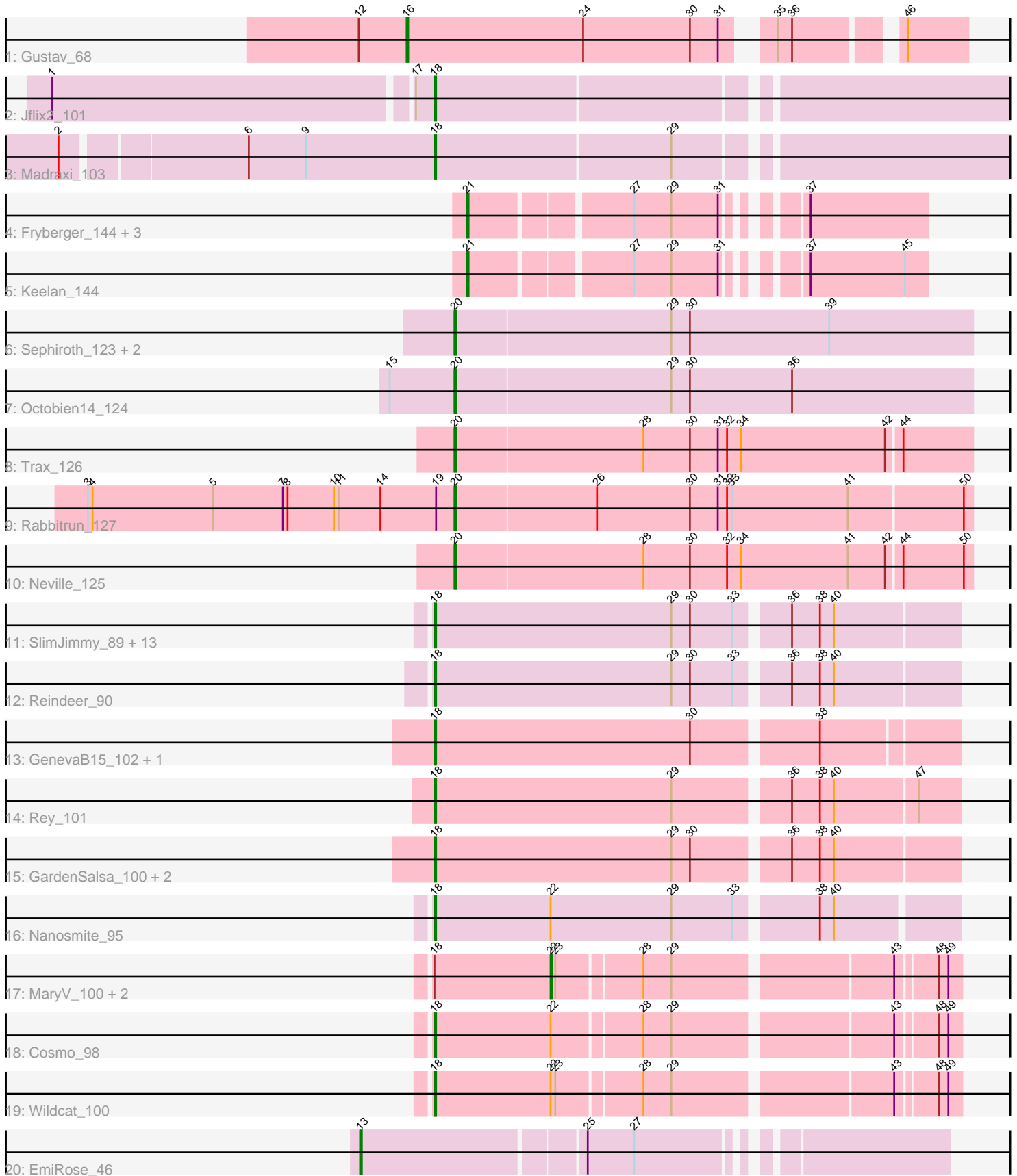


Pham 203076



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 203076 Report

This analysis was run 01/18/25 on database version 583.

