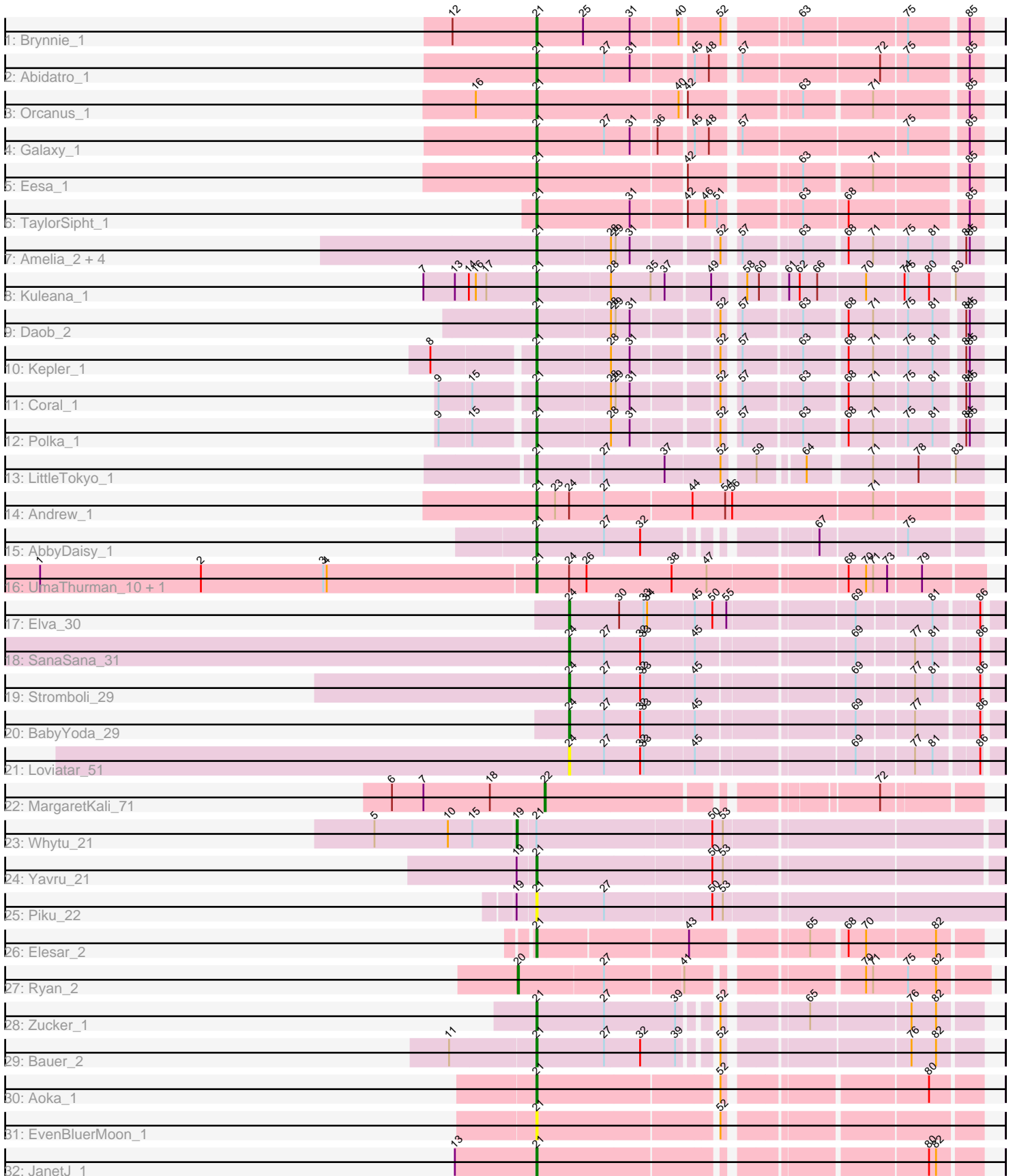


# Pham 171625



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 171625 Report

This analysis was run 07/10/24 on database version 566.

