Pham 341052


1: Yosif_68
2: Vanseggelen_68
3: Itza_68 + 1
4: Urza_67
5: VieEnRose_67
6: Kradal_310 + 4
7: Nirvana_339
8: Kela_306 + 1
9: Frankenweenie_336
10: FloraSnap32_303 + 1
11: Talia1610_308 + 1
12: Chilliams_312 + 1
13: SJReid_23 + 1
14: Mimi_22 + 1
15: FrostedClock_21 + 1
16: KSunshine22_15 + 3
17: Bloom_24 + 3
18: GoldenEssence_9 + 1
19: Rockabye_317 + 1
20: Phrampa_19 + 1
21: Patbob_308 + 1
22: JrWilcox_14
23: ValentiniPuff_12
24: Laure_340 + 1

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 341052 Report

This analysis was run 11/14/26 on database version 672.

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 341052 has 47 members, 10 are drafts.

Phages represented in each track:
- Track 1 : Yosif_68
- Track 2 : Vanseggelen_68
- Track 3 : Itza_68, Celia_65
- Track 4 : Urza_67
- Track 5 : VieEnRose_67
- Track 6 : Kradal_310, EhyElimayoE_313, Quantum_308, Satis_310, Sarkar_308
- Track 7 : Nirvana_339
- Track 8 : Kela_306, JustBecause_308
- Track 9 : Frankenweenie_336
- Track 10 : FloraSnap32_303, FloraSnap32_20
- Track 11 : Talia1610_308, Talia1610_22
- Track 12 : Chilliams_312, Chilliams_21
- Track 13 : SJReid_23, SJReid_332
- Track 14 : Mimi_22, Mimi_307
- Track 15 : FrostedClock_21, FrostedClock_304
- Track 16 : KSunshine22_15, Ellewin_14, KSunshine22_307, Ellewin_307
- Track 17 : Bloom_24, Bloom_311, Racecar_23, Racecar_312
- Track 18 : GoldenEssence_9, GoldenEssence_290
- Track 19 : Rockabye_317, Rockabye_20
- Track 20 : Phrampa_19, Phrampa_303
- Track 21 : Patbob_308, Patbob_22
- Track 22 : JrWilcox_14
- Track 23 : ValentiniPuff_12
- Track 24 : Laure_340, Laure_22

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

The start number called the most often in the published annotations is 13, it was called in 22 of the 37 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Bloom_24, Bloom_311, Celia_65, Chilliams_21, Chilliams_312, FloraSnap32_20, FloraSnap32_303, FrostedClock_21, FrostedClock_304, GoldenEssence_290, GoldenEssence_9, Itza_68, Patbob_22, Patbob_308, Phrampa_19, Phrampa_303, Racecar_23, Racecar_312, Rockabye_20, Rockabye_317, SJReid_23, SJReid_332, Talia1610_22, Talia1610_308, Urza_67, VieEnRose_67,

Genes that have the "Most Annotated" start but do not call it:
• Frankenweenie_336, JustBecause_308, Kela_306, Nirvana_339,

Genes that do not have the "Most Annotated" start:
• EhyElimayoE_313, Ellewin_14, Ellewin_307, JrWilcox_14, KSunshine22_15, KSunshine22_307, Kradal_310, Laure_22, Laure_340, Mimi_22, Mimi_307, Quantum_308, Sarkar_308, Satis_310, ValentiniPuff_12, Vanseggelen_68, Yosif_68,

Summary by start number:

Start 9:
• Found in 2 of 47 (4.3%) of genes in pham
• Manual Annotations of this start: 1 of 37
• Called 100.0% of time when present
• Phage (with cluster) where this start called: JrWilcox_14 (GL), ValentiniPuff_12 (GL),

Start 10:
• Found in 4 of 47 (8.5%) of genes in pham
• Manual Annotations of this start: 4 of 37
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Frankenweenie_336 (BM), JustBecause_308 (BM), Kela_306 (BM), Nirvana_339 (BM),

Start 11:
• Found in 2 of 47 (4.3%) of genes in pham
• Manual Annotations of this start: 1 of 37
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Vanseggelen_68 (BD3), Yosif_68 (BD3),

Start 12:
• Found in 5 of 47 (10.6%) of genes in pham
• Manual Annotations of this start: 5 of 37
• Called 100.0% of time when present
• Phage (with cluster) where this start called: EhyElimayoE_313 (BM), Kradal_310 (BM), Quantum_308 (BM), Sarkar_308 (BM), Satis_310 (BM),

