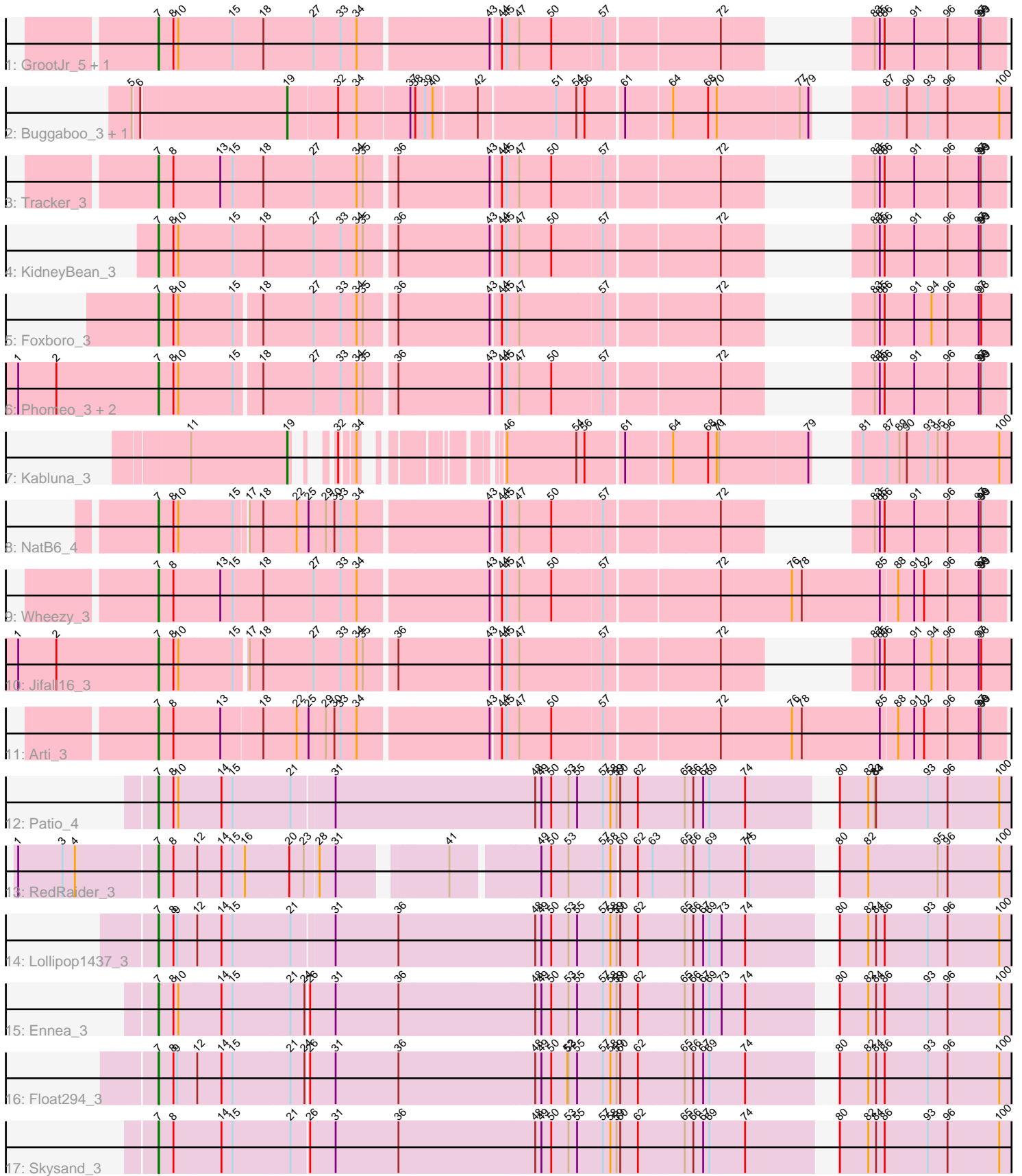


Pham 309295



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 309295 Report

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

Pham number 309295 has 21 members, 0 are drafts.

