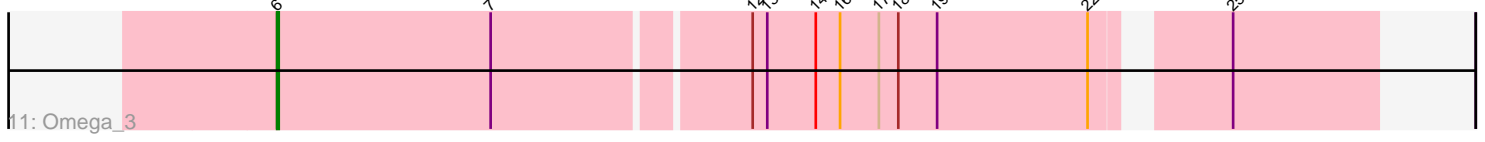
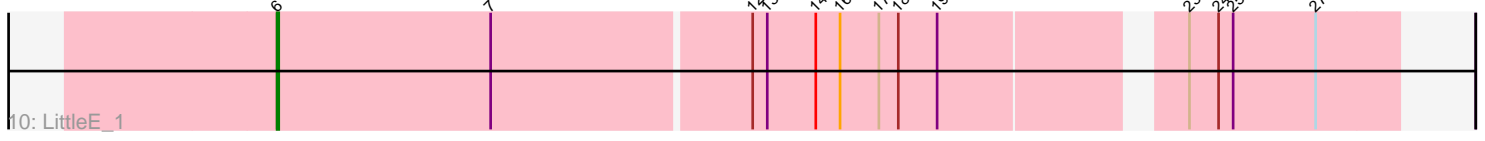
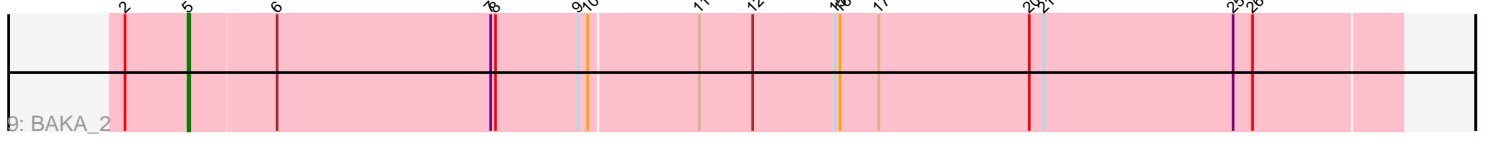
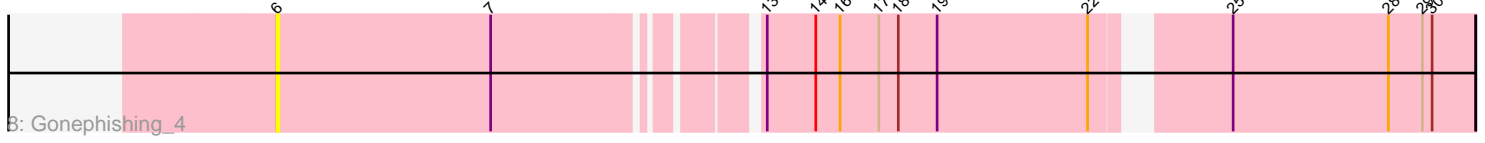
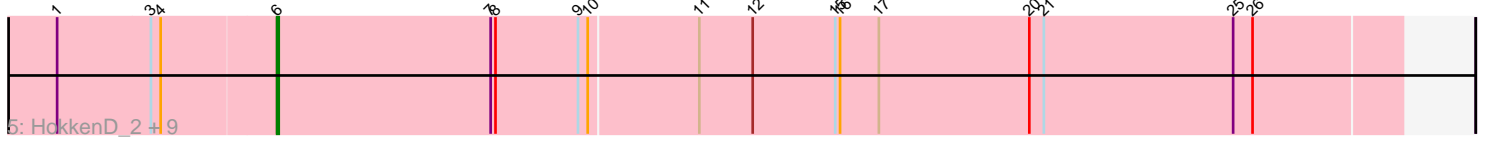
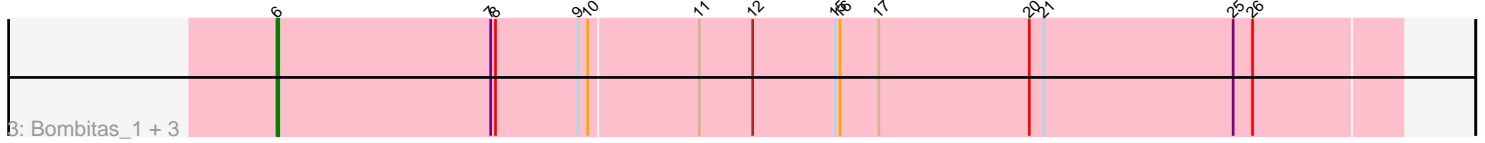
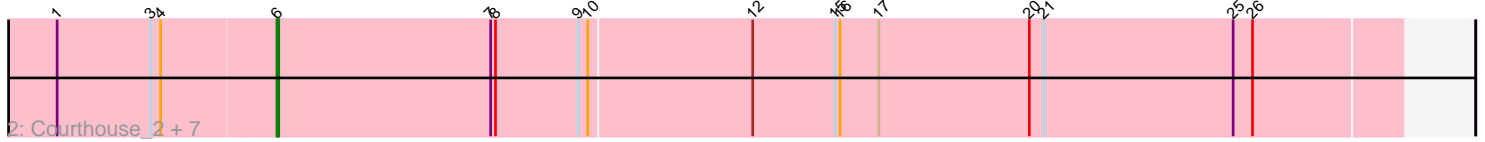
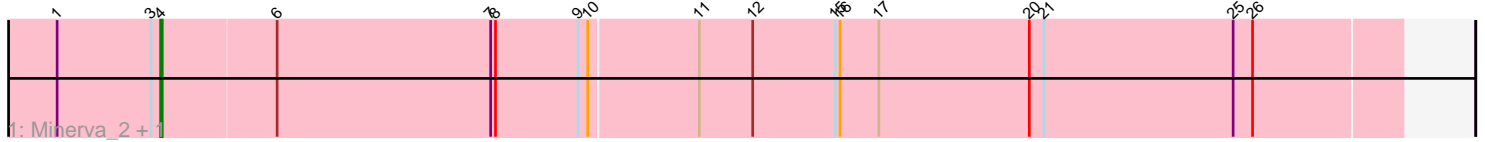


