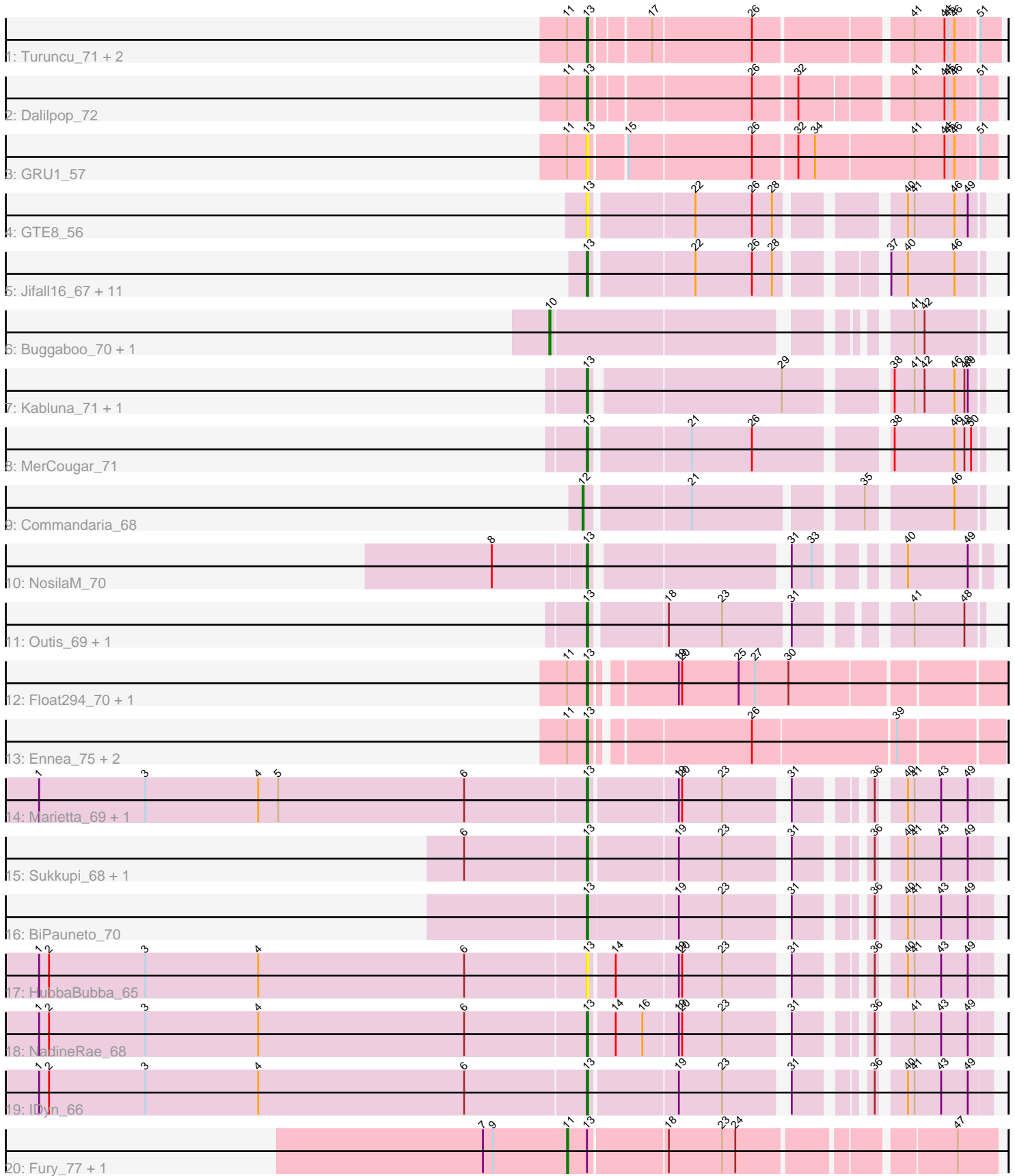


Pham 2105



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 2105 Report

This analysis was run 07/09/24 on database version 566.