Start 13:
• Found in 30 of 47 (63.8%) of genes in pham
• Manual Annotations of this start: 22 of 37
• Called 86.7% of time when present
• Phage (with cluster) where this start called: Bloom_24 (FC), Bloom_311 (FC), Celia_65 (BD6), Chilliams_21 (FC), Chilliams_312 (FC), FloraSnap32_20 (FC), FloraSnap32_303 (FC), FrostedClock_21 (FC), FrostedClock_304 (FC), GoldenEssence_290 (FC), GoldenEssence_9 (FC), Itza_68 (BD6), Patbob_22 (FC), Patbob_308 (FC), Phrampa_19 (FC), Phrampa_303 (FC), Racecar_23 (FC), Racecar_312 (FC), Rockabye_20 (FC), Rockabye_317 (FC), SJReid_23 (FC),

SJReid_332 (FC), Talia1610_22 (FC), Talia1610_308 (FC), Urza_67 (BD6), VieEnRose_67 (BD6),

Start 14:
• Found in 2 of 47 (4.3%) of genes in pham
• Manual Annotations of this start: 2 of 37
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Mimi_22 (FC), Mimi_307 (FC),

Start 16:
• Found in 21 of 47 (44.7%) of genes in pham
• Manual Annotations of this start: 2 of 37
• Called 28.6% of time when present
• Phage (with cluster) where this start called: Ellewin_14 (FC), Ellewin_307 (FC), KSunshine22_15 (FC), KSunshine22_307 (FC), Laure_22 (UNK), Laure_340 (UNK),

Summary by clusters:

There are 6 clusters represented in this pham: UNK, BM, FC, BD6, BD3, GL,

Info for manual annotations of cluster BD3:
•Start number 11 was manually annotated 1 time for cluster BD3.

Info for manual annotations of cluster BD6:
•Start number 13 was manually annotated 4 times for cluster BD6.

Info for manual annotations of cluster BM:
•Start number 10 was manually annotated 4 times for cluster BM.
•Start number 12 was manually annotated 5 times for cluster BM.

Info for manual annotations of cluster FC:
•Start number 13 was manually annotated 18 times for cluster FC.
•Start number 14 was manually annotated 2 times for cluster FC.
•Start number 16 was manually annotated 2 times for cluster FC.

Info for manual annotations of cluster GL:
•Start number 9 was manually annotated 1 time for cluster GL.

Gene Information:

Gene: Bloom_24 Start: 10896, Stop: 11540, Start Num: 13
Candidate Starts for Bloom_24:
(Start: 13 @10896 has 22 MA's), (Start: 16 @10905 has 2 MA's), (24, 10950), (43, 11136), (53, 11229), (54, 11250), (58, 11316), (61, 11352), (62, 11361), (75, 11499), (76, 11505),

Gene: Bloom_311 Start: 184371, Stop: 185015, Start Num: 13
Candidate Starts for Bloom_311:
(Start: 13 @184371 has 22 MA's), (Start: 16 @184380 has 2 MA's), (24, 184425), (43, 184611), (53, 184704), (54, 184725), (58, 184791), (61, 184827), (62, 184836), (75, 184974), (76, 184980),

Gene: Celia_65 Start: 44395, Stop: 43802, Start Num: 13
Candidate Starts for Celia_65:
(Start: 13 @44395 has 22 MA's), (23, 44341), (24, 44338), (29, 44287), (48, 44119), (58, 44017), (59, 43996), (60, 43984), (62, 43969), (64, 43966), (74, 43855),

Gene: Chilliams_312 Start: 183128, Stop: 183736, Start Num: 13
Candidate Starts for Chilliams_312:
(Start: 13 @183128 has 22 MA's), (Start: 16 @183137 has 2 MA's), (33, 183266), (34, 183290), (42, 183335), (47, 183377), (54, 183461), (58, 183518), (68, 183611),

Gene: Chilliams_21 Start: 10394, Stop: 11002, Start Num: 13
Candidate Starts for Chilliams_21:
(Start: 13 @10394 has 22 MA's), (Start: 16 @10403 has 2 MA's), (33, 10532), (34, 10556), (42, 10601), (47, 10643), (54, 10727), (58, 10784), (68, 10877),