Pham number 203076 has 43 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Gustav\_68
- Track 2 : Jflix2\_101
- Track 3 : Madraxi\_103
- Track 4 : Fryberger\_144, Guey18\_149, Volt\_150, Ronaldo\_147
- Track 5 : Keelan\_144
- Track 6 : Sephiroth\_123, Kundefre\_128, Syleon\_128
- Track 7 : Octobien14\_124
- Track 8 : Trax\_126
- Track 9 : Rabbitrun\_127
- Track 10 : Neville\_125
- Track 11 : SlimJimmy\_89, PegLeg\_88, Glaske16\_91, Izel\_88, LilhomieP\_89, Skinny\_93, Diminimus\_91, IPhane7\_88, Bongo\_89, FreakyGoo\_89, TyDawg\_89, Bricole\_88, Auspice\_90, Dulcita\_91
- Track 12 : Reindeer\_90
- Track 13 : GenevaB15\_102, Aziz\_100
- Track 14 : Rey\_101
- Track 15 : GardenSalsa\_100, Estes\_100, MrMagoo\_101
- Track 16 : Nanosmite\_95
- Track 17 : MaryV\_100, EniyanLRS\_95, Azrael100\_97
- Track 18 : Cosmo\_98
- Track 19 : Wildcat\_100
- Track 20 : EmiRose\_46

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

The start number called the most often in the published annotations is 18, it was called in 24 of the 41 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Auspice\_90, Aziz\_100, Bongo\_89, Bricole\_88, Cosmo\_98, Diminimus\_91, Dulcita\_91, Estes\_100, FreakyGoo\_89, GardenSalsa\_100, GenevaB15\_102, Glaske16\_91, IPhane7\_88, Izel\_88, Jflix2\_101, LilhomieP\_89, Madraxi\_103, MrMagoo\_101, Nanosmite\_95, PegLeg\_88, Reindeer\_90, Rey\_101, Skinny\_93, SlimJimmy\_89, TyDawg\_89, Wildcat\_100,

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

- Azrael100\_97, EniyanLRS\_95, MaryV\_100,

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

- EmiRose\_46, Fryberger\_144, Guey18\_149, Gustav\_68, Keelan\_144, Kudrefre\_128, Neville\_125, Octobien14\_124, Rabbitrun\_127, Ronaldo\_147, Sephiroth\_123, Syleon\_128, Trax\_126, Volt\_150,

### Summary by start number:

Start 13:

- Found in 1 of 43 ( 2.3% ) of genes in pham
- Manual Annotations of this start: 1 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EmiRose\_46 (singleton),

Start 16:

- Found in 1 of 43 ( 2.3% ) of genes in pham
- Manual Annotations of this start: 1 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gustav\_68 (CD),

Start 18:

- Found in 29 of 43 ( 67.4% ) of genes in pham
- Manual Annotations of this start: 24 of 41
- Called 89.7% of time when present
- Phage (with cluster) where this start called: Auspice\_90 (M1), Aziz\_100 (M2), Bongo\_89 (M1), Bricole\_88 (M1), Cosmo\_98 (V), Diminimus\_91 (M1), Dulcita\_91 (M1), Estes\_100 (M2), FreakyGoo\_89 (M1), GardenSalsa\_100 (M2), GenevaB15\_102 (M2), Glaske16\_91 (M1), IPhone7\_88 (M1), Izel\_88 (M1), Jflix2\_101 (CF), LilhomieP\_89 (M1), Madraxi\_103 (CF), MrMagoo\_101 (M2), Nanosmite\_95 (M3), PegLeg\_88 (M1), Reindeer\_90 (M1), Rey\_101 (M2), Skinny\_93 (M1), SlimJimmy\_89 (M1), TyDawg\_89 (M1), Wildcat\_100 (V),

Start 20:

- Found in 7 of 43 ( 16.3% ) of genes in pham
- Manual Annotations of this start: 7 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kudrefre\_128 (DU1), Neville\_125 (DU2), Octobien14\_124 (DU1), Rabbitrun\_127 (DU2), Sephiroth\_123 (DU1), Syleon\_128 (DU1), Trax\_126 (DU2),

Start 21:

- Found in 5 of 43 ( 11.6% ) of genes in pham
- Manual Annotations of this start: 5 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fryberger\_144 (DP), Guey18\_149 (DP), Keelan\_144 (DP), Ronaldo\_147 (DP), Volt\_150 (DP),

Start 22:

- Found in 6 of 43 ( 14.0% ) of genes in pham
- Manual Annotations of this start: 3 of 41

- Called 50.0% of time when present
- Phage (with cluster) where this start called: Azrael100\_97 (V), EniyanLRS\_95 (V), MaryV\_100 (V),

### **Summary by clusters:**

There are 10 clusters represented in this pham: singleton, M2, CF, CD, M1, M3, V, DU1, DU2, DP,

Info for manual annotations of cluster CD:

- Start number 16 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster CF:

- Start number 18 was manually annotated 2 times for cluster CF.