Phages represented in each track:

- Track 1 : GrootJr\_5, NovumRegina\_4
- Track 2 : Buggaboo\_3, SuperSulley\_3
- Track 3 : Tracker\_3
- Track 4 : KidneyBean\_3
- Track 5 : Foxboro\_3
- Track 6 : Phomeo\_3, Emianna\_3, Kurt\_3
- Track 7 : Kabluna\_3
- Track 8 : NatB6\_4
- Track 9 : Wheezy\_3
- Track 10 : Jifall16\_3
- Track 11 : Arti\_3
- Track 12 : Patio\_4
- Track 13 : RedRaider\_3
- Track 14 : Lollipop1437\_3
- Track 15 : Ennea\_3
- Track 16 : Float294\_3
- Track 17 : Skysand\_3

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

The start number called the most often in the published annotations is 7, it was called in 18 of the 21 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arti\_3, Emianna\_3, Ennea\_3, Float294\_3, Foxboro\_3, GrootJr\_5, Jifall16\_3, KidneyBean\_3, Kurt\_3, Lollipop1437\_3, NatB6\_4, NovumRegina\_4, Patio\_4, Phomeo\_3, RedRaider\_3, Skysand\_3, Tracker\_3, Wheezy\_3,

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

- 

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

- Buggaboo\_3, Kabluna\_3, SuperSulley\_3,

## Summary by start number:

### Start 7:

- Found in 18 of 21 ( 85.7% ) of genes in pham
- Manual Annotations of this start: 18 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arti\_3 (CR2), Emianna\_3 (CR2), Ennea\_3 (CR3), Float294\_3 (CR3), Foxboro\_3 (CR2), GrootJr\_5 (CR2), Jifall16\_3 (CR2), KidneyBean\_3 (CR2), Kurt\_3 (CR2), Lollipop1437\_3 (CR3), NatB6\_4 (CR2), NovumRegina\_4 (CR2), Patio\_4 (CR3), Phomeo\_3 (CR2), RedRaider\_3 (CR3), Skysand\_3 (CR3), Tracker\_3 (CR2), Wheezy\_3 (CR2),

### Start 19:

- Found in 3 of 21 ( 14.3% ) of genes in pham
- Manual Annotations of this start: 3 of 21
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Buggaboo\_3 (CR2), Kabluna\_3 (CR2), SuperSulley\_3 (CR2),

## Summary by clusters:

There are 2 clusters represented in this pham: CR2, CR3,

### Info for manual annotations of cluster CR2:

- Start number 7 was manually annotated 12 times for cluster CR2.
- Start number 19 was manually annotated 3 times for cluster CR2.

### Info for manual annotations of cluster CR3:

- Start number 7 was manually annotated 6 times for cluster CR3.

## Gene Information:

Gene: Arti\_3 Start: 1717, Stop: 3651, Start Num: 7

Candidate Starts for Arti\_3:

(Start: 7 @1717 has 18 MA's), (8, 1753), (13, 1867), (18, 1960), (22, 2041), (25, 2068), (29, 2110), (30, 2131), (33, 2146), (34, 2185), (43, 2488), (44, 2509), (45, 2521), (47, 2548), (50, 2626), (57, 2743), (72, 2998), (76, 3163), (78, 3187), (85, 3373), (88, 3409), (91, 3448), (92, 3472), (96, 3523), (97, 3592), (98, 3598), (99, 3601),

Gene: Buggaboo\_3 Start: 1859, Stop: 3445, Start Num: 19

Candidate Starts for Buggaboo\_3:

(5, 1499), (6, 1514), (Start: 19 @1859 has 3 MA's), (32, 1976), (34, 2021), (37, 2144), (38, 2156), (39, 2180), (40, 2198), (42, 2300), (51, 2474), (54, 2522), (56, 2537), (61, 2621), (64, 2726), (68, 2807), (70, 2828), (77, 3023), (79, 3044), (87, 3134), (90, 3182), (93, 3230), (96, 3278), (100, 3401),

Gene: Emianna\_3 Start: 1726, Stop: 3432, Start Num: 7

Candidate Starts for Emianna\_3:

(1, 1384), (2, 1477), (Start: 7 @1726 has 18 MA's), (8, 1762), (10, 1774), (15, 1903), (18, 1960), (27, 2080), (33, 2146), (34, 2185), (35, 2200), (36, 2269), (43, 2485), (44, 2506), (45, 2518), (47, 2545), (50, 2623), (57, 2740), (72, 2995), (83, 3142), (85, 3154), (86, 3166), (91, 3229), (96, 3304), (97, 3373), (98, 3379), (99, 3382),

Gene: Ennea\_3 Start: 1758, Stop: 3788, Start Num: 7

Candidate Starts for Ennea\_3:

(Start: 7 @1758 has 18 MA's), (8, 1794), (10, 1806), (14, 1908), (15, 1935), (21, 2067), (24, 2100), (26, 2106), (31, 2163), (36, 2316), (48, 2640), (49, 2655), (50, 2679), (53, 2721), (55, 2742), (57, 2805), (58, 2823), (59, 2838), (60, 2847), (62, 2889), (65, 3000), (66, 3021), (67, 3045), (69, 3060), (73, 3087), (74, 3144), (80, 3312), (82, 3381), (84, 3399), (86, 3420), (93, 3519), (96, 3567), (100, 3693),

Gene: Float294\_3 Start: 1747, Stop: 3774, Start Num: 7

Candidate Starts for Float294\_3:

(Start: 7 @1747 has 18 MA's), (8, 1783), (9, 1792), (12, 1840), (14, 1897), (15, 1924), (21, 2053), (24, 2086), (26, 2092), (31, 2149), (36, 2302), (48, 2626), (49, 2641), (50, 2665), (52, 2704), (53, 2707), (55, 2728), (57, 2791), (58, 2809), (59, 2824), (60, 2833), (62, 2875), (65, 2986), (66, 3007), (67, 3031), (69, 3046), (74, 3130), (80, 3298), (82, 3367), (84, 3385), (86, 3406), (93, 3505), (96, 3553), (100, 3679),

Gene: Foxboro\_3 Start: 1726, Stop: 3447, Start Num: 7

Candidate Starts for Foxboro\_3:

(Start: 7 @1726 has 18 MA's), (8, 1762), (10, 1774), (15, 1903), (18, 1960), (27, 2080), (33, 2146), (34, 2185), (35, 2200), (36, 2269), (43, 2485), (44, 2506), (45, 2518), (47, 2545), (57, 2740), (72, 2995), (83, 3142), (85, 3154), (86, 3166), (91, 3229), (94, 3271), (96, 3304), (97, 3373), (98, 3379),

Gene: GrootJr\_5 Start: 2318, Stop: 4045, Start Num: 7

Candidate Starts for GrootJr\_5:

(Start: 7 @2318 has 18 MA's), (8, 2354), (10, 2366), (15, 2495), (18, 2570), (27, 2690), (33, 2756), (34, 2795), (43, 3098), (44, 3119), (45, 3131), (47, 3158), (50, 3236), (57, 3353), (72, 3608), (83, 3755), (85, 3767), (86, 3779), (91, 3842), (96, 3917), (97, 3986), (98, 3992), (99, 3995),

Gene: Jifall16\_3 Start: 1726, Stop: 3447, Start Num: 7

Candidate Starts for Jifall16\_3:

(1, 1384), (2, 1477), (Start: 7 @1726 has 18 MA's), (8, 1762), (10, 1774), (15, 1903), (17, 1930), (18, 1960), (27, 2080), (33, 2146), (34, 2185), (35, 2200), (36, 2269), (43, 2485), (44, 2506), (45, 2518), (47, 2545), (57, 2740), (72, 2995), (83, 3142), (85, 3154), (86, 3166), (91, 3229), (94, 3271), (96, 3304), (97, 3373), (98, 3379),

Gene: Kabluna\_3 Start: 1829, Stop: 3181, Start Num: 19

Candidate Starts for Kabluna\_3:

(11, 1598), (Start: 19 @1829 has 3 MA's), (32, 1862), (34, 1889), (46, 2096), (54, 2261), (56, 2276), (61, 2360), (64, 2465), (68, 2546), (70, 2567), (71, 2573), (79, 2780), (81, 2813), (87, 2870), (89, 2900), (90, 2918), (93, 2966), (95, 2990), (96, 3014), (100, 3137),

Gene: KidneyBean\_3 Start: 1717, Stop: 3441, Start Num: 7

Candidate Starts for KidneyBean\_3:

(Start: 7 @1717 has 18 MA's), (8, 1753), (10, 1765), (15, 1894), (18, 1969), (27, 2089), (33, 2155), (34, 2194), (35, 2209), (36, 2278), (43, 2494), (44, 2515), (45, 2527), (47, 2554), (50, 2632), (57, 2749), (72, 3004), (83, 3151), (85, 3163), (86, 3175), (91, 3238), (96, 3313), (97, 3382), (98, 3388), (99, 3391),

Gene: Kurt\_3 Start: 1726, Stop: 3432, Start Num: 7

Candidate Starts for Kurt\_3:

(1, 1384), (2, 1477), (Start: 7 @1726 has 18 MA's), (8, 1762), (10, 1774), (15, 1903), (18, 1960), (27, 2080), (33, 2146), (34, 2185), (35, 2200), (36, 2269), (43, 2485), (44, 2506), (45, 2518), (47, 2545), (50, 2623), (57, 2740), (72, 2995), (83, 3142), (85, 3154), (86, 3166), (91, 3229), (96, 3304), (97, 3373), (98, 3379), (99, 3382),

Gene: Lollipop1437\_3 Start: 1746, Stop: 3776, Start Num: 7

Candidate Starts for Lollipop1437\_3:

(Start: 7 @1746 has 18 MA's), (8, 1782), (9, 1791), (12, 1839), (14, 1896), (15, 1923), (21, 2055), (31, 2151), (36, 2304), (48, 2628), (49, 2643), (50, 2667), (53, 2709), (55, 2730), (57, 2793), (58, 2811), (59, 2826), (60, 2835), (62, 2877), (65, 2988), (66, 3009), (67, 3033), (69, 3048), (73, 3075), (74, 3132), (80, 3300), (82, 3369), (84, 3387), (86, 3408), (93, 3507), (96, 3555), (100, 3681),

Gene: NatB6\_4 Start: 2341, Stop: 4050, Start Num: 7

Candidate Starts for NatB6\_4:

(Start: 7 @2341 has 18 MA's), (8, 2377), (10, 2389), (15, 2518), (17, 2545), (18, 2575), (22, 2656), (25, 2683), (29, 2725), (30, 2746), (33, 2761), (34, 2800), (43, 3103), (44, 3124), (45, 3136), (47, 3163), (50, 3241), (57, 3358), (72, 3613), (83, 3760), (85, 3772), (86, 3784), (91, 3847), (96, 3922), (97, 3991), (98, 3997), (99, 4000),

Gene: NovumRegina\_4 Start: 2318, Stop: 4045, Start Num: 7

Candidate Starts for NovumRegina\_4:

(Start: 7 @2318 has 18 MA's), (8, 2354), (10, 2366), (15, 2495), (18, 2570), (27, 2690), (33, 2756), (34, 2795), (43, 3098), (44, 3119), (45, 3131), (47, 3158), (50, 3236), (57, 3353), (72, 3608), (83, 3755), (85, 3767), (86, 3779), (91, 3842), (96, 3917), (97, 3986), (98, 3992), (99, 3995),

Gene: Patio\_4 Start: 2429, Stop: 4447, Start Num: 7

Candidate Starts for Patio\_4:

(Start: 7 @2429 has 18 MA's), (8, 2465), (10, 2477), (14, 2579), (15, 2606), (21, 2738), (31, 2834), (48, 3308), (49, 3323), (50, 3347), (53, 3389), (55, 3410), (57, 3473), (58, 3491), (59, 3506), (60, 3515), (62, 3557), (65, 3668), (66, 3689), (67, 3713), (69, 3728), (74, 3812), (80, 3971), (82, 4040), (83, 4055), (84, 4058), (93, 4178), (96, 4226), (100, 4352),