Pham number 2105 has 42 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Turuncu\_71, Flapper\_71, GTE5\_57
- Track 2 : Dalilpop\_72
- Track 3 : GRU1\_57
- Track 4 : GTE8\_56
- Track 5 : Jifall16\_67, Tracker\_67, Phomeo\_68, Foxboro\_68, Emianna\_67, Arti\_66, NatB6\_67, Kurt\_67, KidneyBean\_68, GrootJr\_69, NovumRegina\_67, Wheezy\_67
- Track 6 : Buggaboo\_70, SuperSulley\_70
- Track 7 : Kabluna\_71, Bonum\_72
- Track 8 : MerCougar\_71
- Track 9 : Commandaria\_68
- Track 10 : NosilaM\_70
- Track 11 : Outis\_69, StarStruck\_69
- Track 12 : Float294\_70, Skysand\_71
- Track 13 : Ennea\_75, Lollipop1437\_72, Patio\_70
- Track 14 : Marietta\_69, WhoseManz\_68
- Track 15 : Sukkupi\_68, Yndexa\_68
- Track 16 : BiPauneto\_70
- Track 17 : HubbaBubba\_65
- Track 18 : NadineRae\_68
- Track 19 : IDyn\_66
- Track 20 : Fury\_77, Pleakley\_77

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

The start number called the most often in the published annotations is 13, it was called in 32 of the 37 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arti\_66, BiPauneto\_70, Bonum\_72, Dalilpop\_72, Emianna\_67, Ennea\_75, Flapper\_71, Float294\_70, Foxboro\_68, GRU1\_57, GTE5\_57, GTE8\_56, GrootJr\_69, HubbaBubba\_65, IDyn\_66, Jifall16\_67, Kabluna\_71, KidneyBean\_68, Kurt\_67, Lollipop1437\_72, Marietta\_69, MerCougar\_71, NadineRae\_68, NatB6\_67, NosilaM\_70, NovumRegina\_67, Outis\_69, Patio\_70, Phomeo\_68, Skysand\_71, StarStruck\_69, Sukkupi\_68, Tracker\_67, Turuncu\_71, Wheezy\_67, WhoseManz\_68,

Yndexa\_68,

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

- Fury\_77, Pleakley\_77,

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

- Buggaboo\_70, Commandaria\_68, SuperSulley\_70,

### Summary by start number:

Start 10:

- Found in 2 of 42 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 2 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Buggaboo\_70 (CR2), SuperSulley\_70 (CR2),

Start 11:

- Found in 12 of 42 ( 28.6% ) of genes in pham
- Manual Annotations of this start: 2 of 37
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Fury\_77 (CR5), Pleakley\_77 (CR5),

Start 12:

- Found in 1 of 42 ( 2.4% ) of genes in pham
- Manual Annotations of this start: 1 of 37
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Commandaria\_68 (CR2),

Start 13:

- Found in 39 of 42 ( 92.9% ) of genes in pham
- Manual Annotations of this start: 32 of 37
- Called 94.9% of time when present
- Phage (with cluster) where this start called: Arti\_66 (CR2), BiPauneto\_70 (CR4), Bonum\_72 (CR2), Dalilpop\_72 (CR1), Emianna\_67 (CR2), Ennea\_75 (CR3), Flapper\_71 (CR1), Float294\_70 (CR3), Foxboro\_68 (CR2), GRU1\_57 (CR1), GTE5\_57 (CR1), GTE8\_56 (CR2), GrootJr\_69 (CR2), HubbaBubba\_65 (CR4), IDyn\_66 (CR4), Jifall16\_67 (CR2), Kabluna\_71 (CR2), KidneyBean\_68 (CR2), Kurt\_67 (CR2), Lollipop1437\_72 (CR3), Marietta\_69 (CR4), MerCougar\_71 (CR2), NadineRae\_68 (CR4), NatB6\_67 (CR2), NosilaM\_70 (CR2), NovumRegina\_67 (CR2), Outis\_69 (CR2), Patio\_70 (CR3), Phomeo\_68 (CR2), Skysand\_71 (CR3), StarStruck\_69 (CR2), Sukkupi\_68 (CR4), Tracker\_67 (CR2), Turuncu\_71 (CR1), Wheezy\_67 (CR2), WhoseManz\_68 (CR4), Yndexa\_68 (CR4),

### Summary by clusters:

There are 5 clusters represented in this pham: CR2, CR3, CR1, CR4, CR5,

Info for manual annotations of cluster CR1:

- Start number 13 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 10 was manually annotated 2 times for cluster CR2.

- Start number 12 was manually annotated 1 time for cluster CR2.
- Start number 13 was manually annotated 17 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 13 was manually annotated 5 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 13 was manually annotated 7 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 11 was manually annotated 2 times for cluster CR5.

