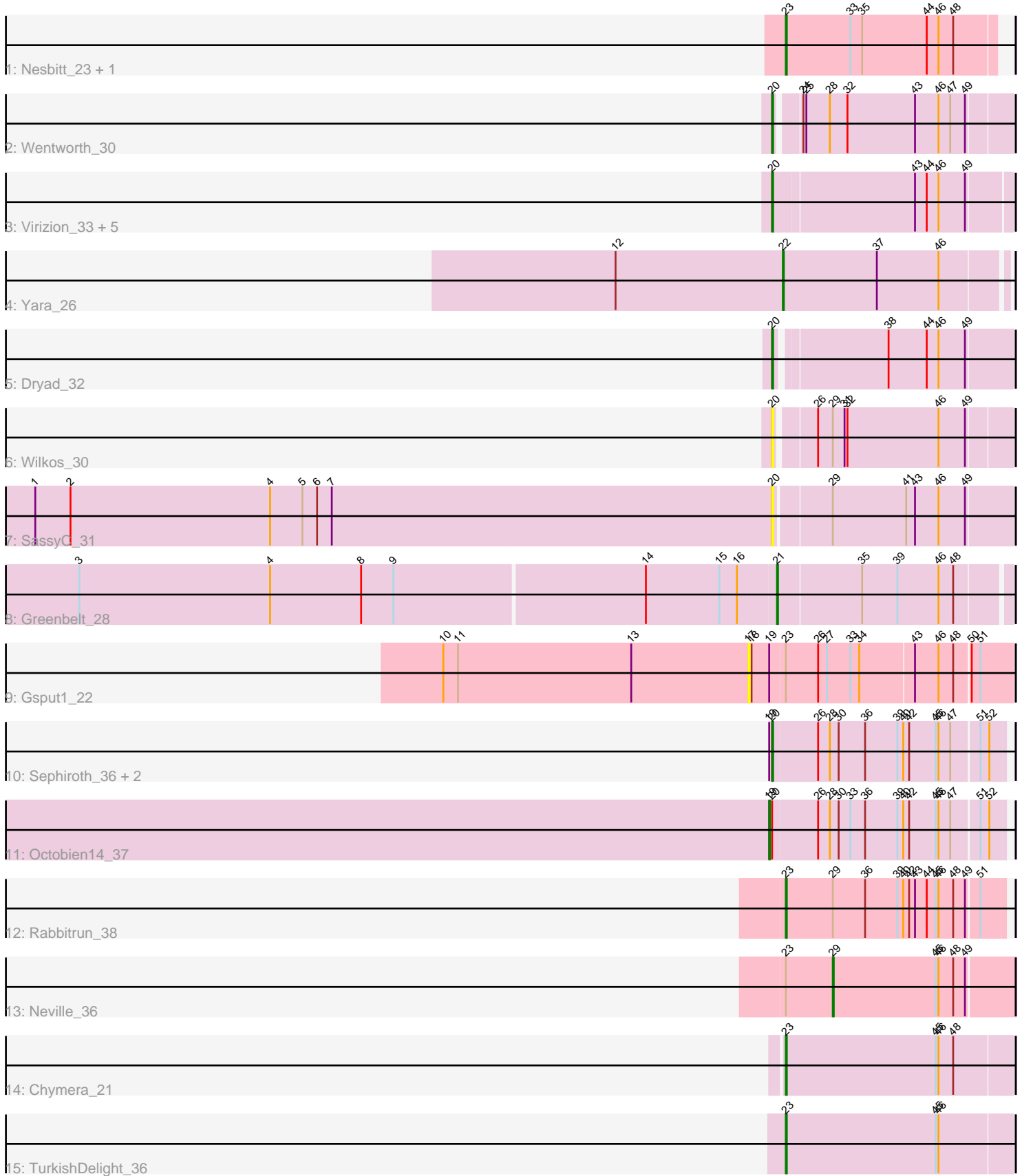


Pham 309218



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 309218 Report

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

Pham number 309218 has 23 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Nesbitt\_23, AbbeyMikolon\_23
- Track 2 : Wentworth\_30
- Track 3 : Virizion\_33, PHTowN\_29, Rooney\_29, Lizz\_29, Gibson\_29, ShakeNBake\_29
- Track 4 : Yara\_26
- Track 5 : Dryad\_32
- Track 6 : Wilkos\_30
- Track 7 : SassyC\_31
- Track 8 : Greenbelt\_28
- Track 9 : Gspu1\_22
- Track 10 : Sephiroth\_36, Syleon\_36, Kudrefre\_35
- Track 11 : Octobien14\_37
- Track 12 : Rabbitrun\_38
- Track 13 : Neville\_36
- Track 14 : Chymera\_21
- Track 15 : TurkishDelight\_36

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

The start number called the most often in the published annotations is 20, it was called in 10 of the 19 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Dryad\_32, Gibson\_29, Kudrefre\_35, Lizz\_29, PHTowN\_29, Rooney\_29, SassyC\_31, Sephiroth\_36, ShakeNBake\_29, Syleon\_36, Virizion\_33, Wentworth\_30, Wilkos\_30,

