

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 308934 Report

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

Pham number 308934 has 37 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Wigberry_43
- Track 2 : Bing_44
- Track 3 : Kardashian_43
- Track 4 : ClubPenguin_42
- Track 5 : Satis_228, EhyElimayoE_231, Kradal_229, Quantum_227, Sarkar_228
- Track 6 : Kela_230, JustBecause_231
- Track 7 : Frankenweenie_249
- Track 8 : Nirvana_243
- Track 9 : Lizz_62, ShakeNBake_62
- Track 10 : Greenbelt_59
- Track 11 : PHTown_62
- Track 12 : Rooney_62, Gibson_62
- Track 13 : Wentworth_62
- Track 14 : Yara_58
- Track 15 : Dryad_66
- Track 16 : Virizion_67
- Track 17 : SassyC_67
- Track 18 : Wilkos_64
- Track 19 : Hiyaa_44
- Track 20 : Spocter_43
- Track 21 : Kokushibo_45
- Track 22 : Galactica_42
- Track 23 : Keanu_43
- Track 24 : Talos_43
- Track 25 : Fudan_42, LuckySocke_43
- Track 26 : Park1214_46
- Track 27 : Alone3_43
- Track 28 : BRock_35
- Track 29 : Beleetus_43

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

The start number called the most often in the published annotations is 10, it was called in 9 of the 31 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Dryad_66, Gibson_62, Greenbelt_59, Lizz_62, PHTowN_62, Rooney_62, SassyC_67, ShakeNBake_62, Virizion_67, Wentworth_62, Wilkos_64, Yara_58,

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:

- Alone3_43, BRock_35, Beleetus_43, Bing_44, ClubPenguin_42, EhyElimayoE_231, Frankenweenie_249, Fudan_42, Galactica_42, Hiyaa_44, JustBecause_231, Kardashian_43, Keanu_43, Kela_230, Kokushibo_45, Kradal_229, LuckySocke_43, Nirvana_243, Park1214_46, Quantum_227, Sarkar_228, Satis_228, Spocter_43, Talos_43, Wigberry_43,

Summary by start number:

Start 3:

- Found in 7 of 37 (18.9%) of genes in pham
- No Manual Annotations of this start.
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Park1214_46 (BS),

Start 5:

- Found in 7 of 37 (18.9%) of genes in pham
- Manual Annotations of this start: 4 of 31
- Called 57.1% of time when present
- Phage (with cluster) where this start called: Alone3_43 (BS), Fudan_42 (BS), LuckySocke_43 (BS), Talos_43 (BS),

Start 9:

- Found in 5 of 37 (13.5%) of genes in pham
- Manual Annotations of this start: 5 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EhyElimayoE_231 (BM), Kradal_229 (BM), Quantum_227 (BM), Sarkar_228 (BM), Satis_228 (BM),

Start 10:

- Found in 12 of 37 (32.4%) of genes in pham
- Manual Annotations of this start: 9 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dryad_66 (BN), Gibson_62 (BN), Greenbelt_59 (BN), Lizz_62 (BN), PHTowN_62 (BN), Rooney_62 (BN), SassyC_67 (BN), ShakeNBake_62 (BN), Virizion_67 (BN), Wentworth_62 (BN), Wilkos_64 (BN), Yara_58 (BN),

Start 12:

- Found in 4 of 37 (10.8%) of genes in pham
- Manual Annotations of this start: 4 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Frankenweenie_249 (BM), JustBecause_231 (BM), Kela_230 (BM), Nirvana_243 (BM),

Start 17:

- Found in 3 of 37 (8.1%) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Hiyaa_44 (BQ), Kokushibo_45 (BQ),

Start 20:

- Found in 4 of 37 (10.8%) of genes in pham
- Manual Annotations of this start: 4 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bing_44 (BI5), Galactica_42 (BQ), Kardashian_43 (BI6), Wigberry_43 (BI5),

Start 21:

- Found in 7 of 37 (18.9%) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 28.6% of time when present
- Phage (with cluster) where this start called: BRock_35 (BS), Beleetus_43 (BS),

Start 22:

- Found in 1 of 37 (2.7%) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ClubPenguin_42 (BI7),

Start 24:

- Found in 5 of 37 (13.5%) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Keanu_43 (BQ),

Start 28:

- Found in 6 of 37 (16.2%) of genes in pham
- Manual Annotations of this start: 1 of 31
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Spocter_43 (BQ),

Summary by clusters:

There are 7 clusters represented in this pham: BM, BN, BQ, BS, BI6, BI7, BI5,

Info for manual annotations of cluster BI5:

- Start number 20 was manually annotated 2 times for cluster BI5.

Info for manual annotations of cluster BI6:

- Start number 20 was manually annotated 1 time for cluster BI6.

