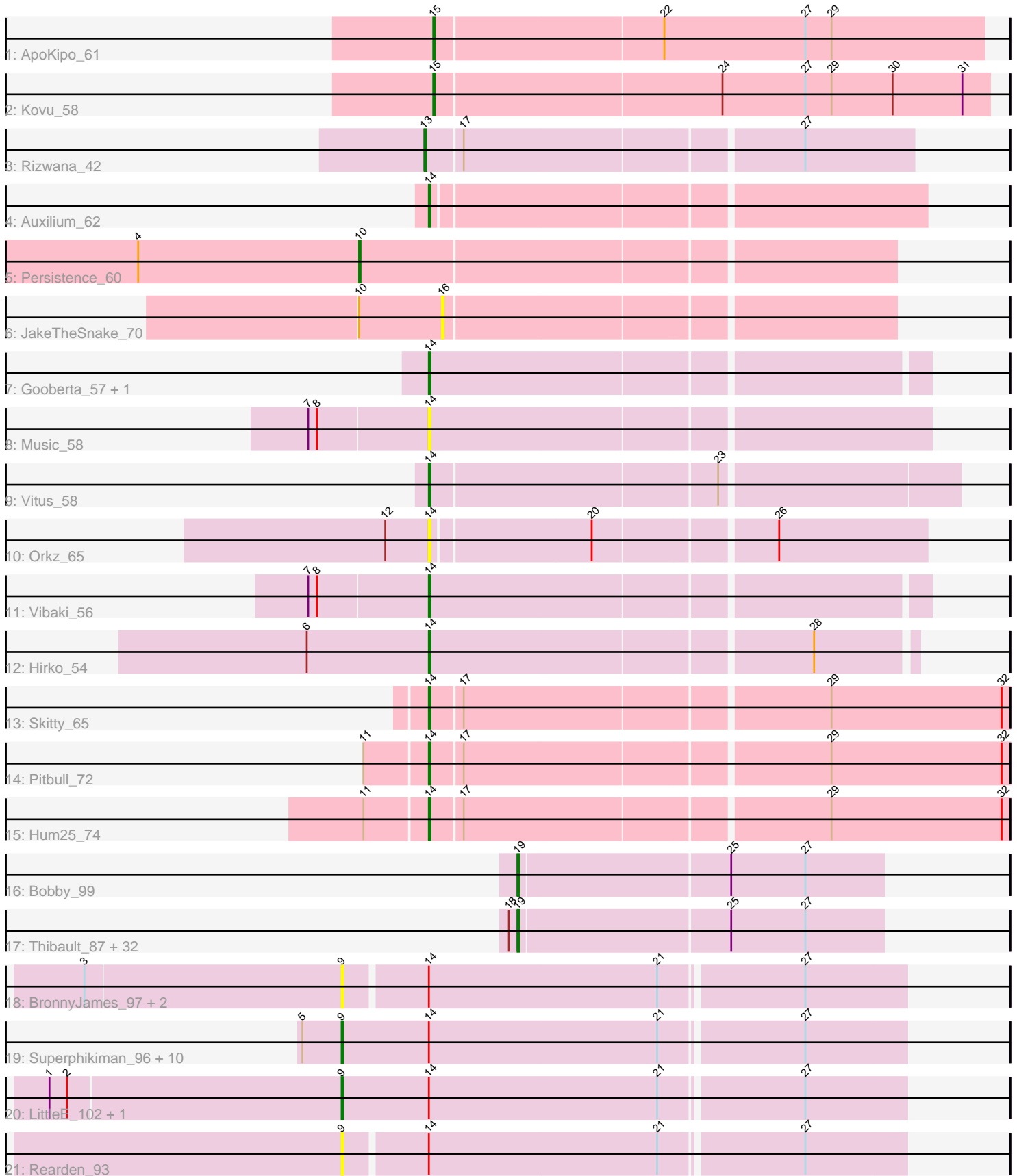


Pham 311575



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 311575 Report

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

Pham number 311575 has 67 members, 14 are drafts.