# Pham 2645



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 2645 Report

This analysis was run 04/28/24 on database version 559.

Pham number 2645 has 36 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Minerva\_2, Duke13\_2
- Track 2 : Courthouse\_2, Bobby\_2, JuicyJay\_2, Kalah2\_2, Wanda\_2, Superphikiman\_2, Ejimix\_2, Klein\_2
- Track 3 : Bombitas\_1, Redno2\_1, Bagrid\_1, Yeet\_1
- Track 4 : Beem\_1
- Track 5 : HokkenD\_2, Optimus\_2, Phoebus\_2, Pound\_2, ThreeRngTarjay\_2, Thibault\_2, DmpstrDiver\_2, Hughesyang\_2, EricMillard\_2, NihilNomen\_2
- Track 6 : Zelink\_1, Halley\_1, Dallas\_1
- Track 7 : Dove\_1, Odette\_1, Constella\_1, Schatzie\_1
- Track 8 : Gonephishing\_4
- Track 9 : BAKA\_2
- Track 10 : LittleE\_1
- Track 11 : Omega\_3

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

The start number called the most often in the published annotations is 6, it was called in 29 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bagrid\_1, Beem\_1, Bobby\_2, Bombitas\_1, Constella\_1, Courthouse\_2, Dallas\_1, DmpstrDiver\_2, Dove\_1, Ejimix\_2, EricMillard\_2, Gonephishing\_4, Halley\_1, HokkenD\_2, Hughesyang\_2, JuicyJay\_2, Kalah2\_2, Klein\_2, LittleE\_1, NihilNomen\_2, Odette\_1, Omega\_3, Optimus\_2, Phoebus\_2, Pound\_2, Redno2\_1, Schatzie\_1, Superphikiman\_2, Thibault\_2, ThreeRngTarjay\_2, Wanda\_2, Yeet\_1, Zelink\_1,

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

- BAKA\_2, Duke13\_2, Minerva\_2,

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

- 

### **Summary by start number:**

#### Start 4:

- Found in 20 of 36 ( 55.6% ) of genes in pham
- Manual Annotations of this start: 2 of 32
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Duke13\_2 (J), Minerva\_2 (J),

