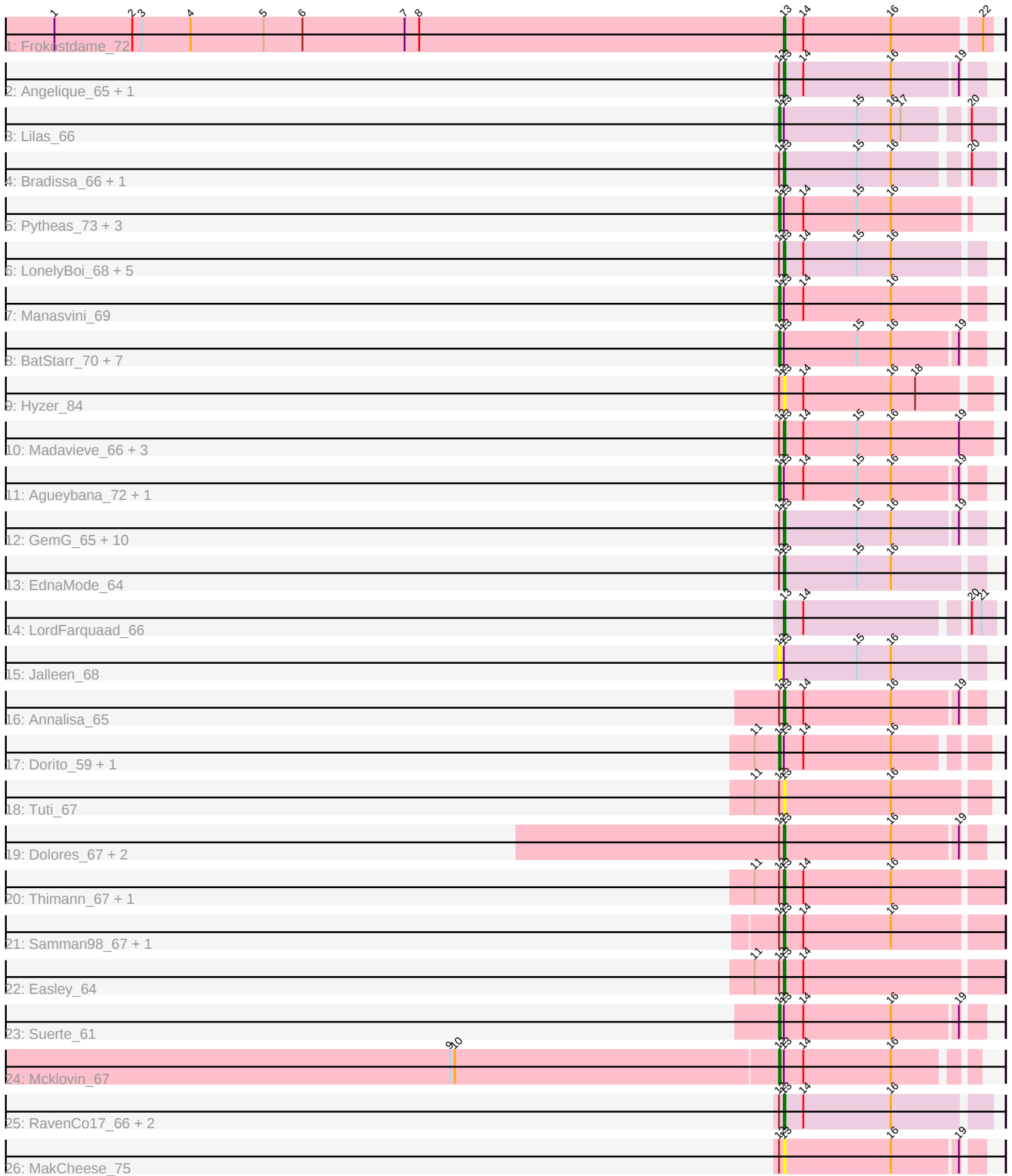


## Pham 280435



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 280435 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280435 has 64 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Frokostdame\_72
- Track 2 : Angelique\_65, FroggyToad\_65
- Track 3 : Lilas\_66
- Track 4 : Bradissa\_66, EnalisNailo\_65
- Track 5 : Pytheas\_73, JCole\_62, Yeezy\_72, Pollux\_73
- Track 6 : LonelyBoi\_68, AlumE\_69, Floral\_71, Ohgeesy\_69, Nettuno\_62, BoyNamedSue\_69
- Track 7 : Manasvini\_69
- Track 8 : BatStarr\_70, Bjanes7\_62, Mocha12\_65, Savage\_65, Herod\_71, Sproutie\_65, Cynthia\_65, Hugley\_69
- Track 9 : Hyzer\_84
- Track 10 : Madavieve\_66, EMSquaredA\_70, Bunnybear\_65, Maridalia\_70
- Track 11 : Agueybana\_72, Marteena\_69
- Track 12 : GemG\_65, TuertoX\_65, Gizermo\_65, PantheRoc\_73, TimTam\_71, Eviarto\_71, Whiteclaw\_65, Nymphadora\_71, Haley23\_65, Lamberg\_61, Clap\_65
- Track 13 : EdnaMode\_64
- Track 14 : LordFarquaad\_66
- Track 15 : Jalleen\_68
- Track 16 : Annalisa\_65
- Track 17 : Dorito\_59, DobbysSock\_61
- Track 18 : Tuti\_67
- Track 19 : Dolores\_67, Sekhmet\_66, WinkNick\_67
- Track 20 : Thimann\_67, Oregano\_67
- Track 21 : Samman98\_67, Invectra\_69
- Track 22 : Easley\_64
- Track 23 : Suerte\_61
- Track 24 : Mcklovin\_67
- Track 25 : RavenCo17\_66, WelcomeAyanna\_70, ThankyouJordi\_70
- Track 26 : MakCheese\_75