Phages represented in each track:

- Track 1 : ApoKipo\_61
- Track 2 : Kovu\_58
- Track 3 : Rizwana\_42
- Track 4 : Auxilium\_62
- Track 5 : Persistence\_60
- Track 6 : JakeTheSnake\_70
- Track 7 : Gooberta\_57, GoldDust\_56
- Track 8 : Music\_58
- Track 9 : Vitus\_58
- Track 10 : Orkz\_65
- Track 11 : Vibaki\_56
- Track 12 : Hirko\_54
- Track 13 : Skitty\_65
- Track 14 : Pitbull\_72
- Track 15 : Hum25\_74
- Track 16 : Bobby\_99
- Track 17 : Thibault\_87, Dallas\_104, Yeet\_95, Beem\_103, Minerva\_102, Optimus\_96, Kalah2\_96, Halley\_104, Schatzie\_97, Marleymoo\_84, Bombitas\_91, Bagrid\_102, Ejimix\_96, Hughesyang\_102, JuicyJay\_99, HokkenD\_91, Pound\_94, BAKA\_104, Odette\_102, Klein\_103, Hidrated\_88, EricMillard\_96, Xiaokay\_92, Redno2\_94, DmpstrDiver\_104, Dove\_88, Wanda\_106, Duke13\_99, NihilNomen\_104, ThreeRngTarjay\_99, Phoebus\_104, Constella\_88, Zelink\_99
- Track 18 : BronnyJames\_97, Shaboozey\_97, Nibley\_92
- Track 19 : Superphikiman\_96, Squint\_97, Courthouse\_94, Gonephishing\_91, Nekros\_101, MiaZeal\_99, Lucky2013\_96, Porcelain\_97, Hannaconda\_90, Omega\_108, Ariel\_98
- Track 20 : LittleE\_102, KashFlow\_94
- Track 21 : Rearden\_93

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

The start number called the most often in the published annotations is 19, it was called in 29 of the 53 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BAKA\_104, Bagrid\_102, Beem\_103, Bobby\_99, Bombitas\_91, Constella\_88, Dallas\_104, DmpstrDiver\_104, Dove\_88, Duke13\_99, Ejimix\_96, EricMillard\_96, Halley\_104, Hidrated\_88, HokkenD\_91, Hughesyang\_102, JuicyJay\_99, Kalah2\_96, Klein\_103, Marleymoo\_84, Minerva\_102, NihilNomen\_104, Odette\_102, Optimus\_96, Phoebus\_104, Pound\_94, Redno2\_94, Schatzie\_97, Thibault\_87, ThreeRngTarjay\_99, Wanda\_106, Xiaokay\_92, Yeet\_95, Zelink\_99,

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

- 

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

- ApoKipo\_61, Ariel\_98, Auxilium\_62, BronnyJames\_97, Courthouse\_94, GoldDust\_56, Gonephishing\_91, Gooberta\_57, Hannaconda\_90, Hirko\_54, Hum25\_74, JakeTheSnake\_70, KashFlow\_94, Kovu\_58, LittleE\_102, Lucky2013\_96, MiaZeal\_99, Music\_58, Nekros\_101, Nibley\_92, Omega\_108, Orkz\_65, Persistence\_60, Pitbull\_72, Porcelain\_97, Rearden\_93, Rizwana\_42, Shaboozey\_97, Skitty\_65, Squint\_97, Superphikiman\_96, Vibaki\_56, Vitus\_58,

### Summary by start number:

Start 9:

- Found in 17 of 67 ( 25.4% ) of genes in pham
- Manual Annotations of this start: 11 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ariel\_98 (J), BronnyJames\_97 (J), Courthouse\_94 (J), Gonephishing\_91 (J), Hannaconda\_90 (J), KashFlow\_94 (J), LittleE\_102 (J), Lucky2013\_96 (J), MiaZeal\_99 (J), Nekros\_101 (J), Nibley\_92 (J), Omega\_108 (J), Porcelain\_97 (J), Rearden\_93 (J), Shaboozey\_97 (J), Squint\_97 (J), Superphikiman\_96 (J),

