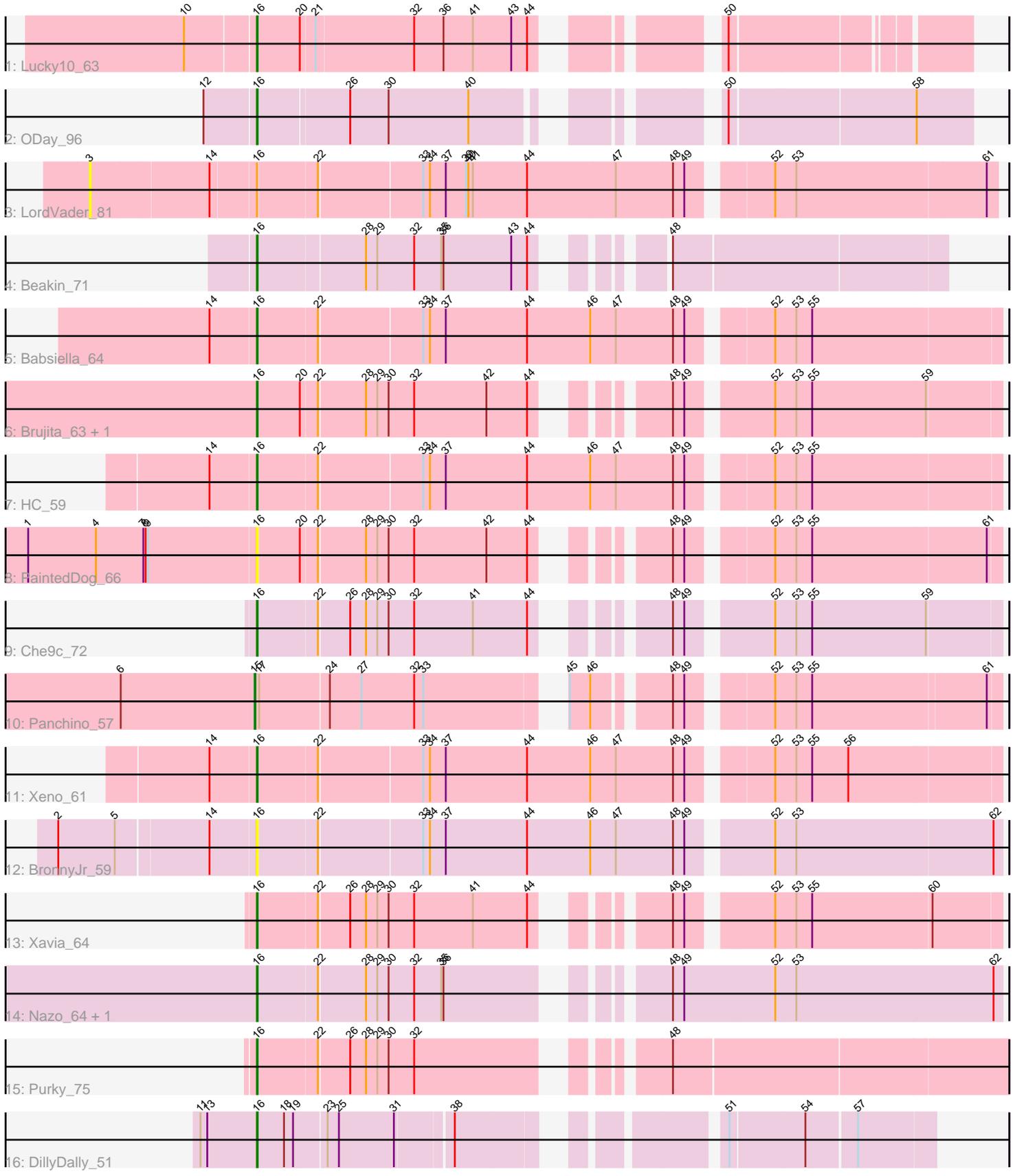


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 289812 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289812 has 18 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Lucky10\_63
- Track 2 : ODay\_96
- Track 3 : LordVader\_81
- Track 4 : Beakin\_71
- Track 5 : Babsiella\_64
- Track 6 : Brujita\_63, Island3\_64
- Track 7 : HC\_59
- Track 8 : PaintedDog\_66
- Track 9 : Che9c\_72
- Track 10 : Panchino\_57
- Track 11 : Xeno\_61
- Track 12 : BronnyJr\_59
- Track 13 : Xavia\_64
- Track 14 : Nazo\_64, BigNuz\_63
- Track 15 : Purky\_75
- Track 16 : DillyDally\_51

