- Found in 2 of 46 ( 4.3% ) of genes in pham
- Manual Annotations of this start: 2 of 43
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Frokostdame\_48 (CV), Lysidious\_46 (CV),

**Summary by clusters:**

There are 2 clusters represented in this pham: singleton, CV,

Info for manual annotations of cluster CV:

- Start number 12 was manually annotated 2 times for cluster CV.
- Start number 14 was manually annotated 2 times for cluster CV.
- Start number 15 was manually annotated 22 times for cluster CV.
- Start number 16 was manually annotated 14 times for cluster CV.
- Start number 17 was manually annotated 2 times for cluster CV.

**Gene Information:**

Gene: Archis\_47 Start: 33441, Stop: 33605, Start Num: 16

Candidate Starts for Archis\_47:

(Start: 16 @33441 has 14 MA's), (18, 33444), (19, 33456),

Gene: Azula\_48 Start: 36031, Stop: 36195, Start Num: 15

Candidate Starts for Azula\_48:

(2, 35752), (5, 35782), (Start: 12 @35974 has 2 MA's), (Start: 15 @36031 has 23 MA's), (20, 36073), (23, 36106), (27, 36118),

Gene: Barco\_42 Start: 32491, Stop: 32655, Start Num: 16

Candidate Starts for Barco\_42:

(Start: 16 @32491 has 14 MA's), (18, 32494), (19, 32506),

Gene: Begonia\_45 Start: 36146, Stop: 36316, Start Num: 16

Candidate Starts for Begonia\_45:

(Start: 16 @36146 has 14 MA's), (19, 36161), (28, 36275),

Gene: BlingBling\_41 Start: 33454, Stop: 33618, Start Num: 16

Candidate Starts for BlingBling\_41:

(Start: 16 @33454 has 14 MA's), (18, 33457), (19, 33469),

Gene: Blino\_50 Start: 39330, Stop: 39497, Start Num: 15

Candidate Starts for Blino\_50:

(2, 39048), (5, 39078), (6, 39084), (Start: 15 @39330 has 23 MA's),

Gene: Blueberry\_47 Start: 36031, Stop: 36195, Start Num: 15

Candidate Starts for Blueberry\_47:

(2, 35752), (5, 35782), (Start: 12 @35974 has 2 MA's), (Start: 15 @36031 has 23 MA's), (20, 36073), (23, 36106), (27, 36118),

Gene: CaptainKirk2\_44 Start: 32739, Stop: 32903, Start Num: 16

Candidate Starts for CaptainKirk2\_44:  
(Start: 16 @32739 has 14 MA's), (18, 32742), (19, 32754),

Gene: CarolAnn\_49 Start: 39329, Stop: 39496, Start Num: 15  
Candidate Starts for CarolAnn\_49:  
(2, 39047), (5, 39077), (6, 39083), (Start: 15 @39329 has 23 MA's),

Gene: CheeseSpider\_51 Start: 34508, Stop: 34687, Start Num: 15  
Candidate Starts for CheeseSpider\_51:  
(3, 34238), (Start: 15 @34508 has 23 MA's), (19, 34523), (28, 34637), (30, 34676),

Gene: Delian\_47 Start: 32737, Stop: 32901, Start Num: 16  
Candidate Starts for Delian\_47:  
(Start: 16 @32737 has 14 MA's), (18, 32740), (19, 32752),

Gene: Fairfaxidum\_47 Start: 35996, Stop: 36163, Start Num: 15  
Candidate Starts for Fairfaxidum\_47:  
(Start: 15 @35996 has 23 MA's),

Gene: Fenry\_44 Start: 35040, Stop: 35210, Start Num: 15  
Candidate Starts for Fenry\_44:  
(1, 34692), (Start: 15 @35040 has 23 MA's), (19, 35055), (28, 35169),

Gene: Frokostdame\_48 Start: 35842, Stop: 36006, Start Num: 17  
Candidate Starts for Frokostdame\_48:  
(Start: 17 @35842 has 2 MA's), (20, 35884), (23, 35917), (27, 35929),

