1: Phrank15_46 2: SpicyFrank_49 B <mark>ر</mark> 3: Richie_49 , So 10 4: Sakai_46 + 1 2 6× 11 19 00 54 <u>۵</u>6 5: Isolde_46 31 Ś _{ଚ୍}କ୍ଷର v 6: Faja_46 P 7: EvePickles_44 3 æ 8: Sashimi_60 r 12 9860 ക స్త 25 9: MidnightRain_49 2 13 <u>~</u>6 50 10: YoungHarleezy_47 0,00,00, . . 0 5 888 11: Persistence_43 05 94 ŝ 00 CG 12: Globfish_47 ŕP à 00 13: Anekin_42 20 60 14 14: ThayneTheZag_47 \$253 685 2 15: Richie_66 ଞ୍ଚ 16: Seahorse_49 6<mark>8</mark>9 0 17: BenchScraper_46 Sr. 8 18 2 12 9884 <u>۵</u>6 18: BillyTP_49 20 10 ళా 19: Aikyam_45 oto 68 \$ 340 20: Bridgette_58 **1**20 ~~ රු e 21: BrayBeast_44 + 1 19 ക 680 22: Sarge_42 . . NO 82 88 282 23: Nandita_55 10 103 Sr. 810 r 24: Zaheer_56 ŝ 10 25: QuinnAvery_53 9⁵⁷ 2 స్తా 26: Nandita_49 30 ŝ ക 80 80 gg 2 n°C 27: Zucker_56 16 01 104 20 000 . <u></u> 28: Zucker_52 ° 22232 0 20 ŝ 29: Zucker_36 68 R 8 mg 30: Hum25_33 \$ 8<mark>8</mark> ର୍ଚ୍<mark>ଚ</mark>ଚ୍ଚି ଚି⁄ ъ 9 1 31: Whack_62 00 10 32: REQ3_27 S ŝ ഷ്ഠ 18 B 33: REQ3_21

Pham 174972

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 174972 Report

This analysis was run 11/02/24 on database version 579.

Pham number 174972 has 35 members, 10 are drafts.

Phages represented in each track:

- Track 1 : Phrank15 46
- Track 2 : SpicyFrank 49
- Track 3 : Richie_49
- Track 4 : Sakai 46, Gorpy 47
- Track 5 : Isolde 46
- Track 6 : Faja_46
- Track 7 : EvePickles 44
- Track 8 : Sashimi 60
- Track 9 : MidnightRain 49
- Track 10 : YoungHarleezy 47
- Track 11 : Persistence 43
- Track 12 : Globfish 47
- Track 13 : Anekin_42
 Track 14 : ThayneTheZag_47
- Track 15 : Richie 66
- Track 16 : Seahorse 49
- Track 17 : BenchScraper_46
- Track 18 : BillyTP 49
- Track 19 : Aikyam_45
- Track 20 : Bridgette_58
- Track 21 : BrayBeast 44, Ragga 54
- Track 22 : Sarge_42
- Track 23 : Nandita 55
- Track 24 : Zaheer 56
- Track 25 : QuinnAvery_53
- Track 26 : Nandita 49
- Track 27 : Zucker 56
- Track 28 : Zucker 52
- Track 29 : Zucker 36
- Track 30 : Hum25 33
- Track 31 : Whack 62
- Track 32 : REQ3 27
- Track 33 : REQ3 21

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

The start number called the most often in the published annotations is 40, it was called in 8 of the 25 non-draft genes in the pham.

Genes that call this "Most Annotated" start: • Aikyam_45, BenchScraper_46, EvePickles_44, Globfish_47, Gorpy_47, Nandita_55, Phrank15_46, QuinnAvery_53, Sakai_46, SpicyFrank_49, ThayneTheZag_47, Zaheer_56, Zucker_36,

Genes that have the "Most Annotated" start but do not call it: • BrayBeast 44, Bridgette 58, Ragga 54,

Genes that do not have the "Most Annotated" start: • Anekin_42, BillyTP_49, Faja_46, Hum25_33, Isolde_46, MidnightRain_49, Nandita_49, Persistence_43, REQ3_21, REQ3_27, Richie_49, Richie_66, Sarge_42, Sashimi_60, Seahorse_49, Whack_62, YoungHarleezy_47, Zucker_52, Zucker_56,

Summary by start number:

Start 23:

- Found in 2 of 35 (5.7%) of genes in pham
- Manual Annotations of this start: 2 of 25
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anekin_42 (AY), Faja_46 (AY),

Start 24:

- Found in 1 of 35 (2.9%) 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: Whack_62 (singleton),

Start 26:

- Found in 1 of 35 (2.9%) 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: Hum25_33 (FQ),

Start 27:

- Found in 1 of 35 (2.9%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: REQ3_27 (singleton),

Start 28:

- Found in 4 of 35 (11.4%) of genes in pham
- Manual Annotations of this start: 2 of 25
- Called 75.0% of time when present

• Phage (with cluster) where this start called: BrayBeast_44 (FB), Raqqa_54 (AY), Zucker_56 (FN),

Start 31:

- Found in 7 of 35 (20.0%) of genes in pham
- Manual Annotations of this start: 5 of 25

• Called 85.7% of time when present

• Phage (with cluster) where this start called: BillyTP_49 (AY), Isolde_46 (AY), MidnightRain 49 (AY), Sarge 42 (FB), Seahorse 49 (AY), YoungHarleezy 47 (AY),

Start 33:

- Found in 2 of 35 (5.7%) 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: Sashimi_60 (AY), Zucker_52 (FN),

Start 34:

- Found in 1 of 35 (2.9%) 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: Richie_66 (AY),

Start 35:

- Found in 1 of 35 (2.9%) 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: Nandita_49 (FF),

Start 37:

- Found in 1 of 35 (2.9%) 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: Bridgette_58 (FA),

Start 38:

- Found in 2 of 35 (5.7%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: REQ3_21 (singleton),

Start 39:

- Found in 1 of 35 (2.9%) 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: Richie_49 (AY),

Start 40:

- Found in 16 of 35 (45.7%) of genes in pham
- Manual Annotations of this start: 8 of 25
- Called 81.2% of time when present

• Phage (with cluster) where this start called: Aikyam_45 (AY), BenchScraper_46 (AY), EvePickles_44 (AY), Globfish_47 (AY), Gorpy_47 (AY), Nandita_55 (FF), Phrank15_46 (AY), QuinnAvery_53 (FF), Sakai_46 (AY), SpicyFrank_49 (AY), ThayneTheZag_47 (AY), Zaheer_56 (FF), Zucker_36 (FN),

Start 107:

- Found in 1 of 35 (2.9%) 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: Persistence_43 (AY),

Summary by clusters:

There are 7 clusters represented in this pham: FQ, singleton, FA, FB, FF, AY, FN,

Info for manual annotations of cluster AY:
Start number 23 was manually annotated 2 times for cluster AY.
Start number 31 was manually annotated 4 times for cluster AY.
Start number 34 was manually annotated 1 time for cluster AY.
Start number 39 was manually annotated 1 time for cluster AY.
Start number 40 was manually annotated 5 times for cluster AY.
Start number 107 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster FA:Start number 37 was manually annotated 1 time for cluster FA.

Info for manual annotations of cluster FB:
Start number 28 was manually annotated 1 time for cluster FB.
Start number 31 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster FF: •Start number 35 was manually annotated 1 time for cluster FF.

•Start number 40 was manually annotated 2 times for cluster FF.

Info for manual annotations of cluster FN:

•Start number 28 was manually annotated 1 time for cluster FN.

•Start number 33 was manually annotated 1 time for cluster FN.

•Start number 40 was manually annotated 1 time for cluster FN.

Info for manual annotations of cluster FQ: •Start number 26 was manually annotated 1 time for cluster FQ.

Gene Information:

Gene: Aikyam_45 Start: 27569, Stop: 27871, Start Num: 40 Candidate Starts for Aikyam_45: (Start: 40 @27569 has 8 MA's), (70, 27716), (85, 27776),

Gene: Anekin_42 Start: 29225, Stop: 29605, Start Num: 23 Candidate Starts for Anekin_42: (Start: 23 @29225 has 2 MA's), (29, 29243), (41, 29306), (99, 29543),

Gene: BenchScraper_46 Start: 29313, Stop: 29612, Start Num: 40 Candidate Starts for BenchScraper_46: (25, 29250), (Start: 40 @29313 has 8 MA's), (66, 29445), (69, 29457),