Info for manual annotations of cluster DP:

- Start number 21 was manually annotated 5 times for cluster DP.

Info for manual annotations of cluster DU1:

- Start number 20 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 20 was manually annotated 3 times for cluster DU2.

Info for manual annotations of cluster M1:

- Start number 18 was manually annotated 13 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 18 was manually annotated 6 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 18 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster V:

- Start number 18 was manually annotated 2 times for cluster V.
- Start number 22 was manually annotated 3 times for cluster V.

### **Gene Information:**

Gene: Auspice\_90 Start: 53928, Stop: 54254, Start Num: 18

Candidate Starts for Auspice\_90:

(Start: 18 @53928 has 24 MA's), (29, 54081), (30, 54093), (33, 54120), (36, 54150), (38, 54168), (40, 54177),

Gene: Aziz\_100 Start: 55956, Stop: 56279, Start Num: 18

Candidate Starts for Aziz\_100:

(Start: 18 @55956 has 24 MA's), (30, 56121), (38, 56196),

Gene: Azrael100\_97 Start: 57788, Stop: 58030, Start Num: 22

Candidate Starts for Azrael100\_97:

(Start: 18 @57713 has 24 MA's), (Start: 22 @57788 has 3 MA's), (23, 57791), (28, 57842), (29, 57860), (43, 57992), (48, 58016), (49, 58022),

Gene: Bongo\_89 Start: 53932, Stop: 54258, Start Num: 18

Candidate Starts for Bongo\_89:

(Start: 18 @53932 has 24 MA's), (29, 54085), (30, 54097), (33, 54124), (36, 54154), (38, 54172), (40, 54181),

Gene: Bricole\_88 Start: 53696, Stop: 54022, Start Num: 18

Candidate Starts for Bricole\_88:

(Start: 18 @53696 has 24 MA's), (29, 53849), (30, 53861), (33, 53888), (36, 53918), (38, 53936), (40, 53945),

Gene: Cosmo\_98 Start: 57711, Stop: 58028, Start Num: 18

Candidate Starts for Cosmo\_98:

(Start: 18 @57711 has 24 MA's), (Start: 22 @57786 has 3 MA's), (28, 57840), (29, 57858), (43, 57990), (48, 58014), (49, 58020),

Gene: Diminimus\_91 Start: 53927, Stop: 54253, Start Num: 18

Candidate Starts for Diminimus\_91:

(Start: 18 @53927 has 24 MA's), (29, 54080), (30, 54092), (33, 54119), (36, 54149), (38, 54167), (40, 54176),

Gene: Dulcita\_91 Start: 53928, Stop: 54254, Start Num: 18

Candidate Starts for Dulcita\_91:

(Start: 18 @53928 has 24 MA's), (29, 54081), (30, 54093), (33, 54120), (36, 54150), (38, 54168), (40, 54177),

Gene: EmiRose\_46 Start: 36892, Stop: 37236, Start Num: 13

Candidate Starts for EmiRose\_46:

(Start: 13 @36892 has 1 MA's), (25, 37030), (27, 37060),

Gene: EniyanLRS\_95 Start: 57783, Stop: 58025, Start Num: 22

Candidate Starts for EniyanLRS\_95:

(Start: 18 @57708 has 24 MA's), (Start: 22 @57783 has 3 MA's), (23, 57786), (28, 57837), (29, 57855), (43, 57987), (48, 58011), (49, 58017),

Gene: Estes\_100 Start: 55935, Stop: 56261, Start Num: 18

Candidate Starts for Estes\_100:

(Start: 18 @55935 has 24 MA's), (29, 56088), (30, 56100), (36, 56157), (38, 56175), (40, 56184),

Gene: FreakyGoo\_89 Start: 54407, Stop: 54733, Start Num: 18

Candidate Starts for FreakyGoo\_89:

(Start: 18 @54407 has 24 MA's), (29, 54560), (30, 54572), (33, 54599), (36, 54629), (38, 54647), (40, 54656),

Gene: Fryberger\_144 Start: 66223, Stop: 66480, Start Num: 21

Candidate Starts for Fryberger\_144:

(Start: 21 @66223 has 5 MA's), (27, 66319), (29, 66343), (31, 66373), (37, 66406),

Gene: GardenSalsa\_100 Start: 56014, Stop: 56340, Start Num: 18

Candidate Starts for GardenSalsa\_100:

(Start: 18 @56014 has 24 MA's), (29, 56167), (30, 56179), (36, 56236), (38, 56254), (40, 56263),

Gene: GenevaB15\_102 Start: 55956, Stop: 56279, Start Num: 18

Candidate Starts for GenevaB15\_102:

(Start: 18 @55956 has 24 MA's), (30, 56121), (38, 56196),

Gene: Glaske16\_91 Start: 54100, Stop: 54426, Start Num: 18

Candidate Starts for Glaske16\_91:

(Start: 18 @54100 has 24 MA's), (29, 54253), (30, 54265), (33, 54292), (36, 54322), (38, 54340), (40, 54349),

Gene: Guey18\_149 Start: 67884, Stop: 68141, Start Num: 21

Candidate Starts for Guey18\_149:

(Start: 21 @67884 has 5 MA's), (27, 67980), (29, 68004), (31, 68034), (37, 68067),

Gene: Gustav\_68 Start: 43674, Stop: 44000, Start Num: 16

Candidate Starts for Gustav\_68:

(12, 43644), (Start: 16 @43674 has 1 MA's), (24, 43788), (30, 43857), (31, 43875), (35, 43896), (36, 43905), (46, 43962),

Gene: IPhone7\_88 Start: 53932, Stop: 54258, Start Num: 18

Candidate Starts for IPhone7\_88:

(Start: 18 @53932 has 24 MA's), (29, 54085), (30, 54097), (33, 54124), (36, 54154), (38, 54172), (40, 54181),

Gene: Izel\_88 Start: 53927, Stop: 54253, Start Num: 18

Candidate Starts for Izel\_88:

(Start: 18 @53927 has 24 MA's), (29, 54080), (30, 54092), (33, 54119), (36, 54149), (38, 54167), (40, 54176),

Gene: Jflix2\_101 Start: 58160, Stop: 58510, Start Num: 18

Candidate Starts for Jflix2\_101:

(1, 57923), (17, 58148), (Start: 18 @58160 has 24 MA's),

Gene: Keelan\_144 Start: 66560, Stop: 66817, Start Num: 21

Candidate Starts for Keelan\_144:

(Start: 21 @66560 has 5 MA's), (27, 66656), (29, 66680), (31, 66710), (37, 66743), (45, 66803),

Gene: Kudrefre\_128 Start: 69247, Stop: 69579, Start Num: 20

Candidate Starts for Kudrefre\_128:

(Start: 20 @69247 has 7 MA's), (29, 69385), (30, 69397), (39, 69487),

Gene: LilhomieP\_89 Start: 54411, Stop: 54737, Start Num: 18

Candidate Starts for LilhomieP\_89:

(Start: 18 @54411 has 24 MA's), (29, 54564), (30, 54576), (33, 54603), (36, 54633), (38, 54651), (40, 54660),

Gene: Madraxi\_103 Start: 60318, Stop: 60668, Start Num: 18

Candidate Starts for Madraxi\_103:

(2, 60090), (6, 60201), (9, 60237), (Start: 18 @60318 has 24 MA's), (29, 60468),

Gene: MaryV\_100 Start: 58194, Stop: 58436, Start Num: 22

Candidate Starts for MaryV\_100:

(Start: 18 @58119 has 24 MA's), (Start: 22 @58194 has 3 MA's), (23, 58197), (28, 58248), (29, 58266), (43, 58398), (48, 58422), (49, 58428),

Gene: MrMagoo\_101 Start: 56014, Stop: 56340, Start Num: 18

Candidate Starts for MrMagoo\_101:

(Start: 18 @56014 has 24 MA's), (29, 56167), (30, 56179), (36, 56236), (38, 56254), (40, 56263),

Gene: Nanosmite\_95 Start: 55538, Stop: 55861, Start Num: 18

Candidate Starts for Nanosmite\_95:

(Start: 18 @55538 has 24 MA's), (Start: 22 @55613 has 3 MA's), (29, 55691), (33, 55730), (38, 55778), (40, 55787),

