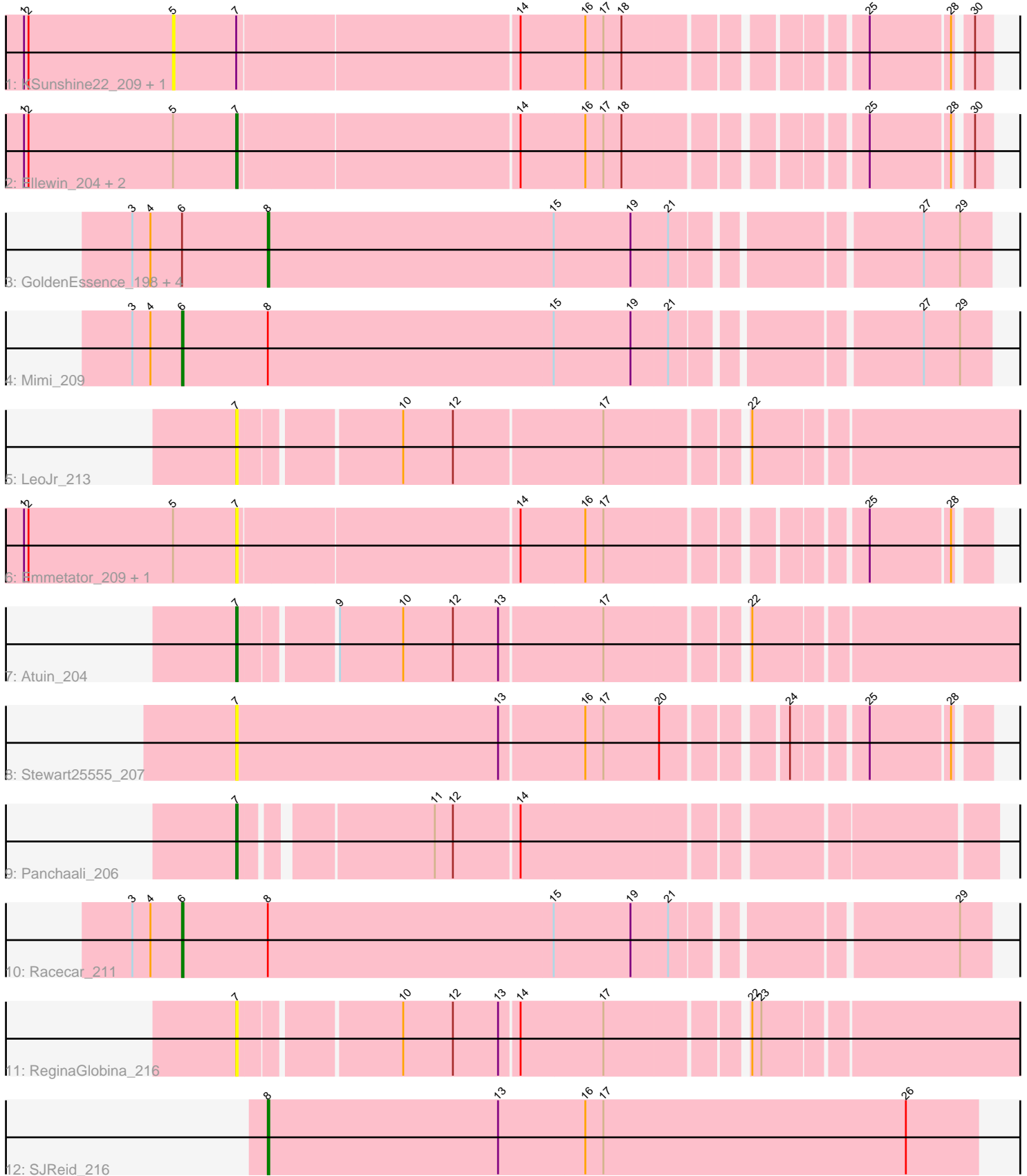


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 312048 Report

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

Pham number 312048 has 20 members, 9 are drafts.