### ***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 38 of the 56 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AlumE\_69, Angelique\_65, Annalisa\_65, BoyNamedSue\_69, Bradissa\_66, Bunnybear\_65, Clap\_65, Dolores\_67, EMSquaredA\_70, Easley\_64, EdnaMode\_64, EnalisNailo\_65, Eviarto\_71, Floral\_71, FroggyToad\_65, Frokostdame\_72, GemG\_65, Gizermo\_65, Haley23\_65, Hyzer\_84, Invecetra\_69, Lamberg\_61, LonelyBoi\_68, LordFarquaad\_66, Madavieve\_66, MakCheese\_75, Maridalia\_70, Nettuno\_62, Nymphadora\_71, Ohgeesy\_69, Oregano\_67, PantheRoc\_73, RavenCo17\_66, Samman98\_67, Sekhmet\_66, ThankyouJordi\_70, Thimann\_67, TimTam\_71, TuertoX\_65, Tuti\_67, WelcomeAyanna\_70, Whiteclaw\_65, WinkNick\_67,

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

- Agueybana\_72, BatStarr\_70, Bjaness7\_62, Cynthia\_65, DobbysSock\_61, Dorito\_59, Herod\_71, Hugley\_69, JCole\_62, Jalleen\_68, Lilas\_66, Manasvini\_69, Marteena\_69, Mcklovin\_67, Mocha12\_65, Pollux\_73, Pytheas\_73, Savage\_65, Sproutie\_65, Suerte\_61, Yeezy\_72,

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

- 

### Summary by start number:

Start 12:

- Found in 62 of 64 ( 96.9% ) of genes in pham
- Manual Annotations of this start: 18 of 56
- Called 33.9% of time when present
- Phage (with cluster) where this start called: Agueybana\_72 (CZ1), BatStarr\_70 (CZ1), Bjaness7\_62 (CZ2), Cynthia\_65 (CZ2), DobbysSock\_61 (CZ4), Dorito\_59 (CZ4), Herod\_71 (CZ1), Hugley\_69 (CZ1), JCole\_62 (CZ2), Jalleen\_68 (CZ2), Lilas\_66 (CY1), Manasvini\_69 (CZ1), Marteena\_69 (CY1), Mcklovin\_67 (CZ4), Mocha12\_65 (CZ2), Pollux\_73 (CY1), Pytheas\_73 (CY3), Savage\_65 (CZ2), Sproutie\_65 (CZ2), Suerte\_61 (CZ4), Yeezy\_72 (CZ3),

Start 13:

- Found in 64 of 64 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 38 of 56
- Called 67.2% of time when present
- Phage (with cluster) where this start called: AlumE\_69 (CZ1), Angelique\_65 (CY1), Annalisa\_65 (CZ4), BoyNamedSue\_69 (CZ1), Bradissa\_66 (CY1), Bunnybear\_65 (CZ), Clap\_65 (CZ2), Dolores\_67 (CZ4), EMSquaredA\_70 (CY1), Easley\_64 (CZ4), EdnaMode\_64 (CZ2), EnalisNailo\_65 (CY1), Eviarto\_71 (CZ1), Floral\_71 (CY1), FroggyToad\_65 (CZ2), Frokostdame\_72 (CV), GemG\_65 (CZ2), Gizermo\_65 (CZ2), Haley23\_65 (CZ2), Hyzer\_84 (CZ1), Invecetra\_69 (CZ4), Lamberg\_61 (CZ2), LonelyBoi\_68 (CY7), LordFarquaad\_66 (CZ2), Madavieve\_66 (CZ1), MakCheese\_75 (DW), Maridalia\_70 (CZ1), Nettuno\_62 (CZ2), Nymphadora\_71 (CZ1), Ohgeesy\_69 (CZ), Oregano\_67 (CZ4), PantheRoc\_73 (CZ3), RavenCo17\_66 (CZ8), Samman98\_67 (CZ4), Sekhmet\_66 (CZ4), ThankyouJordi\_70 (CZ1), Thimann\_67 (CZ4), TimTam\_71 (CZ1), TuertoX\_65 (CZ2), Tuti\_67 (CZ4), WelcomeAyanna\_70 (CZ1), Whiteclaw\_65 (CZ2), WinkNick\_67 (CZ4),

### Summary by clusters:

There are 11 clusters represented in this pham: CY3, CY1, CY7, CZ2, CZ3, CZ1, CZ8, CZ4, CZ, DW, CV,

Info for manual annotations of cluster CV:

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

Info for manual annotations of cluster CY1:

- Start number 12 was manually annotated 3 times for cluster CY1.
- Start number 13 was manually annotated 5 times for cluster CY1.

Info for manual annotations of cluster CY3:

- Start number 12 was manually annotated 1 time for cluster CY3.

Info for manual annotations of cluster CY7:

- Start number 13 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster CZ:

- Start number 13 was manually annotated 2 times for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 12 was manually annotated 4 times for cluster CZ1.
- Start number 13 was manually annotated 8 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 12 was manually annotated 5 times for cluster CZ2.
- Start number 13 was manually annotated 10 times for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 12 was manually annotated 1 time for cluster CZ3.
- Start number 13 was manually annotated 1 time for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 12 was manually annotated 4 times for cluster CZ4.
- Start number 13 was manually annotated 9 times for cluster CZ4.

Info for manual annotations of cluster CZ8:

- Start number 13 was manually annotated 1 time for cluster CZ8.

### **Gene Information:**

Gene: Agueybana\_72 Start: 47382, Stop: 47501, Start Num: 12

Candidate Starts for Agueybana\_72:

(Start: 12 @47382 has 18 MA's), (Start: 13 @47385 has 38 MA's), (14, 47397), (15, 47430), (16, 47451), (19, 47490),

Gene: AlumE\_69 Start: 47241, Stop: 47360, Start Num: 13

Candidate Starts for AlumE\_69:

(Start: 12 @47238 has 18 MA's), (Start: 13 @47241 has 38 MA's), (14, 47253), (15, 47286), (16, 47307),

Gene: Angelique\_65 Start: 45702, Stop: 45818, Start Num: 13

Candidate Starts for Angelique\_65:

(Start: 12 @45699 has 18 MA's), (Start: 13 @45702 has 38 MA's), (14, 45714), (16, 45768), (19, 45807),

Gene: Annalisa\_65 Start: 42496, Stop: 42612, Start Num: 13

Candidate Starts for Annalisa\_65:

(Start: 12 @42493 has 18 MA's), (Start: 13 @42496 has 38 MA's), (14, 42508), (16, 42562), (19, 42601),

Gene: BatStarr\_70 Start: 47786, Stop: 47905, Start Num: 12

Candidate Starts for BatStarr\_70:

(Start: 12 @47786 has 18 MA's), (Start: 13 @47789 has 38 MA's), (15, 47834), (16, 47855), (19, 47894),