#### Start 5:

- Found in 1 of 36 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BAKA\_2 (J),

#### Start 6:

- Found in 36 of 36 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 29 of 32
- Called 91.7% of time when present
- Phage (with cluster) where this start called: Bagrid\_1 (J), Beem\_1 (J), Bobby\_2 (J), Bombitas\_1 (J), Constella\_1 (J), Courthouse\_2 (J), Dallas\_1 (J), DmpstrDiver\_2 (J), Dove\_1 (J), Ejimix\_2 (J), EricMillard\_2 (J), Gonephishing\_4 (J), Halley\_1 (J), HokkenD\_2 (J), Hughesyang\_2 (J), JuicyJay\_2 (J), Kalah2\_2 (J), Klein\_2 (J), LittleE\_1 (J), NihilNomen\_2 (J), Odette\_1 (J), Omega\_3 (J), Optimus\_2 (J), Phoebus\_2 (J), Pound\_2 (J), Redno2\_1 (J), Schatzie\_1 (J), Superphikiman\_2 (J), Thibault\_2 (J), ThreeRngTarjay\_2 (J), Wanda\_2 (J), Yeet\_1 (J), Zelink\_1 (J),

### Summary by clusters:

There is one cluster represented in this pham: J

Info for manual annotations of cluster J:

- Start number 4 was manually annotated 2 times for cluster J.
- Start number 5 was manually annotated 1 time for cluster J.
- Start number 6 was manually annotated 29 times for cluster J.

### Gene Information:

Gene: BAKA\_2 Start: 899, Stop: 1639, Start Num: 5

Candidate Starts for BAKA\_2:

(2, 860), (Start: 5 @899 has 1 MA's), (Start: 6 @950 has 29 MA's), (7, 1082), (8, 1085), (9, 1136), (10, 1142), (11, 1208), (12, 1241), (15, 1292), (16, 1295), (17, 1319), (20, 1412), (21, 1421), (25, 1538), (26, 1550),

Gene: Bagrid\_1 Start: 132, Stop: 821, Start Num: 6

Candidate Starts for Bagrid\_1:

(Start: 6 @132 has 29 MA's), (7, 264), (8, 267), (9, 318), (10, 324), (11, 390), (12, 423), (15, 474), (16, 477), (17, 501), (20, 594), (21, 603), (25, 720), (26, 732),

Gene: Beem\_1 Start: 132, Stop: 821, Start Num: 6

Candidate Starts for Beem\_1:

(Start: 6 @132 has 29 MA's), (7, 264), (8, 267), (9, 318), (10, 324), (12, 423), (15, 474), (16, 477), (17, 501), (20, 594), (21, 603), (25, 720), (26, 732),

Gene: Bobby\_2 Start: 882, Stop: 1571, Start Num: 6

Candidate Starts for Bobby\_2:

(1, 750), (3, 807), (Start: 4 @813 has 2 MA's), (Start: 6 @882 has 29 MA's), (7, 1014), (8, 1017), (9, 1068), (10, 1074), (12, 1173), (15, 1224), (16, 1227), (17, 1251), (20, 1344), (21, 1353), (25, 1470), (26, 1482),

Gene: Bombitas\_1 Start: 132, Stop: 821, Start Num: 6

Candidate Starts for Bombitas\_1:

(Start: 6 @132 has 29 MA's), (7, 264), (8, 267), (9, 318), (10, 324), (11, 390), (12, 423), (15, 474), (16, 477), (17, 501), (20, 594), (21, 603), (25, 720), (26, 732),

Gene: Constella\_1 Start: 131, Stop: 820, Start Num: 6

Candidate Starts for Constella\_1:

(Start: 6 @131 has 29 MA's), (7, 263), (8, 266), (9, 317), (10, 323), (11, 389), (12, 422), (15, 473), (16, 476), (17, 500), (20, 593), (21, 602), (25, 719), (26, 731),

Gene: Courthouse\_2 Start: 882, Stop: 1571, Start Num: 6

Candidate Starts for Courthouse\_2:

(1, 750), (3, 807), (Start: 4 @813 has 2 MA's), (Start: 6 @882 has 29 MA's), (7, 1014), (8, 1017), (9, 1068), (10, 1074), (12, 1173), (15, 1224), (16, 1227), (17, 1251), (20, 1344), (21, 1353), (25, 1470), (26, 1482),

Gene: Dallas\_1 Start: 132, Stop: 821, Start Num: 6

Candidate Starts for Dallas\_1:

(Start: 6 @132 has 29 MA's), (7, 264), (8, 267), (9, 318), (10, 324), (12, 423), (15, 474), (16, 477), (17, 501), (20, 594), (21, 603), (25, 720), (26, 732),

Gene: DmpstrDiver\_2 Start: 878, Stop: 1567, Start Num: 6

Candidate Starts for DmpstrDiver\_2:

(1, 746), (3, 803), (Start: 4 @809 has 2 MA's), (Start: 6 @878 has 29 MA's), (7, 1010), (8, 1013), (9, 1064), (10, 1070), (11, 1136), (12, 1169), (15, 1220), (16, 1223), (17, 1247), (20, 1340), (21, 1349), (25, 1466), (26, 1478),

Gene: Dove\_1 Start: 131, Stop: 820, Start Num: 6

Candidate Starts for Dove\_1:

(Start: 6 @131 has 29 MA's), (7, 263), (8, 266), (9, 317), (10, 323), (11, 389), (12, 422), (15, 473), (16, 476), (17, 500), (20, 593), (21, 602), (25, 719), (26, 731),

Gene: Duke13\_2 Start: 809, Stop: 1567, Start Num: 4

Candidate Starts for Duke13\_2:

(1, 746), (3, 803), (Start: 4 @809 has 2 MA's), (Start: 6 @878 has 29 MA's), (7, 1010), (8, 1013), (9, 1064), (10, 1070), (11, 1136), (12, 1169), (15, 1220), (16, 1223), (17, 1247), (20, 1340), (21, 1349), (25, 1466), (26, 1478),

Gene: Ejimix\_2 Start: 882, Stop: 1571, Start Num: 6

Candidate Starts for Ejimix\_2:

(1, 750), (3, 807), (Start: 4 @813 has 2 MA's), (Start: 6 @882 has 29 MA's), (7, 1014), (8, 1017), (9, 1068), (10, 1074), (12, 1173), (15, 1224), (16, 1227), (17, 1251), (20, 1344), (21, 1353), (25, 1470), (26, 1482),

Gene: EricMillard\_2 Start: 878, Stop: 1567, Start Num: 6

Candidate Starts for EricMillard\_2:

(1, 746), (3, 803), (Start: 4 @809 has 2 MA's), (Start: 6 @878 has 29 MA's), (7, 1010), (8, 1013), (9, 1064), (10, 1070), (11, 1136), (12, 1169), (15, 1220), (16, 1223), (17, 1247), (20, 1340), (21, 1349), (25, 1466), (26, 1478),

Gene: Gonephishing\_4 Start: 1521, Stop: 2207, Start Num: 6

Candidate Starts for Gonephishing\_4:

(Start: 6 @1521 has 29 MA's), (7, 1653), (13, 1794), (14, 1824), (16, 1839), (17, 1863), (18, 1875), (19, 1899), (22, 1992), (25, 2058), (28, 2154), (29, 2175), (30, 2181),

Gene: Halley\_1 Start: 132, Stop: 821, Start Num: 6

Candidate Starts for Halley\_1:

(Start: 6 @132 has 29 MA's), (7, 264), (8, 267), (9, 318), (10, 324), (12, 423), (15, 474), (16, 477), (17, 501), (20, 594), (21, 603), (25, 720), (26, 732),

Gene: HokkenD\_2 Start: 881, Stop: 1570, Start Num: 6

Candidate Starts for HokkenD\_2:

(1, 749), (3, 806), (Start: 4 @812 has 2 MA's), (Start: 6 @881 has 29 MA's), (7, 1013), (8, 1016), (9, 1067), (10, 1073), (11, 1139), (12, 1172), (15, 1223), (16, 1226), (17, 1250), (20, 1343), (21, 1352), (25, 1469), (26, 1481),

Gene: Hughesyang\_2 Start: 878, Stop: 1567, Start Num: 6

Candidate Starts for Hughesyang\_2:

(1, 746), (3, 803), (Start: 4 @809 has 2 MA's), (Start: 6 @878 has 29 MA's), (7, 1010), (8, 1013), (9, 1064), (10, 1070), (11, 1136), (12, 1169), (15, 1220), (16, 1223), (17, 1247), (20, 1340), (21, 1349), (25, 1466), (26, 1478),

Gene: JuicyJay\_2 Start: 882, Stop: 1571, Start Num: 6

Candidate Starts for JuicyJay\_2:

(1, 750), (3, 807), (Start: 4 @813 has 2 MA's), (Start: 6 @882 has 29 MA's), (7, 1014), (8, 1017), (9, 1068), (10, 1074), (12, 1173), (15, 1224), (16, 1227), (17, 1251), (20, 1344), (21, 1353), (25, 1470), (26, 1482),

Gene: Kalah2\_2 Start: 878, Stop: 1567, Start Num: 6

Candidate Starts for Kalah2\_2:

(1, 746), (3, 803), (Start: 4 @809 has 2 MA's), (Start: 6 @878 has 29 MA's), (7, 1010), (8, 1013), (9, 1064), (10, 1070), (12, 1169), (15, 1220), (16, 1223), (17, 1247), (20, 1340), (21, 1349), (25, 1466), (26, 1478),

Gene: Klein\_2 Start: 882, Stop: 1571, Start Num: 6

Candidate Starts for Klein\_2:

(1, 750), (3, 807), (Start: 4 @813 has 2 MA's), (Start: 6 @882 has 29 MA's), (7, 1014), (8, 1017), (9, 1068), (10, 1074), (12, 1173), (15, 1224), (16, 1227), (17, 1251), (20, 1344), (21, 1353), (25, 1470), (26, 1482),

Gene: LittleE\_1 Start: 131, Stop: 793, Start Num: 6

Candidate Starts for LittleE\_1:

(Start: 6 @131 has 29 MA's), (7, 263), (12, 419), (13, 428), (14, 458), (16, 473), (17, 497), (18, 509), (19, 533), (23, 665), (24, 683), (25, 692), (27, 743),

Gene: Minerva\_2 Start: 813, Stop: 1571, Start Num: 4

Candidate Starts for Minerva\_2:

(1, 750), (3, 807), (Start: 4 @813 has 2 MA's), (Start: 6 @882 has 29 MA's), (7, 1014), (8, 1017), (9, 1068), (10, 1074), (11, 1140), (12, 1173), (15, 1224), (16, 1227), (17, 1251), (20, 1344), (21, 1353),

(25, 1470), (26, 1482),

Gene: NihilNomen\_2 Start: 882, Stop: 1571, Start Num: 6

Candidate Starts for NihilNomen\_2:

(1, 750), (3, 807), (Start: 4 @813 has 2 MA's), (Start: 6 @882 has 29 MA's), (7, 1014), (8, 1017), (9, 1068), (10, 1074), (11, 1140), (12, 1173), (15, 1224), (16, 1227), (17, 1251), (20, 1344), (21, 1353), (25, 1470), (26, 1482),

Gene: Odette\_1 Start: 131, Stop: 820, Start Num: 6

Candidate Starts for Odette\_1:

(Start: 6 @131 has 29 MA's), (7, 263), (8, 266), (9, 317), (10, 323), (11, 389), (12, 422), (15, 473), (16, 476), (17, 500), (20, 593), (21, 602), (25, 719), (26, 731),

Gene: Omega\_3 Start: 1526, Stop: 2170, Start Num: 6

Candidate Starts for Omega\_3:

(Start: 6 @1526 has 29 MA's), (7, 1658), (12, 1808), (13, 1817), (14, 1847), (16, 1862), (17, 1886), (18, 1898), (19, 1922), (22, 2015), (25, 2081),

Gene: Optimus\_2 Start: 878, Stop: 1567, Start Num: 6

Candidate Starts for Optimus\_2:

(1, 746), (3, 803), (Start: 4 @809 has 2 MA's), (Start: 6 @878 has 29 MA's), (7, 1010), (8, 1013), (9, 1064), (10, 1070), (11, 1136), (12, 1169), (15, 1220), (16, 1223), (17, 1247), (20, 1340), (21, 1349), (25, 1466), (26, 1478),