Start 10:

- Found in 2 of 67 ( 3.0% ) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Persistence\_60 (AY),

Start 13:

- Found in 1 of 67 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rizwana\_42 (AP1),

Start 14:

- Found in 28 of 67 ( 41.8% ) of genes in pham
- Manual Annotations of this start: 9 of 53
- Called 39.3% of time when present
- Phage (with cluster) where this start called: Auxilium\_62 (AY), GoldDust\_56 (FL), Gooberta\_57 (FL), Hirko\_54 (FL), Hum25\_74 (FQ1), Music\_58 (FL), Orkz\_65 (FL), Pitbull\_72 (FQ1), Skitty\_65 (FQ1), Vibaki\_56 (FL), Vitus\_58 (FL),

Start 15:

- Found in 2 of 67 ( 3.0% ) of genes in pham

- Manual Annotations of this start: 2 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ApoKipo\_61 (AL), Kovu\_58 (AL),

Start 16:

- Found in 1 of 67 ( 1.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JakeTheSnake\_70 (AY),

Start 19:

- Found in 34 of 67 ( 50.7% ) of genes in pham
- Manual Annotations of this start: 29 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BAKA\_104 (J), Bagrid\_102 (J), Beem\_103 (J), Bobby\_99 (J), Bombitas\_91 (J), Constella\_88 (J), Dallas\_104 (J), DmpstrDiver\_104 (J), Dove\_88 (J), Duke13\_99 (J), Ejimix\_96 (J), EricMillard\_96 (J), Halley\_104 (J), Hidrated\_88 (J), HokkenD\_91 (J), Hughesyang\_102 (J), JuicyJay\_99 (J), Kalah2\_96 (J), Klein\_103 (J), Marleymoo\_84 (J), Minerva\_102 (J), NihilNomen\_104 (J), Odette\_102 (J), Optimus\_96 (J), Phoebus\_104 (J), Pound\_94 (J), Redno2\_94 (J), Schatzie\_97 (J), Thibault\_87 (J), ThreeRngTarjay\_99 (J), Wanda\_106 (J), Xiaokay\_92 (J), Yeet\_95 (J), Zelink\_99 (J),

### **Summary by clusters:**

There are 6 clusters represented in this pham: J, AP1, AL, AY, FQ1, FL,

Info for manual annotations of cluster AL:

- Start number 15 was manually annotated 2 times for cluster AL.

Info for manual annotations of cluster AP1:

- Start number 13 was manually annotated 1 time for cluster AP1.

Info for manual annotations of cluster AY:

- Start number 10 was manually annotated 1 time for cluster AY.
- Start number 14 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster FL:

- Start number 14 was manually annotated 5 times for cluster FL.

Info for manual annotations of cluster FQ1:

- Start number 14 was manually annotated 3 times for cluster FQ1.

Info for manual annotations of cluster J:

- Start number 9 was manually annotated 11 times for cluster J.
- Start number 19 was manually annotated 29 times for cluster J.

### **Gene Information:**

Gene: ApoKipo\_61 Start: 33136, Stop: 33507, Start Num: 15

Candidate Starts for ApoKipo\_61:

(Start: 15 @33136 has 2 MA's), (22, 33289), (27, 33385), (29, 33403),

Gene: Ariel\_98 Start: 56193, Stop: 56570, Start Num: 9

Candidate Starts for Ariel\_98:

(5, 56166), (Start: 9 @56193 has 11 MA's), (Start: 14 @56253 has 9 MA's), (21, 56409), (27, 56502),

Gene: Auxilium\_62 Start: 32641, Stop: 32964, Start Num: 14

Candidate Starts for Auxilium\_62:

(Start: 14 @32641 has 9 MA's),

Gene: BAKA\_104 Start: 61926, Stop: 62171, Start Num: 19

Candidate Starts for BAKA\_104:

(18, 61920), (Start: 19 @61926 has 29 MA's), (25, 62067), (27, 62118),

Gene: Bagrid\_102 Start: 60793, Stop: 61038, Start Num: 19

Candidate Starts for Bagrid\_102:

(18, 60787), (Start: 19 @60793 has 29 MA's), (25, 60934), (27, 60985),

Gene: Beem\_103 Start: 61654, Stop: 61899, Start Num: 19

Candidate Starts for Beem\_103:

(18, 61648), (Start: 19 @61654 has 29 MA's), (25, 61795), (27, 61846),

Gene: Bobby\_99 Start: 63520, Stop: 63765, Start Num: 19

Candidate Starts for Bobby\_99:

(Start: 19 @63520 has 29 MA's), (25, 63661), (27, 63712),

Gene: Bombitas\_91 Start: 58817, Stop: 59062, Start Num: 19

Candidate Starts for Bombitas\_91:

(18, 58811), (Start: 19 @58817 has 29 MA's), (25, 58958), (27, 59009),

Gene: BronnyJames\_97 Start: 56672, Stop: 57043, Start Num: 9

Candidate Starts for BronnyJames\_97:

(3, 56498), (Start: 9 @56672 has 11 MA's), (Start: 14 @56726 has 9 MA's), (21, 56882), (27, 56975),

Gene: Constella\_88 Start: 55820, Stop: 56065, Start Num: 19

Candidate Starts for Constella\_88:

(18, 55814), (Start: 19 @55820 has 29 MA's), (25, 55961), (27, 56012),

Gene: Courthouse\_94 Start: 55793, Stop: 56170, Start Num: 9

Candidate Starts for Courthouse\_94:

(5, 55766), (Start: 9 @55793 has 11 MA's), (Start: 14 @55853 has 9 MA's), (21, 56009), (27, 56102),

Gene: Dallas\_104 Start: 61662, Stop: 61907, Start Num: 19

Candidate Starts for Dallas\_104:

(18, 61656), (Start: 19 @61662 has 29 MA's), (25, 61803), (27, 61854),

Gene: DmpstrDiver\_104 Start: 61082, Stop: 61327, Start Num: 19

Candidate Starts for DmpstrDiver\_104:

(18, 61076), (Start: 19 @61082 has 29 MA's), (25, 61223), (27, 61274),

Gene: Dove\_88 Start: 57083, Stop: 57328, Start Num: 19

Candidate Starts for Dove\_88:

(18, 57077), (Start: 19 @57083 has 29 MA's), (25, 57224), (27, 57275),

Gene: Duke13\_99 Start: 59594, Stop: 59839, Start Num: 19  
Candidate Starts for Duke13\_99:  
(18, 59588), (Start: 19 @59594 has 29 MA's), (25, 59735), (27, 59786),

Gene: Ejimix\_96 Start: 61381, Stop: 61626, Start Num: 19  
Candidate Starts for Ejimix\_96:  
(18, 61375), (Start: 19 @61381 has 29 MA's), (25, 61522), (27, 61573),

Gene: EricMillard\_96 Start: 60722, Stop: 60967, Start Num: 19  
Candidate Starts for EricMillard\_96:  
(18, 60716), (Start: 19 @60722 has 29 MA's), (25, 60863), (27, 60914),

Gene: GoldDust\_56 Start: 40300, Stop: 40626, Start Num: 14  
Candidate Starts for GoldDust\_56:  
(Start: 14 @40300 has 9 MA's),

Gene: Gonephishing\_91 Start: 55351, Stop: 55728, Start Num: 9  
Candidate Starts for Gonephishing\_91:  
(5, 55324), (Start: 9 @55351 has 11 MA's), (Start: 14 @55411 has 9 MA's), (21, 55567), (27, 55660),

Gene: Gooberta\_57 Start: 40920, Stop: 41246, Start Num: 14  
Candidate Starts for Gooberta\_57:  
(Start: 14 @40920 has 9 MA's),