### ***Gene Information:***

Gene: Arti\_66 Start: 52370, Stop: 52062, Start Num: 13

Candidate Starts for Arti\_66:

(Start: 13 @52370 has 32 MA's), (22, 52283), (26, 52232), (28, 52214), (37, 52142), (40, 52127), (46, 52085),

Gene: BiPauneto\_70 Start: 51955, Stop: 51647, Start Num: 13

Candidate Starts for BiPauneto\_70:

(Start: 13 @51955 has 32 MA's), (19, 51877), (23, 51838), (31, 51790), (36, 51739), (40, 51721), (41, 51715), (43, 51691), (49, 51667),

Gene: Bonum\_72 Start: 53623, Stop: 53306, Start Num: 13

Candidate Starts for Bonum\_72:

(Start: 13 @53623 has 32 MA's), (29, 53461), (38, 53383), (41, 53365), (42, 53356), (46, 53329), (48, 53320), (49, 53317),

Gene: Buggaboo\_70 Start: 54189, Stop: 53857, Start Num: 10

Candidate Starts for Buggaboo\_70:

(Start: 10 @54189 has 2 MA's), (41, 53916), (42, 53907),

Gene: Commandaria\_68 Start: 53631, Stop: 53317, Start Num: 12

Candidate Starts for Commandaria\_68:

(Start: 12 @53631 has 1 MA's), (21, 53544), (35, 53409), (46, 53340),

Gene: Dalilpop\_72 Start: 54830, Stop: 54501, Start Num: 13

Candidate Starts for Dalilpop\_72:

(Start: 11 @54848 has 2 MA's), (Start: 13 @54830 has 32 MA's), (26, 54695), (32, 54659), (41, 54569), (44, 54542), (45, 54539), (46, 54533), (51, 54515),

Gene: Emianna\_67 Start: 53602, Stop: 53294, Start Num: 13

Candidate Starts for Emianna\_67:

(Start: 13 @53602 has 32 MA's), (22, 53515), (26, 53464), (28, 53446), (37, 53374), (40, 53359), (46, 53317),

Gene: Ennea\_75 Start: 54941, Stop: 54600, Start Num: 13

Candidate Starts for Ennea\_75:

(Start: 11 @54959 has 2 MA's), (Start: 13 @54941 has 32 MA's), (26, 54812), (39, 54689),

Gene: Flapper\_71 Start: 54030, Stop: 53698, Start Num: 13

Candidate Starts for Flapper\_71:

(Start: 11 @54048 has 2 MA's), (Start: 13 @54030 has 32 MA's), (17, 53982), (26, 53895), (41, 53766), (44, 53739), (45, 53736), (46, 53730), (51, 53712),

Gene: Float294\_70 Start: 54838, Stop: 54491, Start Num: 13

Candidate Starts for Float294\_70:

(Start: 11 @54856 has 2 MA's), (Start: 13 @54838 has 32 MA's), (19, 54772), (20, 54769), (25, 54718), (27, 54703), (30, 54673),

Gene: Foxboro\_68 Start: 54127, Stop: 53819, Start Num: 13

Candidate Starts for Foxboro\_68:

(Start: 13 @54127 has 32 MA's), (22, 54040), (26, 53989), (28, 53971), (37, 53899), (40, 53884), (46, 53842),

Gene: Fury\_77 Start: 53203, Stop: 52850, Start Num: 11

Candidate Starts for Fury\_77:

(7, 53278), (9, 53269), (Start: 11 @53203 has 2 MA's), (Start: 13 @53185 has 32 MA's), (18, 53119), (23, 53071), (24, 53059), (47, 52885),

Gene: GRU1\_57 Start: 45884, Stop: 45540, Start Num: 13

Candidate Starts for GRU1\_57:

(Start: 11 @45902 has 2 MA's), (Start: 13 @45884 has 32 MA's), (15, 45854), (26, 45746), (32, 45710), (34, 45695), (41, 45608), (44, 45581), (45, 45578), (46, 45572), (51, 45554),

Gene: GTE5\_57 Start: 47070, Stop: 46735, Start Num: 13

Candidate Starts for GTE5\_57:

(Start: 11 @47088 has 2 MA's), (Start: 13 @47070 has 32 MA's), (17, 47022), (26, 46935), (41, 46806), (44, 46779), (45, 46776), (46, 46770), (51, 46752),

Gene: GTE8\_56 Start: 46842, Stop: 46531, Start Num: 13

Candidate Starts for GTE8\_56:

(Start: 13 @46842 has 32 MA's), (22, 46755), (26, 46704), (28, 46686), (40, 46596), (41, 46590), (46, 46554), (49, 46542),

Gene: GrootJr\_69 Start: 52996, Stop: 52688, Start Num: 13

Candidate Starts for GrootJr\_69:

(Start: 13 @52996 has 32 MA's), (22, 52909), (26, 52858), (28, 52840), (37, 52768), (40, 52753), (46, 52711),

Gene: HubbaBubba\_65 Start: 49126, Stop: 48821, Start Num: 13

Candidate Starts for HubbaBubba\_65:

(1, 49615), (2, 49606), (3, 49519), (4, 49417), (6, 49231), (Start: 13 @49126 has 32 MA's), (14, 49105), (19, 49051), (20, 49048), (23, 49012), (31, 48964), (36, 48913), (40, 48895), (41, 48889), (43, 48865), (49, 48841),

Gene: IDyn\_66 Start: 49873, Stop: 49568, Start Num: 13

Candidate Starts for IDyn\_66:

(1, 50362), (2, 50353), (3, 50266), (4, 50164), (6, 49978), (Start: 13 @49873 has 32 MA's), (19, 49798), (23, 49759), (31, 49711), (36, 49660), (40, 49642), (41, 49636), (43, 49612), (49, 49588),

Gene: Jifall16\_67 Start: 53623, Stop: 53315, Start Num: 13

Candidate Starts for Jifall16\_67:

(Start: 13 @53623 has 32 MA's), (22, 53536), (26, 53485), (28, 53467), (37, 53395), (40, 53380), (46, 53338),

Gene: Kabluna\_71 Start: 52952, Stop: 52635, Start Num: 13

Candidate Starts for Kabluna\_71:

(Start: 13 @52952 has 32 MA's), (29, 52790), (38, 52712), (41, 52694), (42, 52685), (46, 52658), (48, 52649), (49, 52646),

Gene: KidneyBean\_68 Start: 53747, Stop: 53439, Start Num: 13

Candidate Starts for KidneyBean\_68:

(Start: 13 @53747 has 32 MA's), (22, 53660), (26, 53609), (28, 53591), (37, 53519), (40, 53504), (46, 53462),

Gene: Kurt\_67 Start: 53617, Stop: 53309, Start Num: 13

Candidate Starts for Kurt\_67:

(Start: 13 @53617 has 32 MA's), (22, 53530), (26, 53479), (28, 53461), (37, 53389), (40, 53374), (46, 53332),

Gene: Lollipop1437\_72 Start: 54621, Stop: 54280, Start Num: 13

Candidate Starts for Lollipop1437\_72:

(Start: 11 @54639 has 2 MA's), (Start: 13 @54621 has 32 MA's), (26, 54492), (39, 54369),

Gene: Marietta\_69 Start: 50173, Stop: 49868, Start Num: 13

Candidate Starts for Marietta\_69:

(1, 50662), (3, 50566), (4, 50464), (5, 50446), (6, 50278), (Start: 13 @50173 has 32 MA's), (19, 50098), (20, 50095), (23, 50059), (31, 50011), (36, 49960), (40, 49942), (41, 49936), (43, 49912), (49, 49888),

Gene: MerCougar\_71 Start: 54665, Stop: 54345, Start Num: 13

Candidate Starts for MerCougar\_71:

(Start: 13 @54665 has 32 MA's), (21, 54581), (26, 54527), (38, 54422), (46, 54368), (48, 54359), (50, 54353),

Gene: NadineRae\_68 Start: 49782, Stop: 49477, Start Num: 13

Candidate Starts for NadineRae\_68:

(1, 50271), (2, 50262), (3, 50175), (4, 50073), (6, 49887), (Start: 13 @49782 has 32 MA's), (14, 49761), (16, 49737), (19, 49707), (20, 49704), (23, 49668), (31, 49620), (36, 49569), (41, 49545), (43, 49521), (49, 49497),

Gene: NatB6\_67 Start: 52686, Stop: 52378, Start Num: 13

Candidate Starts for NatB6\_67:

(Start: 13 @52686 has 32 MA's), (22, 52599), (26, 52548), (28, 52530), (37, 52458), (40, 52443), (46, 52401),

Gene: NosilaM\_70 Start: 53602, Stop: 53303, Start Num: 13

Candidate Starts for NosilaM\_70:

(8, 53680), (Start: 13 @53602 has 32 MA's), (31, 53446), (33, 53428), (40, 53374), (49, 53320),

