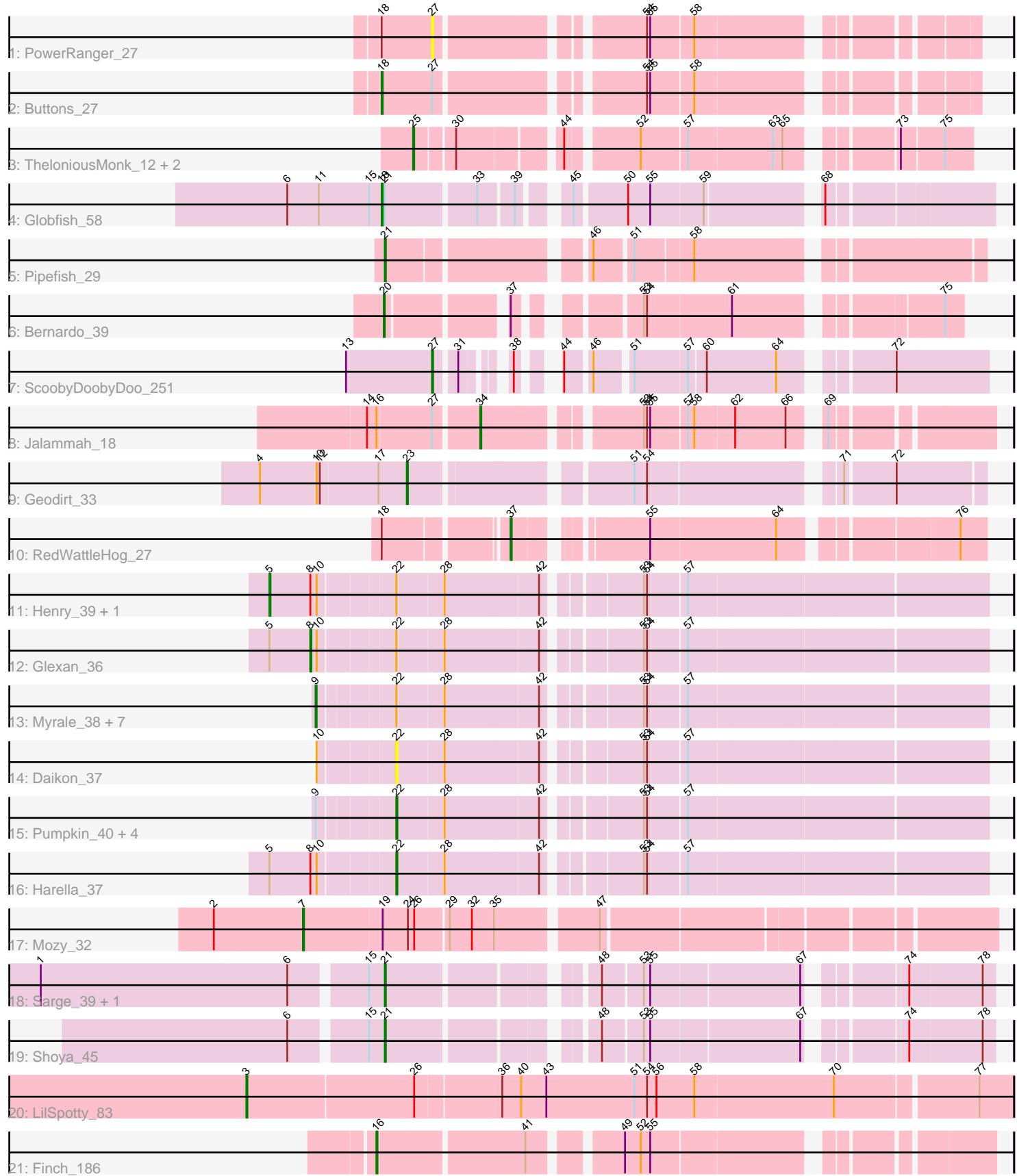


# Pham 280653



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 280653 Report

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

Pham number 280653 has 36 members, 3 are drafts.