Pham number 171625 has 37 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Brynnie\_1
- Track 2 : Abidatro\_1
- Track 3 : Orcanus\_1
- Track 4 : Galaxy\_1
- Track 5 : Eesa\_1
- Track 6 : TaylorSipht\_1
- Track 7 : Amelia\_2, HannahPhantana\_2, Melons\_2, Lunar\_2, Cote\_2
- Track 8 : Kuleana\_1
- Track 9 : Daob\_2
- Track 10 : Kepler\_1
- Track 11 : Coral\_1
- Track 12 : Polka\_1
- Track 13 : LittleTokyo\_1
- Track 14 : Andrew\_1
- Track 15 : AbbyDaisy\_1
- Track 16 : UmaThurman\_10, Samba\_10
- Track 17 : Elva\_30
- Track 18 : SanaSana\_31
- Track 19 : Stromboli\_29
- Track 20 : BabyYoda\_29
- Track 21 : Loviatar\_51
- Track 22 : MargaretKali\_71
- Track 23 : Whytu\_21
- Track 24 : Yavru\_21
- Track 25 : Piku\_22
- Track 26 : Elesar\_2
- Track 27 : Ryan\_2
- Track 28 : Zucker\_1
- Track 29 : Bauer\_2
- Track 30 : Aoka\_1
- Track 31 : EvenBluerMoon\_1
- Track 32 : JanetJ\_1

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

The start number called the most often in the published annotations is 21, it was called in 26 of the 33 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbyDaisy\_1, Abidatro\_1, Amelia\_2, Andrew\_1, Aoka\_1, Bauer\_2, Brynnie\_1, Coral\_1, Cote\_2, Daob\_2, Eesa\_1, Elesar\_2, EvenBluerMoon\_1, Galaxy\_1, HannahPhantana\_2, JanetJ\_1, Kepler\_1, Kuleana\_1, LittleTokyo\_1, Lunar\_2, Melons\_2, Orcanus\_1, Piku\_22, Polka\_1, Samba\_10, TaylorSipht\_1, UmaThurman\_10, Yavru\_21, Zucker\_1,

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

- Whytu\_21,

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

- BabyYoda\_29, Elva\_30, Loviatar\_51, MargaretKali\_71, Ryan\_2, SanaSana\_31, Stromboli\_29,

### Summary by start number:

Start 19:

- Found in 3 of 37 ( 8.1% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Whytu\_21 (FE),

Start 20:

- Found in 1 of 37 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ryan\_2 (FF),

Start 21:

- Found in 30 of 37 ( 81.1% ) of genes in pham
- Manual Annotations of this start: 26 of 33
- Called 96.7% of time when present
- Phage (with cluster) where this start called: AbbyDaisy\_1 (AY), Abidatro\_1 (AS1), Amelia\_2 (AS2), Andrew\_1 (AS3), Aoka\_1 (FO), Bauer\_2 (FN), Brynnie\_1 (AS1), Coral\_1 (AS2), Cote\_2 (AS2), Daob\_2 (AS2), Eesa\_1 (AS1), Elesar\_2 (FF), EvenBluerMoon\_1 (FO), Galaxy\_1 (AS1), HannahPhantana\_2 (AS2), JanetJ\_1 (FO), Kepler\_1 (AS2), Kuleana\_1 (AS2), LittleTokyo\_1 (AS2), Lunar\_2 (AS2), Melons\_2 (AS2), Orcanus\_1 (AS1), Piku\_22 (FE), Polka\_1 (AS2), Samba\_10 (CV), TaylorSipht\_1 (AS1), UmaThurman\_10 (CV), Yavru\_21 (FE), Zucker\_1 (FN),

Start 22:

- Found in 1 of 37 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MargaretKali\_71 (FB),

Start 24:

- Found in 8 of 37 ( 21.6% ) of genes in pham
- Manual Annotations of this start: 4 of 33

- Called 62.5% of time when present
- Phage (with cluster) where this start called: BabyYoda\_29 (EB), Elva\_30 (EB), Loviatar\_51 (EB), SanaSana\_31 (EB), Stromboli\_29 (EB),

### **Summary by clusters:**

There are 11 clusters represented in this pham: AS3, AS2, AS1, EB, FB, FE, FF, AY, CV, FN, FO,

Info for manual annotations of cluster AS1:

- Start number 21 was manually annotated 6 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 21 was manually annotated 10 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 21 was manually annotated 1 time for cluster AS3.