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

The start number called the most often in the published annotations is 16, it was called in 14 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Babsiella\_64, Beakin\_71, BigNuz\_63, BronnyJr\_59, Brujita\_63, Che9c\_72, DillyDally\_51, HC\_59, Island3\_64, Lucky10\_63, Nazo\_64, ODay\_96, PaintedDog\_66, Purky\_75, Xavia\_64, Xeno\_61,

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

- LordVader\_81,

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

- Panchino\_57,

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

Start 3:

- Found in 1 of 18 ( 5.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LordVader\_81 (F),

Start 15:

- Found in 1 of 18 ( 5.6% ) of genes in pham
- Manual Annotations of this start: 1 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Panchino\_57 (N),

Start 16:

- Found in 17 of 18 ( 94.4% ) of genes in pham
- Manual Annotations of this start: 14 of 15
- Called 94.1% of time when present
- Phage (with cluster) where this start called: Babsiella\_64 (I1), Beakin\_71 (F1), BigNuz\_63 (P4), BronnyJr\_59 (P1), Brujita\_63 (I1), Che9c\_72 (I2), DillyDally\_51 (singleton), HC\_59 (I1), Island3\_64 (I1), Lucky10\_63 (DH), Nazo\_64 (P4), ODay\_96 (DN), PaintedDog\_66 (I1), Purky\_75 (P6), Xavia\_64 (P3), Xeno\_61 (N),

**Summary by clusters:**

There are 12 clusters represented in this pham: DN, P3, singleton, P1, P6, DH, P4, F1, I1, I2, N, F,

Info for manual annotations of cluster DH:

- Start number 16 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster DN:

- Start number 16 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster F1:

- Start number 16 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster I1:

- Start number 16 was manually annotated 4 times for cluster I1.

Info for manual annotations of cluster I2:

- Start number 16 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster N:

- Start number 15 was manually annotated 1 time for cluster N.
- Start number 16 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster P3:

- Start number 16 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 16 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P6:

•Start number 16 was manually annotated 1 time for cluster P6.

**Gene Information:**

Gene: Babsiella\_64 Start: 40664, Stop: 41602, Start Num: 16

Candidate Starts for Babsiella\_64:

(14, 40604), (Start: 16 @40664 has 14 MA's), (22, 40739), (33, 40871), (34, 40880), (37, 40901), (44, 41009), (46, 41093), (47, 41126), (48, 41201), (49, 41216), (52, 41309), (53, 41336), (55, 41357),

Gene: Beakin\_71 Start: 42319, Stop: 43122, Start Num: 16

Candidate Starts for Beakin\_71:

(Start: 16 @42319 has 14 MA's), (28, 42454), (29, 42469), (32, 42517), (35, 42553), (36, 42556), (43, 42646), (44, 42667), (48, 42772),

Gene: BigNuz\_63 Start: 41443, Stop: 42339, Start Num: 16

Candidate Starts for BigNuz\_63:

(Start: 16 @41443 has 14 MA's), (22, 41518), (28, 41578), (29, 41593), (30, 41608), (32, 41641), (35, 41677), (36, 41680), (48, 41905), (49, 41920), (52, 42040), (53, 42067), (62, 42328),

Gene: BronnyJr\_59 Start: 40610, Stop: 41554, Start Num: 16

Candidate Starts for BronnyJr\_59:

(2, 40358), (5, 40433), (14, 40550), (Start: 16 @40610 has 14 MA's), (22, 40685), (33, 40817), (34, 40826), (37, 40847), (44, 40955), (46, 41039), (47, 41072), (48, 41147), (49, 41162), (52, 41258), (53, 41285), (62, 41543),

Gene: Brujita\_63 Start: 40794, Stop: 41660, Start Num: 16

Candidate Starts for Brujita\_63:

(Start: 16 @40794 has 14 MA's), (20, 40848), (22, 40869), (28, 40929), (29, 40944), (30, 40959), (32, 40992), (42, 41088), (44, 41142), (48, 41256), (49, 41271), (52, 41367), (53, 41394), (55, 41415), (59, 41565),

Gene: Che9c\_72 Start: 50505, Stop: 51371, Start Num: 16

Candidate Starts for Che9c\_72:

(Start: 16 @50505 has 14 MA's), (22, 50580), (26, 50619), (28, 50640), (29, 50655), (30, 50670), (32, 50703), (41, 50781), (44, 50853), (48, 50967), (49, 50982), (52, 51078), (53, 51105), (55, 51126), (59, 51276),

Gene: DillyDally\_51 Start: 33082, Stop: 33858, Start Num: 16

Candidate Starts for DillyDally\_51:

(11, 33007), (13, 33016), (Start: 16 @33082 has 14 MA's), (18, 33118), (19, 33130), (23, 33169), (25, 33184), (31, 33256), (38, 33325), (51, 33601), (54, 33697), (57, 33760),

Gene: HC\_59 Start: 38210, Stop: 39148, Start Num: 16

Candidate Starts for HC\_59:

(14, 38150), (Start: 16 @38210 has 14 MA's), (22, 38285), (33, 38417), (34, 38426), (37, 38447), (44, 38555), (46, 38639), (47, 38672), (48, 38747), (49, 38762), (52, 38855), (53, 38882), (55, 38903),

Gene: Island3\_64 Start: 40794, Stop: 41660, Start Num: 16

Candidate Starts for Island3\_64:

(Start: 16 @40794 has 14 MA's), (20, 40848), (22, 40869), (28, 40929), (29, 40944), (30, 40959), (32, 40992), (42, 41088), (44, 41142), (48, 41256), (49, 41271), (52, 41367), (53, 41394), (55, 41415), (59, 41565),

Gene: LordVader\_81 Start: 46533, Stop: 47675, Start Num: 3

Candidate Starts for LordVader\_81:

(3, 46533), (14, 46686), (Start: 16 @46743 has 14 MA's), (22, 46818), (33, 46950), (34, 46959), (37, 46980), (39, 47007), (40, 47010), (41, 47016), (44, 47088), (47, 47205), (48, 47280), (49, 47295), (52, 47388), (53, 47415), (61, 47661),

Gene: Lucky10\_63 Start: 39691, Stop: 40488, Start Num: 16

Candidate Starts for Lucky10\_63:

(10, 39604), (Start: 16 @39691 has 14 MA's), (20, 39745), (21, 39763), (32, 39889), (36, 39928), (41, 39967), (43, 40018), (44, 40039), (50, 40207),

Gene: Nazo\_64 Start: 41628, Stop: 42524, Start Num: 16

Candidate Starts for Nazo\_64:

(Start: 16 @41628 has 14 MA's), (22, 41703), (28, 41763), (29, 41778), (30, 41793), (32, 41826), (35, 41862), (36, 41865), (48, 42090), (49, 42105), (52, 42225), (53, 42252), (62, 42513),

Gene: ODay\_96 Start: 51151, Stop: 51972, Start Num: 16

Candidate Starts for ODay\_96:

(12, 51088), (Start: 16 @51151 has 14 MA's), (26, 51265), (30, 51316), (40, 51421), (50, 51661), (58, 51898),

Gene: PaintedDog\_66 Start: 42497, Stop: 43360, Start Num: 16

Candidate Starts for PaintedDog\_66:

(1, 42197), (4, 42287), (7, 42350), (8, 42353), (9, 42356), (Start: 16 @42497 has 14 MA's), (20, 42551), (22, 42572), (28, 42632), (29, 42647), (30, 42662), (32, 42695), (42, 42791), (44, 42845), (48, 42959), (49, 42974), (52, 43067), (53, 43094), (55, 43115), (61, 43343),

Gene: Panchino\_57 Start: 39053, Stop: 39931, Start Num: 15

Candidate Starts for Panchino\_57:

(6, 38876), (Start: 15 @39053 has 1 MA's), (17, 39059), (24, 39149), (27, 39191), (32, 39260), (33, 39272), (45, 39422), (46, 39449), (48, 39533), (49, 39548), (52, 39641), (53, 39668), (55, 39689), (61, 39914),

Gene: Purky\_75 Start: 45874, Stop: 46767, Start Num: 16

Candidate Starts for Purky\_75:

(Start: 16 @45874 has 14 MA's), (22, 45949), (26, 45988), (28, 46009), (29, 46024), (30, 46039), (32, 46072), (48, 46336),

Gene: Xavia\_64 Start: 45674, Stop: 46540, Start Num: 16

Candidate Starts for Xavia\_64:

(Start: 16 @45674 has 14 MA's), (22, 45749), (26, 45788), (28, 45809), (29, 45824), (30, 45839), (32, 45872), (41, 45950), (44, 46022), (48, 46136), (49, 46151), (52, 46247), (53, 46274), (55, 46295), (60, 46451),

Gene: Xeno\_61 Start: 38162, Stop: 39100, Start Num: 16

Candidate Starts for Xeno\_61:

(14, 38102), (Start: 16 @38162 has 14 MA's), (22, 38237), (33, 38369), (34, 38378), (37, 38399), (44, 38507), (46, 38591), (47, 38624), (48, 38699), (49, 38714), (52, 38807), (53, 38834), (55, 38855), (56, 38903),