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

- Octobien14\_37,

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

- AbbeyMikolon\_23, Chymera\_21, Greenbelt\_28, Gspu1\_22, Nesbitt\_23, Neville\_36, Rabbitrun\_38, TurkishDelight\_36, Yara\_26,

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

Start 17:

- Found in 1 of 23 ( 4.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gspu1\_22 (CU2),

Start 19:

- Found in 5 of 23 ( 21.7% ) of genes in pham
- Manual Annotations of this start: 1 of 19
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Octobien14\_37 (DU1),

Start 20:

- Found in 14 of 23 ( 60.9% ) of genes in pham
- Manual Annotations of this start: 10 of 19
- Called 92.9% of time when present
- Phage (with cluster) where this start called: Dryad\_32 (BN), Gibson\_29 (BN), Kudrefre\_35 (DU1), Lizz\_29 (BN), PHTown\_29 (BN), Rooney\_29 (BN), SassyC\_31 (BN), Sephiroth\_36 (DU1), ShakeNBake\_29 (BN), Syleon\_36 (DU1), Virizion\_33 (BN), Wentworth\_30 (BN), Wilkos\_30 (BN),

Start 21:

- Found in 1 of 23 ( 4.3% ) of genes in pham
- Manual Annotations of this start: 1 of 19
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Greenbelt\_28 (BN),

Start 22:

- Found in 1 of 23 ( 4.3% ) of genes in pham
- Manual Annotations of this start: 1 of 19
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Yara\_26 (BN),

Start 23:

- Found in 7 of 23 ( 30.4% ) of genes in pham
- Manual Annotations of this start: 5 of 19
- Called 71.4% of time when present
- Phage (with cluster) where this start called: AbbeyMikolon\_23 (BL), Chymera\_21 (singleton), Nesbitt\_23 (BL), Rabbitrun\_38 (DU2), TurkishDelight\_36 (singleton),

Start 29:

- Found in 4 of 23 ( 17.4% ) of genes in pham
- Manual Annotations of this start: 1 of 19
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Neville\_36 (DU2),

**Summary by clusters:**

There are 6 clusters represented in this pham: singleton, CU2, BL, BN, DU1, DU2,

Info for manual annotations of cluster BL:

- Start number 23 was manually annotated 2 times for cluster BL.

Info for manual annotations of cluster BN:

- Start number 20 was manually annotated 7 times for cluster BN.
- Start number 21 was manually annotated 1 time for cluster BN.
- Start number 22 was manually annotated 1 time for cluster BN.

Info for manual annotations of cluster DU1:

- Start number 19 was manually annotated 1 time for cluster DU1.
- Start number 20 was manually annotated 3 times for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 23 was manually annotated 1 time for cluster DU2.
- Start number 29 was manually annotated 1 time for cluster DU2.

### ***Gene Information:***

Gene: AbbeyMikolon\_23 Start: 18386, Stop: 18598, Start Num: 23

Candidate Starts for AbbeyMikolon\_23:

(Start: 23 @18386 has 5 MA's), (33, 18452), (35, 18464), (44, 18530), (46, 18542), (48, 18557),

Gene: Chymera\_21 Start: 17166, Stop: 17393, Start Num: 23

Candidate Starts for Chymera\_21:

(Start: 23 @17166 has 5 MA's), (45, 17319), (46, 17322), (48, 17337),

Gene: Dryad\_32 Start: 21653, Stop: 21880, Start Num: 20

Candidate Starts for Dryad\_32:

(Start: 20 @21653 has 10 MA's), (38, 21758), (44, 21797), (46, 21809), (49, 21836),

Gene: Gibson\_29 Start: 20816, Stop: 21049, Start Num: 20

Candidate Starts for Gibson\_29:

(Start: 20 @20816 has 10 MA's), (43, 20957), (44, 20969), (46, 20981), (49, 21008),

Gene: Greenbelt\_28 Start: 20069, Stop: 20296, Start Num: 21

Candidate Starts for Greenbelt\_28:

(3, 19364), (4, 19559), (8, 19652), (9, 19685), (14, 19937), (15, 20012), (16, 20030), (Start: 21 @20069 has 1 MA's), (35, 20153), (39, 20189), (46, 20231), (48, 20246),

Gene: Gspu1\_22 Start: 18136, Stop: 18396, Start Num: 17

Candidate Starts for Gspu1\_22:

(10, 17824), (11, 17839), (13, 18016), (17, 18136), (18, 18139), (Start: 19 @18157 has 1 MA's), (Start: 23 @18172 has 5 MA's), (26, 18205), (27, 18214), (33, 18238), (34, 18247), (43, 18301), (46, 18325), (48, 18340), (50, 18355), (51, 18364),

Gene: Kudrefre\_35 Start: 29727, Stop: 29957, Start Num: 20

Candidate Starts for Kudrefre\_35:

(Start: 19 @29724 has 1 MA's), (Start: 20 @29727 has 10 MA's), (26, 29772), (28, 29784), (30, 29793), (36, 29820), (39, 29853), (40, 29859), (42, 29865), (45, 29892), (46, 29895), (47, 29907), (51, 29934), (52, 29943),