Gene: BillyTP_49 Start: 31109, Stop: 31462, Start Num: 31 Candidate Starts for BillyTP_49: (4, 30884), (5, 30905), (12, 31004), (Start: 31 @31109 has 5 MA's), (44, 31196), (46, 31208), (50, 31217), (57, 31241), (69, 31319), (78, 31352), (102, 31415),

Gene: BrayBeast_44 Start: 27825, Stop: 28184, Start Num: 28 Candidate Starts for BrayBeast 44: (14, 27747), (Start: 28 @27825 has 2 MA's), (Start: 40 @27882 has 8 MA's), (55, 27948), (68, 28035), (80, 28086), (86, 28110), (97, 28134), (98, 28137), Gene: Bridgette_58 Start: 36187, Stop: 36480, Start Num: 37 Candidate Starts for Bridgette 58: (15, 36073), (Start: 37 @36187 has 1 MA's), (Start: 40 @36199 has 8 MA's), (68, 36340), (97, 36412), (101, 36427),Gene: EvePickles 44 Start: 30359, Stop: 30676, Start Num: 40 Candidate Starts for EvePickles_44: (Start: 40 @30359 has 8 MA's), (66, 30491), (73, 30527), (74, 30530), Gene: Faja_46 Start: 30956, Stop: 31330, Start Num: 23 Candidate Starts for Faja 46: (13, 30887), (17, 30902), (Start: 23 @30956 has 2 MA's), (55, 31082), (64, 31145), (68, 31169), Gene: Globfish_47 Start: 29845, Stop: 30156, Start Num: 40 Candidate Starts for Globfish 47: (Start: 40 @29845 has 8 MA's), (68, 29986), (83, 30052), (96, 30085), (105, 30127), Gene: Gorpy_47 Start: 30846, Stop: 31148, Start Num: 40 Candidate Starts for Gorpy 47: (Start: 40 @30846 has 8 MA's), (70, 30993), (85, 31053), (105, 31119), (106, 31122), Gene: Hum25 33 Start: 23949, Stop: 23587, Start Num: 26 Candidate Starts for Hum25_33: (Start: 26 @23949 has 1 MA's), (58, 23814), (69, 23739), (70, 23736), (72, 23727), (84, 23679), (92, 23658), (94, 23655), Gene: Isolde 46 Start: 29682, Stop: 30020, Start Num: 31 Candidate Starts for Isolde 46: (4, 29457), (5, 29478), (12, 29577), (Start: 31 @29682 has 5 MA's), (54, 29769), (64, 29838), (71, 29877), (79, 29907), (90, 29949), Gene: MidnightRain_49 Start: 30942, Stop: 31298, Start Num: 31 Candidate Starts for MidnightRain 49: (4, 30717), (5, 30738), (12, 30837), (Start: 31 @30942 has 5 MA's), (44, 31029), (46, 31041), (50, 31050), (57, 31074), (68, 31149), (95, 31239), Gene: Nandita_55 Start: 36477, Stop: 36758, Start Num: 40 Candidate Starts for Nandita 55: (Start: 40 @36477 has 8 MA's), (49, 36525), (52, 36537), (82, 36666), (96, 36705), Gene: Nandita_49 Start: 32062, Stop: 32367, Start Num: 35 Candidate Starts for Nandita_49: (Start: 35 @32062 has 1 MA's), (47, 32131), (93, 32323), Gene: Persistence_43 Start: 28918, Stop: 29229, Start Num: 107 Candidate Starts for Persistence 43:

(67, 28753), (84, 28819), (88, 28834), (Start: 107 @28918 has 1 MA's), (108, 28999), (109, 29044), (110, 29080), (111, 29221),

Gene: Phrank15_46 Start: 29454, Stop: 29732, Start Num: 40 Candidate Starts for Phrank15_46: (11, 29268), (Start: 40 @29454 has 8 MA's), (66, 29586),

Gene: QuinnAvery_53 Start: 37283, Stop: 37561, Start Num: 40 Candidate Starts for QuinnAvery_53: (Start: 40 @37283 has 8 MA's), (70, 37430), (103, 37526),

Gene: REQ3_27 Start: 12625, Stop: 12996, Start Num: 27 Candidate Starts for REQ3_27: (27, 12625), (61, 12799), (62, 12802), (70, 12850), (100, 12940),

