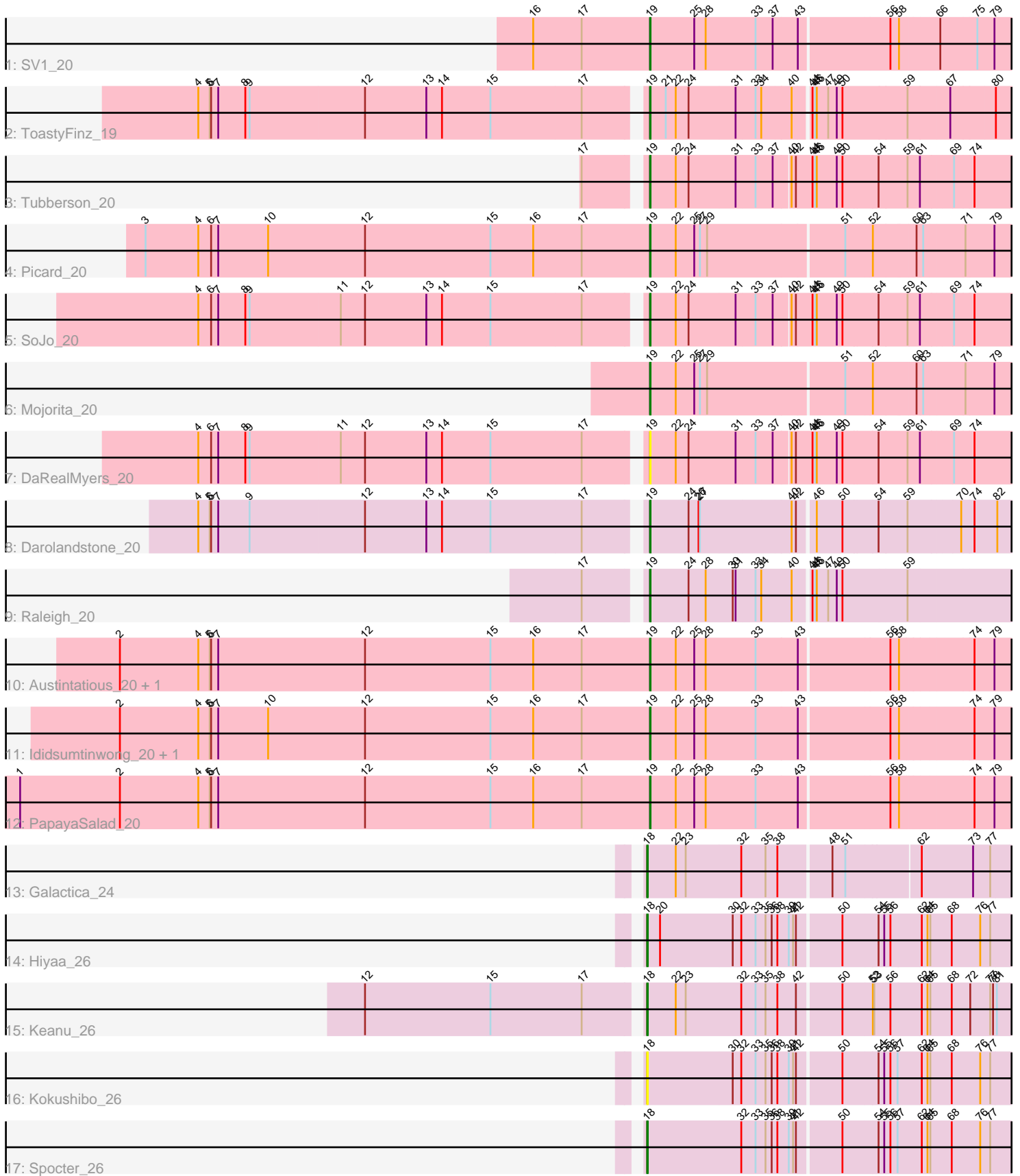


Pham 309315



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 309315 Report

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

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 309315 has 19 members, 2 are drafts.