Gene: Halley\_104 Start: 61655, Stop: 61900, Start Num: 19  
Candidate Starts for Halley\_104:  
(18, 61649), (Start: 19 @61655 has 29 MA's), (25, 61796), (27, 61847),

Gene: Hannaconda\_90 Start: 54744, Stop: 55121, Start Num: 9  
Candidate Starts for Hannaconda\_90:  
(5, 54717), (Start: 9 @54744 has 11 MA's), (Start: 14 @54804 has 9 MA's), (21, 54960), (27, 55053),

Gene: Hidrated\_88 Start: 59554, Stop: 59799, Start Num: 19  
Candidate Starts for Hidrated\_88:  
(18, 59548), (Start: 19 @59554 has 29 MA's), (25, 59695), (27, 59746),

Gene: Hirko\_54 Start: 39851, Stop: 40168, Start Num: 14  
Candidate Starts for Hirko\_54:  
(6, 39767), (Start: 14 @39851 has 9 MA's), (28, 40103),

Gene: HokkenD\_91 Start: 59924, Stop: 60169, Start Num: 19  
Candidate Starts for HokkenD\_91:  
(18, 59918), (Start: 19 @59924 has 29 MA's), (25, 60065), (27, 60116),

Gene: Hughesyang\_102 Start: 61613, Stop: 61858, Start Num: 19  
Candidate Starts for Hughesyang\_102:  
(18, 61607), (Start: 19 @61613 has 29 MA's), (25, 61754), (27, 61805),

Gene: Hum25\_74 Start: 38750, Stop: 39133, Start Num: 14  
Candidate Starts for Hum25\_74:  
(11, 38708), (Start: 14 @38750 has 9 MA's), (17, 38771), (29, 39011), (32, 39128),

Gene: JakeTheSnake\_70 Start: 37242, Stop: 37538, Start Num: 16  
Candidate Starts for JakeTheSnake\_70:  
(Start: 10 @37185 has 1 MA's), (16, 37242),

Gene: JuicyJay\_99 Start: 62789, Stop: 63034, Start Num: 19  
Candidate Starts for JuicyJay\_99:  
(18, 62783), (Start: 19 @62789 has 29 MA's), (25, 62930), (27, 62981),

Gene: Kalah2\_96 Start: 60948, Stop: 61193, Start Num: 19  
Candidate Starts for Kalah2\_96:  
(18, 60942), (Start: 19 @60948 has 29 MA's), (25, 61089), (27, 61140),

Gene: KashFlow\_94 Start: 56308, Stop: 56685, Start Num: 9  
Candidate Starts for KashFlow\_94:  
(1, 56110), (2, 56122), (Start: 9 @56308 has 11 MA's), (Start: 14 @56368 has 9 MA's), (21, 56524),  
(27, 56617),

Gene: Klein\_103 Start: 60655, Stop: 60900, Start Num: 19  
Candidate Starts for Klein\_103:  
(18, 60649), (Start: 19 @60655 has 29 MA's), (25, 60796), (27, 60847),

Gene: Kovu\_58 Start: 33436, Stop: 33810, Start Num: 15  
Candidate Starts for Kovu\_58:  
(Start: 15 @33436 has 2 MA's), (24, 33628), (27, 33685), (29, 33703), (30, 33745), (31, 33793),

Gene: LittleE\_102 Start: 59886, Stop: 60263, Start Num: 9  
Candidate Starts for LittleE\_102:  
(1, 59688), (2, 59700), (Start: 9 @59886 has 11 MA's), (Start: 14 @59946 has 9 MA's), (21, 60102),  
(27, 60195),

Gene: Lucky2013\_96 Start: 56209, Stop: 56586, Start Num: 9  
Candidate Starts for Lucky2013\_96:  
(5, 56182), (Start: 9 @56209 has 11 MA's), (Start: 14 @56269 has 9 MA's), (21, 56425), (27, 56518),