Phages represented in each track:

- Track 1 : PowerRanger\_27
- Track 2 : Buttons\_27
- Track 3 : TheloniousMonk\_12, Gwendoluna\_12, Target\_12
- Track 4 : Globfish\_58
- Track 5 : Pipefish\_29
- Track 6 : Bernardo\_39
- Track 7 : ScoobyDooByDoo\_251
- Track 8 : Jalammah\_18
- Track 9 : Geodirt\_33
- Track 10 : RedWattleHog\_27
- Track 11 : Henry\_39, Gator\_36
- Track 12 : Glexan\_36
- Track 13 : Myrale\_38, ABCat\_37, Tuco\_39, DrDrey\_39, ShamWow\_38, Dusk\_37, BadStone\_37, BilboSwaggins\_38
- Track 14 : Daikon\_37
- Track 15 : Pumpkin\_40, Marshmallow\_38, Teaspoon\_39, Balomoji\_37, Toto\_38
- Track 16 : Harella\_37
- Track 17 : Mozy\_32
- Track 18 : Sarge\_39, Rooter\_42
- Track 19 : Shoya\_45
- Track 20 : LilSpotty\_83
- Track 21 : Finch\_186

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

The start number called the most often in the published annotations is 9, it was called in 8 of the 33 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABCat\_37, BadStone\_37, BilboSwaggins\_38, DrDrey\_39, Dusk\_37, Myrale\_38, ShamWow\_38, Tuco\_39,

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

- Balomoji\_37, Marshmallow\_38, Pumpkin\_40, Teaspoon\_39, Toto\_38,

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

- Bernardo\_39, Buttons\_27, Daikon\_37, Finch\_186, Gator\_36, Geodirt\_33, Glexan\_36, Globfish\_58, Gwendoluna\_12, Harella\_37, Henry\_39, Jalammah\_18, LilSpotty\_83, Mozy\_32, Pipefish\_29, PowerRanger\_27, RedWattleHog\_27, Rooter\_42, Sarge\_39, ScoobyDoobyDoo\_251, Shoya\_45, Target\_12, TheloniousMonk\_12,

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

Start 3:

- Found in 1 of 36 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LilSpotty\_83 (singleton),

Start 5:

- Found in 4 of 36 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 2 of 33
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Gator\_36 (E), Henry\_39 (E),

Start 7:

- Found in 1 of 36 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mozy\_32 (F1),

Start 8:

- Found in 4 of 36 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Glexan\_36 (E),

Start 9:

- Found in 13 of 36 ( 36.1% ) of genes in pham
- Manual Annotations of this start: 8 of 33
- Called 61.5% of time when present
- Phage (with cluster) where this start called: ABCat\_37 (E), BadStone\_37 (E), BilboSwaggins\_38 (E), DrDrey\_39 (E), Dusk\_37 (E), Myrale\_38 (E), ShamWow\_38 (E), Tuco\_39 (E),

Start 16:

- 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: Finch\_186 (singleton),

Start 18:

- Found in 4 of 36 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 2 of 33
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Buttons\_27 (A1), Globfish\_58 (AY),

Start 20:

- Found in 1 of 36 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bernardo\_39 (B3),

Start 21:

- Found in 5 of 36 ( 13.9% ) of genes in pham
- Manual Annotations of this start: 3 of 33
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Pipefish\_29 (B3), Rooter\_42 (FB), Sarge\_39 (FB), Shoya\_45 (FB),

Start 22:

- Found in 18 of 36 ( 50.0% ) of genes in pham
- Manual Annotations of this start: 6 of 33
- Called 38.9% of time when present
- Phage (with cluster) where this start called: Balomoji\_37 (E), Daikon\_37 (E), Harella\_37 (E), Marshmallow\_38 (E), Pumpkin\_40 (E), Teaspoon\_39 (E), Toto\_38 (E),

Start 23:

- Found in 1 of 36 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Geodirt\_33 (DE1),

Start 25:

- Found in 3 of 36 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 3 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gwendoluna\_12 (A1), Target\_12 (A1), TheloniousMonk\_12 (A1),

Start 27:

- Found in 4 of 36 ( 11.1% ) 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: PowerRanger\_27 (A1), ScoobyDoobyDoo\_251 (C2),

Start 34:

- Found in 1 of 36 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jalammah\_18 (CV),

Start 37:

- 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: RedWattleHog\_27 (DX),

## **Summary by clusters:**

There are 11 clusters represented in this pham: F1, singleton, E, DE1, A1, FB, DX, B3, AY, C2, CV,

Info for manual annotations of cluster A1:

- Start number 18 was manually annotated 1 time for cluster A1.
- Start number 25 was manually annotated 3 times for cluster A1.

