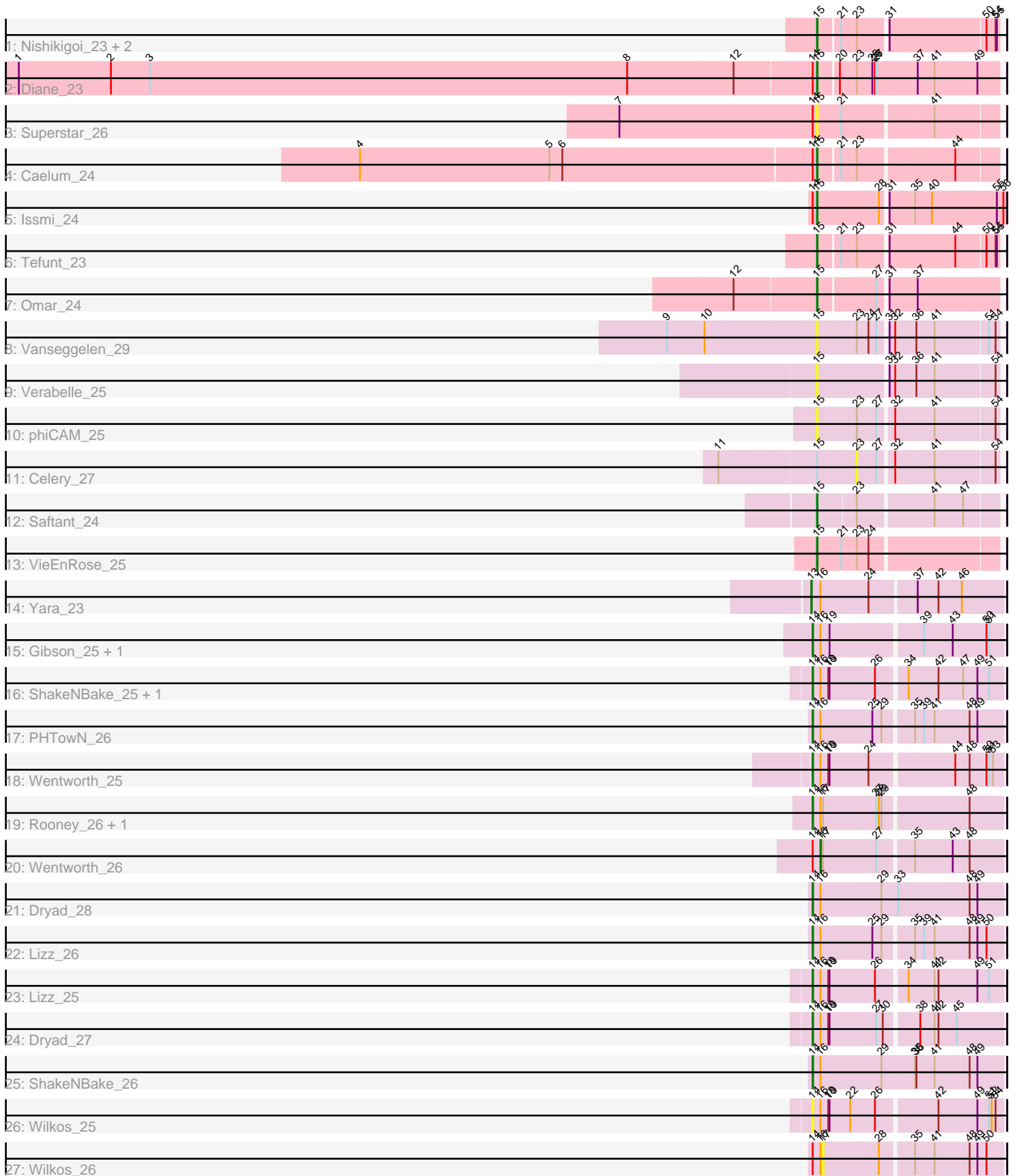


# Pham 75784



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 75784 Report

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

Pham number 75784 has 32 members, 7 are drafts.

Phages represented in each track:

- Track 1 : Nishikigoi\_23, Amethyst\_23, Haizum\_23
- Track 2 : Diane\_23
- Track 3 : Superstar\_26
- Track 4 : Caelum\_24
- Track 5 : Issmi\_24
- Track 6 : Tefunt\_23
- Track 7 : Omar\_24
- Track 8 : Vanseggelen\_29
- Track 9 : Verabelle\_25
- Track 10 : phiCAM\_25
- Track 11 : Celery\_27
- Track 12 : Saftant\_24
- Track 13 : VieEnRose\_25
- Track 14 : Yara\_23
- Track 15 : Gibson\_25, Rooney\_25
- Track 16 : ShakeNBake\_25, PHTown\_25
- Track 17 : PHTown\_26
- Track 18 : Wentworth\_25
- Track 19 : Rooney\_26, Gibson\_26
- Track 20 : Wentworth\_26
- Track 21 : Dryad\_28
- Track 22 : Lizz\_26
- Track 23 : Lizz\_25
- Track 24 : Dryad\_27
- Track 25 : ShakeNBake\_26
- Track 26 : Wilkos\_25
- Track 27 : Wilkos\_26