Gene: Phoebus\_2 Start: 878, Stop: 1567, Start Num: 6

Candidate Starts for Phoebus\_2:

(1, 746), (3, 803), (Start: 4 @809 has 2 MA's), (Start: 6 @878 has 29 MA's), (7, 1010), (8, 1013), (9, 1064), (10, 1070), (11, 1136), (12, 1169), (15, 1220), (16, 1223), (17, 1247), (20, 1340), (21, 1349), (25, 1466), (26, 1478),

Gene: Pound\_2 Start: 878, Stop: 1567, Start Num: 6

Candidate Starts for Pound\_2:

(1, 746), (3, 803), (Start: 4 @809 has 2 MA's), (Start: 6 @878 has 29 MA's), (7, 1010), (8, 1013), (9, 1064), (10, 1070), (11, 1136), (12, 1169), (15, 1220), (16, 1223), (17, 1247), (20, 1340), (21, 1349), (25, 1466), (26, 1478),

Gene: Redno2\_1 Start: 132, Stop: 821, Start Num: 6

Candidate Starts for Redno2\_1:

(Start: 6 @132 has 29 MA's), (7, 264), (8, 267), (9, 318), (10, 324), (11, 390), (12, 423), (15, 474), (16, 477), (17, 501), (20, 594), (21, 603), (25, 720), (26, 732),

Gene: Schatzie\_1 Start: 131, Stop: 820, Start Num: 6

Candidate Starts for Schatzie\_1:

(Start: 6 @131 has 29 MA's), (7, 263), (8, 266), (9, 317), (10, 323), (11, 389), (12, 422), (15, 473), (16, 476), (17, 500), (20, 593), (21, 602), (25, 719), (26, 731),

Gene: Superphikiman\_2 Start: 882, Stop: 1571, Start Num: 6

Candidate Starts for Superphikiman\_2:

(1, 750), (3, 807), (Start: 4 @813 has 2 MA's), (Start: 6 @882 has 29 MA's), (7, 1014), (8, 1017), (9, 1068), (10, 1074), (12, 1173), (15, 1224), (16, 1227), (17, 1251), (20, 1344), (21, 1353), (25, 1470), (26, 1482),

Gene: Thibault\_2 Start: 878, Stop: 1567, Start Num: 6

Candidate Starts for Thibault\_2:

(1, 746), (3, 803), (Start: 4 @809 has 2 MA's), (Start: 6 @878 has 29 MA's), (7, 1010), (8, 1013), (9, 1064), (10, 1070), (11, 1136), (12, 1169), (15, 1220), (16, 1223), (17, 1247), (20, 1340), (21, 1349), (25, 1466), (26, 1478),

Gene: ThreeRngTarjay\_2 Start: 878, Stop: 1567, Start Num: 6

Candidate Starts for ThreeRngTarjay\_2:

(1, 746), (3, 803), (Start: 4 @809 has 2 MA's), (Start: 6 @878 has 29 MA's), (7, 1010), (8, 1013), (9, 1064), (10, 1070), (11, 1136), (12, 1169), (15, 1220), (16, 1223), (17, 1247), (20, 1340), (21, 1349), (25, 1466), (26, 1478),

Gene: Wanda\_2 Start: 882, Stop: 1571, Start Num: 6

Candidate Starts for Wanda\_2:

(1, 750), (3, 807), (Start: 4 @813 has 2 MA's), (Start: 6 @882 has 29 MA's), (7, 1014), (8, 1017), (9, 1068), (10, 1074), (12, 1173), (15, 1224), (16, 1227), (17, 1251), (20, 1344), (21, 1353), (25, 1470), (26, 1482),

Gene: Yeet\_1 Start: 132, Stop: 821, Start Num: 6

Candidate Starts for Yeet\_1:

(Start: 6 @132 has 29 MA's), (7, 264), (8, 267), (9, 318), (10, 324), (11, 390), (12, 423), (15, 474), (16, 477), (17, 501), (20, 594), (21, 603), (25, 720), (26, 732),

Gene: Zelink\_1 Start: 132, Stop: 821, Start Num: 6

Candidate Starts for Zelink\_1:

(Start: 6 @132 has 29 MA's), (7, 264), (8, 267), (9, 318), (10, 324), (12, 423), (15, 474), (16, 477), (17, 501), (20, 594), (21, 603), (25, 720), (26, 732),