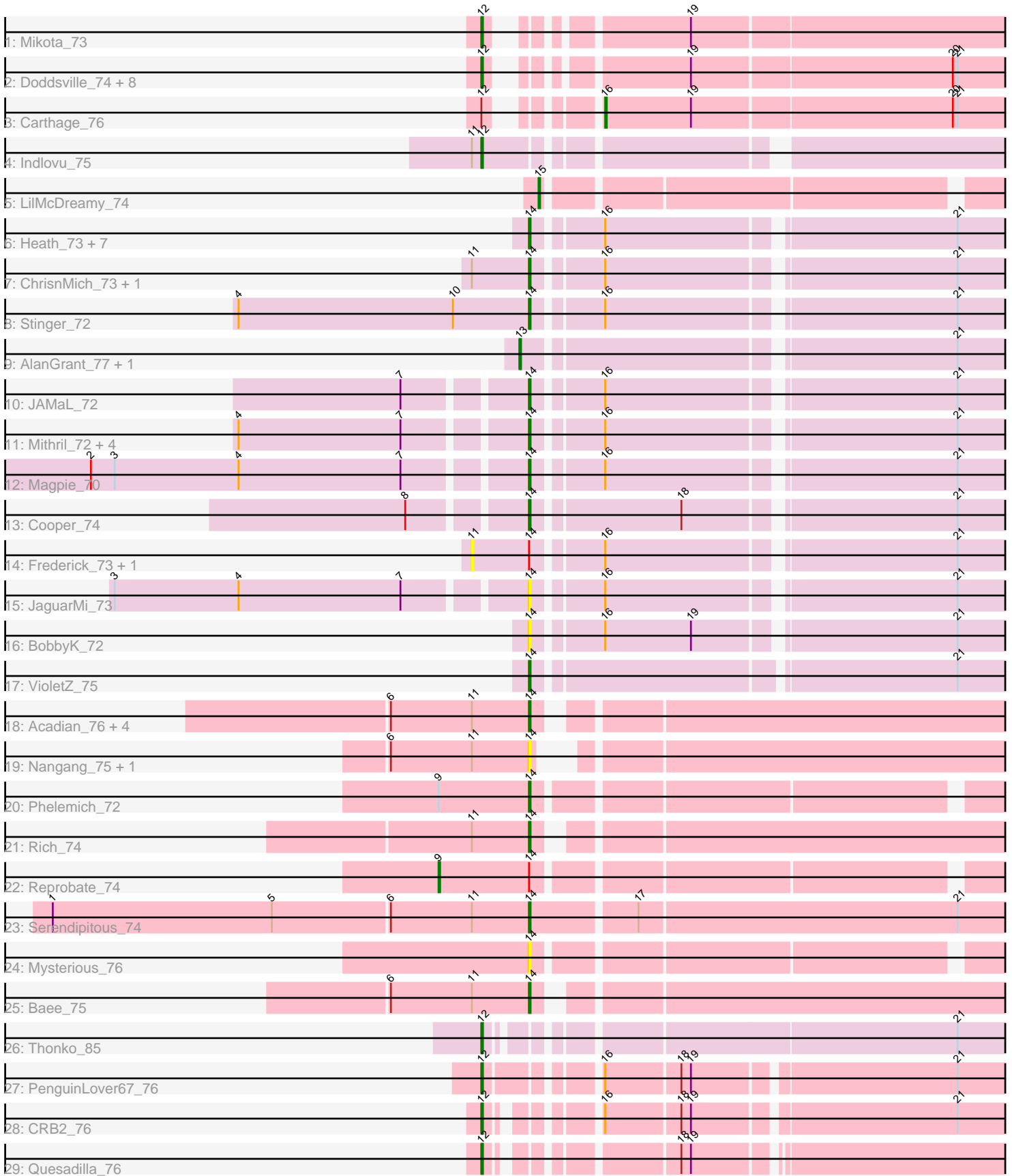


# Pham 163641



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 163641 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163641 has 56 members, 11 are drafts.