Gene: Phomeo\_3 Start: 1726, Stop: 3432, Start Num: 7

Candidate Starts for Phomeo\_3:

(1, 1384), (2, 1477), (Start: 7 @1726 has 18 MA's), (8, 1762), (10, 1774), (15, 1903), (18, 1960), (27, 2080), (33, 2146), (34, 2185), (35, 2200), (36, 2269), (43, 2485), (44, 2506), (45, 2518), (47, 2545), (50, 2623), (57, 2740), (72, 2995), (83, 3142), (85, 3154), (86, 3166), (91, 3229), (96, 3304), (97, 3373), (98, 3379), (99, 3382),

Gene: RedRaider\_3 Start: 1781, Stop: 3715, Start Num: 7

Candidate Starts for RedRaider\_3:

(1, 1454), (3, 1562), (4, 1592), (Start: 7 @1781 has 18 MA's), (8, 1817), (12, 1874), (14, 1931), (15, 1958), (16, 1988), (20, 2084), (23, 2117), (28, 2150), (31, 2189), (41, 2417), (49, 2612), (50, 2636), (53, 2678), (57, 2762), (58, 2780), (60, 2795), (62, 2837), (63, 2873), (65, 2945), (66, 2966), (69, 3005), (74, 3089), (75, 3098), (80, 3257), (82, 3326), (95, 3485), (96, 3509), (100, 3635),

Gene: Skysand\_3 Start: 1746, Stop: 3776, Start Num: 7

Candidate Starts for Skysand\_3:

(Start: 7 @1746 has 18 MA's), (8, 1782), (14, 1896), (15, 1923), (21, 2055), (26, 2094), (31, 2151), (36, 2304), (48, 2628), (49, 2643), (50, 2667), (53, 2709), (55, 2730), (57, 2793), (58, 2811), (59, 2826), (60, 2835), (62, 2877), (65, 2988), (66, 3009), (67, 3033), (69, 3048), (74, 3132), (80, 3300), (82, 3369), (84, 3387), (86, 3408), (93, 3507), (96, 3555), (100, 3681),

Gene: SuperSulley\_3 Start: 1859, Stop: 3445, Start Num: 19

Candidate Starts for SuperSulley\_3:

(5, 1499), (6, 1514), (Start: 19 @1859 has 3 MA's), (32, 1976), (34, 2021), (37, 2144), (38, 2156), (39, 2180), (40, 2198), (42, 2300), (51, 2474), (54, 2522), (56, 2537), (61, 2621), (64, 2726), (68, 2807), (70, 2828), (77, 3023), (79, 3044), (87, 3134), (90, 3182), (93, 3230), (96, 3278), (100, 3401),

Gene: Tracker\_3 Start: 1689, Stop: 3416, Start Num: 7

Candidate Starts for Tracker\_3:

(Start: 7 @1689 has 18 MA's), (8, 1725), (13, 1839), (15, 1869), (18, 1944), (27, 2064), (34, 2169), (35, 2184), (36, 2253), (43, 2469), (44, 2490), (45, 2502), (47, 2529), (50, 2607), (57, 2724), (72, 2979), (83, 3126), (85, 3138), (86, 3150), (91, 3213), (96, 3288), (97, 3357), (98, 3363), (99, 3366),

Gene: Wheezy\_3 Start: 1717, Stop: 3663, Start Num: 7

Candidate Starts for Wheezy\_3:

(Start: 7 @1717 has 18 MA's), (8, 1753), (13, 1867), (15, 1897), (18, 1972), (27, 2092), (33, 2158), (34, 2197), (43, 2500), (44, 2521), (45, 2533), (47, 2560), (50, 2638), (57, 2755), (72, 3010), (76, 3175), (78, 3199), (85, 3385), (88, 3421), (91, 3460), (92, 3484), (96, 3535), (97, 3604), (98, 3610), (99, 3613),