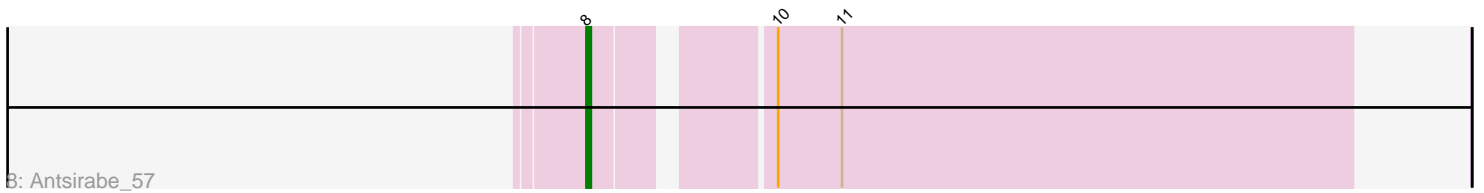
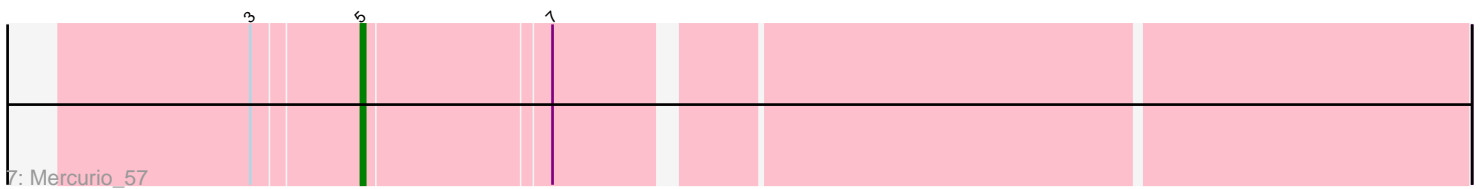
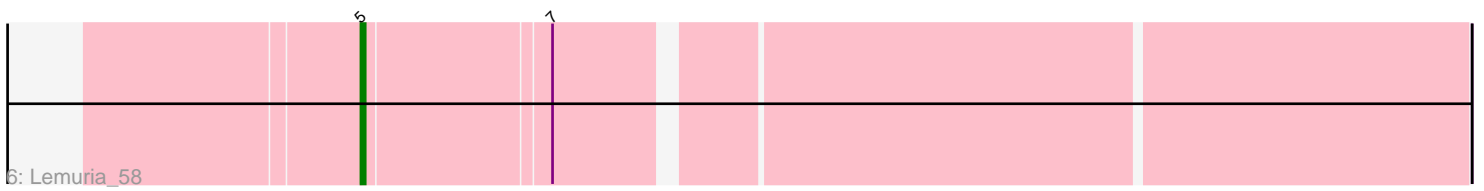
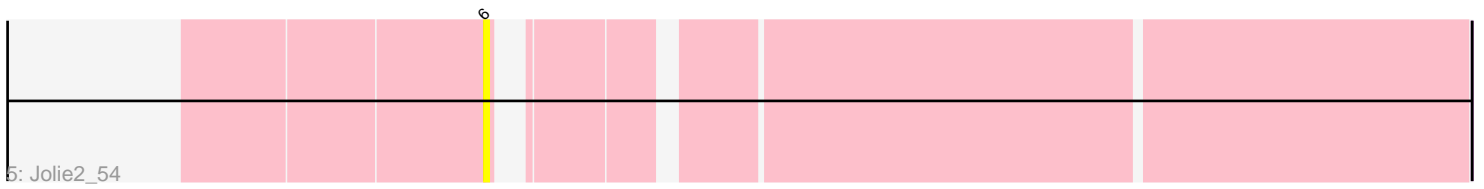
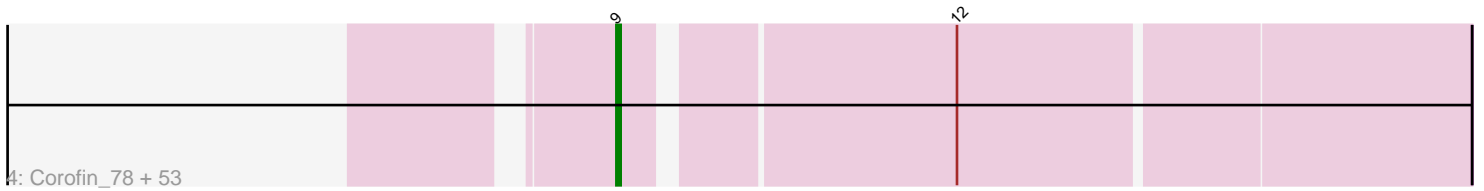
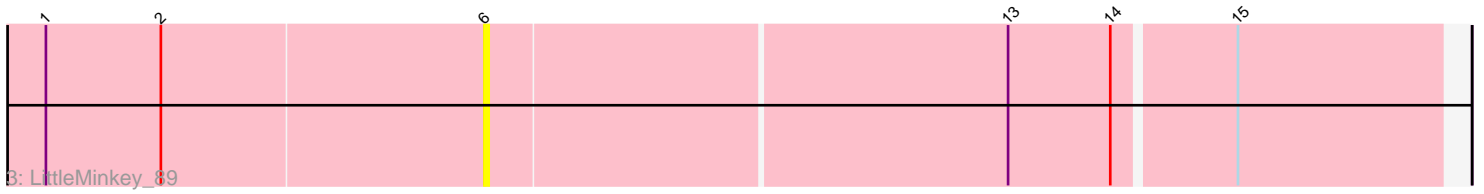
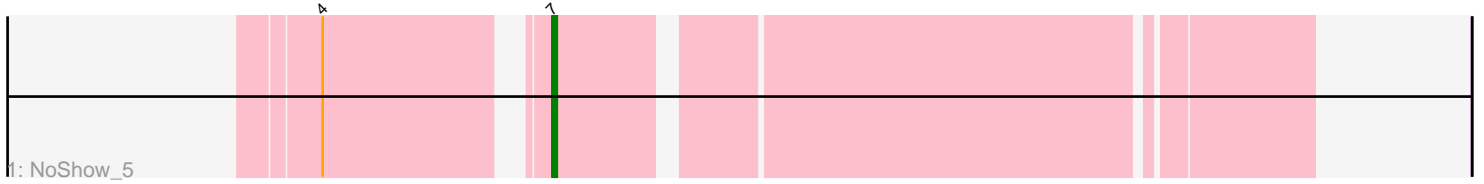


