



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 203203 Report

This analysis was run 01/18/25 on database version 583.

Pham number 203203 has 28 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Quarant19\_252, JimJam\_259, KentuckyRacer\_258, Gibbi\_260, CeilingFan\_264, Wipeout\_242, Spilled\_259, Rikishi\_260, TomSawyer\_256, Enygma\_258
- Track 2 : Karimac\_252
- Track 3 : BRock\_118
- Track 4 : Talos\_125
- Track 5 : GiJojo\_172
- Track 6 : GiJojo\_115
- Track 7 : Weasels2\_171
- Track 8 : Kabocha\_17
- Track 9 : UBSmoodge\_51
- Track 10 : FlyingTortilla\_49
- Track 11 : BobRoss2024\_50
- Track 12 : Trax\_120, Neville\_119
- Track 13 : Roman\_67
- Track 14 : Cece\_187
- Track 15 : Thibault\_148
- Track 16 : SlimJimmy\_84, Glaske16\_86
- Track 17 : Magritte\_7

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

The start number called the most often in the published annotations is 33, it was called in 9 of the 23 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- CeilingFan\_264, Enygma\_258, Gibbi\_260, Glaske16\_86, JimJam\_259, KentuckyRacer\_258, Quarant19\_252, Rikishi\_260, SlimJimmy\_84, Spilled\_259, TomSawyer\_256, Wipeout\_242,

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

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

- BRock\_118, BobRoss2024\_50, Cece\_187, FlyingTortilla\_49, GiJojo\_115, GiJojo\_172, Kabocha\_17, Karimac\_252, Magritte\_7, Neville\_119, Roman\_67, Talos\_125, Thibault\_148, Trax\_120, UBSmoodge\_51, Weasels2\_171,

### Summary by start number:

#### Start 8:

- Found in 1 of 28 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Thibault\_148 (J),

#### Start 9:

- Found in 2 of 28 ( 7.1% ) of genes in pham
- Manual Annotations of this start: 2 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: FlyingTortilla\_49 (DQ), UBSmoodge\_51 (DQ),

#### Start 10:

- Found in 1 of 28 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kabocha\_17 (DQ),

#### Start 14:

- Found in 1 of 28 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Magritte\_7 (singleton),

#### Start 15:

- Found in 1 of 28 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Weasels2\_171 (CB),

#### Start 17:

- Found in 1 of 28 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GiJojo\_172 (BS),

#### Start 20:

- Found in 2 of 28 ( 7.1% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Roman\_67 (ED1),

#### Start 23:

- Found in 1 of 28 ( 3.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present

- Phage (with cluster) where this start called: BobRoss2024\_50 (DR),

Start 28:

- Found in 1 of 28 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cece\_187 (GD3),

Start 32:

- Found in 2 of 28 ( 7.1% ) of genes in pham
- Manual Annotations of this start: 2 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Neville\_119 (DU2), Trax\_120 (DU2),

Start 33:

- Found in 12 of 28 ( 42.9% ) of genes in pham
- Manual Annotations of this start: 9 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CeilingFan\_264 (BE2), Enygma\_258 (BE2), Gibbi\_260 (BE2), Glaske16\_86 (M1), JimJam\_259 (BE2), KentuckyRacer\_258 (BE2), Quaran19\_252 (BE2), Rikishi\_260 (BE2), SlimJimmy\_84 (M1), Spilled\_259 (BE2), TomSawyer\_256 (BE2), Wipeout\_242 (BE2),

Start 35:

- Found in 12 of 28 ( 42.9% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 8.3% of time when present
- Phage (with cluster) where this start called: BRock\_118 (BS),

Start 37:

- Found in 2 of 28 ( 7.1% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GiJojo\_115 (BS), Talos\_125 (BS),

Start 51:

- Found in 12 of 28 ( 42.9% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Karimac\_252 (BE2),

### **Summary by clusters:**

There are 11 clusters represented in this pham: singleton, GD3, CB, J, ED1, M1, BS, BE2, DU2, DR, DQ,

Info for manual annotations of cluster BE2:

- Start number 33 was manually annotated 7 times for cluster BE2.
- Start number 51 was manually annotated 1 time for cluster BE2.

Info for manual annotations of cluster BS:

- Start number 17 was manually annotated 1 time for cluster BS.
- Start number 35 was manually annotated 1 time for cluster BS.

- Start number 37 was manually annotated 1 time for cluster BS.

Info for manual annotations of cluster CB:

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

Info for manual annotations of cluster DQ:

- Start number 9 was manually annotated 2 times for cluster DQ.
- Start number 10 was manually annotated 1 time for cluster DQ.

Info for manual annotations of cluster DU2:

- Start number 32 was manually annotated 2 times for cluster DU2.

Info for manual annotations of cluster ED1:

- Start number 20 was manually annotated 1 time for cluster ED1.

Info for manual annotations of cluster GD3:

- Start number 28 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster J:

- Start number 8 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster M1:

- Start number 33 was manually annotated 2 times for cluster M1.