Gene: EhyElimayoE_313 Start: 170133, Stop: 169549, Start Num: 12
Candidate Starts for EhyElimayoE_313:
(1, 170385), (2, 170376), (3, 170367), (4, 170328), (7, 170190), (Start: 12 @170133 has 5 MA's), (15, 170124), (Start: 16 @170121 has 2 MA's), (19, 170097), (29, 170025), (33, 169992), (59, 169746), (77, 169560),

Gene: Ellewin_14 Start: 6471, Stop: 7067, Start Num: 16
Candidate Starts for Ellewin_14:
(Start: 16 @6471 has 2 MA's), (31, 6588), (58, 6873), (61, 6909),

Gene: Ellewin_307 Start: 185585, Stop: 186181, Start Num: 16
Candidate Starts for Ellewin_307:
(Start: 16 @185585 has 2 MA's), (31, 185702), (58, 185987), (61, 186023),

Gene: FloraSnap32_303 Start: 183796, Stop: 184440, Start Num: 13
Candidate Starts for FloraSnap32_303:
(Start: 13 @183796 has 22 MA's), (Start: 16 @183805 has 2 MA's), (21, 183838), (24, 183850), (53, 184129), (54, 184150), (58, 184216), (61, 184252), (62, 184261), (76, 184405),

Gene: FloraSnap32_20 Start: 9658, Stop: 10302, Start Num: 13
Candidate Starts for FloraSnap32_20:
(Start: 13 @9658 has 22 MA's), (Start: 16 @9667 has 2 MA's), (21, 9700), (24, 9712), (53, 9991), (54, 10012), (58, 10078), (61, 10114), (62, 10123), (76, 10267),

Gene: Frankenweenie_336 Start: 182525, Stop: 181935, Start Num: 10
Candidate Starts for Frankenweenie_336:
(Start: 10 @182525 has 4 MA's), (Start: 13 @182516 has 22 MA's), (15, 182510), (19, 182483), (29, 182411), (39, 182321), (50, 182222), (52, 182219), (56, 182168), (59, 182129), (62, 182102), (74, 181982),

Gene: FrostedClock_21 Start: 10424, Stop: 11053, Start Num: 13
Candidate Starts for FrostedClock_21:
(Start: 13 @10424 has 22 MA's), (43, 10658), (53, 10751), (54, 10772),

Gene: FrostedClock_304 Start: 184224, Stop: 184853, Start Num: 13
Candidate Starts for FrostedClock_304:
(Start: 13 @184224 has 22 MA's), (43, 184458), (53, 184551), (54, 184572),

Gene: GoldenEssence_9 Start: 5099, Stop: 5680, Start Num: 13
Candidate Starts for GoldenEssence_9:
(Start: 13 @5099 has 22 MA's), (24, 5153), (27, 5189), (34, 5270), (38, 5300), (53, 5444), (57, 5489), (59, 5513), (71, 5585),

Gene: GoldenEssence_290 Start: 175652, Stop: 176233, Start Num: 13
Candidate Starts for GoldenEssence_290:
(Start: 13 @175652 has 22 MA's), (24, 175706), (27, 175742), (34, 175823), (38, 175853), (53, 175997), (57, 176042), (59, 176066), (71, 176138),

Gene: Itza_68 Start: 44328, Stop: 43735, Start Num: 13
Candidate Starts for Itza_68:
(Start: 13 @44328 has 22 MA's), (23, 44274), (24, 44271), (29, 44220), (48, 44052), (58, 43950), (59, 43929), (60, 43917), (62, 43902), (64, 43899), (74, 43788),

Gene: JrWilcox_14 Start: 10405, Stop: 11100, Start Num: 9
Candidate Starts for JrWilcox_14:
(5, 10309), (Start: 9 @10405 has 1 MA's), (18, 10486), (20, 10492), (28, 10555), (30, 10579), (34, 10618), (37, 10636), (44, 10687), (67, 10924), (78, 11071), (79, 11083),

Gene: JustBecause_308 Start: 166368, Stop: 165775, Start Num: 10
Candidate Starts for JustBecause_308:
(Start: 10 @166368 has 4 MA's), (Start: 13 @166359 has 22 MA's), (15, 166353), (19, 166326), (21, 166317), (22, 166314), (29, 166251), (39, 166161), (50, 166062), (52, 166059), (59, 165969), (62, 165942),

Gene: KSunshine22_15 Start: 6996, Stop: 7592, Start Num: 16
Candidate Starts for KSunshine22_15:
(Start: 16 @6996 has 2 MA's), (31, 7113), (58, 7398), (61, 7434),