Gene: Marleymoo\_84 Start: 57807, Stop: 58052, Start Num: 19  
Candidate Starts for Marleymoo\_84:  
(18, 57801), (Start: 19 @57807 has 29 MA's), (25, 57948), (27, 57999),

Gene: MiaZeal\_99 Start: 56865, Stop: 57242, Start Num: 9  
Candidate Starts for MiaZeal\_99:  
(5, 56838), (Start: 9 @56865 has 11 MA's), (Start: 14 @56925 has 9 MA's), (21, 57081), (27, 57174),

Gene: Minerva\_102 Start: 61600, Stop: 61845, Start Num: 19  
Candidate Starts for Minerva\_102:  
(18, 61594), (Start: 19 @61600 has 29 MA's), (25, 61741), (27, 61792),

Gene: Music\_58 Start: 40438, Stop: 40770, Start Num: 14  
Candidate Starts for Music\_58:  
(7, 40357), (8, 40363), (Start: 14 @40438 has 9 MA's),

Gene: Nekros\_101 Start: 59821, Stop: 60198, Start Num: 9  
Candidate Starts for Nekros\_101:  
(5, 59794), (Start: 9 @59821 has 11 MA's), (Start: 14 @59881 has 9 MA's), (21, 60037), (27, 60130),

Gene: Nibley\_92 Start: 56249, Stop: 56620, Start Num: 9  
Candidate Starts for Nibley\_92:  
(3, 56075), (Start: 9 @56249 has 11 MA's), (Start: 14 @56303 has 9 MA's), (21, 56459), (27, 56552),

Gene: NihilNomen\_104 Start: 61741, Stop: 61986, Start Num: 19  
Candidate Starts for NihilNomen\_104:  
(18, 61735), (Start: 19 @61741 has 29 MA's), (25, 61882), (27, 61933),

Gene: Odette\_102 Start: 60784, Stop: 61029, Start Num: 19  
Candidate Starts for Odette\_102:  
(18, 60778), (Start: 19 @60784 has 29 MA's), (25, 60925), (27, 60976),

Gene: Omega\_108 Start: 61662, Stop: 62039, Start Num: 9  
Candidate Starts for Omega\_108:  
(5, 61635), (Start: 9 @61662 has 11 MA's), (Start: 14 @61722 has 9 MA's), (21, 61878), (27, 61971),

Gene: Optimus\_96 Start: 60275, Stop: 60520, Start Num: 19  
Candidate Starts for Optimus\_96:  
(18, 60269), (Start: 19 @60275 has 29 MA's), (25, 60416), (27, 60467),

Gene: Orkz\_65 Start: 39084, Stop: 39407, Start Num: 14  
Candidate Starts for Orkz\_65:  
(12, 39054), (Start: 14 @39084 has 9 MA's), (20, 39189), (26, 39306),

Gene: Persistence\_60 Start: 33882, Stop: 34235, Start Num: 10  
Candidate Starts for Persistence\_60:  
(4, 33732), (Start: 10 @33882 has 1 MA's),

Gene: Phoebus\_104 Start: 62924, Stop: 63169, Start Num: 19  
Candidate Starts for Phoebus\_104:  
(18, 62918), (Start: 19 @62924 has 29 MA's), (25, 63065), (27, 63116),

Gene: Pitbull\_72 Start: 38132, Stop: 38515, Start Num: 14  
Candidate Starts for Pitbull\_72:  
(11, 38090), (Start: 14 @38132 has 9 MA's), (17, 38153), (29, 38393), (32, 38510),

Gene: Porcelain\_97 Start: 56865, Stop: 57242, Start Num: 9  
Candidate Starts for Porcelain\_97:  
(5, 56838), (Start: 9 @56865 has 11 MA's), (Start: 14 @56925 has 9 MA's), (21, 57081), (27, 57174),

Gene: Pound\_94 Start: 60952, Stop: 61197, Start Num: 19  
Candidate Starts for Pound\_94:  
(18, 60946), (Start: 19 @60952 has 29 MA's), (25, 61093), (27, 61144),