Info for manual annotations of cluster BI7:

- Start number 22 was manually annotated 1 time for cluster BI7.

Info for manual annotations of cluster BM:

- Start number 9 was manually annotated 5 times for cluster BM.
- Start number 12 was manually annotated 4 times for cluster BM.

Info for manual annotations of cluster BN:

- Start number 10 was manually annotated 9 times for cluster BN.

Info for manual annotations of cluster BQ:

- Start number 17 was manually annotated 1 time for cluster BQ.
- Start number 20 was manually annotated 1 time for cluster BQ.
- Start number 24 was manually annotated 1 time for cluster BQ.
- Start number 28 was manually annotated 1 time for cluster BQ.

Info for manual annotations of cluster BS:

- Start number 5 was manually annotated 4 times for cluster BS.
- Start number 21 was manually annotated 1 time for cluster BS.

Gene Information:

Gene: Alone3_43 Start: 15416, Stop: 16123, Start Num: 5

Candidate Starts for Alone3_43:

(3, 15395), (Start: 5 @15416 has 4 MA's), (Start: 21 @15524 has 1 MA's), (25, 15536), (30, 15551), (36, 15587), (46, 15677), (69, 15887), (86, 15998),

Gene: BRock_35 Start: 12948, Stop: 13547, Start Num: 21

Candidate Starts for BRock_35:

(3, 12819), (Start: 5 @12840 has 4 MA's), (13, 12912), (Start: 21 @12948 has 1 MA's), (25, 12963), (35, 13008), (37, 13041), (47, 13110), (58, 13215), (66, 13290), (75, 13350), (78, 13386), (90, 13455),

Gene: Beleetus_43 Start: 15395, Stop: 15994, Start Num: 21

Candidate Starts for Beleetus_43:

(3, 15266), (Start: 5 @15287 has 4 MA's), (Start: 21 @15395 has 1 MA's), (25, 15407), (30, 15422), (36, 15458), (46, 15548), (69, 15758), (86, 15869),

Gene: Bing_44 Start: 29532, Stop: 30185, Start Num: 20

Candidate Starts for Bing_44:

(Start: 20 @29532 has 4 MA's), (40, 29649), (41, 29652), (54, 29772), (55, 29781), (56, 29790), (63, 29877), (67, 29898), (77, 29985), (83, 30003), (87, 30036),

Gene: ClubPenguin_42 Start: 28804, Stop: 29448, Start Num: 22

Candidate Starts for ClubPenguin_42:

(Start: 22 @28804 has 1 MA's), (34, 28861), (42, 28924), (45, 28948), (54, 29038), (55, 29047), (56, 29056), (63, 29143), (65, 29158), (67, 29164), (83, 29266), (87, 29299), (98, 29413),

Gene: Dryad_66 Start: 45069, Stop: 44365, Start Num: 10

Candidate Starts for Dryad_66:

(Start: 10 @45069 has 9 MA's), (35, 44949), (70, 44634), (79, 44571), (95, 44442),

Gene: EhyElimayoE_231 Start: 136388, Stop: 137125, Start Num: 9

Candidate Starts for EhyElimayoE_231:

(Start: 9 @136388 has 5 MA's), (11, 136397), (18, 136433), (27, 136469), (30, 136478), (31, 136487), (44, 136580), (49, 136631), (64, 136805), (67, 136814), (70, 136844), (89, 136964), (95, 137048), (99, 137093),

Gene: Frankenweenie_249 Start: 147539, Stop: 148255, Start Num: 12

Candidate Starts for Frankenweenie_249:

(Start: 12 @147539 has 4 MA's), (14, 147548), (30, 147608), (57, 147830), (60, 147890), (64, 147935), (70, 147974), (89, 148094), (95, 148178), (96, 148199),

Gene: Fudan_42 Start: 15285, Stop: 15989, Start Num: 5

Candidate Starts for Fudan_42:

(3, 15264), (Start: 5 @15285 has 4 MA's), (13, 15357), (Start: 21 @15393 has 1 MA's), (25, 15405), (36, 15456), (46, 15546), (69, 15756),

Gene: Galactica_42 Start: 30036, Stop: 30689, Start Num: 20

Candidate Starts for Galactica_42:

(Start: 20 @30036 has 4 MA's), (33, 30084), (34, 30096), (42, 30159), (54, 30273), (63, 30381), (65, 30396), (67, 30402), (83, 30507), (87, 30540),

Gene: Gibson_62 Start: 44320, Stop: 43604, Start Num: 10

Candidate Starts for Gibson_62:

(6, 44347), (Start: 10 @44320 has 9 MA's), (18, 44281), (35, 44200), (46, 44113), (60, 43966), (61, 43957), (70, 43885), (79, 43822), (95, 43684), (100, 43633), (102, 43618),