Phages represented in each track:

- Track 1 : Mikota\_73
- Track 2 : Doddsville\_74, Roy17\_74, OSmaximus\_76, PG1\_76, Vortex\_75, Lulumae\_73, Boehler\_75, Oline\_75, Orion\_76
- Track 3 : Carthage\_76
- Track 4 : Indlovu\_75
- Track 5 : LilMcDreamy\_74
- Track 6 : Heath\_73, Apex\_74, Zemanar\_73, Hangman\_74, Austelle\_73, Prince\_72, Mudslide\_73, Hydro\_74
- Track 7 : ChrisnMich\_73, Poster\_71
- Track 8 : Stinger\_72
- Track 9 : AlanGrant\_77, Vincenzo\_76
- Track 10 : JAMaL\_72
- Track 11 : Mithril\_72, Waleliano\_72, Lolalove\_74, BrownCNA\_74, RawrgerThat\_73
- Track 12 : Magpie\_70
- Track 13 : Cooper\_74
- Track 14 : Frederick\_73, Nanao\_72
- Track 15 : JaguarMi\_73
- Track 16 : BobbyK\_72
- Track 17 : VioletZ\_75
- Track 18 : Acadian\_76, EastView9101\_77, Donny\_77, Suigeneris\_77, SirJeffery\_74
- Track 19 : Nangang\_75, DigitDog\_76
- Track 20 : Phelemich\_72
- Track 21 : Rich\_74
- Track 22 : Reprobate\_74
- Track 23 : Serendipitous\_74
- Track 24 : Mysterious\_76
- Track 25 : Bae\_75
- Track 26 : Thonko\_85
- Track 27 : PenguinLover67\_76
- Track 28 : CRB2\_76
- Track 29 : Quesadilla\_76

***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 25 of the 45 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acadian\_76, Apex\_74, Austelle\_73, Bae\_75, BobbyK\_72, BrownCNA\_74, ChrisnMich\_73, Cooper\_74, DigitDog\_76, Donny\_77, EastView9101\_77, Hangman\_74, Heath\_73, Hydro\_74, JAMaL\_72, JaguarMi\_73, Lolalove\_74, Magpie\_70, Mithril\_72, Mudslide\_73, Mysterious\_76, Nangang\_75, Phelemich\_72, Poster\_71, Prince\_72, RawrgerThat\_73, Rich\_74, Serendipitous\_74, SirJeffery\_74, Stinger\_72, Suigeneris\_77, VioletZ\_75, Waleliano\_72, Zemanar\_73,

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

- Frederick\_73, Nanao\_72, Reprobate\_74,

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

- AlanGrant\_77, Boehler\_75, CRB2\_76, Carthage\_76, Doddsville\_74, Indlovu\_75, LilMcDreamy\_74, Lulumae\_73, Mikota\_73, OSmaximus\_76, Oline\_75, Orion\_76, PG1\_76, PenguinLover67\_76, Quesadilla\_76, Roy17\_74, Thonko\_85, Vincenzo\_76, Vortex\_75,

### Summary by start number:

Start 9:

- Found in 2 of 56 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 1 of 45
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Reprobate\_74 (B5),

Start 11:

- Found in 15 of 56 ( 26.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 13.3% of time when present
- Phage (with cluster) where this start called: Frederick\_73 (B4), Nanao\_72 (B4),

Start 12:

- Found in 16 of 56 ( 28.6% ) of genes in pham
- Manual Annotations of this start: 15 of 45
- Called 93.8% of time when present
- Phage (with cluster) where this start called: Boehler\_75 (B1), CRB2\_76 (B9), Doddsville\_74 (B1), Indlovu\_75 (B11), Lulumae\_73 (B1), Mikota\_73 (B1), OSmaximus\_76 (B1), Oline\_75 (B1), Orion\_76 (B1), PG1\_76 (B1), PenguinLover67\_76 (B9), Quesadilla\_76 (B9), Roy17\_74 (B1), Thonko\_85 (B8), Vortex\_75 (B1),

Start 13:

- Found in 2 of 56 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 2 of 45
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AlanGrant\_77 (B4), Vincenzo\_76 (B4),

