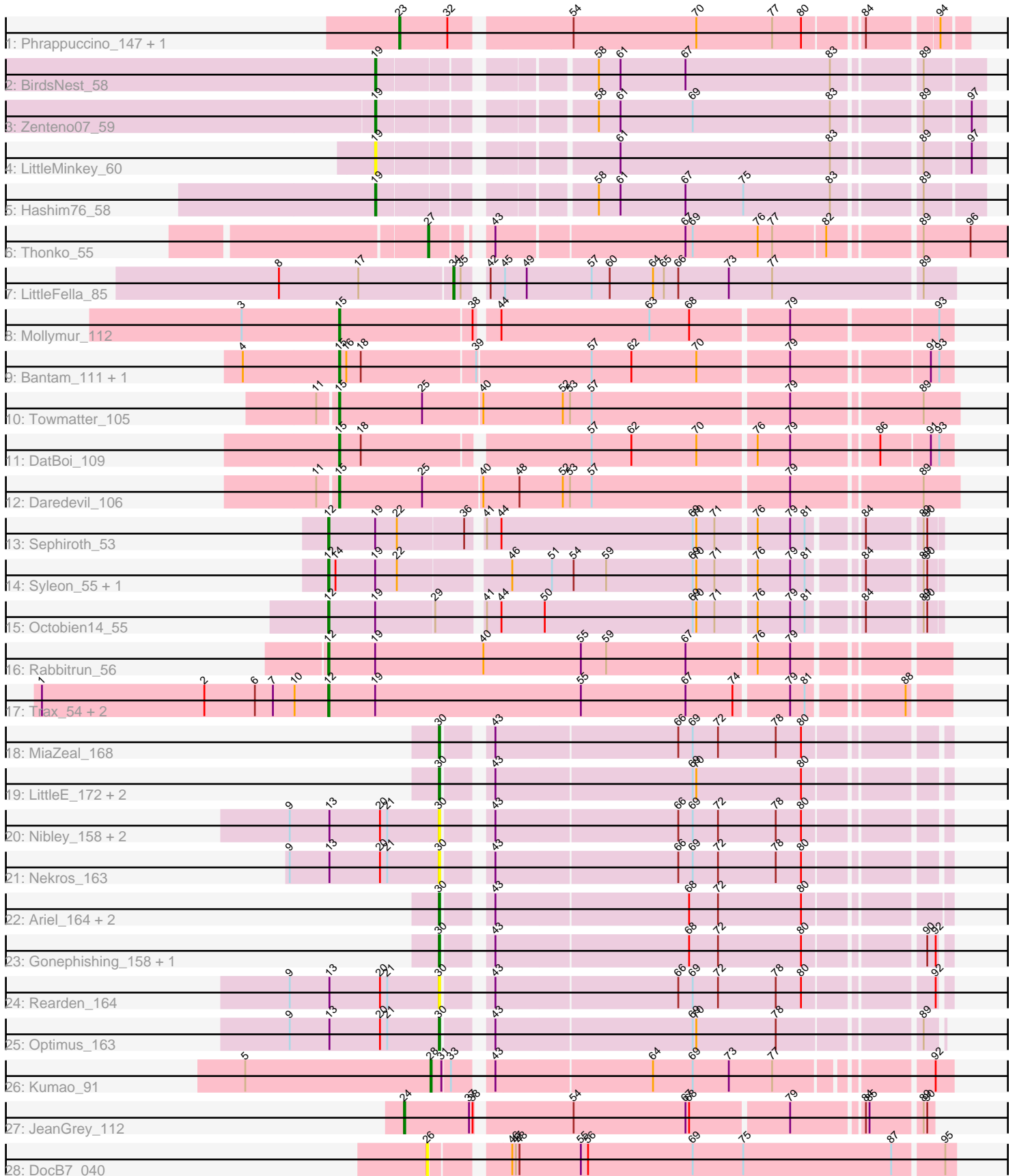


Pham 311786



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 311786 Report

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

Pham number 311786 has 40 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Phrappuccino\_147, Settecandela\_147
- Track 2 : BirdsNest\_58
- Track 3 : Zenteno07\_59
- Track 4 : LittleMinkey\_60
- Track 5 : Hashim76\_58
- Track 6 : Thonko\_55
- Track 7 : LittleFella\_85
- Track 8 : Mollymur\_112
- Track 9 : Bantam\_111, SpeedDemon\_1130
- Track 10 : Towmatter\_105
- Track 11 : DatBoi\_109
- Track 12 : Daredevil\_106
- Track 13 : Sephiroth\_53
- Track 14 : Syleon\_55, Kudrefre\_54
- Track 15 : Octobien14\_55
- Track 16 : Rabbitrun\_56
- Track 17 : Trax\_54, Neville\_55, LilJank\_53
- Track 18 : MiaZeal\_168
- Track 19 : LittleE\_172, Lucky2013\_161, Porcelain\_165
- Track 20 : Nibley\_158, BronnyJames\_160, Shaboozey\_163
- Track 21 : Nekros\_163
- Track 22 : Ariel\_164, Superphikiman\_162, Courthouse\_161
- Track 23 : Gonephishing\_158, Squint\_159
- Track 24 : Rearden\_164
- Track 25 : Optimus\_163
- Track 26 : Kumao\_91
- Track 27 : JeanGrey\_112
- Track 28 : DocB7\_040

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

The start number called the most often in the published annotations is 30, it was called in 9 of the 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ariel\_164, BronnyJames\_160, Courthouse\_161, Gonephishing\_158, LittleE\_172, Lucky2013\_161, MiaZeal\_168, Nekros\_163, Nibley\_158, Optimus\_163, Porcelain\_165, Rearden\_164, Shaboozey\_163, Squint\_159, Superphikiman\_162,

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

- 

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

- Bantam\_111, BirdsNest\_58, Daredevil\_106, DatBoi\_109, DocB7\_040, Hashim76\_58, JeanGrey\_112, Kudfre\_54, Kumao\_91, LilJank\_53, LittleFella\_85, LittleMinkey\_60, Mollymur\_112, Neville\_55, Octobien14\_55, Phrappuccino\_147, Rabbitrun\_56, Sephiroth\_53, Settecandela\_147, SpeedDemon\_1130, Syleon\_55, Thonko\_55, Towmatter\_105, Trax\_54, Zenteno07\_59,

### Summary by start number:

Start 12:

- Found in 8 of 40 ( 20.0% ) of genes in pham
- Manual Annotations of this start: 7 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kudfre\_54 (DU1), LilJank\_53 (DU2), Neville\_55 (DU2), Octobien14\_55 (DU1), Rabbitrun\_56 (DU2), Sephiroth\_53 (DU1), Syleon\_55 (DU1), Trax\_54 (DU2),

Start 15:

- Found in 6 of 40 ( 15.0% ) of genes in pham
- Manual Annotations of this start: 6 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bantam\_111 (DL), Daredevil\_106 (DL), DatBoi\_109 (DL), Mollymur\_112 (DL), SpeedDemon\_1130 (DL), Towmatter\_105 (DL),

Start 19:

- Found in 12 of 40 ( 30.0% ) of genes in pham
- Manual Annotations of this start: 3 of 31
- Called 33.3% of time when present
- Phage (with cluster) where this start called: BirdsNest\_58 (B13), Hashim76\_58 (B13), LittleMinkey\_60 (B13), Zenteno07\_59 (B13),

Start 23:

- Found in 2 of 40 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 2 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phrappuccino\_147 (AA), Settecandela\_147 (AA),

Start 24:

- Found in 1 of 40 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JeanGrey\_112 (singleton),

Start 26:

- Found in 1 of 40 ( 2.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DocB7\_040 (singleton),

Start 27:

- Found in 1 of 40 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Thonko\_55 (B8),

Start 28:

- Found in 1 of 40 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kumao\_91 (singleton),

Start 30:

- Found in 15 of 40 ( 37.5% ) of genes in pham
- Manual Annotations of this start: 9 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ariel\_164 (J), BronnyJames\_160 (J), Courthouse\_161 (J), Gonephishing\_158 (J), LittleE\_172 (J), Lucky2013\_161 (J), MiaZeal\_168 (J), Nekros\_163 (J), Nibley\_158 (J), Optimus\_163 (J), Porcelain\_165 (J), Rearden\_164 (J), Shaboozey\_163 (J), Squint\_159 (J), Superphikiman\_162 (J),

Start 34:

- Found in 1 of 40 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LittleFella\_85 (DG2),

**Summary by clusters:**

There are 9 clusters represented in this pham: AA, DL, J, singleton, DG2, B13, DU1, DU2, B8,

Info for manual annotations of cluster AA:

- Start number 23 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster B13:

- Start number 19 was manually annotated 3 times for cluster B13.

Info for manual annotations of cluster B8:

- Start number 27 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster DG2:

- Start number 34 was manually annotated 1 time for cluster DG2.

Info for manual annotations of cluster DL:

- Start number 15 was manually annotated 6 times for cluster DL.

Info for manual annotations of cluster DU1:

- Start number 12 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 12 was manually annotated 3 times for cluster DU2.