Gene: REQ3_21 Start: 9467, Stop: 9787, Start Num: 38 Candidate Starts for REQ3_21: (Start: 28 @9416 has 2 MA's), (Start: 31 @9422 has 5 MA's), (38, 9467), (48, 9515), (51, 9524), (69, 9629), (81, 9674),

Gene: Raqqa_54 Start: 31854, Stop: 32213, Start Num: 28 Candidate Starts for Raqqa_54: (14, 31776), (Start: 28 @31854 has 2 MA's), (Start: 40 @31911 has 8 MA's), (55, 31977), (68, 32064), (80, 32115), (86, 32139), (97, 32163), (98, 32166),

Gene: Richie_49 Start: 30530, Stop: 30829, Start Num: 39 Candidate Starts for Richie_49: (Start: 39 @30530 has 1 MA's), (68, 30671), (69, 30674),

Gene: Richie_66 Start: 35688, Stop: 36038, Start Num: 34 Candidate Starts for Richie_66: (Start: 34 @35688 has 1 MA's), (45, 35757), (53, 35784), (87, 35952), (91, 35961),

Gene: Sakai_46 Start: 29557, Stop: 29859, Start Num: 40 Candidate Starts for Sakai_46: (Start: 40 @29557 has 8 MA's), (70, 29704), (85, 29764), (105, 29830), (106, 29833),

Gene: Sarge_42 Start: 26531, Stop: 26854, Start Num: 31 Candidate Starts for Sarge_42: (Start: 31 @26531 has 5 MA's), (36, 26558), (65, 26690), (68, 26705), (79, 26747),

Gene: Sashimi_60 Start: 34705, Stop: 35055, Start Num: 33 Candidate Starts for Sashimi_60: (30, 34690), (Start: 33 @34705 has 1 MA's), (43, 34768), (62, 34864), (63, 34873),

Gene: Seahorse_49 Start: 31759, Stop: 32121, Start Num: 31 Candidate Starts for Seahorse_49: (Start: 31 @31759 has 5 MA's), (68, 31954), (69, 31957),

Gene: SpicyFrank_49 Start: 30340, Stop: 30630, Start Num: 40 Candidate Starts for SpicyFrank_49: (Start: 40 @30340 has 8 MA's), Gene: ThayneTheZag_47 Start: 29657, Stop: 29974, Start Num: 40 Candidate Starts for ThayneTheZag_47: (Start: 40 @29657 has 8 MA's), (66, 29789), (74, 29828),

Gene: Whack_62 Start: 41425, Stop: 41829, Start Num: 24 Candidate Starts for Whack_62: (3, 41146), (7, 41251), (9, 41287), (16, 41362), (Start: 24 @41425 has 1 MA's), (56, 41575), (59, 41590), (62, 41623), (68, 41665), (87, 41737), (89, 41743),

Gene: YoungHarleezy_47 Start: 30135, Stop: 30518, Start Num: 31 Candidate Starts for YoungHarleezy_47: (Start: 31 @30135 has 5 MA's), (36, 30162), (42, 30210), (56, 30240), (75, 30354), (77, 30357),

Gene: Zaheer_56 Start: 37545, Stop: 37838, Start Num: 40 Candidate Starts for Zaheer_56: (1, 36288), (2, 36543), (8, 37329), (10, 37341), (Start: 40 @37545 has 8 MA's), (49, 37593), (52, 37605), (70, 37707), (103, 37803),

Gene: Zucker_56 Start: 33964, Stop: 34314, Start Num: 28 Candidate Starts for Zucker_56: (6, 33772), (14, 33886), (Start: 28 @33964 has 2 MA's), (38, 34009), (55, 34078), (68, 34165), (80, 34216), (86, 34240), (97, 34264), (98, 34267),

Gene: Zucker_52 Start: 33035, Stop: 33385, Start Num: 33 Candidate Starts for Zucker_52: (18, 32948), (19, 32951), (20, 32984), (30, 33020), (Start: 33 @33035 has 1 MA's), (43, 33098), (76, 33263), (91, 33308), (104, 33350),

Gene: Zucker_36 Start: 27843, Stop: 28172, Start Num: 40 Candidate Starts for Zucker_36: (21, 27753), (22, 27765), (25, 27780), (32, 27798), (Start: 40 @27843 has 8 MA's), (49, 27891), (60, 27939), (99, 28110),