Gene: KSunshine22_307 Start: 183897, Stop: 184493, Start Num: 16
Candidate Starts for KSunshine22_307:
(Start: 16 @183897 has 2 MA's), (31, 184014), (58, 184299), (61, 184335),

Gene: Kela_306 Start: 167263, Stop: 166670, Start Num: 10
Candidate Starts for Kela_306:
(Start: 10 @167263 has 4 MA's), (Start: 13 @167254 has 22 MA's), (15, 167248), (19, 167221), (21, 167212), (22, 167209), (29, 167146), (39, 167056), (50, 166957), (52, 166954), (59, 166864), (62, 166837),

Gene: Kradal_310 Start: 170130, Stop: 169546, Start Num: 12
Candidate Starts for Kradal_310:
(1, 170382), (2, 170373), (3, 170364), (4, 170325), (7, 170187), (Start: 12 @170130 has 5 MA's), (15, 170121), (Start: 16 @170118 has 2 MA's), (19, 170094), (29, 170022), (33, 169989), (59, 169743), (77, 169557),

Gene: Laure_340 Start: 178108, Stop: 178713, Start Num: 16
Candidate Starts for Laure_340:
(Start: 16 @178108 has 2 MA's), (35, 178273), (40, 178309), (47, 178360), (51, 178408), (58, 178507), (72, 178633),

Gene: Laure_22 Start: 9760, Stop: 10365, Start Num: 16
Candidate Starts for Laure_22:

(Start: 16 @9760 has 2 MA's), (35, 9925), (40, 9961), (47, 10012), (51, 10060), (58, 10159), (72, 10285),

Gene: Mimi_22 Start: 10326, Stop: 10952, Start Num: 14
Candidate Starts for Mimi_22:
(Start: 14 @10326 has 2 MA's), (21, 10365), (43, 10557), (53, 10650), (54, 10671),

Gene: Mimi_307 Start: 182986, Stop: 183612, Start Num: 14
Candidate Starts for Mimi_307:
(Start: 14 @182986 has 2 MA's), (21, 183025), (43, 183217), (53, 183310), (54, 183331),

Gene: Nirvana_339 Start: 185496, Stop: 184906, Start Num: 10
Candidate Starts for Nirvana_339:
(Start: 10 @185496 has 4 MA's), (Start: 13 @185487 has 22 MA's), (15, 185481), (19, 185454), (21, 185445), (29, 185382), (39, 185292), (50, 185193), (52, 185190), (59, 185100), (62, 185073),

Gene: Patbob_308 Start: 186305, Stop: 186943, Start Num: 13
Candidate Starts for Patbob_308:
(Start: 13 @186305 has 22 MA's), (43, 186545), (46, 186572), (54, 186659),

Gene: Patbob_22 Start: 10846, Stop: 11484, Start Num: 13
Candidate Starts for Patbob_22:
(Start: 13 @10846 has 22 MA's), (43, 11086), (46, 11113), (54, 11200),

Gene: Phrampa_19 Start: 8984, Stop: 9613, Start Num: 13
Candidate Starts for Phrampa_19:
(Start: 13 @8984 has 22 MA's), (43, 9218), (54, 9332),

Gene: Phrampa_303 Start: 185355, Stop: 185984, Start Num: 13
Candidate Starts for Phrampa_303:
(Start: 13 @185355 has 22 MA's), (43, 185589), (54, 185703),

Gene: Quantum_308 Start: 170124, Stop: 169540, Start Num: 12
Candidate Starts for Quantum_308:
(1, 170376), (2, 170367), (3, 170358), (4, 170319), (7, 170181), (Start: 12 @170124 has 5 MA's), (15, 170115), (Start: 16 @170112 has 2 MA's), (19, 170088), (29, 170016), (33, 169983), (59, 169737), (77, 169551),

Gene: Racecar_23 Start: 10896, Stop: 11540, Start Num: 13
Candidate Starts for Racecar_23:
(Start: 13 @10896 has 22 MA's), (Start: 16 @10905 has 2 MA's), (24, 10950), (43, 11136), (53, 11229), (54, 11250), (58, 11316), (61, 11352), (62, 11361), (75, 11499), (76, 11505),

Gene: Racecar_312 Start: 184605, Stop: 185249, Start Num: 13
Candidate Starts for Racecar_312:
(Start: 13 @184605 has 22 MA's), (Start: 16 @184614 has 2 MA's), (24, 184659), (43, 184845), (53, 184938), (54, 184959), (58, 185025), (61, 185061), (62, 185070), (75, 185208), (76, 185214),