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 311608 Report

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

Pham number 311608 has 62 members, 6 are drafts.

Phages represented in each track:

- Track 1 : NoShow\_5
- Track 2 : Causa\_136, StAugustine\_134
- Track 3 : LittleMinkey\_89
- Track 4 : Corofin\_78, Akoma\_78, Gervas\_79, Ben11\_78, Jackstina\_73, SwainyDoc\_79, Briakila\_78, LestyG\_76, OrangeOswald\_78, Mortcellus\_78, Daisy\_77, HarveySr\_77, Abinghost\_78, Casbah\_78, Chalmers\_77, Philly\_77, Kamiyu\_78, Olivio\_78, Audrey\_78, Obutu\_80, Kronus\_78, Gadget\_79, ChaChing\_78, Athena\_80, Morty007\_77, Nozo\_78, Phlyer\_78, Rita1961\_79, Marlia\_79, Marley1013\_79, RomaT\_78, Yahalom\_76, Halfpint\_77, Glubnar\_79, Baloo\_77, Tydolla\_74, TinyTerror\_79, Phayeta\_81, Chentzyk\_80, MmasiCarm\_79, Heathcliff\_78, Devonte\_77, SynergyX\_78, Yinz\_78, GlenHope\_79, Shenandoah\_77, Chandler\_78, Phaedrus\_73, Mulaychimus\_79, RagingRooster\_77, Pipefish\_80, Compostia\_77, Deenasa\_78, Neos5\_78
- Track 5 : Jolie2\_54
- Track 6 : Lemuria\_58
- Track 7 : Mercurio\_57
- Track 8 : Antsirabe\_57