Start 14:

- Found in 37 of 56 ( 66.1% ) of genes in pham
- Manual Annotations of this start: 25 of 45

- Called 91.9% of time when present
- Phage (with cluster) where this start called: Acadian\_76 (B5), Apex\_74 (B4), Austelle\_73 (B4), Bae\_75 (B5), BobbyK\_72 (B4), BrownCNA\_74 (B4), ChrisnMich\_73 (B4), Cooper\_74 (B4), DigitDog\_76 (B5), Donny\_77 (B5), EastView9101\_77 (B5), Hangman\_74 (B4), Heath\_73 (B4), Hydro\_74 (B4), JAMaL\_72 (B4), JaguarMi\_73 (B4), Lolalove\_74 (B4), Magpie\_70 (B4), Mithril\_72 (B4), Mudslide\_73 (B4), Mysterious\_76 (B5), Nangang\_75 (B5), Phelemich\_72 (B5), Poster\_71 (B4), Prince\_72 (B4), RawrgerThat\_73 (B4), Rich\_74 (B5), Serendipitous\_74 (B5), SirJeffery\_74 (B5), Stinger\_72 (B4), Suigeneris\_77 (B5), VioletZ\_75 (B4), Waleliano\_72 (B4), Zemanar\_73 (B4),

Start 15:

- Found in 1 of 56 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 1 of 45
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LilMcDreamy\_74 (B12),

Start 16:

- Found in 25 of 56 ( 44.6% ) of genes in pham
- Manual Annotations of this start: 1 of 45
- Called 4.0% of time when present
- Phage (with cluster) where this start called: Carthage\_76 (B1),

### **Summary by clusters:**

There are 7 clusters represented in this pham: B4, B5, B12, B1, B11, B8, B9,

Info for manual annotations of cluster B1:

- Start number 12 was manually annotated 10 times for cluster B1.
- Start number 16 was manually annotated 1 time for cluster B1.

Info for manual annotations of cluster B11:

- Start number 12 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 15 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B4:

- Start number 13 was manually annotated 2 times for cluster B4.
- Start number 14 was manually annotated 18 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 9 was manually annotated 1 time for cluster B5.
- Start number 14 was manually annotated 7 times for cluster B5.

Info for manual annotations of cluster B8:

- Start number 12 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 12 was manually annotated 3 times for cluster B9.

**Gene Information:**

Gene: Acadian\_76 Start: 61455, Stop: 61769, Start Num: 14

Candidate Starts for Acadian\_76:

(6, 61368), (11, 61419), (Start: 14 @61455 has 25 MA's),

Gene: AlanGrant\_77 Start: 63336, Stop: 63656, Start Num: 13

Candidate Starts for AlanGrant\_77:

(Start: 13 @63336 has 2 MA's), (21, 63588),

Gene: Apex\_74 Start: 61991, Stop: 62302, Start Num: 14

Candidate Starts for Apex\_74:

(Start: 14 @61991 has 25 MA's), (Start: 16 @62030 has 1 MA's), (21, 62237),

Gene: Austelle\_73 Start: 62508, Stop: 62819, Start Num: 14

Candidate Starts for Austelle\_73:

(Start: 14 @62508 has 25 MA's), (Start: 16 @62547 has 1 MA's), (21, 62754),

Gene: Bae\_75 Start: 62154, Stop: 62468, Start Num: 14

Candidate Starts for Bae\_75:

(6, 62067), (11, 62118), (Start: 14 @62154 has 25 MA's),

Gene: BobbyK\_72 Start: 61762, Stop: 62073, Start Num: 14

Candidate Starts for BobbyK\_72:

(Start: 14 @61762 has 25 MA's), (Start: 16 @61801 has 1 MA's), (19, 61855), (21, 62008),

Gene: Boehler\_75 Start: 60324, Stop: 60653, Start Num: 12

Candidate Starts for Boehler\_75:

(Start: 12 @60324 has 15 MA's), (19, 60417), (20, 60576), (21, 60579),

Gene: BrownCNA\_74 Start: 61930, Stop: 62244, Start Num: 14

Candidate Starts for BrownCNA\_74:

(4, 61759), (7, 61861), (Start: 14 @61930 has 25 MA's), (Start: 16 @61969 has 1 MA's), (21, 62176),

Gene: CRB2\_76 Start: 64139, Stop: 64459, Start Num: 12

Candidate Starts for CRB2\_76:

(Start: 12 @64139 has 15 MA's), (Start: 16 @64187 has 1 MA's), (18, 64232), (19, 64238), (21, 64394),

Gene: Carthage\_76 Start: 60068, Stop: 60358, Start Num: 16

Candidate Starts for Carthage\_76:

(Start: 12 @60026 has 15 MA's), (Start: 16 @60068 has 1 MA's), (19, 60122), (20, 60281), (21, 60284),

Gene: ChrisnMich\_73 Start: 60878, Stop: 61189, Start Num: 14

Candidate Starts for ChrisnMich\_73:

(11, 60842), (Start: 14 @60878 has 25 MA's), (Start: 16 @60917 has 1 MA's), (21, 61124),

Gene: Cooper\_74 Start: 61332, Stop: 61646, Start Num: 14

Candidate Starts for Cooper\_74:

(8, 61266), (Start: 14 @61332 has 25 MA's), (18, 61419), (21, 61578),

Gene: DigitDog\_76 Start: 61556, Stop: 61867, Start Num: 14

Candidate Starts for DigitDog\_76:

(6, 61469), (11, 61520), (Start: 14 @61556 has 25 MA's),

Gene: Doddsville\_74 Start: 60184, Stop: 60513, Start Num: 12

Candidate Starts for Doddsville\_74:

(Start: 12 @60184 has 15 MA's), (19, 60277), (20, 60436), (21, 60439),

Gene: Donny\_77 Start: 61495, Stop: 61809, Start Num: 14

Candidate Starts for Donny\_77:

(6, 61408), (11, 61459), (Start: 14 @61495 has 25 MA's),

Gene: EastView9101\_77 Start: 61199, Stop: 61513, Start Num: 14

Candidate Starts for EastView9101\_77:

(6, 61112), (11, 61163), (Start: 14 @61199 has 25 MA's),

Gene: Frederick\_73 Start: 61979, Stop: 62326, Start Num: 11

Candidate Starts for Frederick\_73:

(11, 61979), (Start: 14 @62015 has 25 MA's), (Start: 16 @62054 has 1 MA's), (21, 62261),

Gene: Hangman\_74 Start: 62206, Stop: 62517, Start Num: 14

Candidate Starts for Hangman\_74:

(Start: 14 @62206 has 25 MA's), (Start: 16 @62245 has 1 MA's), (21, 62452),

Gene: Heath\_73 Start: 61833, Stop: 62144, Start Num: 14

Candidate Starts for Heath\_73:

(Start: 14 @61833 has 25 MA's), (Start: 16 @61872 has 1 MA's), (21, 62079),

Gene: Hydro\_74 Start: 62144, Stop: 62455, Start Num: 14

Candidate Starts for Hydro\_74:

(Start: 14 @62144 has 25 MA's), (Start: 16 @62183 has 1 MA's), (21, 62390),

Gene: Indlovu\_75 Start: 62474, Stop: 62809, Start Num: 12

Candidate Starts for Indlovu\_75:

(11, 62468), (Start: 12 @62474 has 15 MA's),

Gene: JAMaL\_72 Start: 61620, Stop: 61910, Start Num: 14

Candidate Starts for JAMaL\_72:

(7, 61551), (Start: 14 @61620 has 25 MA's), (Start: 16 @61659 has 1 MA's), (21, 61866),

Gene: JaguarMi\_73 Start: 62960, Stop: 63271, Start Num: 14

Candidate Starts for JaguarMi\_73:

(3, 62711), (4, 62789), (7, 62891), (Start: 14 @62960 has 25 MA's), (Start: 16 @62999 has 1 MA's), (21, 63206),