Info for manual annotations of cluster AY:

- Start number 18 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster B3:

- Start number 20 was manually annotated 1 time for cluster B3.
- Start number 21 was manually annotated 1 time for cluster B3.

Info for manual annotations of cluster C2:

- Start number 27 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster CV:

- Start number 34 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster DE1:

- Start number 23 was manually annotated 1 time for cluster DE1.

Info for manual annotations of cluster DX:

- Start number 37 was manually annotated 1 time for cluster DX.

Info for manual annotations of cluster E:

- Start number 5 was manually annotated 2 times for cluster E.
- Start number 8 was manually annotated 1 time for cluster E.
- Start number 9 was manually annotated 8 times for cluster E.
- Start number 22 was manually annotated 6 times for cluster E.

Info for manual annotations of cluster F1:

- Start number 7 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster FB:

- Start number 21 was manually annotated 2 times for cluster FB.

## ***Gene Information:***

Gene: ABCat\_37 Start: 34121, Stop: 33534, Start Num: 9

Candidate Starts for ABCat\_37:

(Start: 9 @34121 has 8 MA's), (Start: 22 @34055 has 6 MA's), (28, 34013), (42, 33926), (53, 33848), (54, 33845), (57, 33809),

Gene: BadStone\_37 Start: 34121, Stop: 33534, Start Num: 9

Candidate Starts for BadStone\_37:

(Start: 9 @34121 has 8 MA's), (Start: 22 @34055 has 6 MA's), (28, 34013), (42, 33926), (53, 33848), (54, 33845), (57, 33809),

Gene: Balomoji\_37 Start: 33789, Stop: 33268, Start Num: 22

Candidate Starts for Balomoji\_37:

(Start: 9 @33855 has 8 MA's), (Start: 22 @33789 has 6 MA's), (28, 33747), (42, 33660), (53, 33582), (54, 33579), (57, 33543),

Gene: Bernardo\_39 Start: 36994, Stop: 37440, Start Num: 20

Candidate Starts for Bernardo\_39:

(Start: 20 @36994 has 1 MA's), (Start: 37 @37090 has 1 MA's), (53, 37174), (54, 37177), (61, 37255), (75, 37423),

Gene: BilboSwaggins\_38 Start: 34129, Stop: 33542, Start Num: 9

Candidate Starts for BilboSwaggins\_38:

(Start: 9 @34129 has 8 MA's), (Start: 22 @34063 has 6 MA's), (28, 34021), (42, 33934), (53, 33856), (54, 33853), (57, 33817),

Gene: Buttons\_27 Start: 21411, Stop: 21896, Start Num: 18

Candidate Starts for Buttons\_27:

(Start: 18 @21411 has 2 MA's), (Start: 27 @21459 has 1 MA's), (54, 21630), (55, 21633), (58, 21672),

Gene: Daikon\_37 Start: 33801, Stop: 33280, Start Num: 22

Candidate Starts for Daikon\_37:

(10, 33867), (Start: 22 @33801 has 6 MA's), (28, 33759), (42, 33672), (53, 33594), (54, 33591), (57, 33555),

Gene: DrDrey\_39 Start: 34621, Stop: 34034, Start Num: 9

Candidate Starts for DrDrey\_39:

(Start: 9 @34621 has 8 MA's), (Start: 22 @34555 has 6 MA's), (28, 34513), (42, 34426), (53, 34348), (54, 34345), (57, 34309),

Gene: Dusk\_37 Start: 33781, Stop: 33194, Start Num: 9

Candidate Starts for Dusk\_37:

(Start: 9 @33781 has 8 MA's), (Start: 22 @33715 has 6 MA's), (28, 33673), (42, 33586), (53, 33508), (54, 33505), (57, 33469),

Gene: Finch\_186 Start: 111122, Stop: 111628, Start Num: 16

Candidate Starts for Finch\_186:

(Start: 16 @111122 has 1 MA's), (41, 111254), (49, 111326), (52, 111341), (55, 111350),

Gene: Gator\_36 Start: 33782, Stop: 33150, Start Num: 5

Candidate Starts for Gator\_36:

(Start: 5 @33782 has 2 MA's), (Start: 8 @33743 has 1 MA's), (10, 33737), (Start: 22 @33671 has 6 MA's), (28, 33629), (42, 33542), (53, 33464), (54, 33461), (57, 33425),

Gene: Geodirt\_33 Start: 32468, Stop: 31986, Start Num: 23

Candidate Starts for Geodirt\_33:

(4, 32606), (10, 32552), (12, 32549), (17, 32495), (Start: 23 @32468 has 1 MA's), (51, 32285), (54, 32273), (71, 32111), (72, 32066),

Gene: Glexan\_36 Start: 33731, Stop: 33138, Start Num: 8

Candidate Starts for Glexan\_36:

(Start: 5 @33770 has 2 MA's), (Start: 8 @33731 has 1 MA's), (10, 33725), (Start: 22 @33659 has 6 MA's), (28, 33617), (42, 33530), (53, 33452), (54, 33449), (57, 33413),

Gene: Globfish\_58 Start: 33704, Stop: 34201, Start Num: 18

Candidate Starts for Globfish\_58:

(6, 33614), (11, 33644), (15, 33692), (Start: 18 @33704 has 2 MA's), (Start: 21 @33707 has 3 MA's), (33, 33788), (39, 33818), (45, 33851), (50, 33896), (55, 33917), (59, 33965), (68, 34058),

Gene: Gwendoluna\_12 Start: 7666, Stop: 8121, Start Num: 25

Candidate Starts for Gwendoluna\_12:

(Start: 25 @7666 has 3 MA's), (30, 7699), (44, 7786), (52, 7846), (57, 7888), (63, 7966), (65, 7975), (73, 8056), (75, 8095),

Gene: Harella\_37 Start: 34175, Stop: 33654, Start Num: 22

Candidate Starts for Harella\_37:

(Start: 5 @34286 has 2 MA's), (Start: 8 @34247 has 1 MA's), (10, 34241), (Start: 22 @34175 has 6 MA's), (28, 34133), (42, 34046), (53, 33968), (54, 33965), (57, 33929),

Gene: Henry\_39 Start: 34174, Stop: 33542, Start Num: 5

Candidate Starts for Henry\_39:

(Start: 5 @34174 has 2 MA's), (Start: 8 @34135 has 1 MA's), (10, 34129), (Start: 22 @34063 has 6 MA's), (28, 34021), (42, 33934), (53, 33856), (54, 33853), (57, 33817),

Gene: Jalammah\_18 Start: 10634, Stop: 11050, Start Num: 34

Candidate Starts for Jalammah\_18:

(14, 10535), (Start: 16 @10544 has 1 MA's), (Start: 27 @10595 has 1 MA's), (Start: 34 @10634 has 1 MA's), (53, 10763), (54, 10766), (55, 10769), (57, 10802), (58, 10808), (62, 10844), (66, 10892), (69, 10913),

Gene: LilSpotty\_83 Start: 48505, Stop: 49212, Start Num: 3

Candidate Starts for LilSpotty\_83:

(Start: 3 @48505 has 1 MA's), (26, 48661), (36, 48739), (40, 48757), (43, 48781), (51, 48865), (54, 48877), (56, 48886), (58, 48922), (70, 49051), (77, 49180),

Gene: Marshmallow\_38 Start: 34061, Stop: 33540, Start Num: 22

Candidate Starts for Marshmallow\_38:

(Start: 9 @34127 has 8 MA's), (Start: 22 @34061 has 6 MA's), (28, 34019), (42, 33932), (53, 33854), (54, 33851), (57, 33815),

Gene: Mozy\_32 Start: 27800, Stop: 28405, Start Num: 7

Candidate Starts for Mozy\_32:

(2, 27716), (Start: 7 @27800 has 1 MA's), (19, 27872), (24, 27896), (26, 27902), (29, 27932), (32, 27953), (35, 27974), (47, 28061),

Gene: Myrale\_38 Start: 33992, Stop: 33405, Start Num: 9

Candidate Starts for Myrale\_38:

(Start: 9 @33992 has 8 MA's), (Start: 22 @33926 has 6 MA's), (28, 33884), (42, 33797), (53, 33719), (54, 33716), (57, 33680),

Gene: Pipefish\_29 Start: 27509, Stop: 27015, Start Num: 21

Candidate Starts for Pipefish\_29:

(Start: 21 @27509 has 3 MA's), (46, 27344), (51, 27311), (58, 27260),

Gene: PowerRanger\_27 Start: 22001, Stop: 22438, Start Num: 27

Candidate Starts for PowerRanger\_27:

(Start: 18 @21953 has 2 MA's), (Start: 27 @22001 has 1 MA's), (54, 22172), (55, 22175), (58, 22214),

Gene: Pumpkin\_40 Start: 34140, Stop: 33619, Start Num: 22

Candidate Starts for Pumpkin\_40:

(Start: 9 @34206 has 8 MA's), (Start: 22 @34140 has 6 MA's), (28, 34098), (42, 34011), (53, 33933), (54, 33930), (57, 33894),

Gene: RedWattleHog\_27 Start: 28545, Stop: 28156, Start Num: 37

Candidate Starts for RedWattleHog\_27:

(Start: 18 @28650 has 2 MA's), (Start: 37 @28545 has 1 MA's), (55, 28443), (64, 28326), (76, 28179),

Gene: Rooter\_42 Start: 26895, Stop: 27386, Start Num: 21

Candidate Starts for Rooter\_42:

(1, 26580), (6, 26814), (15, 26880), (Start: 21 @26895 has 3 MA's), (48, 27060), (53, 27096), (55, 27102), (67, 27237), (74, 27309), (78, 27375),

Gene: Sarge\_39 Start: 25703, Stop: 26194, Start Num: 21

Candidate Starts for Sarge\_39:

(1, 25388), (6, 25622), (15, 25688), (Start: 21 @25703 has 3 MA's), (48, 25868), (53, 25904), (55, 25910), (67, 26045), (74, 26117), (78, 26183),

Gene: ScoobyDoobyDoo\_251 Start: 151338, Stop: 151754, Start Num: 27

Candidate Starts for ScoobyDoobyDoo\_251:

(13, 151257), (Start: 27 @151338 has 1 MA's), (31, 151356), (38, 151383), (44, 151401), (46, 151422), (51, 151452), (57, 151500), (60, 151515), (64, 151581), (72, 151668),

Gene: ShamWow\_38 Start: 34129, Stop: 33542, Start Num: 9

Candidate Starts for ShamWow\_38:

(Start: 9 @34129 has 8 MA's), (Start: 22 @34063 has 6 MA's), (28, 34021), (42, 33934), (53, 33856), (54, 33853), (57, 33817),

Gene: Shoya\_45 Start: 27671, Stop: 28162, Start Num: 21

Candidate Starts for Shoya\_45:

(6, 27590), (15, 27656), (Start: 21 @27671 has 3 MA's), (48, 27836), (53, 27872), (55, 27878), (67, 28013), (74, 28085), (78, 28151),

Gene: Target\_12 Start: 7244, Stop: 7699, Start Num: 25

Candidate Starts for Target\_12:

(Start: 25 @7244 has 3 MA's), (30, 7277), (44, 7364), (52, 7424), (57, 7466), (63, 7544), (65, 7553), (73, 7634), (75, 7673),

Gene: Teaspoon\_39 Start: 34016, Stop: 33495, Start Num: 22

Candidate Starts for Teaspoon\_39:

(Start: 9 @34082 has 8 MA's), (Start: 22 @34016 has 6 MA's), (28, 33974), (42, 33887), (53, 33809), (54, 33806), (57, 33770),

Gene: TheloniousMonk\_12 Start: 7471, Stop: 7926, Start Num: 25

Candidate Starts for TheloniousMonk\_12:

(Start: 25 @7471 has 3 MA's), (30, 7504), (44, 7591), (52, 7651), (57, 7693), (63, 7771), (65, 7780), (73, 7861), (75, 7900),

Gene: Toto\_38 Start: 34063, Stop: 33542, Start Num: 22

Candidate Starts for Toto\_38:

(Start: 9 @34129 has 8 MA's), (Start: 22 @34063 has 6 MA's), (28, 34021), (42, 33934), (53, 33856),  
(54, 33853), (57, 33817),

Gene: Tuco\_39 Start: 34637, Stop: 34050, Start Num: 9

Candidate Starts for Tuco\_39:

(Start: 9 @34637 has 8 MA's), (Start: 22 @34571 has 6 MA's), (28, 34529), (42, 34442), (53, 34364),  
(54, 34361), (57, 34325),