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

The start number called the most often in the published annotations is 9, it was called in 50 of the 56 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abinghost\_78, Akoma\_78, Athena\_80, Audrey\_78, Baloo\_77, Ben11\_78, Briakila\_78, Casbah\_78, ChaChing\_78, Chalmers\_77, Chandler\_78, Chentzyk\_80, Compostia\_77, Corofin\_78, Daisy\_77, Deenasa\_78, Devonte\_77, Gadget\_79, Gervas\_79, GlenHope\_79, Glubnar\_79, Halfpint\_77, HarveySr\_77, Heathcliff\_78, Jackstina\_73, Kamiyu\_78, Kronus\_78, LestyG\_76, Marley1013\_79, Marlia\_79, MmasiCarm\_79, Mortcellus\_78, Morty007\_77, Mulaychimus\_79, Neos5\_78, Nozo\_78, Obutu\_80, Olivio\_78, OrangeOswald\_78, Phaedrus\_73, Phayeta\_81, Philly\_77, Phlyer\_78, Pipefish\_80, RagingRooster\_77, Rita1961\_79, RomaT\_78, Shenandoah\_77, SwainyDoc\_79, SynergyX\_78, TinyTerror\_79, Tydolla\_74, Yahalom\_76, Yinz\_78,

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

- 

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

- Antsirabe\_57, Causa\_136, Jolie2\_54, Lemuria\_58, LittleMinkey\_89, Mercurio\_57, NoShow\_5, StAugustine\_134,

### Summary by start number:

Start 5:

- Found in 2 of 62 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 2 of 56
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lemuria\_58 (G4), Mercurio\_57 (G4),

Start 6:

- Found in 2 of 62 ( 3.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jolie2\_54 (G4), LittleMinkey\_89 (B13),

Start 7:

- Found in 3 of 62 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 1 of 56
- Called 33.3% of time when present
- Phage (with cluster) where this start called: NoShow\_5 (AB),

Start 8:

- Found in 3 of 62 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 3 of 56
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antsirabe\_57 (G5), Causa\_136 (AI), StAugustine\_134 (AI),

Start 9:

- Found in 54 of 62 ( 87.1% ) of genes in pham
- Manual Annotations of this start: 50 of 56
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abinghost\_78 (B3), Akoma\_78 (B3), Athena\_80 (B3), Audrey\_78 (B3), Baloo\_77 (B3), Ben11\_78 (B3), Briakila\_78 (B3), Casbah\_78 (B3), ChaChing\_78 (B3), Chalmers\_77 (B3), Chandler\_78 (B3), Chentzyk\_80 (B3), Compostia\_77 (B3), Corofin\_78 (B3), Daisy\_77 (B3), Deenasa\_78 (B3), Devonte\_77 (B3), Gadget\_79 (B3), Gervas\_79 (B3), GlenHope\_79 (B3), Glubnar\_79 (B3), Halfpint\_77 (B3), HarveySr\_77 (B3), Heathcliff\_78 (B3), Jackstina\_73 (B3), Kamiyu\_78 (B3), Kronus\_78 (B3), LestyG\_76 (B3), Marley1013\_79 (B3), Marlia\_79 (B3), MmasiCarm\_79 (B3), Mortcellus\_78 (B3), Morty007\_77 (B3), Mulaychimus\_79 (B3), Neos5\_78 (B3), Nozo\_78 (B3), Obutu\_80 (B3), Olivio\_78 (B3), OrangeOswald\_78 (B3), Phaedrus\_73 (B3), Phayeta\_81 (B3), Philly\_77 (B3), Phlyer\_78 (B3), Pipefish\_80 (B3), RagingRooster\_77 (B3), Rita1961\_79 (B3), RomaT\_78 (B3), Shenandoah\_77 (B3), SwainyDoc\_79 (B3), SynergyX\_78 (B3), TinyTerror\_79 (B3), Tydolla\_74 (B3), Yahalom\_76 (B3), Yinz\_78 (B3),

## **Summary by clusters:**

There are 6 clusters represented in this pham: G5, G4, AI, AB, B13, B3,

Info for manual annotations of cluster AB:

- Start number 7 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster AI:

- Start number 8 was manually annotated 2 times for cluster AI.

Info for manual annotations of cluster B3:

- Start number 9 was manually annotated 50 times for cluster B3.

Info for manual annotations of cluster G4:

- Start number 5 was manually annotated 2 times for cluster G4.

Info for manual annotations of cluster G5:

- Start number 8 was manually annotated 1 time for cluster G5.