Gene: LilMcDreamy\_74 Start: 61526, Stop: 61819, Start Num: 15

Candidate Starts for LilMcDreamy\_74:

(Start: 15 @61526 has 1 MA's),

Gene: Lolalove\_74 Start: 61861, Stop: 62175, Start Num: 14

Candidate Starts for Lolalove\_74:

(4, 61690), (7, 61792), (Start: 14 @61861 has 25 MA's), (Start: 16 @61900 has 1 MA's), (21, 62107),

Gene: Lulumae\_73 Start: 59863, Stop: 60192, Start Num: 12

Candidate Starts for Lulumae\_73:

(Start: 12 @59863 has 15 MA's), (19, 59956), (20, 60115), (21, 60118),

Gene: Magpie\_70 Start: 61485, Stop: 61796, Start Num: 14

Candidate Starts for Magpie\_70:

(2, 61221), (3, 61236), (4, 61314), (7, 61416), (Start: 14 @61485 has 25 MA's), (Start: 16 @61524 has 1 MA's), (21, 61731),

Gene: Mikota\_73 Start: 59676, Stop: 60005, Start Num: 12

Candidate Starts for Mikota\_73:

(Start: 12 @59676 has 15 MA's), (19, 59769),

Gene: Mithril\_72 Start: 61860, Stop: 62174, Start Num: 14

Candidate Starts for Mithril\_72:

(4, 61689), (7, 61791), (Start: 14 @61860 has 25 MA's), (Start: 16 @61899 has 1 MA's), (21, 62106),

Gene: Mudslide\_73 Start: 62093, Stop: 62404, Start Num: 14

Candidate Starts for Mudslide\_73:

(Start: 14 @62093 has 25 MA's), (Start: 16 @62132 has 1 MA's), (21, 62339),

Gene: Mysterious\_76 Start: 61457, Stop: 61762, Start Num: 14

Candidate Starts for Mysterious\_76:

(Start: 14 @61457 has 25 MA's),

Gene: Nanao\_72 Start: 60860, Stop: 61207, Start Num: 11

Candidate Starts for Nanao\_72:

(11, 60860), (Start: 14 @60896 has 25 MA's), (Start: 16 @60935 has 1 MA's), (21, 61142),

Gene: Nangang\_75 Start: 61582, Stop: 61881, Start Num: 14

Candidate Starts for Nangang\_75:

(6, 61495), (11, 61546), (Start: 14 @61582 has 25 MA's),

Gene: OSmaximus\_76 Start: 61108, Stop: 61437, Start Num: 12

Candidate Starts for OSmaximus\_76:

(Start: 12 @61108 has 15 MA's), (19, 61201), (20, 61360), (21, 61363),

Gene: Oline\_75 Start: 60304, Stop: 60633, Start Num: 12

Candidate Starts for Oline\_75:

(Start: 12 @60304 has 15 MA's), (19, 60397), (20, 60556), (21, 60559),

Gene: Orion\_76 Start: 60252, Stop: 60581, Start Num: 12

Candidate Starts for Orion\_76:

(Start: 12 @60252 has 15 MA's), (19, 60345), (20, 60504), (21, 60507),

Gene: PG1\_76 Start: 60823, Stop: 61152, Start Num: 12

Candidate Starts for PG1\_76:

(Start: 12 @60823 has 15 MA's), (19, 60916), (20, 61075), (21, 61078),

Gene: PenguinLover67\_76 Start: 61882, Stop: 62211, Start Num: 12

Candidate Starts for PenguinLover67\_76:

(Start: 12 @61882 has 15 MA's), (Start: 16 @61939 has 1 MA's), (18, 61984), (19, 61990), (21, 62146),

Gene: Phelemich\_72 Start: 61326, Stop: 61631, Start Num: 14  
Candidate Starts for Phelemich\_72:  
(Start: 9 @61269 has 1 MA's), (Start: 14 @61326 has 25 MA's),

Gene: Poster\_71 Start: 60897, Stop: 61208, Start Num: 14  
Candidate Starts for Poster\_71:  
(11, 60861), (Start: 14 @60897 has 25 MA's), (Start: 16 @60936 has 1 MA's), (21, 61143),