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

The start number called the most often in the published annotations is 14, it was called in 13 of the 25 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Dryad\_27, Dryad\_28, Gibson\_25, Gibson\_26, Lizz\_25, Lizz\_26, PHTown\_25, PHTown\_26, Rooney\_25, Rooney\_26, ShakeNBake\_25, ShakeNBake\_26, Wentworth\_25, Wilkos\_25,

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

- Caelum\_24, Diane\_23, Issmi\_24, Superstar\_26, Wentworth\_26, Wilkos\_26,

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

- Amethyst\_23, Celery\_27, Haizum\_23, Nishikigoi\_23, Omar\_24, Saftant\_24, Tefunt\_23, Vanseggelen\_29, Verabelle\_25, VieEnRose\_25, Yara\_23, phiCAM\_25,

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

Start 13:

- Found in 1 of 32 ( 3.1% ) of genes in pham
- Manual Annotations of this start: 1 of 25
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Yara\_23 (BN),

Start 14:

- Found in 20 of 32 ( 62.5% ) of genes in pham
- Manual Annotations of this start: 13 of 25
- Called 70.0% of time when present
- Phage (with cluster) where this start called: Dryad\_27 (BN), Dryad\_28 (BN), Gibson\_25 (BN), Gibson\_26 (BN), Lizz\_25 (BN), Lizz\_26 (BN), PHTown\_25 (BN), PHTown\_26 (BN), Rooney\_25 (BN), Rooney\_26 (BN), ShakeNBake\_25 (BN), ShakeNBake\_26 (BN), Wentworth\_25 (BN), Wilkos\_25 (BN),

Start 15:

- Found in 15 of 32 ( 46.9% ) of genes in pham
- Manual Annotations of this start: 10 of 25
- Called 93.3% of time when present
- Phage (with cluster) where this start called: Amethyst\_23 (BD2), Caelum\_24 (BD2), Diane\_23 (BD2), Haizum\_23 (BD2), Issmi\_24 (BD2), Nishikigoi\_23 (BD2), Omar\_24 (BD2), Saftant\_24 (BD3), Superstar\_26 (BD2), Tefunt\_23 (BD2), Vanseggelen\_29 (BD3), Verabelle\_25 (BD3), VieEnRose\_25 (BD6), phiCAM\_25 (BD3),

Start 16:

- Found in 17 of 32 ( 53.1% ) of genes in pham
- Manual Annotations of this start: 1 of 25
- Called 5.9% of time when present
- Phage (with cluster) where this start called: Wentworth\_26 (BN),

Start 17:

- Found in 4 of 32 ( 12.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Wilkos\_26 (BN),

Start 23:

- Found in 11 of 32 ( 34.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 9.1% of time when present

- Phage (with cluster) where this start called: Celery\_27 (BD3),

### **Summary by clusters:**

There are 4 clusters represented in this pham: BN, BD6, BD3, BD2,

Info for manual annotations of cluster BD2:

- Start number 15 was manually annotated 8 times for cluster BD2.

Info for manual annotations of cluster BD3:

- Start number 15 was manually annotated 1 time for cluster BD3.

Info for manual annotations of cluster BD6:

- Start number 15 was manually annotated 1 time for cluster BD6.

Info for manual annotations of cluster BN:

- Start number 13 was manually annotated 1 time for cluster BN.
- Start number 14 was manually annotated 13 times for cluster BN.
- Start number 16 was manually annotated 1 time for cluster BN.

### **Gene Information:**

Gene: Amethyst\_23 Start: 19487, Stop: 19861, Start Num: 15

Candidate Starts for Amethyst\_23:

(Start: 15 @19487 has 10 MA's), (21, 19532), (23, 19568), (31, 19628), (50, 19832), (54, 19853), (55, 19856),

Gene: Caelum\_24 Start: 19614, Stop: 19991, Start Num: 15

Candidate Starts for Caelum\_24:

(4, 18576), (5, 19014), (6, 19044), (Start: 14 @19608 has 13 MA's), (Start: 15 @19614 has 10 MA's), (21, 19659), (23, 19695), (44, 19896),

Gene: Celery\_27 Start: 20605, Stop: 20901, Start Num: 23

Candidate Starts for Celery\_27:

(11, 20305), (Start: 15 @20515 has 10 MA's), (23, 20605), (27, 20647), (32, 20677), (41, 20761), (54, 20893),

