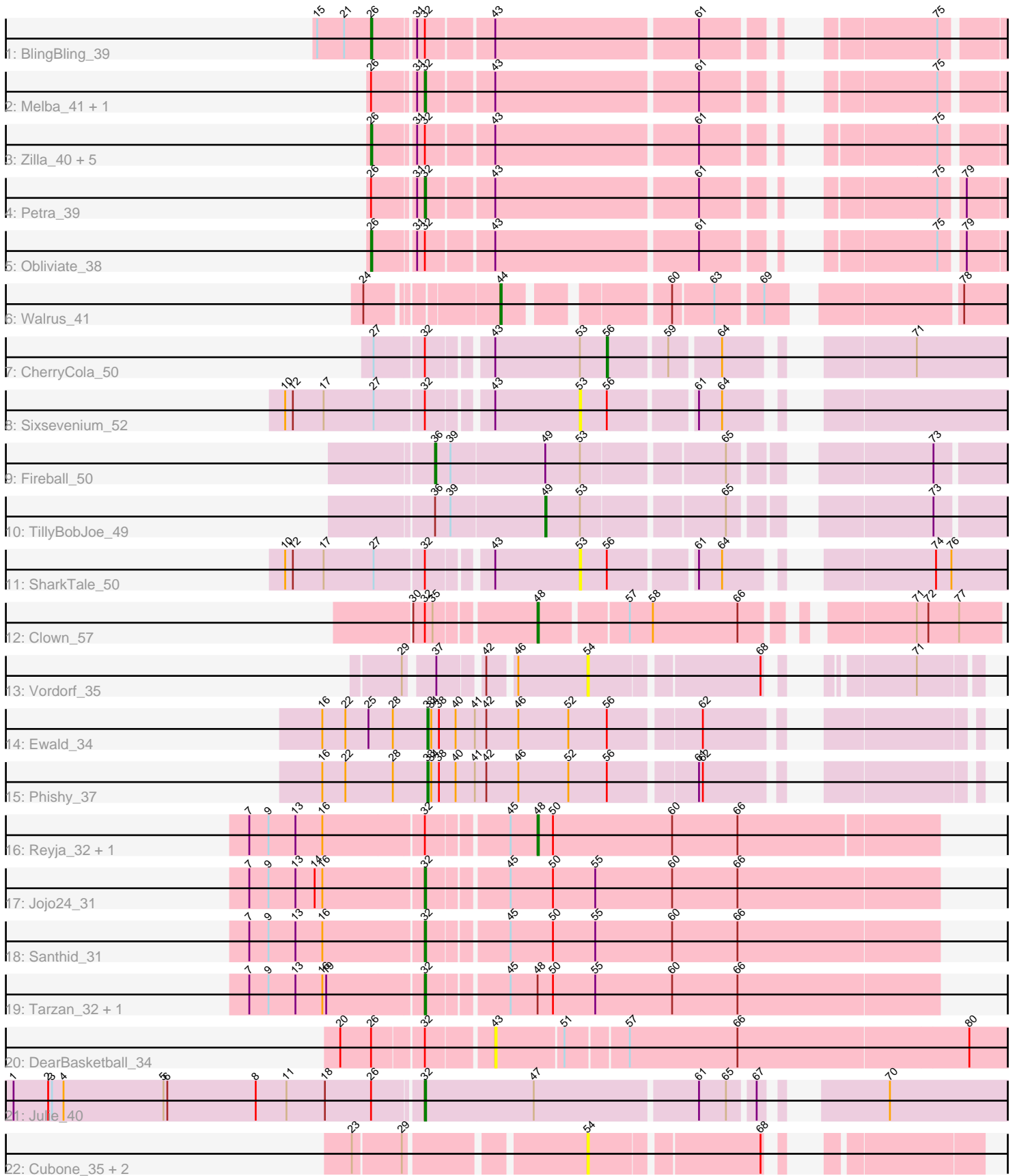


Pham 311852



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 311852 Report

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

Pham number 311852 has 32 members, 8 are drafts.