Info for manual annotations of cluster AY:

- Start number 21 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster CV:

- Start number 21 was manually annotated 2 times for cluster CV.

Info for manual annotations of cluster EB:

- Start number 24 was manually annotated 4 times for cluster EB.

Info for manual annotations of cluster FB:

- Start number 22 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster FE:

- Start number 19 was manually annotated 1 time for cluster FE.
- Start number 21 was manually annotated 1 time for cluster FE.

Info for manual annotations of cluster FF:

- Start number 20 was manually annotated 1 time for cluster FF.
- Start number 21 was manually annotated 1 time for cluster FF.

Info for manual annotations of cluster FN:

- Start number 21 was manually annotated 2 times for cluster FN.

Info for manual annotations of cluster FO:

- Start number 21 was manually annotated 2 times for cluster FO.

### **Gene Information:**

Gene: AbbyDaisy\_1 Start: 69, Stop: 401, Start Num: 21

Candidate Starts for AbbyDaisy\_1:

(Start: 21 @69 has 26 MA's), (27, 126), (32, 156), (67, 273), (75, 342),

Gene: Abidatro\_1 Start: 98, Stop: 442, Start Num: 21

Candidate Starts for Abidatro\_1:

(Start: 21 @98 has 26 MA's), (27, 155), (31, 176), (45, 224), (48, 236), (57, 254), (72, 365), (75, 386), (85, 431),

Gene: Amelia\_2 Start: 264, Stop: 596, Start Num: 21

Candidate Starts for Amelia\_2:

(Start: 21 @264 has 26 MA's), (28, 324), (29, 327), (31, 339), (52, 405), (57, 414), (63, 459), (68, 492), (71, 513), (75, 540), (81, 561), (84, 582), (85, 585),

Gene: Andrew\_1 Start: 98, Stop: 463, Start Num: 21

Candidate Starts for Andrew\_1:

(Start: 21 @98 has 26 MA's), (23, 113), (Start: 24 @125 has 4 MA's), (27, 155), (44, 227), (54, 254), (56, 260), (71, 377),

Gene: Aoka\_1 Start: 69, Stop: 407, Start Num: 21

Candidate Starts for Aoka\_1:

(Start: 21 @69 has 26 MA's), (52, 213), (80, 366),

Gene: BabyYoda\_29 Start: 22760, Stop: 23095, Start Num: 24

Candidate Starts for BabyYoda\_29:

(Start: 24 @22760 has 4 MA's), (27, 22790), (32, 22820), (33, 22823), (45, 22865), (69, 22988), (77, 23033), (86, 23081),

Gene: Bauer\_2 Start: 736, Stop: 1071, Start Num: 21

Candidate Starts for Bauer\_2:

(11, 664), (Start: 21 @736 has 26 MA's), (27, 793), (32, 823), (39, 853), (52, 874), (76, 1015), (82, 1036),

Gene: Brynnie\_1 Start: 98, Stop: 439, Start Num: 21

Candidate Starts for Brynnie\_1:

(12, 26), (Start: 21 @98 has 26 MA's), (25, 137), (31, 176), (40, 215), (52, 245), (63, 299), (75, 383), (85, 428),

Gene: Coral\_1 Start: 100, Stop: 432, Start Num: 21

Candidate Starts for Coral\_1:

(9, 28), (15, 55), (Start: 21 @100 has 26 MA's), (28, 160), (29, 163), (31, 175), (52, 241), (57, 250), (63, 295), (68, 328), (71, 349), (75, 376), (81, 397), (84, 418), (85, 421),

Gene: Cote\_2 Start: 264, Stop: 596, Start Num: 21

Candidate Starts for Cote\_2:

(Start: 21 @264 has 26 MA's), (28, 324), (29, 327), (31, 339), (52, 405), (57, 414), (63, 459), (68, 492), (71, 513), (75, 540), (81, 561), (84, 582), (85, 585),

Gene: Daob\_2 Start: 264, Stop: 596, Start Num: 21

Candidate Starts for Daob\_2:

(Start: 21 @264 has 26 MA's), (28, 324), (29, 327), (31, 339), (52, 405), (57, 414), (63, 459), (68, 492), (71, 513), (75, 540), (81, 561), (84, 582), (85, 585),

Gene: Eesa\_1 Start: 97, Stop: 435, Start Num: 21

Candidate Starts for Eesa\_1:

(Start: 21 @97 has 26 MA's), (42, 217), (63, 298), (71, 352), (85, 424),

Gene: Elesar\_2 Start: 346, Stop: 690, Start Num: 21

Candidate Starts for Elesar\_2:

(Start: 21 @346 has 26 MA's), (43, 469), (65, 556), (68, 583), (70, 598), (82, 655),

Gene: Elva\_30 Start: 22711, Stop: 23049, Start Num: 24

Candidate Starts for Elva\_30:

(Start: 24 @22711 has 4 MA's), (30, 22753), (33, 22774), (34, 22777), (45, 22816), (50, 22831), (55, 22843), (69, 22942), (81, 23002), (86, 23035),

Gene: EvenBluerMoon\_1 Start: 69, Stop: 407, Start Num: 21

Candidate Starts for EvenBluerMoon\_1:

(Start: 21 @69 has 26 MA's), (52, 213),

Gene: Galaxy\_1 Start: 98, Stop: 442, Start Num: 21

Candidate Starts for Galaxy\_1:

(Start: 21 @98 has 26 MA's), (27, 155), (31, 176), (36, 197), (45, 224), (48, 236), (57, 254), (75, 386), (85, 431),

Gene: HannahPhantana\_2 Start: 264, Stop: 596, Start Num: 21

Candidate Starts for HannahPhantana\_2:

(Start: 21 @264 has 26 MA's), (28, 324), (29, 327), (31, 339), (52, 405), (57, 414), (63, 459), (68, 492), (71, 513), (75, 540), (81, 561), (84, 582), (85, 585),

Gene: JanetJ\_1 Start: 70, Stop: 408, Start Num: 21

Candidate Starts for JanetJ\_1:

(13, 1), (Start: 21 @70 has 26 MA's), (80, 367), (82, 373),

Gene: Kepler\_1 Start: 99, Stop: 431, Start Num: 21

Candidate Starts for Kepler\_1:

(8, 21), (Start: 21 @99 has 26 MA's), (28, 159), (31, 174), (52, 240), (57, 249), (63, 294), (68, 327), (71, 348), (75, 375), (81, 396), (84, 417), (85, 420),

Gene: Kuleana\_1 Start: 97, Stop: 444, Start Num: 21

Candidate Starts for Kuleana\_1:

(7, 1), (13, 28), (14, 40), (16, 46), (17, 55), (Start: 21 @97 has 26 MA's), (28, 157), (35, 190), (37, 202), (49, 238), (58, 259), (60, 268), (61, 289), (62, 298), (66, 313), (70, 352), (74, 382), (75, 385), (80, 403), (83, 421),

Gene: LittleTokyo\_1 Start: 92, Stop: 430, Start Num: 21

Candidate Starts for LittleTokyo\_1:

(Start: 21 @92 has 26 MA's), (27, 146), (37, 197), (52, 242), (59, 263), (64, 296), (71, 344), (78, 380), (83, 407),

Gene: Loviatar\_51 Start: 23573, Stop: 23908, Start Num: 24

Candidate Starts for Loviatar\_51:

(Start: 24 @23573 has 4 MA's), (27, 23603), (32, 23633), (33, 23636), (45, 23678), (69, 23801), (77, 23846), (81, 23861), (86, 23894),

Gene: Lunar\_2 Start: 264, Stop: 596, Start Num: 21

Candidate Starts for Lunar\_2:

(Start: 21 @264 has 26 MA's), (28, 324), (29, 327), (31, 339), (52, 405), (57, 414), (63, 459), (68, 492), (71, 513), (75, 540), (81, 561), (84, 582), (85, 585),

Gene: MargaretKali\_71 Start: 38297, Stop: 38623, Start Num: 22

Candidate Starts for MargaretKali\_71:

(6, 38168), (7, 38195), (18, 38252), (Start: 22 @38297 has 1 MA's), (72, 38546),

Gene: Melons\_2 Start: 264, Stop: 596, Start Num: 21

Candidate Starts for Melons\_2:

(Start: 21 @264 has 26 MA's), (28, 324), (29, 327), (31, 339), (52, 405), (57, 414), (63, 459), (68, 492), (71, 513), (75, 540), (81, 561), (84, 582), (85, 585),

Gene: Orcanus\_1 Start: 97, Stop: 435, Start Num: 21

Candidate Starts for Orcanus\_1:

(16, 46), (Start: 21 @97 has 26 MA's), (40, 214), (42, 217), (63, 298), (71, 352), (85, 424),

Gene: Piku\_22 Start: 15071, Stop: 15454, Start Num: 21

Candidate Starts for Piku\_22:

(Start: 19 @15056 has 1 MA's), (Start: 21 @15071 has 26 MA's), (27, 15128), (50, 15215), (53, 15224),

Gene: Polka\_1 Start: 100, Stop: 432, Start Num: 21

Candidate Starts for Polka\_1:

(9, 28), (15, 55), (Start: 21 @100 has 26 MA's), (28, 160), (31, 175), (52, 241), (57, 250), (63, 295), (68, 328), (71, 349), (75, 376), (81, 397), (84, 418), (85, 421),

Gene: Ryan\_2 Start: 306, Stop: 668, Start Num: 20

Candidate Starts for Ryan\_2:

(Start: 20 @306 has 1 MA's), (27, 378), (41, 441), (70, 567), (71, 573), (75, 603), (82, 627),

Gene: Samba\_10 Start: 7331, Stop: 7696, Start Num: 21

Candidate Starts for Samba\_10:

(1, 6908), (2, 7046), (3, 7151), (4, 7154), (Start: 21 @7331 has 26 MA's), (Start: 24 @7358 has 4 MA's), (26, 7373), (38, 7445), (47, 7475), (68, 7586), (70, 7601), (71, 7607), (73, 7619), (79, 7646),

Gene: SanaSana\_31 Start: 23223, Stop: 23558, Start Num: 24

Candidate Starts for SanaSana\_31:

(Start: 24 @23223 has 4 MA's), (27, 23253), (32, 23283), (33, 23286), (45, 23328), (69, 23451), (77, 23496), (81, 23511), (86, 23544),

Gene: Stromboli\_29 Start: 22757, Stop: 23092, Start Num: 24

Candidate Starts for Stromboli\_29:

(Start: 24 @22757 has 4 MA's), (27, 22787), (32, 22817), (33, 22820), (45, 22862), (69, 22985), (77, 23030), (81, 23045), (86, 23078),

Gene: TaylorSipht\_1 Start: 118, Stop: 459, Start Num: 21

Candidate Starts for TaylorSipht\_1:

(Start: 21 @118 has 26 MA's), (31, 196), (42, 238), (46, 253), (51, 262), (63, 319), (68, 355), (85, 448),

Gene: UmaThurman\_10 Start: 7330, Stop: 7695, Start Num: 21

Candidate Starts for UmaThurman\_10:

(1, 6907), (2, 7045), (3, 7150), (4, 7153), (Start: 21 @7330 has 26 MA's), (Start: 24 @7357 has 4 MA's), (26, 7372), (38, 7444), (47, 7474), (68, 7585), (70, 7600), (71, 7606), (73, 7618), (79, 7645),

Gene: Whytu\_21 Start: 14626, Stop: 15018, Start Num: 19

Candidate Starts for Whytu\_21:

(5, 14506), (10, 14569), (15, 14590), (Start: 19 @14626 has 1 MA's), (Start: 21 @14641 has 26 MA's), (50, 14785), (53, 14794),

Gene: Yavru\_21 Start: 14451, Stop: 14828, Start Num: 21

Candidate Starts for Yavru\_21:

(Start: 19 @14436 has 1 MA's), (Start: 21 @14451 has 26 MA's), (50, 14595), (53, 14604),

Gene: Zucker\_1 Start: 39, Stop: 374, Start Num: 21

Candidate Starts for Zucker\_1:

(Start: 21 @39 has 26 MA's), (27, 96), (39, 156), (52, 177), (65, 237), (76, 318), (82, 339),