Gene: Gambino\_50 Start: 36031, Stop: 36195, Start Num: 15  
Candidate Starts for Gambino\_50:  
(2, 35752), (5, 35782), (Start: 12 @35974 has 2 MA's), (Start: 15 @36031 has 23 MA's), (20, 36073),  
(23, 36106), (27, 36118),

Gene: Guacamole\_42 Start: 33394, Stop: 33564, Start Num: 15  
Candidate Starts for Guacamole\_42:  
(Start: 15 @33394 has 23 MA's), (19, 33409), (22, 33463), (25, 33475), (28, 33523),

Gene: Gudmit\_39 Start: 27962, Stop: 28129, Start Num: 15  
Candidate Starts for Gudmit\_39:  
(Start: 15 @27962 has 23 MA's), (21, 28019), (24, 28037), (29, 28118),

Gene: Hitter\_45 Start: 33039, Stop: 33209, Start Num: 15  
Candidate Starts for Hitter\_45:  
(Start: 15 @33039 has 23 MA's), (19, 33054), (22, 33108), (28, 33168),

Gene: Jalammah\_49 Start: 36356, Stop: 36526, Start Num: 15  
Candidate Starts for Jalammah\_49:  
(Start: 15 @36356 has 23 MA's), (19, 36371), (22, 36425), (25, 36437),

Gene: JasperJr\_42 Start: 33394, Stop: 33564, Start Num: 15  
Candidate Starts for JasperJr\_42:  
(Start: 15 @33394 has 23 MA's), (19, 33409), (22, 33463), (25, 33475), (28, 33523),

Gene: JuJu\_51 Start: 37183, Stop: 37353, Start Num: 15

Candidate Starts for JuJu\_51:  
(Start: 15 @37183 has 23 MA's), (23, 37258),

Gene: KappaFarmDelta\_47 Start: 33976, Stop: 34140, Start Num: 15  
Candidate Starts for KappaFarmDelta\_47:  
(2, 33697), (5, 33727), (6, 33733), (Start: 12 @33919 has 2 MA's), (Start: 15 @33976 has 23 MA's),

Gene: Lysidious\_46 Start: 35415, Stop: 35579, Start Num: 17  
Candidate Starts for Lysidious\_46:  
(11, 35334), (13, 35349), (Start: 17 @35415 has 2 MA's), (18, 35418), (19, 35430),

Gene: Malachai\_45 Start: 36146, Stop: 36316, Start Num: 16  
Candidate Starts for Malachai\_45:  
(Start: 16 @36146 has 14 MA's), (19, 36161), (28, 36275),

Gene: Melba\_43 Start: 33279, Stop: 33443, Start Num: 16  
Candidate Starts for Melba\_43:  
(Start: 16 @33279 has 14 MA's), (18, 33282), (19, 33294),

Gene: Mellie\_44 Start: 33865, Stop: 34035, Start Num: 16  
Candidate Starts for Mellie\_44:  
(Start: 16 @33865 has 14 MA's), (19, 33880), (28, 33994),

Gene: MintFen\_44 Start: 33353, Stop: 33517, Start Num: 16  
Candidate Starts for MintFen\_44:  
(Start: 16 @33353 has 14 MA's), (18, 33356), (19, 33368),

Gene: MissRona\_48 Start: 36032, Stop: 36196, Start Num: 15  
Candidate Starts for MissRona\_48:  
(2, 35753), (5, 35783), (Start: 12 @35975 has 2 MA's), (Start: 15 @36032 has 23 MA's), (20, 36074),  
(23, 36107), (27, 36119),

Gene: Murp\_48 Start: 37601, Stop: 37765, Start Num: 15  
Candidate Starts for Murp\_48:  
(4, 37343), (7, 37388), (Start: 15 @37601 has 23 MA's), (18, 37604), (19, 37616),