Gene: Diane\_23 Start: 19871, Stop: 20263, Start Num: 15

Candidate Starts for Diane\_23:

(1, 18041), (2, 18254), (3, 18344), (8, 19448), (12, 19691), (Start: 14 @19865 has 13 MA's), (Start: 15 @19871 has 10 MA's), (20, 19913), (23, 19952), (25, 19985), (26, 19991), (27, 19994), (37, 20081), (41, 20120), (49, 20216),

Gene: Dryad\_28 Start: 19324, Stop: 19755, Start Num: 14

Candidate Starts for Dryad\_28:

(Start: 14 @19324 has 13 MA's), (Start: 16 @19342 has 1 MA's), (29, 19480), (33, 19519), (48, 19681), (49, 19699),

Gene: Dryad\_27 Start: 18904, Stop: 19314, Start Num: 14

Candidate Starts for Dryad\_27:

(Start: 14 @18904 has 13 MA's), (Start: 16 @18922 has 1 MA's), (18, 18940), (19, 18943), (27, 19048), (30, 19063), (38, 19126), (41, 19159), (42, 19168), (45, 19210),

Gene: Gibson\_25 Start: 18596, Stop: 19006, Start Num: 14

Candidate Starts for Gibson\_25:

(Start: 14 @18596 has 13 MA's), (Start: 16 @18614 has 1 MA's), (19, 18635), (39, 18827), (43, 18893), (50, 18968), (51, 18974),

Gene: Gibson\_26 Start: 19017, Stop: 19430, Start Num: 14

Candidate Starts for Gibson\_26:

(Start: 14 @19017 has 13 MA's), (Start: 16 @19035 has 1 MA's), (17, 19041), (27, 19161), (28, 19167), (29, 19173), (48, 19356),

Gene: Haizum\_23 Start: 19509, Stop: 19883, Start Num: 15

Candidate Starts for Haizum\_23:

(Start: 15 @19509 has 10 MA's), (21, 19554), (23, 19590), (31, 19650), (50, 19854), (54, 19875), (55, 19878),

Gene: Issmi\_24 Start: 20233, Stop: 20640, Start Num: 15

Candidate Starts for Issmi\_24:

(Start: 14 @20227 has 13 MA's), (Start: 15 @20233 has 10 MA's), (28, 20368), (31, 20380), (35, 20431), (40, 20470), (55, 20617), (56, 20632),

Gene: Lizz\_26 Start: 18825, Stop: 19238, Start Num: 14

Candidate Starts for Lizz\_26:

(Start: 14 @18825 has 13 MA's), (Start: 16 @18843 has 1 MA's), (25, 18960), (29, 18981), (35, 19038), (39, 19059), (41, 19083), (48, 19164), (49, 19182), (50, 19200),

Gene: Lizz\_25 Start: 18405, Stop: 18815, Start Num: 14

Candidate Starts for Lizz\_25:

(Start: 14 @18405 has 13 MA's), (Start: 16 @18423 has 1 MA's), (18, 18441), (19, 18444), (26, 18546), (34, 18606), (41, 18660), (42, 18669), (49, 18759), (51, 18783),

Gene: Nishikigoi\_23 Start: 19509, Stop: 19883, Start Num: 15

Candidate Starts for Nishikigoi\_23:

(Start: 15 @19509 has 10 MA's), (21, 19554), (23, 19590), (31, 19650), (50, 19854), (54, 19875), (55, 19878),

Gene: Omar\_24 Start: 19908, Stop: 20285, Start Num: 15

Candidate Starts for Omar\_24:

(12, 19728), (Start: 15 @19908 has 10 MA's), (27, 20031), (31, 20049), (37, 20103),

Gene: PHTowN\_26 Start: 18825, Stop: 19238, Start Num: 14

Candidate Starts for PHTowN\_26:

(Start: 14 @18825 has 13 MA's), (Start: 16 @18843 has 1 MA's), (25, 18960), (29, 18981), (35, 19038), (39, 19059), (41, 19083), (48, 19164), (49, 19182),

Gene: PHTowN\_25 Start: 18405, Stop: 18815, Start Num: 14

Candidate Starts for PHTowN\_25:

(Start: 14 @18405 has 13 MA's), (Start: 16 @18423 has 1 MA's), (18, 18441), (19, 18444), (26, 18546), (34, 18606), (42, 18669), (47, 18726), (49, 18759), (51, 18783),

Gene: Rooney\_26 Start: 19014, Stop: 19427, Start Num: 14

Candidate Starts for Rooney\_26:

(Start: 14 @19014 has 13 MA's), (Start: 16 @19032 has 1 MA's), (17, 19038), (27, 19158), (28, 19164), (29, 19170), (48, 19353),