Gene: Bjaness7\_62 Start: 41166, Stop: 41285, Start Num: 12

Candidate Starts for Bjaness7\_62:

(Start: 12 @41166 has 18 MA's), (Start: 13 @41169 has 38 MA's), (15, 41214), (16, 41235), (19, 41274),

Gene: BoyNamedSue\_69 Start: 47241, Stop: 47360, Start Num: 13

Candidate Starts for BoyNamedSue\_69:

(Start: 12 @47238 has 18 MA's), (Start: 13 @47241 has 38 MA's), (14, 47253), (15, 47286), (16, 47307),

Gene: Bradissa\_66 Start: 46799, Stop: 46918, Start Num: 13

Candidate Starts for Bradissa\_66:

(Start: 12 @46796 has 18 MA's), (Start: 13 @46799 has 38 MA's), (15, 46844), (16, 46865), (20, 46904),

Gene: Bunnybear\_65 Start: 46124, Stop: 46252, Start Num: 13

Candidate Starts for Bunnybear\_65:

(Start: 12 @46121 has 18 MA's), (Start: 13 @46124 has 38 MA's), (14, 46136), (15, 46169), (16, 46190), (19, 46232),

Gene: Clap\_65 Start: 41348, Stop: 41464, Start Num: 13

Candidate Starts for Clap\_65:

(Start: 12 @41345 has 18 MA's), (Start: 13 @41348 has 38 MA's), (15, 41393), (16, 41414), (19, 41453),

Gene: Cynthia\_65 Start: 41343, Stop: 41462, Start Num: 12

Candidate Starts for Cynthia\_65:

(Start: 12 @41343 has 18 MA's), (Start: 13 @41346 has 38 MA's), (15, 41391), (16, 41412), (19, 41451),

Gene: DobbysSock\_61 Start: 41736, Stop: 41855, Start Num: 12

Candidate Starts for DobbysSock\_61:

(11, 41721), (Start: 12 @41736 has 18 MA's), (Start: 13 @41739 has 38 MA's), (14, 41751), (16, 41805),

Gene: Dolores\_67 Start: 42031, Stop: 42147, Start Num: 13

Candidate Starts for Dolores\_67:

(Start: 12 @42028 has 18 MA's), (Start: 13 @42031 has 38 MA's), (16, 42097), (19, 42136),

Gene: Dorito\_59 Start: 39603, Stop: 39722, Start Num: 12

Candidate Starts for Dorito\_59:

(11, 39588), (Start: 12 @39603 has 18 MA's), (Start: 13 @39606 has 38 MA's), (14, 39618), (16, 39672),

Gene: EMSquaredA\_70 Start: 46270, Stop: 46386, Start Num: 13

Candidate Starts for EMSquaredA\_70:

(Start: 12 @46267 has 18 MA's), (Start: 13 @46270 has 38 MA's), (14, 46282), (15, 46315), (16, 46336), (19, 46375),

Gene: Easley\_64 Start: 41494, Stop: 41625, Start Num: 13

Candidate Starts for Easley\_64:

(11, 41476), (Start: 12 @41491 has 18 MA's), (Start: 13 @41494 has 38 MA's), (14, 41506),

Gene: EdnaMode\_64 Start: 41387, Stop: 41506, Start Num: 13

Candidate Starts for EdnaMode\_64:

(Start: 12 @41384 has 18 MA's), (Start: 13 @41387 has 38 MA's), (15, 41432), (16, 41453),

Gene: EnalisNailo\_65 Start: 46333, Stop: 46452, Start Num: 13

Candidate Starts for EnalisNailo\_65:

(Start: 12 @46330 has 18 MA's), (Start: 13 @46333 has 38 MA's), (15, 46378), (16, 46399), (20, 46438),

Gene: Eviarto\_71 Start: 47764, Stop: 47880, Start Num: 13

Candidate Starts for Eviarto\_71:

(Start: 12 @47761 has 18 MA's), (Start: 13 @47764 has 38 MA's), (15, 47809), (16, 47830), (19, 47869),

Gene: Floral\_71 Start: 48158, Stop: 48277, Start Num: 13

Candidate Starts for Floral\_71:

(Start: 12 @48155 has 18 MA's), (Start: 13 @48158 has 38 MA's), (14, 48170), (15, 48203), (16, 48224),

Gene: FroggyToad\_65 Start: 42630, Stop: 42746, Start Num: 13

Candidate Starts for FroggyToad\_65:

(Start: 12 @42627 has 18 MA's), (Start: 13 @42630 has 38 MA's), (14, 42642), (16, 42696), (19, 42735),

Gene: Frokostdame\_72 Start: 45952, Stop: 46074, Start Num: 13

Candidate Starts for Frokostdame\_72:

(1, 45502), (2, 45550), (3, 45556), (4, 45586), (5, 45631), (6, 45655), (7, 45718), (8, 45727), (Start: 13 @45952 has 38 MA's), (14, 45964), (16, 46018), (22, 46069),

Gene: GemG\_65 Start: 41352, Stop: 41468, Start Num: 13

Candidate Starts for GemG\_65:

(Start: 12 @41349 has 18 MA's), (Start: 13 @41352 has 38 MA's), (15, 41397), (16, 41418), (19, 41457),

Gene: Gizermo\_65 Start: 41348, Stop: 41464, Start Num: 13

Candidate Starts for Gizermo\_65:

(Start: 12 @41345 has 18 MA's), (Start: 13 @41348 has 38 MA's), (15, 41393), (16, 41414), (19, 41453),

Gene: Haley23\_65 Start: 41348, Stop: 41464, Start Num: 13

Candidate Starts for Haley23\_65:

(Start: 12 @41345 has 18 MA's), (Start: 13 @41348 has 38 MA's), (15, 41393), (16, 41414), (19, 41453),

Gene: Herod\_71 Start: 48180, Stop: 48299, Start Num: 12

Candidate Starts for Herod\_71:

(Start: 12 @48180 has 18 MA's), (Start: 13 @48183 has 38 MA's), (15, 48228), (16, 48249), (19, 48288),

Gene: Hugley\_69 Start: 48160, Stop: 48279, Start Num: 12

Candidate Starts for Hugley\_69:

(Start: 12 @48160 has 18 MA's), (Start: 13 @48163 has 38 MA's), (15, 48208), (16, 48229), (19, 48268),

Gene: Hyzer\_84 Start: 54346, Stop: 54468, Start Num: 13

Candidate Starts for Hyzer\_84:

(Start: 12 @54343 has 18 MA's), (Start: 13 @54346 has 38 MA's), (14, 54358), (16, 54412), (18, 54427),

Gene: Invecetra\_69 Start: 43673, Stop: 43804, Start Num: 13

Candidate Starts for Invecetra\_69:

(Start: 12 @43670 has 18 MA's), (Start: 13 @43673 has 38 MA's), (14, 43685), (16, 43739),

Gene: JCole\_62 Start: 40018, Stop: 40143, Start Num: 12

Candidate Starts for JCole\_62:

(Start: 12 @40018 has 18 MA's), (Start: 13 @40021 has 38 MA's), (14, 40033), (15, 40066), (16, 40087),

Gene: Jalleen\_68 Start: 41656, Stop: 41778, Start Num: 12

Candidate Starts for Jalleen\_68:

(Start: 12 @41656 has 18 MA's), (Start: 13 @41659 has 38 MA's), (15, 41704), (16, 41725),

Gene: Lamberg\_61 Start: 39857, Stop: 39973, Start Num: 13

Candidate Starts for Lamberg\_61:

(Start: 12 @39854 has 18 MA's), (Start: 13 @39857 has 38 MA's), (15, 39902), (16, 39923), (19, 39962),

Gene: Lilas\_66 Start: 47868, Stop: 47990, Start Num: 12

Candidate Starts for Lilas\_66:

(Start: 12 @47868 has 18 MA's), (Start: 13 @47871 has 38 MA's), (15, 47916), (16, 47937), (17, 47943), (20, 47976),

Gene: LonelyBoi\_68 Start: 48324, Stop: 48443, Start Num: 13

Candidate Starts for LonelyBoi\_68:

(Start: 12 @48321 has 18 MA's), (Start: 13 @48324 has 38 MA's), (14, 48336), (15, 48369), (16, 48390),