Gene: Lizz\_29 Start: 20625, Stop: 20858, Start Num: 20

Candidate Starts for Lizz\_29:

(Start: 20 @20625 has 10 MA's), (43, 20766), (44, 20778), (46, 20790), (49, 20817),

Gene: Nesbitt\_23 Start: 18458, Stop: 18670, Start Num: 23

Candidate Starts for Nesbitt\_23:

(Start: 23 @18458 has 5 MA's), (33, 18524), (35, 18536), (44, 18602), (46, 18614), (48, 18629),

Gene: Neville\_36 Start: 31076, Stop: 31258, Start Num: 29

Candidate Starts for Neville\_36:

(Start: 23 @31028 has 5 MA's), (Start: 29 @31076 has 1 MA's), (45, 31181), (46, 31184), (48, 31199), (49, 31211),

Gene: Octobien14\_37 Start: 30411, Stop: 30644, Start Num: 19

Candidate Starts for Octobien14\_37:

(Start: 19 @30411 has 1 MA's), (Start: 20 @30414 has 10 MA's), (26, 30459), (28, 30471), (30, 30480), (33, 30492), (36, 30507), (39, 30540), (40, 30546), (42, 30552), (45, 30579), (46, 30582), (47, 30594), (51, 30621), (52, 30630),

Gene: PHTowN\_29 Start: 20623, Stop: 20856, Start Num: 20

Candidate Starts for PHTowN\_29:

(Start: 20 @20623 has 10 MA's), (43, 20764), (44, 20776), (46, 20788), (49, 20815),

Gene: Rabbitrun\_38 Start: 31471, Stop: 31689, Start Num: 23

Candidate Starts for Rabbitrun\_38:

(Start: 23 @31471 has 5 MA's), (Start: 29 @31519 has 1 MA's), (36, 31552), (39, 31585), (40, 31591), (42, 31597), (43, 31603), (44, 31615), (45, 31624), (46, 31627), (48, 31642), (49, 31654), (51, 31666),

Gene: Rooney\_29 Start: 20813, Stop: 21046, Start Num: 20

Candidate Starts for Rooney\_29:

(Start: 20 @20813 has 10 MA's), (43, 20954), (44, 20966), (46, 20978), (49, 21005),

Gene: SassyC\_31 Start: 20941, Stop: 21174, Start Num: 20

Candidate Starts for SassyC\_31:

(1, 20191), (2, 20227), (4, 20431), (5, 20464), (6, 20479), (7, 20494), (Start: 20 @20941 has 10 MA's), (Start: 29 @20995 has 1 MA's), (41, 21070), (43, 21079), (46, 21103), (49, 21130),

Gene: Sephiroth\_36 Start: 29898, Stop: 30128, Start Num: 20

Candidate Starts for Sephiroth\_36:

(Start: 19 @29895 has 1 MA's), (Start: 20 @29898 has 10 MA's), (26, 29943), (28, 29955), (30, 29964), (36, 29991), (39, 30024), (40, 30030), (42, 30036), (45, 30063), (46, 30066), (47, 30078), (51, 30105), (52, 30114),

Gene: ShakeNBake\_29 Start: 20641, Stop: 20874, Start Num: 20

Candidate Starts for ShakeNBake\_29:

(Start: 20 @20641 has 10 MA's), (43, 20782), (44, 20794), (46, 20806), (49, 20833),

Gene: Syleon\_36 Start: 29820, Stop: 30050, Start Num: 20

Candidate Starts for Syleon\_36:

(Start: 19 @29817 has 1 MA's), (Start: 20 @29820 has 10 MA's), (26, 29865), (28, 29877), (30, 29886), (36, 29913), (39, 29946), (40, 29952), (42, 29958), (45, 29985), (46, 29988), (47, 30000), (51, 30027), (52, 30036),

Gene: TurkishDelight\_36 Start: 34260, Stop: 34487, Start Num: 23

Candidate Starts for TurkishDelight\_36:

(Start: 23 @34260 has 5 MA's), (45, 34413), (46, 34416),

Gene: Virizion\_33 Start: 21012, Stop: 21245, Start Num: 20

Candidate Starts for Virizion\_33:

(Start: 20 @21012 has 10 MA's), (43, 21153), (44, 21165), (46, 21177), (49, 21204),

Gene: Wentworth\_30 Start: 20992, Stop: 21219, Start Num: 20

Candidate Starts for Wentworth\_30:

(Start: 20 @20992 has 10 MA's), (24, 21013), (25, 21016), (28, 21040), (32, 21058), (43, 21127), (46, 21151), (47, 21163), (49, 21178),

Gene: Wilkos\_30 Start: 20904, Stop: 21131, Start Num: 20

Candidate Starts for Wilkos\_30:

(Start: 20 @20904 has 10 MA's), (26, 20940), (Start: 29 @20955 has 1 MA's), (31, 20967), (32, 20970), (46, 21063), (49, 21090),

Gene: Yara\_26 Start: 20240, Stop: 20461, Start Num: 22

Candidate Starts for Yara\_26:

(12, 20069), (Start: 22 @20240 has 1 MA's), (37, 20336), (46, 20399),