Gene: Prince\_72 Start: 61991, Stop: 62302, Start Num: 14  
Candidate Starts for Prince\_72:  
(Start: 14 @61991 has 25 MA's), (Start: 16 @62030 has 1 MA's), (21, 62234),

Gene: Quesadilla\_76 Start: 62243, Stop: 62560, Start Num: 12  
Candidate Starts for Quesadilla\_76:  
(Start: 12 @62243 has 15 MA's), (18, 62336), (19, 62342),

Gene: RawrgerThat\_73 Start: 61689, Stop: 62000, Start Num: 14  
Candidate Starts for RawrgerThat\_73:  
(4, 61518), (7, 61620), (Start: 14 @61689 has 25 MA's), (Start: 16 @61728 has 1 MA's), (21, 61935),

Gene: Reprobate\_74 Start: 61274, Stop: 61636, Start Num: 9  
Candidate Starts for Reprobate\_74:  
(Start: 9 @61274 has 1 MA's), (Start: 14 @61331 has 25 MA's),

Gene: Rich\_74 Start: 62199, Stop: 62513, Start Num: 14  
Candidate Starts for Rich\_74:  
(11, 62163), (Start: 14 @62199 has 25 MA's),

Gene: Roy17\_74 Start: 59863, Stop: 60192, Start Num: 12  
Candidate Starts for Roy17\_74:  
(Start: 12 @59863 has 15 MA's), (19, 59956), (20, 60115), (21, 60118),

Gene: Serendipitous\_74 Start: 60885, Stop: 61214, Start Num: 14  
Candidate Starts for Serendipitous\_74:  
(1, 60588), (5, 60726), (6, 60798), (11, 60849), (Start: 14 @60885 has 25 MA's), (17, 60948), (21, 61146),

Gene: SirJeffery\_74 Start: 61239, Stop: 61553, Start Num: 14  
Candidate Starts for SirJeffery\_74:  
(6, 61152), (11, 61203), (Start: 14 @61239 has 25 MA's),

Gene: Stinger\_72 Start: 60638, Stop: 60928, Start Num: 14  
Candidate Starts for Stinger\_72:  
(4, 60455), (10, 60590), (Start: 14 @60638 has 25 MA's), (Start: 16 @60677 has 1 MA's), (21, 60884),

Gene: Suigeneris\_77 Start: 61677, Stop: 61991, Start Num: 14  
Candidate Starts for Suigeneris\_77:  
(6, 61590), (11, 61641), (Start: 14 @61677 has 25 MA's),

Gene: Thonko\_85 Start: 62711, Stop: 62379, Start Num: 12  
Candidate Starts for Thonko\_85:  
(Start: 12 @62711 has 15 MA's), (21, 62444),



Gene: Vincenzo\_76 Start: 63366, Stop: 63686, Start Num: 13  
Candidate Starts for Vincenzo\_76:  
(Start: 13 @63366 has 2 MA's), (21, 63618),

Gene: VioletZ\_75 Start: 61985, Stop: 62299, Start Num: 14  
Candidate Starts for VioletZ\_75:  
(Start: 14 @61985 has 25 MA's), (21, 62234),

Gene: Vortex\_75 Start: 60408, Stop: 60737, Start Num: 12  
Candidate Starts for Vortex\_75:  
(Start: 12 @60408 has 15 MA's), (19, 60501), (20, 60660), (21, 60663),

Gene: Waleliano\_72 Start: 61683, Stop: 61997, Start Num: 14  
Candidate Starts for Waleliano\_72:  
(4, 61512), (7, 61614), (Start: 14 @61683 has 25 MA's), (Start: 16 @61722 has 1 MA's), (21, 61929),

Gene: Zemanar\_73 Start: 61935, Stop: 62246, Start Num: 14  
Candidate Starts for Zemanar\_73:  
(Start: 14 @61935 has 25 MA's), (Start: 16 @61974 has 1 MA's), (21, 62181),