Phages represented in each track:

- Track 1 : SV1\_20
- Track 2 : ToastyFinz\_19
- Track 3 : Tubberson\_20
- Track 4 : Picard\_20
- Track 5 : SoJo\_20
- Track 6 : Mojorita\_20
- Track 7 : DaRealMyers\_20
- Track 8 : Darolandstone\_20
- Track 9 : Raleigh\_20
- Track 10 : Austintatious\_20, Lishka\_20
- Track 11 : Ididsumtinwong\_20, Bioscum\_20
- Track 12 : PapayaSalad\_20
- Track 13 : Galactica\_24
- Track 14 : Hiyaa\_26
- Track 15 : Keanu\_26
- Track 16 : Kokushibo\_26
- Track 17 : Spocter\_26

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

The start number called the most often in the published annotations is 19, it was called in 13 of the 17 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Austintatious\_20, Bioscum\_20, DaRealMyers\_20, Darolandstone\_20, Ididsumtinwong\_20, Lishka\_20, Mojorita\_20, PapayaSalad\_20, Picard\_20, Raleigh\_20, SV1\_20, SoJo\_20, ToastyFinz\_19, Tubberson\_20,

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

-

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

- Galactica\_24, Hiyaa\_26, Keanu\_26, Kokushibo\_26, Spocter\_26,

### Summary by start number:

Start 18:

- Found in 5 of 19 ( 26.3% ) of genes in pham
- Manual Annotations of this start: 4 of 17
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Galactica\_24 (BQ), Hiyaa\_26 (BQ), Keanu\_26 (BQ), Kokushibo\_26 (BQ), Spocter\_26 (BQ),

Start 19:

- Found in 14 of 19 ( 73.7% ) of genes in pham
- Manual Annotations of this start: 13 of 17
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Austintatious\_20 (BC3), Bioscum\_20 (BC3), DaRealMyers\_20 (BC1), Darolandstone\_20 (BC2), Ididsumtinwong\_20 (BC3), Lishka\_20 (BC3), Mojorita\_20 (BC1), PapayaSalad\_20 (BC3), Picard\_20 (BC1), Raleigh\_20 (BC2), SV1\_20 (BC1), SoJo\_20 (BC1), ToastyFinz\_19 (BC1), Tubberson\_20 (BC1),

### Summary by clusters:

There are 4 clusters represented in this pham: BC1, BQ, BC2, BC3,

Info for manual annotations of cluster BC1:

- Start number 19 was manually annotated 6 times for cluster BC1.

Info for manual annotations of cluster BC2:

- Start number 19 was manually annotated 2 times for cluster BC2.

Info for manual annotations of cluster BC3:

- Start number 19 was manually annotated 5 times for cluster BC3.

Info for manual annotations of cluster BQ:

- Start number 18 was manually annotated 4 times for cluster BQ.

### Gene Information:

Gene: Austintatious\_20 Start: 15331, Stop: 16053, Start Num: 19

Candidate Starts for Austintatious\_20:

(2, 14215), (4, 14380), (5, 14404), (6, 14407), (7, 14422), (12, 14731), (15, 14995), (16, 15085), (17, 15187), (Start: 19 @15331 has 13 MA's), (22, 15385), (25, 15424), (28, 15448), (33, 15553), (43, 15640), (56, 15820), (58, 15838), (74, 15979), (79, 16021),

Gene: Bioscum\_20 Start: 15367, Stop: 16089, Start Num: 19

Candidate Starts for Bioscum\_20:

(2, 14251), (4, 14416), (5, 14440), (6, 14443), (7, 14458), (10, 14563), (12, 14767), (15, 15031), (16, 15121), (17, 15223), (Start: 19 @15367 has 13 MA's), (22, 15421), (25, 15460), (28, 15484), (33,

15589), (43, 15676), (56, 15856), (58, 15874), (74, 16015), (79, 16057),

Gene: DaRealMyers\_20 Start: 15747, Stop: 16487, Start Num: 19

Candidate Starts for DaRealMyers\_20:

(4, 14841), (6, 14868), (7, 14883), (8, 14937), (9, 14946), (11, 15135), (12, 15186), (13, 15315), (14, 15348), (15, 15447), (17, 15636), (Start: 19 @15747 has 13 MA's), (22, 15801), (24, 15828), (31, 15924), (33, 15963), (37, 15999), (40, 16029), (42, 16038), (44, 16071), (45, 16077), (46, 16080), (49, 16122), (50, 16134), (54, 16206), (59, 16266), (61, 16290), (69, 16353), (74, 16389),