Phages represented in each track:

- Track 1 : KSunshine22\_209, BooTeria\_214
- Track 2 : Ellewin\_204, WaddleDee\_201, DunneganBoMo\_206
- Track 3 : GoldenEssence\_198, FrostedClock\_213, Talia1610\_211, Bloom\_214, Patbob\_207
- Track 4 : Mimi\_209
- Track 5 : LeoJr\_213
- Track 6 : Emmetator\_209, Artu\_207
- Track 7 : Atuin\_204
- Track 8 : Stewart25555\_207
- Track 9 : Panchaali\_206
- Track 10 : Racecar\_211
- Track 11 : ReginaGlobina\_216
- Track 12 : SJReid\_216

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

The start number called the most often in the published annotations is 7, it was called in 5 of the 11 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Artu\_207, Atuin\_204, DunneganBoMo\_206, Ellewin\_204, Emmetator\_209, LeoJr\_213, Panchaali\_206, ReginaGlobina\_216, Stewart25555\_207, WaddleDee\_201,

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

- BooTeria\_214, KSunshine22\_209,

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

- Bloom\_214, FrostedClock\_213, GoldenEssence\_198, Mimi\_209, Patbob\_207, Racecar\_211, SJReid\_216, Talia1610\_211,

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

Start 5:

- Found in 7 of 20 ( 35.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 28.6% of time when present
- Phage (with cluster) where this start called: BooTeria\_214 (FC), KSunshine22\_209 (FC),

Start 6:

- Found in 7 of 20 ( 35.0% ) of genes in pham
- Manual Annotations of this start: 2 of 11
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Mimi\_209 (FC), Racecar\_211 (FC),

Start 7:

- Found in 12 of 20 ( 60.0% ) of genes in pham
- Manual Annotations of this start: 5 of 11
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Artu\_207 (FC), Atuin\_204 (FC), DunneganBoMo\_206 (FC), Ellewin\_204 (FC), Emmetator\_209 (FC), LeoJr\_213 (FC), Panchaali\_206 (FC), ReginaGlobina\_216 (FC), Stewart25555\_207 (FC), WaddleDee\_201 (FC),

Start 8:

- Found in 8 of 20 ( 40.0% ) of genes in pham
- Manual Annotations of this start: 4 of 11
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Bloom\_214 (FC), FrostedClock\_213 (FC), GoldenEssence\_198 (FC), Patbob\_207 (FC), SJReid\_216 (FC), Talia1610\_211 (FC),

### **Summary by clusters:**

There is one cluster represented in this pham: FC

Info for manual annotations of cluster FC:

- Start number 6 was manually annotated 2 times for cluster FC.
- Start number 7 was manually annotated 5 times for cluster FC.
- Start number 8 was manually annotated 4 times for cluster FC.

### **Gene Information:**

Gene: Artu\_207 Start: 150040, Stop: 150492, Start Num: 7

Candidate Starts for Artu\_207:

(1, 149899), (2, 149902), (5, 149998), (Start: 7 @150040 has 5 MA's), (14, 150220), (16, 150262), (17, 150274), (25, 150421), (28, 150472),

Gene: Atuin\_204 Start: 143224, Stop: 143715, Start Num: 7

Candidate Starts for Atuin\_204:

(Start: 7 @143224 has 5 MA's), (9, 143281), (10, 143323), (12, 143356), (13, 143386), (17, 143452), (22, 143536),

Gene: Bloom\_214 Start: 145192, Stop: 145647, Start Num: 8

Candidate Starts for Bloom\_214:

(3, 145102), (4, 145114), (Start: 6 @145135 has 2 MA's), (Start: 8 @145192 has 4 MA's), (15, 145381), (19, 145432), (21, 145456), (27, 145603), (29, 145627),

Gene: BooTeria\_214 Start: 149508, Stop: 150002, Start Num: 5

Candidate Starts for BooTeria\_214:

(1, 149409), (2, 149412), (5, 149508), (Start: 7 @149550 has 5 MA's), (14, 149730), (16, 149772), (17, 149784), (18, 149796), (25, 149931), (28, 149982), (30, 149991),

Gene: DunneganBoMo\_206 Start: 149014, Stop: 149466, Start Num: 7

Candidate Starts for DunneganBoMo\_206:

(1, 148873), (2, 148876), (5, 148972), (Start: 7 @149014 has 5 MA's), (14, 149194), (16, 149236), (17, 149248), (18, 149260), (25, 149395), (28, 149446), (30, 149455),

Gene: Ellewin\_204 Start: 148281, Stop: 148733, Start Num: 7

Candidate Starts for Ellewin\_204:

(1, 148140), (2, 148143), (5, 148239), (Start: 7 @148281 has 5 MA's), (14, 148461), (16, 148503), (17, 148515), (18, 148527), (25, 148662), (28, 148713), (30, 148722),

Gene: Emmetator\_209 Start: 148410, Stop: 148862, Start Num: 7

Candidate Starts for Emmetator\_209:

(1, 148269), (2, 148272), (5, 148368), (Start: 7 @148410 has 5 MA's), (14, 148590), (16, 148632), (17, 148644), (25, 148791), (28, 148842),

Gene: FrostedClock\_213 Start: 145112, Stop: 145567, Start Num: 8

Candidate Starts for FrostedClock\_213:

(3, 145022), (4, 145034), (Start: 6 @145055 has 2 MA's), (Start: 8 @145112 has 4 MA's), (15, 145301), (19, 145352), (21, 145376), (27, 145523), (29, 145547),

Gene: GoldenEssence\_198 Start: 139168, Stop: 139623, Start Num: 8

Candidate Starts for GoldenEssence\_198:

(3, 139078), (4, 139090), (Start: 6 @139111 has 2 MA's), (Start: 8 @139168 has 4 MA's), (15, 139357), (19, 139408), (21, 139432), (27, 139579), (29, 139603),

Gene: KSunshine22\_209 Start: 147650, Stop: 148144, Start Num: 5

Candidate Starts for KSunshine22\_209:

(1, 147551), (2, 147554), (5, 147650), (Start: 7 @147692 has 5 MA's), (14, 147872), (16, 147914), (17, 147926), (18, 147938), (25, 148073), (28, 148124), (30, 148133),

Gene: LeoJr\_213 Start: 143395, Stop: 143886, Start Num: 7

Candidate Starts for LeoJr\_213:

(Start: 7 @143395 has 5 MA's), (10, 143494), (12, 143527), (17, 143623), (22, 143707),

Gene: Mimi\_209 Start: 144510, Stop: 145022, Start Num: 6

Candidate Starts for Mimi\_209:

(3, 144477), (4, 144489), (Start: 6 @144510 has 2 MA's), (Start: 8 @144567 has 4 MA's), (15, 144756), (19, 144807), (21, 144831), (27, 144978), (29, 145002),

Gene: Panchaali\_206 Start: 149616, Stop: 150074, Start Num: 7

Candidate Starts for Panchaali\_206:

(Start: 7 @149616 has 5 MA's), (11, 149730), (12, 149742), (14, 149784),

Gene: Patbob\_207 Start: 144965, Stop: 145420, Start Num: 8

Candidate Starts for Patbob\_207:

(3, 144875), (4, 144887), (Start: 6 @144908 has 2 MA's), (Start: 8 @144965 has 4 MA's), (15, 145154), (19, 145205), (21, 145229), (27, 145376), (29, 145400),

Gene: Racecar\_211 Start: 144890, Stop: 145402, Start Num: 6

Candidate Starts for Racecar\_211:

(3, 144857), (4, 144869), (Start: 6 @144890 has 2 MA's), (Start: 8 @144947 has 4 MA's), (15, 145136), (19, 145187), (21, 145211), (29, 145382),

Gene: ReginaGlobina\_216 Start: 144680, Stop: 145171, Start Num: 7

Candidate Starts for ReginaGlobina\_216:

(Start: 7 @144680 has 5 MA's), (10, 144779), (12, 144812), (13, 144842), (14, 144854), (17, 144908), (22, 144992), (23, 144998),

Gene: SJReid\_216 Start: 138571, Stop: 139041, Start Num: 8

Candidate Starts for SJReid\_216:

(Start: 8 @138571 has 4 MA's), (13, 138724), (16, 138781), (17, 138793), (26, 138994),

Gene: Stewart25555\_207 Start: 146925, Stop: 147383, Start Num: 7

Candidate Starts for Stewart25555\_207:

(Start: 7 @146925 has 5 MA's), (13, 147099), (16, 147153), (17, 147165), (20, 147201), (24, 147270), (25, 147312), (28, 147363),

Gene: Talia1610\_211 Start: 144976, Stop: 145431, Start Num: 8

Candidate Starts for Talia1610\_211:

(3, 144886), (4, 144898), (Start: 6 @144919 has 2 MA's), (Start: 8 @144976 has 4 MA's), (15, 145165), (19, 145216), (21, 145240), (27, 145387), (29, 145411),

Gene: WaddleDee\_201 Start: 147475, Stop: 147927, Start Num: 7

Candidate Starts for WaddleDee\_201:

(1, 147334), (2, 147337), (5, 147433), (Start: 7 @147475 has 5 MA's), (14, 147655), (16, 147697), (17, 147709), (18, 147721), (25, 147856), (28, 147907), (30, 147916),