Gene: LordFarquaad\_66 Start: 43096, Stop: 43215, Start Num: 13

Candidate Starts for LordFarquaad\_66:

(Start: 13 @43096 has 38 MA's), (14, 43108), (20, 43201), (21, 43207),

Gene: Madavieve\_66 Start: 46256, Stop: 46384, Start Num: 13

Candidate Starts for Madavieve\_66:

(Start: 12 @46253 has 18 MA's), (Start: 13 @46256 has 38 MA's), (14, 46268), (15, 46301), (16, 46322), (19, 46364),

Gene: MakCheese\_75 Start: 47979, Stop: 48095, Start Num: 13

Candidate Starts for MakCheese\_75:

(Start: 12 @47976 has 18 MA's), (Start: 13 @47979 has 38 MA's), (16, 48045), (19, 48084),

Gene: Manasvini\_69 Start: 44779, Stop: 44901, Start Num: 12

Candidate Starts for Manasvini\_69:

(Start: 12 @44779 has 18 MA's), (Start: 13 @44782 has 38 MA's), (14, 44794), (16, 44848),

Gene: Maridalia\_70 Start: 46136, Stop: 46264, Start Num: 13

Candidate Starts for Maridalia\_70:

(Start: 12 @46133 has 18 MA's), (Start: 13 @46136 has 38 MA's), (14, 46148), (15, 46181), (16, 46202), (19, 46244),

Gene: Marteena\_69 Start: 46267, Stop: 46386, Start Num: 12

Candidate Starts for Marteena\_69:

(Start: 12 @46267 has 18 MA's), (Start: 13 @46270 has 38 MA's), (14, 46282), (15, 46315), (16, 46336), (19, 46375),

Gene: Mcklovin\_67 Start: 48617, Stop: 48730, Start Num: 12

Candidate Starts for Mcklovin\_67:

(9, 48416), (10, 48419), (Start: 12 @48617 has 18 MA's), (Start: 13 @48620 has 38 MA's), (14, 48632), (16, 48686),

Gene: Mocha12\_65 Start: 41345, Stop: 41464, Start Num: 12

Candidate Starts for Mocha12\_65:

(Start: 12 @41345 has 18 MA's), (Start: 13 @41348 has 38 MA's), (15, 41393), (16, 41414), (19, 41453),

Gene: Nettuno\_62 Start: 40233, Stop: 40352, Start Num: 13

Candidate Starts for Nettuno\_62:

(Start: 12 @40230 has 18 MA's), (Start: 13 @40233 has 38 MA's), (14, 40245), (15, 40278), (16, 40299),

Gene: Nymphadora\_71 Start: 47788, Stop: 47904, Start Num: 13

Candidate Starts for Nymphadora\_71:

(Start: 12 @47785 has 18 MA's), (Start: 13 @47788 has 38 MA's), (15, 47833), (16, 47854), (19, 47893),

Gene: Ohgeesy\_69 Start: 46561, Stop: 46692, Start Num: 13

Candidate Starts for Ohgeesy\_69:

(Start: 12 @46558 has 18 MA's), (Start: 13 @46561 has 38 MA's), (14, 46573), (15, 46606), (16, 46627),

Gene: Oregano\_67 Start: 42226, Stop: 42348, Start Num: 13

Candidate Starts for Oregano\_67:

(11, 42208), (Start: 12 @42223 has 18 MA's), (Start: 13 @42226 has 38 MA's), (14, 42238), (16, 42292),

Gene: PantheRoc\_73 Start: 47482, Stop: 47598, Start Num: 13  
Candidate Starts for PantheRoc\_73:  
(Start: 12 @47479 has 18 MA's), (Start: 13 @47482 has 38 MA's), (15, 47527), (16, 47548), (19, 47587),

Gene: Pollux\_73 Start: 48155, Stop: 48277, Start Num: 12  
Candidate Starts for Pollux\_73:  
(Start: 12 @48155 has 18 MA's), (Start: 13 @48158 has 38 MA's), (14, 48170), (15, 48203), (16, 48224),

Gene: Pytheas\_73 Start: 49014, Stop: 49127, Start Num: 12  
Candidate Starts for Pytheas\_73:  
(Start: 12 @49014 has 18 MA's), (Start: 13 @49017 has 38 MA's), (14, 49029), (15, 49062), (16, 49083),