Gene: Darolandstone\_20 Start: 15910, Stop: 16635, Start Num: 19

Candidate Starts for Darolandstone\_20:

(4, 15007), (5, 15031), (6, 15034), (7, 15049), (9, 15112), (12, 15352), (13, 15481), (14, 15514), (15, 15613), (17, 15802), (Start: 19 @15910 has 13 MA's), (24, 15991), (26, 16012), (27, 16015), (40, 16192), (42, 16201), (46, 16231), (50, 16285), (54, 16357), (59, 16417), (70, 16519), (74, 16540), (82, 16588),

Gene: Galactica\_24 Start: 21220, Stop: 21954, Start Num: 18

Candidate Starts for Galactica\_24:

(Start: 18 @21220 has 4 MA's), (22, 21280), (23, 21301), (32, 21415), (35, 21466), (38, 21490), (48, 21595), (51, 21622), (62, 21769), (73, 21877), (77, 21913),

Gene: Hiyaa\_26 Start: 22261, Stop: 23001, Start Num: 18

Candidate Starts for Hiyaa\_26:

(Start: 18 @22261 has 4 MA's), (20, 22288), (30, 22438), (32, 22456), (33, 22486), (35, 22507), (36, 22519), (38, 22531), (39, 22555), (41, 22564), (42, 22570), (50, 22657), (54, 22729), (55, 22741), (56, 22753), (62, 22816), (64, 22828), (65, 22834), (68, 22879), (76, 22939), (77, 22960),

Gene: Ididsumtinwong\_20 Start: 15367, Stop: 16089, Start Num: 19

Candidate Starts for Ididsumtinwong\_20:

(2, 14251), (4, 14416), (5, 14440), (6, 14443), (7, 14458), (10, 14563), (12, 14767), (15, 15031), (16, 15121), (17, 15223), (Start: 19 @15367 has 13 MA's), (22, 15421), (25, 15460), (28, 15484), (33, 15589), (43, 15676), (56, 15856), (58, 15874), (74, 16015), (79, 16057),

Gene: Keanu\_26 Start: 22296, Stop: 23036, Start Num: 18

Candidate Starts for Keanu\_26:

(12, 21735), (15, 21996), (17, 22188), (Start: 18 @22296 has 4 MA's), (22, 22356), (23, 22377), (32, 22491), (33, 22521), (35, 22542), (38, 22566), (42, 22605), (50, 22692), (52, 22752), (53, 22755), (56, 22788), (62, 22851), (64, 22863), (65, 22869), (68, 22914), (72, 22953), (77, 22995), (78, 23001), (81, 23007),

Gene: Kokushibo\_26 Start: 22276, Stop: 23016, Start Num: 18

Candidate Starts for Kokushibo\_26:

(Start: 18 @22276 has 4 MA's), (30, 22453), (32, 22471), (33, 22501), (35, 22522), (36, 22534), (38, 22546), (39, 22570), (41, 22579), (42, 22585), (50, 22672), (54, 22744), (55, 22756), (56, 22768), (57, 22783), (62, 22831), (64, 22843), (65, 22849), (68, 22894), (76, 22954), (77, 22975),

Gene: Lishka\_20 Start: 15331, Stop: 16053, Start Num: 19

Candidate Starts for Lishka\_20:

(2, 14215), (4, 14380), (5, 14404), (6, 14407), (7, 14422), (12, 14731), (15, 14995), (16, 15085), (17, 15187), (Start: 19 @15331 has 13 MA's), (22, 15385), (25, 15424), (28, 15448), (33, 15553), (43, 15640), (56, 15820), (58, 15838), (74, 15979), (79, 16021),

Gene: Mojerita\_20 Start: 15469, Stop: 16191, Start Num: 19

Candidate Starts for Mojorita\_20:

(Start: 19 @15469 has 13 MA's), (22, 15523), (25, 15562), (27, 15574), (29, 15589), (51, 15868), (52, 15922), (60, 16006), (63, 16018), (71, 16099), (79, 16159),