Gene: NovumRegina\_67 Start: 52995, Stop: 52687, Start Num: 13

Candidate Starts for NovumRegina\_67:

(Start: 13 @52995 has 32 MA's), (22, 52908), (26, 52857), (28, 52839), (37, 52767), (40, 52752), (46, 52710),

Gene: Outis\_69 Start: 53784, Stop: 53482, Start Num: 13  
Candidate Starts for Outis\_69:  
(Start: 13 @53784 has 32 MA's), (18, 53721), (23, 53673), (31, 53619), (41, 53541), (48, 53496),

Gene: Patio\_70 Start: 53678, Stop: 53337, Start Num: 13  
Candidate Starts for Patio\_70:  
(Start: 11 @53696 has 2 MA's), (Start: 13 @53678 has 32 MA's), (26, 53549), (39, 53426),

Gene: Phomeo\_68 Start: 53619, Stop: 53311, Start Num: 13  
Candidate Starts for Phomeo\_68:  
(Start: 13 @53619 has 32 MA's), (22, 53532), (26, 53481), (28, 53463), (37, 53391), (40, 53376), (46, 53334),

Gene: Pleakley\_77 Start: 53204, Stop: 52851, Start Num: 11  
Candidate Starts for Pleakley\_77:  
(7, 53279), (9, 53270), (Start: 11 @53204 has 2 MA's), (Start: 13 @53186 has 32 MA's), (18, 53120), (23, 53072), (24, 53060), (47, 52886),

Gene: Skysand\_71 Start: 54335, Stop: 53991, Start Num: 13  
Candidate Starts for Skysand\_71:  
(Start: 11 @54353 has 2 MA's), (Start: 13 @54335 has 32 MA's), (19, 54269), (20, 54266), (25, 54215), (27, 54200), (30, 54170),

Gene: StarStruck\_69 Start: 53784, Stop: 53482, Start Num: 13  
Candidate Starts for StarStruck\_69:  
(Start: 13 @53784 has 32 MA's), (18, 53721), (23, 53673), (31, 53619), (41, 53541), (48, 53496),

Gene: Sukkupi\_68 Start: 51825, Stop: 51520, Start Num: 13  
Candidate Starts for Sukkupi\_68:  
(6, 51930), (Start: 13 @51825 has 32 MA's), (19, 51750), (23, 51711), (31, 51663), (36, 51612), (40, 51594), (41, 51588), (43, 51564), (49, 51540),

Gene: SuperSulley\_70 Start: 54189, Stop: 53857, Start Num: 10  
Candidate Starts for SuperSulley\_70:  
(Start: 10 @54189 has 2 MA's), (41, 53916), (42, 53907),

Gene: Tracker\_67 Start: 52430, Stop: 52122, Start Num: 13  
Candidate Starts for Tracker\_67:  
(Start: 13 @52430 has 32 MA's), (22, 52343), (26, 52292), (28, 52274), (37, 52202), (40, 52187), (46, 52145),

Gene: Turuncu\_71 Start: 53873, Stop: 53538, Start Num: 13  
Candidate Starts for Turuncu\_71:  
(Start: 11 @53891 has 2 MA's), (Start: 13 @53873 has 32 MA's), (17, 53825), (26, 53738), (41, 53609), (44, 53582), (45, 53579), (46, 53573), (51, 53555),

Gene: Wheezy\_67 Start: 52644, Stop: 52336, Start Num: 13  
Candidate Starts for Wheezy\_67:  
(Start: 13 @52644 has 32 MA's), (22, 52557), (26, 52506), (28, 52488), (37, 52416), (40, 52401), (46, 52359),

Gene: WhoseManz\_68 Start: 49840, Stop: 49535, Start Num: 13  
Candidate Starts for WhoseManz\_68:

(1, 50329), (3, 50233), (4, 50131), (5, 50113), (6, 49945), (Start: 13 @49840 has 32 MA's), (19, 49765), (20, 49762), (23, 49726), (31, 49678), (36, 49627), (40, 49609), (41, 49603), (43, 49579), (49, 49555),

Gene: Yndexa\_68 Start: 51825, Stop: 51520, Start Num: 13

Candidate Starts for Yndexa\_68:

(6, 51930), (Start: 13 @51825 has 32 MA's), (19, 51750), (23, 51711), (31, 51663), (36, 51612), (40, 51594), (41, 51588), (43, 51564), (49, 51540),