Gene: Rockabye_317 Start: 182778, Stop: 183401, Start Num: 13
Candidate Starts for Rockabye_317:
(Start: 13 @182778 has 22 MA's), (Start: 16 @182787 has 2 MA's), (33, 182916), (34, 182940), (42, 182985), (47, 183027), (58, 183174), (59, 183195), (66, 183252),

Gene: Rockabye_20 Start: 10165, Stop: 10788, Start Num: 13
Candidate Starts for Rockabye_20:
(Start: 13 @10165 has 22 MA's), (Start: 16 @10174 has 2 MA's), (33, 10303), (34, 10327), (42, 10372), (47, 10414), (58, 10561), (59, 10582), (66, 10639),

Gene: SJReid_23 Start: 10577, Stop: 11209, Start Num: 13
Candidate Starts for SJReid_23:
(Start: 13 @10577 has 22 MA's), (21, 10619), (34, 10745), (36, 10754), (53, 10907), (56, 10961), (58, 10988),

Gene: SJReid_332 Start: 183416, Stop: 184048, Start Num: 13
Candidate Starts for SJReid_332:
(Start: 13 @183416 has 22 MA's), (21, 183458), (34, 183584), (36, 183593), (53, 183746), (56, 183800), (58, 183827),

Gene: Sarkar_308 Start: 170174, Stop: 169590, Start Num: 12
Candidate Starts for Sarkar_308:
(1, 170426), (2, 170417), (3, 170408), (4, 170369), (7, 170231), (Start: 12 @170174 has 5 MA's), (15, 170165), (Start: 16 @170162 has 2 MA's), (19, 170138), (29, 170066), (33, 170033), (59, 169787), (77, 169601),

Gene: Satis_310 Start: 170467, Stop: 169883, Start Num: 12
Candidate Starts for Satis_310:
(1, 170719), (2, 170710), (3, 170701), (4, 170662), (7, 170524), (Start: 12 @170467 has 5 MA's), (15, 170458), (Start: 16 @170455 has 2 MA's), (19, 170431), (29, 170359), (33, 170326), (59, 170080), (77, 169894),

Gene: Talia1610_308 Start: 184802, Stop: 185437, Start Num: 13
Candidate Starts for Talia1610_308:
(Start: 13 @184802 has 22 MA's), (43, 185042), (54, 185156), (59, 185243),

Gene: Talia1610_22 Start: 10330, Stop: 10965, Start Num: 13
Candidate Starts for Talia1610_22:
(Start: 13 @10330 has 22 MA's), (43, 10570), (54, 10684), (59, 10771),

Gene: Urza_67 Start: 44349, Stop: 43756, Start Num: 13
Candidate Starts for Urza_67:
(Start: 13 @44349 has 22 MA's), (23, 44295), (29, 44241), (48, 44073), (58, 43971), (59, 43950), (60, 43938), (62, 43923), (64, 43920), (74, 43809),

Gene: ValentiniPuff_12 Start: 9427, Stop: 10167, Start Num: 9
Candidate Starts for ValentiniPuff_12:
(6, 9349), (Start: 9 @9427 has 1 MA's), (17, 9502), (32, 9619), (41, 9697), (63, 9913), (64, 9919), (72, 9997), (73, 10003),

Gene: Vanseggelen_68 Start: 43163, Stop: 42615, Start Num: 11
Candidate Starts for Vanseggelen_68:
(8, 43202), (Start: 11 @43163 has 1 MA's), (23, 43109), (25, 43094), (45, 42908), (49, 42878), (59, 42767), (60, 42755), (70, 42716),

Gene: VieEnRose_67 Start: 44202, Stop: 43609, Start Num: 13
Candidate Starts for VieEnRose_67:

(Start: 13 @44202 has 22 MA's), (23, 44148), (24, 44145), (28, 44100), (29, 44094), (48, 43926), (58, 43824), (59, 43803), (60, 43791), (62, 43776), (64, 43773), (74, 43662),

Gene: Yosif_68 Start: 44529, Stop: 43960, Start Num: 11
Candidate Starts for Yosif_68:
(Start: 11 @44529 has 1 MA's), (26, 44460), (29, 44424), (45, 44277), (55, 44184), (60, 44124), (65, 44094), (69, 44067),