Gene: Rearden\_93 Start: 57048, Stop: 57419, Start Num: 9  
Candidate Starts for Rearden\_93:  
(Start: 9 @57048 has 11 MA's), (Start: 14 @57102 has 9 MA's), (21, 57258), (27, 57351),

Gene: Redno2\_94 Start: 57475, Stop: 57720, Start Num: 19  
Candidate Starts for Redno2\_94:  
(18, 57469), (Start: 19 @57475 has 29 MA's), (25, 57616), (27, 57667),

Gene: Rizwana\_42 Start: 37831, Stop: 37511, Start Num: 13

Candidate Starts for Rizwana\_42:

(Start: 13 @37831 has 1 MA's), (17, 37807), (27, 37585),

Gene: Schatzie\_97 Start: 60531, Stop: 60776, Start Num: 19

Candidate Starts for Schatzie\_97:

(18, 60525), (Start: 19 @60531 has 29 MA's), (25, 60672), (27, 60723),

Gene: Shaboozey\_97 Start: 56693, Stop: 57064, Start Num: 9

Candidate Starts for Shaboozey\_97:

(3, 56519), (Start: 9 @56693 has 11 MA's), (Start: 14 @56747 has 9 MA's), (21, 56903), (27, 56996),

Gene: Skitty\_65 Start: 36167, Stop: 36550, Start Num: 14

Candidate Starts for Skitty\_65:

(Start: 14 @36167 has 9 MA's), (17, 36188), (29, 36428), (32, 36545),

Gene: Squint\_97 Start: 56984, Stop: 57361, Start Num: 9

Candidate Starts for Squint\_97:

(5, 56957), (Start: 9 @56984 has 11 MA's), (Start: 14 @57044 has 9 MA's), (21, 57200), (27, 57293),

Gene: Superphikiman\_96 Start: 56075, Stop: 56452, Start Num: 9

Candidate Starts for Superphikiman\_96:

(5, 56048), (Start: 9 @56075 has 11 MA's), (Start: 14 @56135 has 9 MA's), (21, 56291), (27, 56384),

Gene: Thibault\_87 Start: 56437, Stop: 56682, Start Num: 19

Candidate Starts for Thibault\_87:

(18, 56431), (Start: 19 @56437 has 29 MA's), (25, 56578), (27, 56629),

Gene: ThreeRngTarjay\_99 Start: 61816, Stop: 62061, Start Num: 19

Candidate Starts for ThreeRngTarjay\_99:

(18, 61810), (Start: 19 @61816 has 29 MA's), (25, 61957), (27, 62008),

Gene: Vibaki\_56 Start: 39869, Stop: 40195, Start Num: 14

Candidate Starts for Vibaki\_56:

(7, 39788), (8, 39794), (Start: 14 @39869 has 9 MA's),

Gene: Vitus\_58 Start: 39517, Stop: 39864, Start Num: 14

Candidate Starts for Vitus\_58:

(Start: 14 @39517 has 9 MA's), (23, 39706),

Gene: Wanda\_106 Start: 60932, Stop: 61177, Start Num: 19

Candidate Starts for Wanda\_106:

(18, 60926), (Start: 19 @60932 has 29 MA's), (25, 61073), (27, 61124),

Gene: Xiaokay\_92 Start: 57694, Stop: 57939, Start Num: 19

Candidate Starts for Xiaokay\_92:

(18, 57688), (Start: 19 @57694 has 29 MA's), (25, 57835), (27, 57886),

Gene: Yeet\_95 Start: 60033, Stop: 60278, Start Num: 19

Candidate Starts for Yeet\_95:

(18, 60027), (Start: 19 @60033 has 29 MA's), (25, 60174), (27, 60225),

Gene: Zelink\_99 Start: 62127, Stop: 62372, Start Num: 19

Candidate Starts for Zelink\_99:

(18, 62121), (Start: 19 @62127 has 29 MA's), (25, 62268), (27, 62319),