Gene: RavenCo17\_66 Start: 46025, Stop: 46147, Start Num: 13  
Candidate Starts for RavenCo17\_66:  
(Start: 12 @46022 has 18 MA's), (Start: 13 @46025 has 38 MA's), (14, 46037), (16, 46091),

Gene: Samman98\_67 Start: 42203, Stop: 42334, Start Num: 13  
Candidate Starts for Samman98\_67:  
(Start: 12 @42200 has 18 MA's), (Start: 13 @42203 has 38 MA's), (14, 42215), (16, 42269),

Gene: Savage\_65 Start: 41345, Stop: 41464, Start Num: 12  
Candidate Starts for Savage\_65:  
(Start: 12 @41345 has 18 MA's), (Start: 13 @41348 has 38 MA's), (15, 41393), (16, 41414), (19, 41453),

Gene: Sekhmet\_66 Start: 42430, Stop: 42546, Start Num: 13  
Candidate Starts for Sekhmet\_66:  
(Start: 12 @42427 has 18 MA's), (Start: 13 @42430 has 38 MA's), (16, 42496), (19, 42535),

Gene: Sproutie\_65 Start: 41345, Stop: 41464, Start Num: 12  
Candidate Starts for Sproutie\_65:  
(Start: 12 @41345 has 18 MA's), (Start: 13 @41348 has 38 MA's), (15, 41393), (16, 41414), (19, 41453),

Gene: Suerte\_61 Start: 42042, Stop: 42161, Start Num: 12  
Candidate Starts for Suerte\_61:  
(Start: 12 @42042 has 18 MA's), (Start: 13 @42045 has 38 MA's), (14, 42057), (16, 42111), (19, 42150),

Gene: ThankyouJordi\_70 Start: 48267, Stop: 48392, Start Num: 13  
Candidate Starts for ThankyouJordi\_70:  
(Start: 12 @48264 has 18 MA's), (Start: 13 @48267 has 38 MA's), (14, 48279), (16, 48333),

Gene: Thimann\_67 Start: 42460, Stop: 42591, Start Num: 13  
Candidate Starts for Thimann\_67:  
(11, 42442), (Start: 12 @42457 has 18 MA's), (Start: 13 @42460 has 38 MA's), (14, 42472), (16, 42526),

Gene: TimTam\_71 Start: 47788, Stop: 47904, Start Num: 13  
Candidate Starts for TimTam\_71:

(Start: 12 @47785 has 18 MA's), (Start: 13 @47788 has 38 MA's), (15, 47833), (16, 47854), (19, 47893),

Gene: TuertoX\_65 Start: 41348, Stop: 41464, Start Num: 13

Candidate Starts for TuertoX\_65:

(Start: 12 @41345 has 18 MA's), (Start: 13 @41348 has 38 MA's), (15, 41393), (16, 41414), (19, 41453),

Gene: Tuti\_67 Start: 43210, Stop: 43332, Start Num: 13

Candidate Starts for Tuti\_67:

(11, 43192), (Start: 12 @43207 has 18 MA's), (Start: 13 @43210 has 38 MA's), (16, 43276),

Gene: WelcomeAyanna\_70 Start: 48414, Stop: 48539, Start Num: 13

Candidate Starts for WelcomeAyanna\_70:

(Start: 12 @48411 has 18 MA's), (Start: 13 @48414 has 38 MA's), (14, 48426), (16, 48480),

Gene: Whiteclaw\_65 Start: 41348, Stop: 41464, Start Num: 13

Candidate Starts for Whiteclaw\_65:

(Start: 12 @41345 has 18 MA's), (Start: 13 @41348 has 38 MA's), (15, 41393), (16, 41414), (19, 41453),

Gene: WinkNick\_67 Start: 41954, Stop: 42070, Start Num: 13

Candidate Starts for WinkNick\_67:

(Start: 12 @41951 has 18 MA's), (Start: 13 @41954 has 38 MA's), (16, 42020), (19, 42059),

Gene: Yeezy\_72 Start: 45608, Stop: 45733, Start Num: 12

Candidate Starts for Yeezy\_72:

(Start: 12 @45608 has 18 MA's), (Start: 13 @45611 has 38 MA's), (14, 45623), (15, 45656), (16, 45677),