Info for manual annotations of cluster J:

- Start number 30 was manually annotated 9 times for cluster J.

**Gene Information:**

Gene: Ariel\_164 Start: 83788, Stop: 84171, Start Num: 30

Candidate Starts for Ariel\_164:

(Start: 30 @83788 has 9 MA's), (43, 83818), (68, 83974), (72, 83998), (80, 84067),

Gene: Bantam\_111 Start: 70960, Stop: 71445, Start Num: 15

Candidate Starts for Bantam\_111:

(4, 70882), (Start: 15 @70960 has 6 MA's), (16, 70966), (18, 70978), (39, 71071), (57, 71164), (62, 71197), (70, 71251), (79, 71323), (91, 71428), (93, 71434),

Gene: BirdsNest\_58 Start: 48152, Stop: 47700, Start Num: 19

Candidate Starts for BirdsNest\_58:

(Start: 19 @48152 has 3 MA's), (58, 48002), (61, 47984), (67, 47930), (83, 47810), (89, 47747),

Gene: BronnyJames\_160 Start: 84592, Stop: 84972, Start Num: 30

Candidate Starts for BronnyJames\_160:

(9, 84469), (13, 84502), (20, 84544), (21, 84550), (Start: 30 @84592 has 9 MA's), (43, 84622), (66, 84769), (69, 84781), (72, 84802), (78, 84850), (80, 84871),

Gene: Courthouse\_161 Start: 84232, Stop: 84615, Start Num: 30

Candidate Starts for Courthouse\_161:

(Start: 30 @84232 has 9 MA's), (43, 84262), (68, 84418), (72, 84442), (80, 84511),

Gene: Daredevil\_106 Start: 67803, Stop: 68300, Start Num: 15

Candidate Starts for Daredevil\_106:

(11, 67788), (Start: 15 @67803 has 6 MA's), (25, 67872), (40, 67920), (48, 67950), (52, 67986), (53, 67992), (57, 68010), (79, 68169), (89, 68271),

Gene: DatBoi\_109 Start: 70430, Stop: 70906, Start Num: 15

Candidate Starts for DatBoi\_109:

(Start: 15 @70430 has 6 MA's), (18, 70448), (57, 70625), (62, 70658), (70, 70712), (76, 70757), (79, 70784), (86, 70850), (91, 70889), (93, 70895),

Gene: DocB7\_040 Start: 39094, Stop: 38681, Start Num: 26

Candidate Starts for DocB7\_040:

(26, 39094), (46, 39043), (47, 39040), (48, 39037), (55, 38986), (56, 38980), (69, 38893), (75, 38851), (87, 38728), (95, 38689),

Gene: Gonephishing\_158 Start: 85692, Stop: 86072, Start Num: 30

Candidate Starts for Gonephishing\_158:

(Start: 30 @85692 has 9 MA's), (43, 85722), (68, 85878), (72, 85902), (80, 85971), (90, 86058), (92, 86064),

Gene: Hashim76\_58 Start: 48722, Stop: 48270, Start Num: 19

Candidate Starts for Hashim76\_58:

(Start: 19 @48722 has 3 MA's), (58, 48572), (61, 48554), (67, 48500), (75, 48452), (83, 48380), (89, 48317),

Gene: JeanGrey\_112 Start: 87695, Stop: 88102, Start Num: 24

Candidate Starts for JeanGrey\_112:

(Start: 24 @87695 has 1 MA's), (37, 87749), (38, 87752), (54, 87824), (67, 87917), (68, 87920), (79, 87998), (84, 88052), (85, 88055), (89, 88094), (90, 88097),

Gene: Kudfre\_54 Start: 37497, Stop: 37967, Start Num: 12

Candidate Starts for Kudfre\_54:

(Start: 12 @37497 has 7 MA's), (14, 37503), (Start: 19 @37536 has 3 MA's), (22, 37554), (46, 37638), (51, 37671), (54, 37689), (59, 37716), (69, 37788), (70, 37791), (71, 37806), (76, 37836), (79, 37863), (81, 37875), (84, 37911), (89, 37953), (90, 37956),

Gene: Kumao\_91 Start: 57065, Stop: 57454, Start Num: 28

Candidate Starts for Kumao\_91:

(5, 56912), (Start: 28 @57065 has 1 MA's), (31, 57074), (33, 57080), (43, 57104), (64, 57230), (69, 57263), (73, 57293), (77, 57329), (92, 57440),

Gene: LilJank\_53 Start: 38105, Stop: 38596, Start Num: 12

Candidate Starts for LilJank\_53:

(1, 37868), (2, 38003), (6, 38045), (7, 38060), (10, 38078), (Start: 12 @38105 has 7 MA's), (Start: 19 @38144 has 3 MA's), (55, 38315), (67, 38402), (74, 38441), (79, 38483), (81, 38495), (88, 38564),

Gene: LittleE\_172 Start: 88564, Stop: 88944, Start Num: 30

Candidate Starts for LittleE\_172:

(Start: 30 @88564 has 9 MA's), (43, 88594), (69, 88753), (70, 88756), (80, 88843),

Gene: LittleFella\_85 Start: 60323, Stop: 60721, Start Num: 34

Candidate Starts for LittleFella\_85:

(8, 60182), (17, 60248), (Start: 34 @60323 has 1 MA's), (35, 60329), (42, 60341), (45, 60353), (49, 60371), (57, 60425), (60, 60440), (64, 60476), (65, 60485), (66, 60497), (73, 60539), (77, 60575), (89, 60695),

Gene: LittleMinkey\_60 Start: 48361, Stop: 47909, Start Num: 19

Candidate Starts for LittleMinkey\_60:

(Start: 19 @48361 has 3 MA's), (61, 48193), (83, 48019), (89, 47956), (97, 47920),

Gene: Lucky2013\_161 Start: 84061, Stop: 84441, Start Num: 30

Candidate Starts for Lucky2013\_161:

(Start: 30 @84061 has 9 MA's), (43, 84091), (69, 84250), (70, 84253), (80, 84340),

Gene: MiaZeal\_168 Start: 85208, Stop: 85588, Start Num: 30

Candidate Starts for MiaZeal\_168:

(Start: 30 @85208 has 9 MA's), (43, 85238), (66, 85385), (69, 85397), (72, 85418), (78, 85466), (80, 85487),

Gene: Mollymur\_112 Start: 71742, Stop: 72224, Start Num: 15

Candidate Starts for Mollymur\_112:

(3, 71661), (Start: 15 @71742 has 6 MA's), (38, 71850), (44, 71865), (63, 71988), (68, 72021), (79, 72099), (93, 72213),

Gene: Nekros\_163 Start: 87008, Stop: 87388, Start Num: 30

Candidate Starts for Nekros\_163:

(9, 86885), (13, 86918), (20, 86960), (21, 86966), (Start: 30 @87008 has 9 MA's), (43, 87038), (66, 87185), (69, 87197), (72, 87218), (78, 87266), (80, 87287),

Gene: Neville\_55 Start: 37767, Stop: 38258, Start Num: 12

Candidate Starts for Neville\_55:

(1, 37530), (2, 37665), (6, 37707), (7, 37722), (10, 37740), (Start: 12 @37767 has 7 MA's), (Start: 19 @37806 has 3 MA's), (55, 37977), (67, 38064), (74, 38103), (79, 38145), (81, 38157), (88, 38226),

Gene: Nibley\_158 Start: 84169, Stop: 84549, Start Num: 30

Candidate Starts for Nibley\_158:

(9, 84046), (13, 84079), (20, 84121), (21, 84127), (Start: 30 @84169 has 9 MA's), (43, 84199), (66, 84346), (69, 84358), (72, 84379), (78, 84427), (80, 84448),

Gene: Octobien14\_55 Start: 38073, Stop: 38543, Start Num: 12

Candidate Starts for Octobien14\_55:

(Start: 12 @38073 has 7 MA's), (Start: 19 @38112 has 3 MA's), (29, 38160), (41, 38193), (44, 38205), (50, 38241), (69, 38364), (70, 38367), (71, 38382), (76, 38412), (79, 38439), (81, 38451), (84, 38487), (89, 38529), (90, 38532),

Gene: Optimus\_163 Start: 87886, Stop: 88260, Start Num: 30

Candidate Starts for Optimus\_163:

(9, 87763), (13, 87796), (20, 87838), (21, 87844), (Start: 30 @87886 has 9 MA's), (43, 87916), (69, 88075), (70, 88078), (78, 88144), (89, 88249),

Gene: Phrappuccino\_147 Start: 102698, Stop: 103132, Start Num: 23

Candidate Starts for Phrappuccino\_147:

(Start: 23 @102698 has 2 MA's), (32, 102737), (54, 102827), (70, 102929), (77, 102992), (80, 103016), (84, 103058), (94, 103112),

Gene: Porcelain\_165 Start: 85007, Stop: 85387, Start Num: 30

Candidate Starts for Porcelain\_165:

(Start: 30 @85007 has 9 MA's), (43, 85037), (69, 85196), (70, 85199), (80, 85286),