## ***Gene Information:***

Gene: Abinghost\_78 Start: 60573, Stop: 60385, Start Num: 9

Candidate Starts for Abinghost\_78:

(Start: 9 @60573 has 50 MA's), (12, 60501),

Gene: Akoma\_78 Start: 60613, Stop: 60425, Start Num: 9

Candidate Starts for Akoma\_78:

(Start: 9 @60613 has 50 MA's), (12, 60541),

Gene: Antsirabe\_57 Start: 40829, Stop: 40999, Start Num: 8

Candidate Starts for Antsirabe\_57:

(Start: 8 @40829 has 3 MA's), (10, 40865), (11, 40880),

Gene: Athena\_80 Start: 61348, Stop: 61160, Start Num: 9

Candidate Starts for Athena\_80:

(Start: 9 @61348 has 50 MA's), (12, 61276),

Gene: Audrey\_78 Start: 60602, Stop: 60414, Start Num: 9

Candidate Starts for Audrey\_78:

(Start: 9 @60602 has 50 MA's), (12, 60530),

Gene: Baloo\_77 Start: 60454, Stop: 60266, Start Num: 9

Candidate Starts for Baloo\_77:

(Start: 9 @60454 has 50 MA's), (12, 60382),

Gene: Ben11\_78 Start: 60829, Stop: 60641, Start Num: 9

Candidate Starts for Ben11\_78:

(Start: 9 @60829 has 50 MA's), (12, 60757),

Gene: Briakila\_78 Start: 60800, Stop: 60612, Start Num: 9  
Candidate Starts for Briakila\_78:  
(Start: 9 @60800 has 50 MA's), (12, 60728),

Gene: Casbah\_78 Start: 60913, Stop: 60725, Start Num: 9  
Candidate Starts for Casbah\_78:  
(Start: 9 @60913 has 50 MA's), (12, 60841),

Gene: Causa\_136 Start: 81315, Stop: 81109, Start Num: 8  
Candidate Starts for Causa\_136:  
(Start: 8 @81315 has 3 MA's), (11, 81255), (16, 81129),

Gene: ChaChing\_78 Start: 60618, Stop: 60430, Start Num: 9  
Candidate Starts for ChaChing\_78:  
(Start: 9 @60618 has 50 MA's), (12, 60546),

Gene: Chalmers\_77 Start: 61048, Stop: 60860, Start Num: 9  
Candidate Starts for Chalmers\_77:  
(Start: 9 @61048 has 50 MA's), (12, 60976),

Gene: Chandler\_78 Start: 61389, Stop: 61201, Start Num: 9  
Candidate Starts for Chandler\_78:  
(Start: 9 @61389 has 50 MA's), (12, 61317),

Gene: Chentzyk\_80 Start: 61556, Stop: 61368, Start Num: 9  
Candidate Starts for Chentzyk\_80:  
(Start: 9 @61556 has 50 MA's), (12, 61484),

Gene: Compostia\_77 Start: 61058, Stop: 60870, Start Num: 9  
Candidate Starts for Compostia\_77:  
(Start: 9 @61058 has 50 MA's), (12, 60986),

Gene: Corofin\_78 Start: 60624, Stop: 60436, Start Num: 9  
Candidate Starts for Corofin\_78:  
(Start: 9 @60624 has 50 MA's), (12, 60552),

Gene: Daisy\_77 Start: 60175, Stop: 59987, Start Num: 9  
Candidate Starts for Daisy\_77:  
(Start: 9 @60175 has 50 MA's), (12, 60103),

Gene: Deenasa\_78 Start: 61524, Stop: 61336, Start Num: 9  
Candidate Starts for Deenasa\_78:  
(Start: 9 @61524 has 50 MA's), (12, 61452),

Gene: Devonte\_77 Start: 60240, Stop: 60052, Start Num: 9  
Candidate Starts for Devonte\_77:  
(Start: 9 @60240 has 50 MA's), (12, 60168),

Gene: Gadget\_79 Start: 60975, Stop: 60787, Start Num: 9  
Candidate Starts for Gadget\_79:  
(Start: 9 @60975 has 50 MA's), (12, 60903),

Gene: Gervas\_79 Start: 61069, Stop: 60881, Start Num: 9

Candidate Starts for Gervas\_79:  
(Start: 9 @61069 has 50 MA's), (12, 60997),

Gene: GlenHope\_79 Start: 60648, Stop: 60460, Start Num: 9  
Candidate Starts for GlenHope\_79:  
(Start: 9 @60648 has 50 MA's), (12, 60576),