Gene: Rooney\_25 Start: 18593, Stop: 19003, Start Num: 14

Candidate Starts for Rooney\_25:

(Start: 14 @18593 has 13 MA's), (Start: 16 @18611 has 1 MA's), (19, 18632), (39, 18824), (43, 18890), (50, 18965), (51, 18971),

Gene: Saftant\_24 Start: 20799, Stop: 21173, Start Num: 15

Candidate Starts for Saftant\_24:

(Start: 15 @20799 has 10 MA's), (23, 20880), (41, 21033), (47, 21096),

Gene: ShakeNBake\_25 Start: 18405, Stop: 18815, Start Num: 14

Candidate Starts for ShakeNBake\_25:

(Start: 14 @18405 has 13 MA's), (Start: 16 @18423 has 1 MA's), (18, 18441), (19, 18444), (26, 18546), (34, 18606), (42, 18669), (47, 18726), (49, 18759), (51, 18783),

Gene: ShakeNBake\_26 Start: 18825, Stop: 19256, Start Num: 14

Candidate Starts for ShakeNBake\_26:

(Start: 14 @18825 has 13 MA's), (Start: 16 @18843 has 1 MA's), (29, 18981), (35, 19056), (36, 19059), (41, 19101), (48, 19182), (49, 19200),

Gene: Superstar\_26 Start: 20776, Stop: 21162, Start Num: 15

Candidate Starts for Superstar\_26:

(7, 20326), (Start: 14 @20770 has 13 MA's), (Start: 15 @20776 has 10 MA's), (21, 20830), (41, 21022),

Gene: Tefunt\_23 Start: 19512, Stop: 19886, Start Num: 15

Candidate Starts for Tefunt\_23:

(Start: 15 @19512 has 10 MA's), (21, 19557), (23, 19593), (31, 19653), (44, 19791), (50, 19857), (54, 19878), (55, 19881),

Gene: Vanseggelen\_29 Start: 20234, Stop: 20620, Start Num: 15

Candidate Starts for Vanseggelen\_29:

(9, 19895), (10, 19982), (Start: 15 @20234 has 10 MA's), (23, 20324), (24, 20348), (27, 20366), (31, 20384), (32, 20396), (36, 20438), (41, 20480), (51, 20597), (54, 20612),

Gene: Verabelle\_25 Start: 20280, Stop: 20666, Start Num: 15

Candidate Starts for Verabelle\_25:

(Start: 15 @20280 has 10 MA's), (31, 20430), (32, 20442), (36, 20484), (41, 20526), (54, 20658),

Gene: VieEnRose\_25 Start: 19667, Stop: 20053, Start Num: 15

Candidate Starts for VieEnRose\_25:

(Start: 15 @19667 has 10 MA's), (21, 19721), (23, 19757), (24, 19781),

Gene: Wentworth\_25 Start: 18219, Stop: 18629, Start Num: 14

Candidate Starts for Wentworth\_25:

(Start: 14 @18219 has 13 MA's), (Start: 16 @18237 has 1 MA's), (18, 18255), (19, 18258), (24, 18345), (44, 18522), (48, 18555), (50, 18591), (51, 18597), (53, 18606),

Gene: Wentworth\_26 Start: 18658, Stop: 19056, Start Num: 16

Candidate Starts for Wentworth\_26:

(Start: 14 @18640 has 13 MA's), (Start: 16 @18658 has 1 MA's), (17, 18664), (27, 18784), (35, 18856), (43, 18943), (48, 18982),

Gene: Wilkos\_25 Start: 18352, Stop: 18765, Start Num: 14

Candidate Starts for Wilkos\_25:

(Start: 14 @18352 has 13 MA's), (Start: 16 @18370 has 1 MA's), (18, 18388), (19, 18391), (22, 18439), (26, 18496), (42, 18619), (49, 18709), (51, 18733), (52, 18739), (54, 18748),

Gene: Wilkos\_26 Start: 18799, Stop: 19188, Start Num: 17

Candidate Starts for Wilkos\_26:

(Start: 14 @18775 has 13 MA's), (Start: 16 @18793 has 1 MA's), (17, 18799), (28, 18925), (35, 18988), (41, 19033), (48, 19114), (49, 19132), (50, 19150),

Gene: Yara\_23 Start: 18446, Stop: 18862, Start Num: 13

Candidate Starts for Yara\_23:

(Start: 13 @18446 has 1 MA's), (Start: 16 @18467 has 1 MA's), (24, 18575), (37, 18671), (42, 18719), (46, 18770),

Gene: phiCAM\_25 Start: 22546, Stop: 22932, Start Num: 15

Candidate Starts for phiCAM\_25:

(Start: 15 @22546 has 10 MA's), (23, 22636), (27, 22678), (32, 22708), (41, 22792), (54, 22924),