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

Gene: BRock\_118 Start: 64876, Stop: 65322, Start Num: 35

Candidate Starts for BRock\_118:

(Start: 35 @64876 has 1 MA's), (61, 65020), (63, 65038), (64, 65041), (72, 65089), (76, 65104), (78, 65110), (81, 65152), (85, 65203), (99, 65293),

Gene: BobRoss2024\_50 Start: 44361, Stop: 43870, Start Num: 23

Candidate Starts for BobRoss2024\_50:

(4, 44553), (19, 44373), (23, 44361), (24, 44355), (34, 44304), (61, 44163), (63, 44145), (72, 44094), (78, 44073), (83, 43995), (92, 43917),

Gene: Cece\_187 Start: 114127, Stop: 113666, Start Num: 28

Candidate Starts for Cece\_187:

(12, 114241), (13, 114238), (25, 114148), (26, 114145), (Start: 28 @114127 has 1 MA's), (40, 114082), (48, 114043), (Start: 51 @114034 has 1 MA's), (62, 113941), (67, 113923), (70, 113908), (74, 113875), (78, 113860),

Gene: CeilingFan\_264 Start: 116457, Stop: 116897, Start Num: 33

Candidate Starts for CeilingFan\_264:

(Start: 33 @116457 has 9 MA's), (Start: 35 @116466 has 1 MA's), (Start: 51 @116526 has 1 MA's), (57, 116577), (72, 116658), (78, 116679), (90, 116817), (98, 116856),

Gene: Enygma\_258 Start: 118257, Stop: 118697, Start Num: 33

Candidate Starts for Enygma\_258:

(Start: 33 @118257 has 9 MA's), (Start: 35 @118266 has 1 MA's), (Start: 51 @118326 has 1 MA's), (57, 118377), (72, 118458), (78, 118479), (90, 118617), (98, 118656),

Gene: FlyingTortilla\_49 Start: 40285, Stop: 40998, Start Num: 9

Candidate Starts for FlyingTortilla\_49:

(Start: 9 @40285 has 2 MA's), (11, 40294), (16, 40336), (22, 40378), (39, 40453), (53, 40504), (56, 40546), (60, 40579), (65, 40612), (77, 40672), (78, 40675), (80, 40699), (83, 40753), (90, 40813), (101, 40930), (102, 40945), (103, 40954),

Gene: GiJojo\_172 Start: 92929, Stop: 93441, Start Num: 17

Candidate Starts for GiJojo\_172:

(Start: 17 @92929 has 1 MA's), (Start: 20 @92962 has 1 MA's), (27, 92998), (31, 93010), (34, 93028), (42, 93052), (45, 93070), (69, 93199), (72, 93232), (77, 93250), (78, 93253), (80, 93277), (85, 93346),

Gene: GiJojo\_115 Start: 67939, Stop: 68364, Start Num: 37

Candidate Starts for GiJojo\_115:

(Start: 37 @67939 has 1 MA's), (75, 68146), (76, 68149), (77, 68152), (78, 68155), (80, 68179), (81, 68197), (82, 68215), (84, 68242), (92, 68311),

Gene: Gibbi\_260 Start: 115950, Stop: 116390, Start Num: 33

Candidate Starts for Gibbi\_260:

(Start: 33 @115950 has 9 MA's), (Start: 35 @115959 has 1 MA's), (Start: 51 @116019 has 1 MA's), (57, 116070), (72, 116151), (78, 116172), (90, 116310), (98, 116349),

Gene: Glaske16\_86 Start: 52934, Stop: 53347, Start Num: 33

Candidate Starts for Glaske16\_86:

(29, 52916), (Start: 33 @52934 has 9 MA's), (52, 53006), (60, 53078), (62, 53093), (72, 53138), (78, 53159), (79, 53168), (91, 53303), (94, 53318), (96, 53327),

Gene: JimJam\_259 Start: 117386, Stop: 117826, Start Num: 33

Candidate Starts for JimJam\_259:

(Start: 33 @117386 has 9 MA's), (Start: 35 @117395 has 1 MA's), (Start: 51 @117455 has 1 MA's), (57, 117506), (72, 117587), (78, 117608), (90, 117746), (98, 117785),

Gene: Kabocha\_17 Start: 7748, Stop: 8341, Start Num: 10

Candidate Starts for Kabocha\_17:

(3, 7634), (5, 7682), (7, 7703), (Start: 10 @7748 has 1 MA's), (46, 7934), (57, 7991), (72, 8090), (73, 8093), (77, 8108), (78, 8111), (80, 8135), (82, 8171), (83, 8189), (84, 8198), (86, 8210), (89, 8246), (90, 8249),

Gene: Karimac\_252 Start: 115850, Stop: 116224, Start Num: 51

Candidate Starts for Karimac\_252:

(Start: 35 @115790 has 1 MA's), (Start: 51 @115850 has 1 MA's), (57, 115901), (72, 115982), (78, 116003), (98, 116180),

Gene: KentuckyRacer\_258 Start: 117301, Stop: 117741, Start Num: 33

Candidate Starts for KentuckyRacer\_258:

(Start: 33 @117301 has 9 MA's), (Start: 35 @117310 has 1 MA's), (Start: 51 @117370 has 1 MA's), (57, 117421), (72, 117502), (78, 117523), (90, 117661), (98, 117700),

Gene: Magritte\_7 Start: 4005, Stop: 4622, Start Num: 14

Candidate Starts for Magritte\_7:

(1, 3567), (2, 3870), (Start: 14 @4005 has 1 MA's), (18, 4038), (30, 4113), (36, 4140), (43, 4164), (50, 4200), (63, 4308), (97, 4560),

Gene: Neville\_119 Start: 67317, Stop: 67757, Start Num: 32

Candidate Starts for Neville\_119:

(Start: 32 @67317 has 2 MA's), (55, 67440), (59, 67455), (78, 67554), (88, 67680), (95, 67719), (98, 67731),

Gene: Quaran19\_252 Start: 115643, Stop: 116083, Start Num: 33

Candidate Starts for Quaran19\_252:

(Start: 33 @115643 has 9 MA's), (Start: 35 @115652 has 1 MA's), (Start: 51 @115712 has 1 MA's), (57, 115763), (72, 115844), (78, 115865), (90, 116003), (98, 116042),

Gene: Rikishi\_260 Start: 115924, Stop: 116364, Start Num: 33

Candidate Starts for Rikishi\_260:

(Start: 33 @115924 has 9 MA's), (Start: 35 @115933 has 1 MA's), (Start: 51 @115993 has 1 MA's), (57, 116044), (72, 116125), (78, 116146), (90, 116284), (98, 116323),

Gene: Roman\_67 Start: 39014, Stop: 38559, Start Num: 20

Candidate Starts for Roman\_67:

(Start: 20 @39014 has 1 MA's), (31, 38966), (44, 38924), (47, 38903), (68, 38801), (72, 38771), (81, 38708),

Gene: SlimJimmy\_84 Start: 53211, Stop: 53624, Start Num: 33

Candidate Starts for SlimJimmy\_84:

(29, 53193), (Start: 33 @53211 has 9 MA's), (52, 53283), (60, 53355), (62, 53370), (72, 53415), (78, 53436), (79, 53445), (91, 53580), (94, 53595), (96, 53604),

Gene: Spilled\_259 Start: 116318, Stop: 116758, Start Num: 33

Candidate Starts for Spilled\_259:

(Start: 33 @116318 has 9 MA's), (Start: 35 @116327 has 1 MA's), (Start: 51 @116387 has 1 MA's), (57, 116438), (72, 116519), (78, 116540), (90, 116678), (98, 116717),

Gene: Talos\_125 Start: 67102, Stop: 67527, Start Num: 37

Candidate Starts for Talos\_125:

(Start: 37 @67102 has 1 MA's), (49, 67147), (58, 67201), (71, 67294), (76, 67312), (77, 67315), (78, 67318), (80, 67342), (81, 67360), (84, 67405), (92, 67474), (93, 67477), (100, 67516),

Gene: Thibault\_148 Start: 84205, Stop: 84771, Start Num: 8

Candidate Starts for Thibault\_148:

(6, 84166), (Start: 8 @84205 has 1 MA's), (41, 84382), (66, 84535), (78, 84592), (82, 84652), (87, 84694), (89, 84727), (92, 84748),

Gene: TomSawyer\_256 Start: 117629, Stop: 118069, Start Num: 33

Candidate Starts for TomSawyer\_256:

(Start: 33 @117629 has 9 MA's), (Start: 35 @117638 has 1 MA's), (Start: 51 @117698 has 1 MA's), (57, 117749), (72, 117830), (78, 117851), (90, 117989), (98, 118028),

Gene: Trax\_120 Start: 68137, Stop: 68577, Start Num: 32

Candidate Starts for Trax\_120:

(Start: 32 @68137 has 2 MA's), (55, 68260), (59, 68275), (78, 68374), (88, 68500), (95, 68539), (98, 68551),

Gene: UBSmoodge\_51 Start: 40051, Stop: 40764, Start Num: 9

Candidate Starts for UBSmoodge\_51:

(Start: 9 @40051 has 2 MA's), (11, 40060), (16, 40102), (22, 40144), (39, 40219), (53, 40270), (56, 40312), (57, 40321), (60, 40345), (65, 40378), (77, 40438), (78, 40441), (80, 40465), (83, 40519), (90, 40579), (101, 40696), (102, 40711), (103, 40720),

Gene: Weasels2\_171 Start: 93400, Stop: 93933, Start Num: 15

Candidate Starts for Weasels2\_171:

(Start: 15 @93400 has 1 MA's), (21, 93454), (38, 93520), (54, 93592), (65, 93670), (73, 93715), (78, 93733), (82, 93793),

Gene: Wipeout\_242 Start: 116581, Stop: 117021, Start Num: 33

Candidate Starts for Wipeout\_242:

(Start: 33 @116581 has 9 MA's), (Start: 35 @116590 has 1 MA's), (Start: 51 @116650 has 1 MA's), (57, 116701), (72, 116782), (78, 116803), (90, 116941), (98, 116980),