Gene: Obliviate\_40 Start: 31641, Stop: 31805, Start Num: 16  
Candidate Starts for Obliviate\_40:  
(Start: 16 @31641 has 14 MA's), (18, 31644), (19, 31656),

Gene: PCoral7\_46 Start: 35353, Stop: 35580, Start Num: 12  
Candidate Starts for PCoral7\_46:  
(10, 35257), (Start: 12 @35353 has 2 MA's), (Start: 15 @35413 has 23 MA's), (28, 35539),

Gene: Petra\_41 Start: 31999, Stop: 32163, Start Num: 16  
Candidate Starts for Petra\_41:  
(Start: 16 @31999 has 14 MA's), (18, 32002), (19, 32014),

Gene: PhrostedPhlake\_46 Start: 33313, Stop: 33477, Start Num: 15  
Candidate Starts for PhrostedPhlake\_46:  
(8, 33121), (Start: 12 @33253 has 2 MA's), (Start: 15 @33313 has 23 MA's), (19, 33328),

Gene: Pipp\_45 Start: 33774, Stop: 33941, Start Num: 14

Candidate Starts for Pipp\_45:  
(Start: 14 @33774 has 2 MA's), (26, 33861), (27, 33864), (29, 33933),

Gene: PrincePatrick\_45 Start: 33768, Stop: 33935, Start Num: 15  
Candidate Starts for PrincePatrick\_45:  
(9, 33576), (Start: 15 @33768 has 23 MA's),

Gene: Samba\_45 Start: 36251, Stop: 36421, Start Num: 15  
Candidate Starts for Samba\_45:  
(Start: 15 @36251 has 23 MA's), (19, 36266), (20, 36293), (22, 36320), (28, 36380),

Gene: Toast\_46 Start: 35353, Stop: 35580, Start Num: 12  
Candidate Starts for Toast\_46:  
(10, 35257), (Start: 12 @35353 has 2 MA's), (Start: 15 @35413 has 23 MA's), (28, 35539),

Gene: UmaThurman\_42 Start: 34120, Stop: 34287, Start Num: 14  
Candidate Starts for UmaThurman\_42:  
(Start: 14 @34120 has 2 MA's), (26, 34207), (27, 34210), (29, 34279),

Gene: Utz\_40 Start: 34941, Stop: 35105, Start Num: 15  
Candidate Starts for Utz\_40:  
(Start: 15 @34941 has 23 MA's), (19, 34956),

Gene: Walrus\_43 Start: 33174, Stop: 33338, Start Num: 15  
Candidate Starts for Walrus\_43:  
(Start: 15 @33174 has 23 MA's), (19, 33189),

Gene: William\_47 Start: 35452, Stop: 35619, Start Num: 15  
Candidate Starts for William\_47:  
(Start: 15 @35452 has 23 MA's), (28, 35578),

Gene: Wisp\_44 Start: 34993, Stop: 35163, Start Num: 16  
Candidate Starts for Wisp\_44:  
(1, 34645), (Start: 16 @34993 has 14 MA's), (19, 35008), (20, 35035), (22, 35062), (28, 35122),

Gene: Wocket\_46 Start: 34143, Stop: 34307, Start Num: 15  
Candidate Starts for Wocket\_46:  
(Start: 15 @34143 has 23 MA's),

Gene: Zarbodnamra\_43 Start: 32761, Stop: 32925, Start Num: 16  
Candidate Starts for Zarbodnamra\_43:  
(Start: 16 @32761 has 14 MA's), (18, 32764), (19, 32776),

Gene: ZiggyZoo\_47 Start: 36213, Stop: 36383, Start Num: 16  
Candidate Starts for ZiggyZoo\_47:  
(1, 35865), (7, 35997), (Start: 16 @36213 has 14 MA's), (19, 36228), (28, 36342),

Gene: Zilla\_43 Start: 32508, Stop: 32672, Start Num: 16  
Candidate Starts for Zilla\_43:  
(Start: 16 @32508 has 14 MA's), (18, 32511), (19, 32523),