Gene: Neville\_125 Start: 70232, Stop: 70561, Start Num: 20

Candidate Starts for Neville\_125:

(Start: 20 @70232 has 7 MA's), (28, 70352), (30, 70382), (32, 70406), (34, 70415), (41, 70484), (42, 70508), (44, 70517), (50, 70556),

Gene: Octobien14\_124 Start: 67781, Stop: 68113, Start Num: 20

Candidate Starts for Octobien14\_124:

(15, 67739), (Start: 20 @67781 has 7 MA's), (29, 67919), (30, 67931), (36, 67997),

Gene: PegLeg\_88 Start: 53672, Stop: 53998, Start Num: 18

Candidate Starts for PegLeg\_88:

(Start: 18 @53672 has 24 MA's), (29, 53825), (30, 53837), (33, 53864), (36, 53894), (38, 53912), (40, 53921),

Gene: Rabbitrun\_127 Start: 71852, Stop: 72181, Start Num: 20

Candidate Starts for Rabbitrun\_127:

(3, 71615), (4, 71618), (5, 71696), (7, 71741), (8, 71744), (10, 71774), (11, 71777), (14, 71804), (19, 71840), (Start: 20 @71852 has 7 MA's), (26, 71942), (30, 72002), (31, 72020), (32, 72026), (33, 72029), (41, 72104), (50, 72176),

Gene: Reindeer\_90 Start: 55191, Stop: 55517, Start Num: 18

Candidate Starts for Reindeer\_90:

(Start: 18 @55191 has 24 MA's), (29, 55344), (30, 55356), (33, 55383), (36, 55413), (38, 55431), (40, 55440),

Gene: Rey\_101 Start: 55933, Stop: 56259, Start Num: 18

Candidate Starts for Rey\_101:

(Start: 18 @55933 has 24 MA's), (29, 56086), (36, 56155), (38, 56173), (40, 56182), (47, 56233),

Gene: Ronaldo\_147 Start: 67378, Stop: 67635, Start Num: 21

Candidate Starts for Ronaldo\_147:

(Start: 21 @67378 has 5 MA's), (27, 67474), (29, 67498), (31, 67528), (37, 67561),

Gene: Sephiroth\_123 Start: 69017, Stop: 69349, Start Num: 20

Candidate Starts for Sephiroth\_123:

(Start: 20 @69017 has 7 MA's), (29, 69155), (30, 69167), (39, 69257),

Gene: Skinny\_93 Start: 54840, Stop: 55166, Start Num: 18

Candidate Starts for Skinny\_93:

(Start: 18 @54840 has 24 MA's), (29, 54993), (30, 55005), (33, 55032), (36, 55062), (38, 55080), (40, 55089),

Gene: SlimJimmy\_89 Start: 54828, Stop: 55154, Start Num: 18

Candidate Starts for SlimJimmy\_89:

(Start: 18 @54828 has 24 MA's), (29, 54981), (30, 54993), (33, 55020), (36, 55050), (38, 55068), (40, 55077),

Gene: Syleon\_128 Start: 69768, Stop: 70100, Start Num: 20

Candidate Starts for Syleon\_128:

(Start: 20 @69768 has 7 MA's), (29, 69906), (30, 69918), (39, 70008),

Gene: Trax\_126 Start: 71052, Stop: 71381, Start Num: 20

Candidate Starts for Trax\_126:

(Start: 20 @71052 has 7 MA's), (28, 71172), (30, 71202), (31, 71220), (32, 71226), (34, 71235), (42, 71328), (44, 71337),

Gene: TyDawg\_89 Start: 53935, Stop: 54261, Start Num: 18

Candidate Starts for TyDawg\_89:

(Start: 18 @53935 has 24 MA's), (29, 54088), (30, 54100), (33, 54127), (36, 54157), (38, 54175), (40, 54184),

Gene: Volt\_150 Start: 67542, Stop: 67799, Start Num: 21

Candidate Starts for Volt\_150:

(Start: 21 @67542 has 5 MA's), (27, 67638), (29, 67662), (31, 67692), (37, 67725),

Gene: Wildcat\_100 Start: 58129, Stop: 58446, Start Num: 18

Candidate Starts for Wildcat\_100:

(Start: 18 @58129 has 24 MA's), (Start: 22 @58204 has 3 MA's), (23, 58207), (28, 58258), (29, 58276), (43, 58408), (48, 58432), (49, 58438),