Gene: PapayaSalad\_20 Start: 15342, Stop: 16064, Start Num: 19

Candidate Starts for PapayaSalad\_20:

(1, 14016), (2, 14226), (4, 14391), (5, 14415), (6, 14418), (7, 14433), (12, 14742), (15, 15006), (16, 15096), (17, 15198), (Start: 19 @15342 has 13 MA's), (22, 15396), (25, 15435), (28, 15459), (33, 15564), (43, 15651), (56, 15831), (58, 15849), (74, 15990), (79, 16032),

Gene: Picard\_20 Start: 15463, Stop: 16185, Start Num: 19

Candidate Starts for Picard\_20:

(3, 14401), (4, 14512), (6, 14539), (7, 14554), (10, 14659), (12, 14863), (15, 15127), (16, 15217), (17, 15319), (Start: 19 @15463 has 13 MA's), (22, 15517), (25, 15556), (27, 15568), (29, 15583), (51, 15862), (52, 15916), (60, 16000), (63, 16012), (71, 16093), (79, 16153),

Gene: Raleigh\_20 Start: 16095, Stop: 16919, Start Num: 19

Candidate Starts for Raleigh\_20:

(17, 15987), (Start: 19 @16095 has 13 MA's), (24, 16176), (28, 16212), (30, 16266), (31, 16272), (33, 16311), (34, 16323), (40, 16383), (44, 16413), (45, 16419), (46, 16422), (47, 16446), (49, 16464), (50, 16476), (59, 16611),

Gene: SV1\_20 Start: 15575, Stop: 16297, Start Num: 19

Candidate Starts for SV1\_20:

(16, 15329), (17, 15431), (Start: 19 @15575 has 13 MA's), (25, 15668), (28, 15692), (33, 15797), (37, 15833), (43, 15884), (56, 16064), (58, 16082), (66, 16154), (75, 16229), (79, 16265),

Gene: SoJo\_20 Start: 15748, Stop: 16488, Start Num: 19

Candidate Starts for SoJo\_20:

(4, 14842), (6, 14869), (7, 14884), (8, 14938), (9, 14947), (11, 15136), (12, 15187), (13, 15316), (14, 15349), (15, 15448), (17, 15637), (Start: 19 @15748 has 13 MA's), (22, 15802), (24, 15829), (31, 15925), (33, 15964), (37, 16000), (40, 16030), (42, 16039), (44, 16072), (45, 16078), (46, 16081), (49, 16123), (50, 16135), (54, 16207), (59, 16267), (61, 16291), (69, 16354), (74, 16390),

Gene: Spocter\_26 Start: 22249, Stop: 22989, Start Num: 18

Candidate Starts for Spocter\_26:

(Start: 18 @22249 has 4 MA's), (32, 22444), (33, 22474), (35, 22495), (36, 22507), (38, 22519), (39, 22543), (41, 22552), (42, 22558), (50, 22645), (54, 22717), (55, 22729), (56, 22741), (57, 22756), (62, 22804), (64, 22816), (65, 22822), (68, 22867), (76, 22927), (77, 22948),

Gene: ToastyFinz\_19 Start: 15425, Stop: 16273, Start Num: 19

Candidate Starts for ToastyFinz\_19:

(4, 14519), (5, 14543), (6, 14546), (7, 14561), (8, 14615), (9, 14624), (12, 14864), (13, 14993), (14, 15026), (15, 15125), (17, 15314), (Start: 19 @15425 has 13 MA's), (21, 15458), (22, 15479), (24, 15506), (31, 15602), (33, 15641), (34, 15653), (40, 15713), (44, 15743), (45, 15749), (46, 15752), (47, 15776), (49, 15794), (50, 15806), (59, 15941), (67, 16025), (80, 16115),

Gene: Tubberson\_20 Start: 15747, Stop: 16487, Start Num: 19

Candidate Starts for Tubberson\_20:

(17, 15636), (Start: 19 @15747 has 13 MA's), (22, 15801), (24, 15828), (31, 15924), (33, 15963), (37, 15999), (40, 16029), (42, 16038), (44, 16071), (45, 16077), (46, 16080), (49, 16122), (50, 16134), (54, 16206), (59, 16266), (61, 16290), (69, 16353), (74, 16389),