Phages represented in each track:

- Track 1 : BlingBling\_39
- Track 2 : Melba\_41, Barco\_40
- Track 3 : Zilla\_40, Delian\_45, CaptainKirk2\_42, Zarbodnamra\_41, Archis\_45, MintFen\_42
- Track 4 : Petra\_39
- Track 5 : Obliviate\_38
- Track 6 : Walrus\_41
- Track 7 : CherryCola\_50
- Track 8 : Sixsevenium\_52
- Track 9 : Fireball\_50
- Track 10 : TillyBobJoe\_49
- Track 11 : SharkTale\_50
- Track 12 : Clown\_57
- Track 13 : Vordorf\_35
- Track 14 : Ewald\_34
- Track 15 : Phishy\_37
- Track 16 : Reyja\_32, DinoNuggs\_32
- Track 17 : Jojo24\_31
- Track 18 : Santhid\_31
- Track 19 : Tarzan\_32, DonkeyMan\_32
- Track 20 : DearBasketball\_34
- Track 21 : Julie\_40
- Track 22 : Cubone\_35, Scitech\_32, Tessdabest\_36

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

The start number called the most often in the published annotations is 32, it was called in 8 of the 24 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Barco\_40, DonkeyMan\_32, Jojo24\_31, Julie\_40, Melba\_41, Petra\_39, Santhid\_31, Tarzan\_32,

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

- Archis\_45, BlingBling\_39, CaptainKirk2\_42, CherryCola\_50, Clown\_57, DearBasketball\_34, Delian\_45, DinoNuggs\_32, MintFen\_42, Obliviate\_38, Reyja\_32, SharkTale\_50, Sixsevenium\_52, Zarbodnamra\_41, Zilla\_40,

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

- Cubone\_35, Ewald\_34, Fireball\_50, Phishy\_37, Scitech\_32, Tessdabest\_36, TillyBobJoe\_49, Vordorf\_35, Walrus\_41,

### Summary by start number:

Start 26:

- Found in 13 of 32 ( 40.6% ) of genes in pham
- Manual Annotations of this start: 8 of 24
- Called 61.5% of time when present
- Phage (with cluster) where this start called: Archis\_45 (CV), BlingBling\_39 (CV), CaptainKirk2\_42 (CV), Delian\_45 (CV), MintFen\_42 (CV), Obliviate\_38 (CV), Zarbodnamra\_41 (CV), Zilla\_40 (CV),

Start 32:

- Found in 23 of 32 ( 71.9% ) of genes in pham
- Manual Annotations of this start: 8 of 24
- Called 34.8% of time when present
- Phage (with cluster) where this start called: Barco\_40 (CV), DonkeyMan\_32 (DY), Jojo24\_31 (DY), Julie\_40 (FF), Melba\_41 (CV), Petra\_39 (CV), Santhid\_31 (DY), Tarzan\_32 (DY),

Start 33:

- Found in 2 of 32 ( 6.2% ) of genes in pham
- Manual Annotations of this start: 2 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ewald\_34 (DT), Phishy\_37 (DT),

Start 36:

- Found in 2 of 32 ( 6.2% ) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Fireball\_50 (DC1),

Start 43:

- Found in 15 of 32 ( 46.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 6.7% of time when present
- Phage (with cluster) where this start called: DearBasketball\_34 (DY),

Start 44:

- Found in 1 of 32 ( 3.1% ) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Walrus\_41 (CV),

Start 48:

- Found in 5 of 32 ( 15.6% ) of genes in pham
- Manual Annotations of this start: 2 of 24

- Called 60.0% of time when present
- Phage (with cluster) where this start called: Clown\_57 (DC2), DinoNuggs\_32 (DY), Reyja\_32 (DY),

Start 49:

- Found in 2 of 32 ( 6.2% ) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 50.0% of time when present
- Phage (with cluster) where this start called: TillyBobJoe\_49 (DC1),

Start 53:

- Found in 5 of 32 ( 15.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 40.0% of time when present
- Phage (with cluster) where this start called: SharkTale\_50 (DC1), Sixsevenium\_52 (DC1),

Start 54:

- Found in 4 of 32 ( 12.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cubone\_35 (N), Scitech\_32 (N), Tessdabest\_36 (N), Vordorf\_35 (DT),

Start 56:

- Found in 5 of 32 ( 15.6% ) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 20.0% of time when present
- Phage (with cluster) where this start called: CherryCola\_50 (DC1),

### **Summary by clusters:**

There are 7 clusters represented in this pham: N, FF, DY, DT, DC2, CV, DC1,

Info for manual annotations of cluster CV:

- Start number 26 was manually annotated 8 times for cluster CV.
- Start number 32 was manually annotated 3 times for cluster CV.
- Start number 44 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster DC1:

- Start number 36 was manually annotated 1 time for cluster DC1.
- Start number 49 was manually annotated 1 time for cluster DC1.
- Start number 56 was manually annotated 1 time for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 48 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DT:

- Start number 33 was manually annotated 2 times for cluster DT.

Info for manual annotations of cluster DY:

- Start number 32 was manually annotated 4 times for cluster DY.
- Start number 48 was manually annotated 1 time for cluster DY.

Info for manual annotations of cluster FF:

•Start number 32 was manually annotated 1 time for cluster FF.

**Gene Information:**

Gene: Archis\_45 Start: 33058, Stop: 32636, Start Num: 26

Candidate Starts for Archis\_45:

(Start: 26 @33058 has 8 MA's), (31, 33028), (Start: 32 @33022 has 8 MA's), (43, 32974), (61, 32821), (75, 32689),

Gene: Barco\_40 Start: 32072, Stop: 31686, Start Num: 32

Candidate Starts for Barco\_40:

(Start: 26 @32108 has 8 MA's), (31, 32078), (Start: 32 @32072 has 8 MA's), (43, 32024), (61, 31871), (75, 31739),

Gene: BlingBling\_39 Start: 33071, Stop: 32649, Start Num: 26

Candidate Starts for BlingBling\_39:

(15, 33113), (21, 33092), (Start: 26 @33071 has 8 MA's), (31, 33041), (Start: 32 @33035 has 8 MA's), (43, 32987), (61, 32834), (75, 32702),

Gene: CaptainKirk2\_42 Start: 32356, Stop: 31934, Start Num: 26

Candidate Starts for CaptainKirk2\_42:

(Start: 26 @32356 has 8 MA's), (31, 32326), (Start: 32 @32320 has 8 MA's), (43, 32272), (61, 32119), (75, 31987),

Gene: CherryCola\_50 Start: 40592, Stop: 40308, Start Num: 56

Candidate Starts for CherryCola\_50:

(27, 40757), (Start: 32 @40721 has 8 MA's), (43, 40679), (53, 40613), (Start: 56 @40592 has 1 MA's), (59, 40550), (64, 40514), (71, 40406),

Gene: Clown\_57 Start: 43040, Stop: 42723, Start Num: 48

Candidate Starts for Clown\_57:

(30, 43127), (Start: 32 @43118 has 8 MA's), (35, 43112), (Start: 48 @43040 has 2 MA's), (57, 42977), (58, 42959), (66, 42893), (71, 42788), (72, 42779), (77, 42755),

Gene: Cubone\_35 Start: 27682, Stop: 27437, Start Num: 54

Candidate Starts for Cubone\_35:

(23, 27844), (29, 27808), (54, 27682), (68, 27559),

Gene: DearBasketball\_34 Start: 26807, Stop: 26418, Start Num: 43

Candidate Starts for DearBasketball\_34:

(20, 26915), (Start: 26 @26891 has 8 MA's), (Start: 32 @26855 has 8 MA's), (43, 26807), (51, 26756), (57, 26711), (66, 26627), (80, 26450),

Gene: Delian\_45 Start: 32354, Stop: 31932, Start Num: 26

Candidate Starts for Delian\_45:

(Start: 26 @32354 has 8 MA's), (31, 32324), (Start: 32 @32318 has 8 MA's), (43, 32270), (61, 32117), (75, 31985),

Gene: DinoNuggs\_32 Start: 26445, Stop: 26137, Start Num: 48

Candidate Starts for DinoNuggs\_32:

(7, 26655), (9, 26640), (13, 26619), (16, 26598), (Start: 32 @26523 has 8 MA's), (45, 26466), (Start: 48 @26445 has 2 MA's), (50, 26433), (60, 26340), (66, 26289),

Gene: DonkeyMan\_32 Start: 27574, Stop: 27185, Start Num: 32

Candidate Starts for DonkeyMan\_32:

(7, 27706), (9, 27691), (13, 27670), (16, 27649), (19, 27646), (Start: 32 @27574 has 8 MA's), (45, 27517), (Start: 48 @27496 has 2 MA's), (50, 27484), (55, 27451), (60, 27391), (66, 27340),

Gene: Ewald\_34 Start: 29912, Stop: 29541, Start Num: 33

Candidate Starts for Ewald\_34:

(16, 29993), (22, 29975), (25, 29957), (28, 29939), (Start: 33 @29912 has 2 MA's), (34, 29909), (38, 29903), (40, 29891), (41, 29876), (42, 29867), (46, 29843), (52, 29804), (Start: 56 @29774 has 1 MA's), (62, 29708),

Gene: Fireball\_50 Start: 40315, Stop: 39920, Start Num: 36

Candidate Starts for Fireball\_50:

(Start: 36 @40315 has 1 MA's), (39, 40303), (Start: 49 @40231 has 1 MA's), (53, 40204), (65, 40102), (73, 39979),

Gene: Jojo24\_31 Start: 26167, Stop: 25778, Start Num: 32

Candidate Starts for Jojo24\_31:

(7, 26299), (9, 26284), (13, 26263), (14, 26248), (16, 26242), (Start: 32 @26167 has 8 MA's), (45, 26110), (50, 26077), (55, 26044), (60, 25984), (66, 25933),

Gene: Julie\_40 Start: 30481, Stop: 30059, Start Num: 32

Candidate Starts for Julie\_40:

(1, 30796), (2, 30769), (3, 30766), (4, 30757), (5, 30679), (6, 30676), (8, 30607), (11, 30583), (18, 30553), (Start: 26 @30517 has 8 MA's), (Start: 32 @30481 has 8 MA's), (47, 30397), (61, 30274), (65, 30253), (67, 30235), (70, 30169),

Gene: Melba\_41 Start: 32860, Stop: 32474, Start Num: 32

Candidate Starts for Melba\_41:

(Start: 26 @32896 has 8 MA's), (31, 32866), (Start: 32 @32860 has 8 MA's), (43, 32812), (61, 32659), (75, 32527),

Gene: MintFen\_42 Start: 32970, Stop: 32548, Start Num: 26

Candidate Starts for MintFen\_42:

(Start: 26 @32970 has 8 MA's), (31, 32940), (Start: 32 @32934 has 8 MA's), (43, 32886), (61, 32733), (75, 32601),

Gene: Obliviate\_38 Start: 31257, Stop: 30835, Start Num: 26

Candidate Starts for Obliviate\_38:

(Start: 26 @31257 has 8 MA's), (31, 31227), (Start: 32 @31221 has 8 MA's), (43, 31173), (61, 31020), (75, 30888), (79, 30873),

Gene: Petra\_39 Start: 31580, Stop: 31194, Start Num: 32

Candidate Starts for Petra\_39:

(Start: 26 @31616 has 8 MA's), (31, 31586), (Start: 32 @31580 has 8 MA's), (43, 31532), (61, 31379), (75, 31247), (79, 31232),

Gene: Phishy\_37 Start: 31530, Stop: 31159, Start Num: 33

Candidate Starts for Phishy\_37:

(16, 31611), (22, 31593), (28, 31557), (Start: 33 @31530 has 2 MA's), (34, 31527), (38, 31521), (40, 31509), (41, 31494), (42, 31485), (46, 31461), (52, 31422), (Start: 56 @31392 has 1 MA's), (61, 31329), (62, 31326),

Gene: Reyja\_32 Start: 26445, Stop: 26137, Start Num: 48

Candidate Starts for Reyja\_32:

(7, 26655), (9, 26640), (13, 26619), (16, 26598), (Start: 32 @26523 has 8 MA's), (45, 26466), (Start: 48 @26445 has 2 MA's), (50, 26433), (60, 26340), (66, 26289),

Gene: Santhid\_31 Start: 24886, Stop: 24497, Start Num: 32

Candidate Starts for Santhid\_31:

(7, 25018), (9, 25003), (13, 24982), (16, 24961), (Start: 32 @24886 has 8 MA's), (45, 24829), (50, 24796), (55, 24763), (60, 24703), (66, 24652),

Gene: Scitech\_32 Start: 26837, Stop: 26592, Start Num: 54

Candidate Starts for Scitech\_32:

(23, 26999), (29, 26963), (54, 26837), (68, 26714),

Gene: SharkTale\_50 Start: 40799, Stop: 40494, Start Num: 53

Candidate Starts for SharkTale\_50:

(10, 41012), (12, 41006), (17, 40982), (27, 40943), (Start: 32 @40907 has 8 MA's), (43, 40865), (53, 40799), (Start: 56 @40778 has 1 MA's), (61, 40718), (64, 40700), (74, 40577), (76, 40565),

Gene: Sixsevenium\_52 Start: 40210, Stop: 39905, Start Num: 53

Candidate Starts for Sixsevenium\_52:

(10, 40423), (12, 40417), (17, 40393), (27, 40354), (Start: 32 @40318 has 8 MA's), (43, 40276), (53, 40210), (Start: 56 @40189 has 1 MA's), (61, 40129), (64, 40111),

Gene: Tarzan\_32 Start: 26056, Stop: 25667, Start Num: 32

Candidate Starts for Tarzan\_32:

(7, 26188), (9, 26173), (13, 26152), (16, 26131), (19, 26128), (Start: 32 @26056 has 8 MA's), (45, 25999), (Start: 48 @25978 has 2 MA's), (50, 25966), (55, 25933), (60, 25873), (66, 25822),

Gene: Tessdabest\_36 Start: 28986, Stop: 28741, Start Num: 54

Candidate Starts for Tessdabest\_36:

(23, 29148), (29, 29112), (54, 28986), (68, 28863),

Gene: TillyBobJoe\_49 Start: 39897, Stop: 39586, Start Num: 49

Candidate Starts for TillyBobJoe\_49:

(Start: 36 @39981 has 1 MA's), (39, 39969), (Start: 49 @39897 has 1 MA's), (53, 39870), (65, 39768), (73, 39645),

Gene: Vordorf\_35 Start: 30060, Stop: 29824, Start Num: 54

Candidate Starts for Vordorf\_35:

(29, 30180), (37, 30162), (42, 30132), (46, 30114), (54, 30060), (68, 29937), (71, 29868),

Gene: Walrus\_41 Start: 32609, Stop: 32277, Start Num: 44

Candidate Starts for Walrus\_41:

(24, 32699), (Start: 44 @32609 has 1 MA's), (60, 32504), (63, 32474), (69, 32441), (78, 32318),

Gene: Zarbodnamra\_41 Start: 32378, Stop: 31956, Start Num: 26

Candidate Starts for Zarbodnamra\_41:

(Start: 26 @32378 has 8 MA's), (31, 32348), (Start: 32 @32342 has 8 MA's), (43, 32294), (61, 32141), (75, 32009),

Gene: Zilla\_40 Start: 32125, Stop: 31703, Start Num: 26

Candidate Starts for Zilla\_40:

(Start: 26 @32125 has 8 MA's), (31, 32095), (Start: 32 @32089 has 8 MA's), (43, 32041), (61, 31888), (75, 31756),