Gene: Glubnar\_79 Start: 60507, Stop: 60319, Start Num: 9  
Candidate Starts for Glubnar\_79:  
(Start: 9 @60507 has 50 MA's), (12, 60435),

Gene: Halfpint\_77 Start: 60390, Stop: 60202, Start Num: 9  
Candidate Starts for Halfpint\_77:  
(Start: 9 @60390 has 50 MA's), (12, 60318),

Gene: HarveySr\_77 Start: 60159, Stop: 59971, Start Num: 9  
Candidate Starts for HarveySr\_77:  
(Start: 9 @60159 has 50 MA's), (12, 60087),

Gene: Heathcliff\_78 Start: 60569, Stop: 60381, Start Num: 9  
Candidate Starts for Heathcliff\_78:  
(Start: 9 @60569 has 50 MA's), (12, 60497),

Gene: Jackstina\_73 Start: 60483, Stop: 60295, Start Num: 9  
Candidate Starts for Jackstina\_73:  
(Start: 9 @60483 has 50 MA's), (12, 60411),

Gene: Jolie2\_54 Start: 39612, Stop: 39821, Start Num: 6  
Candidate Starts for Jolie2\_54:  
(6, 39612),

Gene: Kamiyu\_78 Start: 60572, Stop: 60384, Start Num: 9  
Candidate Starts for Kamiyu\_78:  
(Start: 9 @60572 has 50 MA's), (12, 60500),

Gene: Kronus\_78 Start: 61656, Stop: 61468, Start Num: 9  
Candidate Starts for Kronus\_78:  
(Start: 9 @61656 has 50 MA's), (12, 61584),

Gene: Lemuria\_58 Start: 41205, Stop: 41450, Start Num: 5  
Candidate Starts for Lemuria\_58:  
(Start: 5 @41205 has 2 MA's), (Start: 7 @41247 has 1 MA's),

Gene: LestyG\_76 Start: 60142, Stop: 59954, Start Num: 9  
Candidate Starts for LestyG\_76:  
(Start: 9 @60142 has 50 MA's), (12, 60070),

Gene: LittleMinkey\_89 Start: 63936, Stop: 64154, Start Num: 6  
Candidate Starts for LittleMinkey\_89:  
(1, 63834), (2, 63861), (6, 63936), (13, 64056), (14, 64080), (15, 64107),

Gene: Marley1013\_79 Start: 61508, Stop: 61320, Start Num: 9  
Candidate Starts for Marley1013\_79:

(Start: 9 @61508 has 50 MA's), (12, 61436),

Gene: Marlia\_79 Start: 61041, Stop: 60853, Start Num: 9

Candidate Starts for Marlia\_79:

(Start: 9 @61041 has 50 MA's), (12, 60969),

Gene: Mercurio\_57 Start: 41698, Stop: 41943, Start Num: 5

Candidate Starts for Mercurio\_57:

(3, 41674), (Start: 5 @41698 has 2 MA's), (Start: 7 @41740 has 1 MA's),

Gene: MmasiCarm\_79 Start: 61011, Stop: 60823, Start Num: 9

Candidate Starts for MmasiCarm\_79:

(Start: 9 @61011 has 50 MA's), (12, 60939),

Gene: Mortcellus\_78 Start: 61727, Stop: 61539, Start Num: 9

Candidate Starts for Mortcellus\_78:

(Start: 9 @61727 has 50 MA's), (12, 61655),

Gene: Morty007\_77 Start: 61508, Stop: 61320, Start Num: 9

Candidate Starts for Morty007\_77:

(Start: 9 @61508 has 50 MA's), (12, 61436),

Gene: Mulaychimus\_79 Start: 61021, Stop: 60833, Start Num: 9

Candidate Starts for Mulaychimus\_79:

(Start: 9 @61021 has 50 MA's), (12, 60949),

Gene: Neos5\_78 Start: 60970, Stop: 60782, Start Num: 9

Candidate Starts for Neos5\_78:

(Start: 9 @60970 has 50 MA's), (12, 60898),

Gene: NoShow\_5 Start: 4743, Stop: 4907, Start Num: 7

Candidate Starts for NoShow\_5:

(4, 4698), (Start: 7 @4743 has 1 MA's),

Gene: Nozo\_78 Start: 61379, Stop: 61191, Start Num: 9

Candidate Starts for Nozo\_78:

(Start: 9 @61379 has 50 MA's), (12, 61307),

Gene: Obutu\_80 Start: 61182, Stop: 60994, Start Num: 9

Candidate Starts for Obutu\_80:

(Start: 9 @61182 has 50 MA's), (12, 61110),

Gene: Olivio\_78 Start: 60823, Stop: 60635, Start Num: 9

Candidate Starts for Olivio\_78:

(Start: 9 @60823 has 50 MA's), (12, 60751),

Gene: OrangeOswald\_78 Start: 60613, Stop: 60425, Start Num: 9

Candidate Starts for OrangeOswald\_78:

(Start: 9 @60613 has 50 MA's), (12, 60541),

Gene: Phaedrus\_73 Start: 60030, Stop: 59842, Start Num: 9

Candidate Starts for Phaedrus\_73:

(Start: 9 @60030 has 50 MA's), (12, 59958),

Gene: Phayeta\_81 Start: 61099, Stop: 60911, Start Num: 9  
Candidate Starts for Phayeta\_81:  
(Start: 9 @61099 has 50 MA's), (12, 61027),

Gene: Philly\_77 Start: 60462, Stop: 60274, Start Num: 9  
Candidate Starts for Philly\_77:  
(Start: 9 @60462 has 50 MA's), (12, 60390),

Gene: Phlyer\_78 Start: 61325, Stop: 61137, Start Num: 9  
Candidate Starts for Phlyer\_78:  
(Start: 9 @61325 has 50 MA's), (12, 61253),

Gene: Pipefish\_80 Start: 61721, Stop: 61533, Start Num: 9  
Candidate Starts for Pipefish\_80:  
(Start: 9 @61721 has 50 MA's), (12, 61649),

Gene: RagingRooster\_77 Start: 60305, Stop: 60117, Start Num: 9  
Candidate Starts for RagingRooster\_77:  
(Start: 9 @60305 has 50 MA's), (12, 60233),

Gene: Rita1961\_79 Start: 60959, Stop: 60771, Start Num: 9  
Candidate Starts for Rita1961\_79:  
(Start: 9 @60959 has 50 MA's), (12, 60887),

Gene: RomaT\_78 Start: 61179, Stop: 60991, Start Num: 9  
Candidate Starts for RomaT\_78:  
(Start: 9 @61179 has 50 MA's), (12, 61107),

Gene: Shenandoah\_77 Start: 60225, Stop: 60037, Start Num: 9  
Candidate Starts for Shenandoah\_77:  
(Start: 9 @60225 has 50 MA's), (12, 60153),

Gene: StAugustine\_134 Start: 82512, Stop: 82306, Start Num: 8  
Candidate Starts for StAugustine\_134:  
(Start: 8 @82512 has 3 MA's), (11, 82452), (16, 82326),

Gene: SwainyDoc\_79 Start: 60988, Stop: 60800, Start Num: 9  
Candidate Starts for SwainyDoc\_79:  
(Start: 9 @60988 has 50 MA's), (12, 60916),

Gene: SynergyX\_78 Start: 60616, Stop: 60428, Start Num: 9  
Candidate Starts for SynergyX\_78:  
(Start: 9 @60616 has 50 MA's), (12, 60544),

Gene: TinyTerror\_79 Start: 61039, Stop: 60851, Start Num: 9  
Candidate Starts for TinyTerror\_79:  
(Start: 9 @61039 has 50 MA's), (12, 60967),

Gene: Tydolla\_74 Start: 60595, Stop: 60407, Start Num: 9  
Candidate Starts for Tydolla\_74:  
(Start: 9 @60595 has 50 MA's), (12, 60523),

Gene: Yahalom\_76 Start: 60422, Stop: 60234, Start Num: 9  
Candidate Starts for Yahalom\_76:  
(Start: 9 @60422 has 50 MA's), (12, 60350),

Gene: Yinz\_78 Start: 60487, Stop: 60299, Start Num: 9  
Candidate Starts for Yinz\_78:  
(Start: 9 @60487 has 50 MA's), (12, 60415),