Gene: Greenbelt_59 Start: 40352, Stop: 39663, Start Num: 10

Candidate Starts for Greenbelt_59:

(4, 40409), (7, 40379), (Start: 10 @40352 has 9 MA's), (18, 40313), (23, 40295), (35, 40232), (70, 39923), (79, 39860), (89, 39806), (100, 39683), (101, 39677),

Gene: Hiyaa_44 Start: 31405, Stop: 32076, Start Num: 17

Candidate Starts for Hiyaa_44:

(Start: 17 @31405 has 1 MA's), (Start: 24 @31432 has 1 MA's), (26, 31438), (Start: 28 @31444 has 1 MA's), (29, 31447), (40, 31534), (48, 31594), (63, 31759), (66, 31774), (71, 31816), (72, 31822), (75, 31834), (83, 31867), (84, 31876), (92, 31966),

Gene: JustBecause_231 Start: 134496, Stop: 135179, Start Num: 12

Candidate Starts for JustBecause_231:

(8, 134466), (Start: 12 @134496 has 4 MA's), (14, 134505), (27, 134556), (Start: 28 @134559 has 1 MA's), (49, 134718), (52, 134751), (67, 134895), (74, 134958), (93, 135093),

Gene: Kardashian_43 Start: 30111, Stop: 30767, Start Num: 20

Candidate Starts for Kardashian_43:

(19, 30102), (Start: 20 @30111 has 4 MA's), (Start: 24 @30123 has 1 MA's), (33, 30162), (53, 30336), (54, 30351), (63, 30459), (67, 30480), (83, 30585), (88, 30621),

Gene: Keanu_43 Start: 31141, Stop: 31785, Start Num: 24

Candidate Starts for Keanu_43:

(16, 31108), (Start: 24 @31141 has 1 MA's), (Start: 28 @31153 has 1 MA's), (51, 31348), (60, 31435), (63, 31468), (66, 31483), (71, 31525), (72, 31531), (83, 31576), (87, 31609),

Gene: Kela_230 Start: 135079, Stop: 135762, Start Num: 12

Candidate Starts for Kela_230:

(8, 135049), (Start: 12 @135079 has 4 MA's), (14, 135088), (27, 135139), (Start: 28 @135142 has 1 MA's), (49, 135301), (52, 135334), (67, 135478), (74, 135541), (93, 135676),

Gene: Kokushibo_45 Start: 31355, Stop: 32026, Start Num: 17

Candidate Starts for Kokushibo_45:

(Start: 17 @31355 has 1 MA's), (Start: 24 @31382 has 1 MA's), (26, 31388), (Start: 28 @31394 has 1 MA's), (36, 31439), (43, 31496), (48, 31544), (66, 31724), (71, 31766), (72, 31772), (75, 31784), (81, 31814), (83, 31817), (92, 31916),

Gene: Kradal_229 Start: 136385, Stop: 137122, Start Num: 9

Candidate Starts for Kradal_229:

(Start: 9 @136385 has 5 MA's), (11, 136394), (18, 136430), (27, 136466), (30, 136475), (31, 136484), (44, 136577), (49, 136628), (64, 136802), (67, 136811), (70, 136841), (89, 136961), (95, 137045), (99, 137090),

Gene: Lizz_62 Start: 44158, Stop: 43442, Start Num: 10

Candidate Starts for Lizz_62:

(6, 44185), (Start: 10 @44158 has 9 MA's), (18, 44119), (35, 44038), (60, 43804), (61, 43795), (70, 43723), (79, 43660),

Gene: LuckySocke_43 Start: 15234, Stop: 15938, Start Num: 5

Candidate Starts for LuckySocke_43:

(3, 15213), (Start: 5 @15234 has 4 MA's), (13, 15306), (Start: 21 @15342 has 1 MA's), (25, 15354), (36, 15405), (46, 15495), (69, 15705),

Gene: Nirvana_243 Start: 146399, Stop: 147139, Start Num: 12

Candidate Starts for Nirvana_243:

(Start: 12 @146399 has 4 MA's), (14, 146408), (30, 146468), (31, 146477), (40, 146555), (49, 146621), (60, 146750), (64, 146795), (70, 146834), (82, 146924), (95, 147062),

Gene: PHTowN_62 Start: 44156, Stop: 43440, Start Num: 10

Candidate Starts for PHTowN_62:

(6, 44183), (Start: 10 @44156 has 9 MA's), (18, 44117), (35, 44036), (41, 43982), (60, 43802), (61, 43793), (70, 43721), (79, 43658),

Gene: Park1214_46 Start: 15477, Stop: 16208, Start Num: 3

Candidate Starts for Park1214_46:

(3, 15477), (Start: 5 @15498 has 4 MA's), (Start: 21 @15606 has 1 MA's), (38, 15705), (47, 15771), (50, 15822), (59, 15897), (67, 15954), (76, 16020), (85, 16080), (86, 16086),

Gene: Quantum_227 Start: 136379, Stop: 137116, Start Num: 9

Candidate Starts for Quantum_227:

(Start: 9 @136379 has 5 MA's), (11, 136388), (18, 136424), (27, 136460), (30, 136469), (31, 136478), (44, 136571), (49, 136622), (64, 136796), (67, 136805), (70, 136835), (89, 136955), (95, 137039), (99, 137084),

Gene: Rooney_62 Start: 44317, Stop: 43601, Start Num: 10

Candidate Starts for Rooney_62:

(6, 44344), (Start: 10 @44317 has 9 MA's), (18, 44278), (35, 44197), (46, 44110), (60, 43963), (61, 43954), (70, 43882), (79, 43819), (95, 43681), (100, 43630), (102, 43615),

Gene: Sarkar_228 Start: 136409, Stop: 137146, Start Num: 9

Candidate Starts for Sarkar_228:

(Start: 9 @136409 has 5 MA's), (11, 136418), (18, 136454), (27, 136490), (30, 136499), (31, 136508), (44, 136601), (49, 136652), (64, 136826), (67, 136835), (70, 136865), (89, 136985), (95, 137069), (99, 137114),

Gene: SassyC_67 Start: 45244, Stop: 44564, Start Num: 10

Candidate Starts for SassyC_67:

(2, 45349), (Start: 10 @45244 has 9 MA's), (35, 45124), (64, 44842), (70, 44806), (79, 44743), (95, 44620), (97, 44584), (99, 44575),

Gene: Satis_228 Start: 136722, Stop: 137459, Start Num: 9

Candidate Starts for Satis_228:

(Start: 9 @136722 has 5 MA's), (11, 136731), (18, 136767), (27, 136803), (30, 136812), (31, 136821), (44, 136914), (49, 136965), (64, 137139), (67, 137148), (70, 137178), (89, 137298), (95, 137382), (99, 137427),

Gene: ShakeNBake_62 Start: 44174, Stop: 43458, Start Num: 10

Candidate Starts for ShakeNBake_62:

(6, 44201), (Start: 10 @44174 has 9 MA's), (18, 44135), (35, 44054), (60, 43820), (61, 43811), (70, 43739), (79, 43676),

Gene: Spocter_43 Start: 31367, Stop: 31999, Start Num: 28

Candidate Starts for Spocter_43:

(Start: 17 @31328 has 1 MA's), (Start: 24 @31355 has 1 MA's), (26, 31361), (Start: 28 @31367 has 1 MA's), (36, 31412), (43, 31469), (48, 31517), (66, 31697), (71, 31739), (72, 31745), (75, 31757), (81, 31787), (83, 31790), (92, 31889),

Gene: Talos_43 Start: 15366, Stop: 16073, Start Num: 5

Candidate Starts for Talos_43:

(3, 15345), (Start: 5 @15366 has 4 MA's), (Start: 21 @15474 has 1 MA's), (25, 15489), (36, 15540), (46, 15630), (63, 15798), (69, 15840), (80, 15918), (86, 15951),

Gene: Virizion_67 Start: 44516, Stop: 43800, Start Num: 10

Candidate Starts for Virizion_67:

(6, 44543), (Start: 10 @44516 has 9 MA's), (18, 44477), (35, 44396), (46, 44309), (60, 44162), (61, 44153), (70, 44081), (79, 44018), (95, 43880),

Gene: Wentworth_62 Start: 44313, Stop: 43597, Start Num: 10

Candidate Starts for Wentworth_62:

(1, 44469), (Start: 10 @44313 has 9 MA's), (18, 44274), (35, 44193), (70, 43878), (79, 43815), (97, 43641),

Gene: Wigberry_43 Start: 29103, Stop: 29756, Start Num: 20

Candidate Starts for Wigberry_43:

(Start: 20 @29103 has 4 MA's), (53, 29325), (54, 29340), (63, 29448), (65, 29463), (67, 29469), (68, 29484), (83, 29574),

Gene: Wilkos_64 Start: 44465, Stop: 43749, Start Num: 10

Candidate Starts for Wilkos_64:

(6, 44492), (Start: 10 @44465 has 9 MA's), (15, 44438), (35, 44345), (39, 44300), (62, 44084), (70, 44030), (79, 43967), (91, 43880),

Gene: Yara_58 Start: 43009, Stop: 42356, Start Num: 10

Candidate Starts for Yara_58:

(Start: 10 @43009 has 9 MA's), (18, 42970), (32, 42913), (35, 42889), (36, 42883), (46, 42802), (47, 42796), (64, 42616), (70, 42580), (73, 42556), (94, 42427),