Gene: Rabbitrun\_56 Start: 38290, Stop: 38781, Start Num: 12

Candidate Starts for Rabbitrun\_56:

(Start: 12 @38290 has 7 MA's), (Start: 19 @38329 has 3 MA's), (40, 38419), (55, 38500), (59, 38521), (67, 38587), (76, 38641), (79, 38668),

Gene: Rearden\_164 Start: 85395, Stop: 85775, Start Num: 30

Candidate Starts for Rearden\_164:

(9, 85272), (13, 85305), (20, 85347), (21, 85353), (Start: 30 @85395 has 9 MA's), (43, 85425), (66, 85572), (69, 85584), (72, 85605), (78, 85653), (80, 85674), (92, 85767),

Gene: Sephiroth\_53 Start: 37666, Stop: 38136, Start Num: 12

Candidate Starts for Sephiroth\_53:

(Start: 12 @37666 has 7 MA's), (Start: 19 @37705 has 3 MA's), (22, 37723), (36, 37777), (41, 37786), (44, 37798), (69, 37957), (70, 37960), (71, 37975), (76, 38005), (79, 38032), (81, 38044), (84, 38080),

(89, 38122), (90, 38125),

Gene: Settecandela\_147 Start: 102698, Stop: 103132, Start Num: 23

Candidate Starts for Settecandela\_147:

(Start: 23 @102698 has 2 MA's), (32, 102737), (54, 102827), (70, 102929), (77, 102992), (80, 103016), (84, 103058), (94, 103112),

Gene: Shaboozey\_163 Start: 84613, Stop: 84993, Start Num: 30

Candidate Starts for Shaboozey\_163:

(9, 84490), (13, 84523), (20, 84565), (21, 84571), (Start: 30 @84613 has 9 MA's), (43, 84643), (66, 84790), (69, 84802), (72, 84823), (78, 84871), (80, 84892),

Gene: SpeedDemon\_1130 Start: 73480, Stop: 73965, Start Num: 15

Candidate Starts for SpeedDemon\_1130:

(4, 73402), (Start: 15 @73480 has 6 MA's), (16, 73486), (18, 73498), (39, 73591), (57, 73684), (62, 73717), (70, 73771), (79, 73843), (91, 73948), (93, 73954),

Gene: Squint\_159 Start: 84873, Stop: 85253, Start Num: 30

Candidate Starts for Squint\_159:

(Start: 30 @84873 has 9 MA's), (43, 84903), (68, 85059), (72, 85083), (80, 85152), (90, 85239), (92, 85245),

Gene: Superphikiman\_162 Start: 83928, Stop: 84311, Start Num: 30

Candidate Starts for Superphikiman\_162:

(Start: 30 @83928 has 9 MA's), (43, 83958), (68, 84114), (72, 84138), (80, 84207),

Gene: Syleon\_55 Start: 37590, Stop: 38060, Start Num: 12

Candidate Starts for Syleon\_55:

(Start: 12 @37590 has 7 MA's), (14, 37596), (Start: 19 @37629 has 3 MA's), (22, 37647), (46, 37731), (51, 37764), (54, 37782), (59, 37809), (69, 37881), (70, 37884), (71, 37899), (76, 37929), (79, 37956), (81, 37968), (84, 38004), (89, 38046), (90, 38049),

Gene: Thonko\_55 Start: 46989, Stop: 46534, Start Num: 27

Candidate Starts for Thonko\_55:

(Start: 27 @46989 has 1 MA's), (43, 46956), (67, 46806), (69, 46800), (76, 46746), (77, 46734), (82, 46692), (89, 46626), (96, 46587),

Gene: Towmatter\_105 Start: 67885, Stop: 68382, Start Num: 15

Candidate Starts for Towmatter\_105:

(11, 67870), (Start: 15 @67885 has 6 MA's), (25, 67954), (40, 68002), (52, 68068), (53, 68074), (57, 68092), (79, 68251), (89, 68353),

Gene: Trax\_54 Start: 38052, Stop: 38543, Start Num: 12

Candidate Starts for Trax\_54:

(1, 37815), (2, 37950), (6, 37992), (7, 38007), (10, 38025), (Start: 12 @38052 has 7 MA's), (Start: 19 @38091 has 3 MA's), (55, 38262), (67, 38349), (74, 38388), (79, 38430), (81, 38442), (88, 38511),

Gene: Zenteno07\_59 Start: 48384, Stop: 47932, Start Num: 19

Candidate Starts for Zenteno07\_59:

(Start: 19 @48384 has 3 MA's), (58, 48234), (61, 48216), (69, 48156), (83, 48042), (89, 47979), (97, 47943),