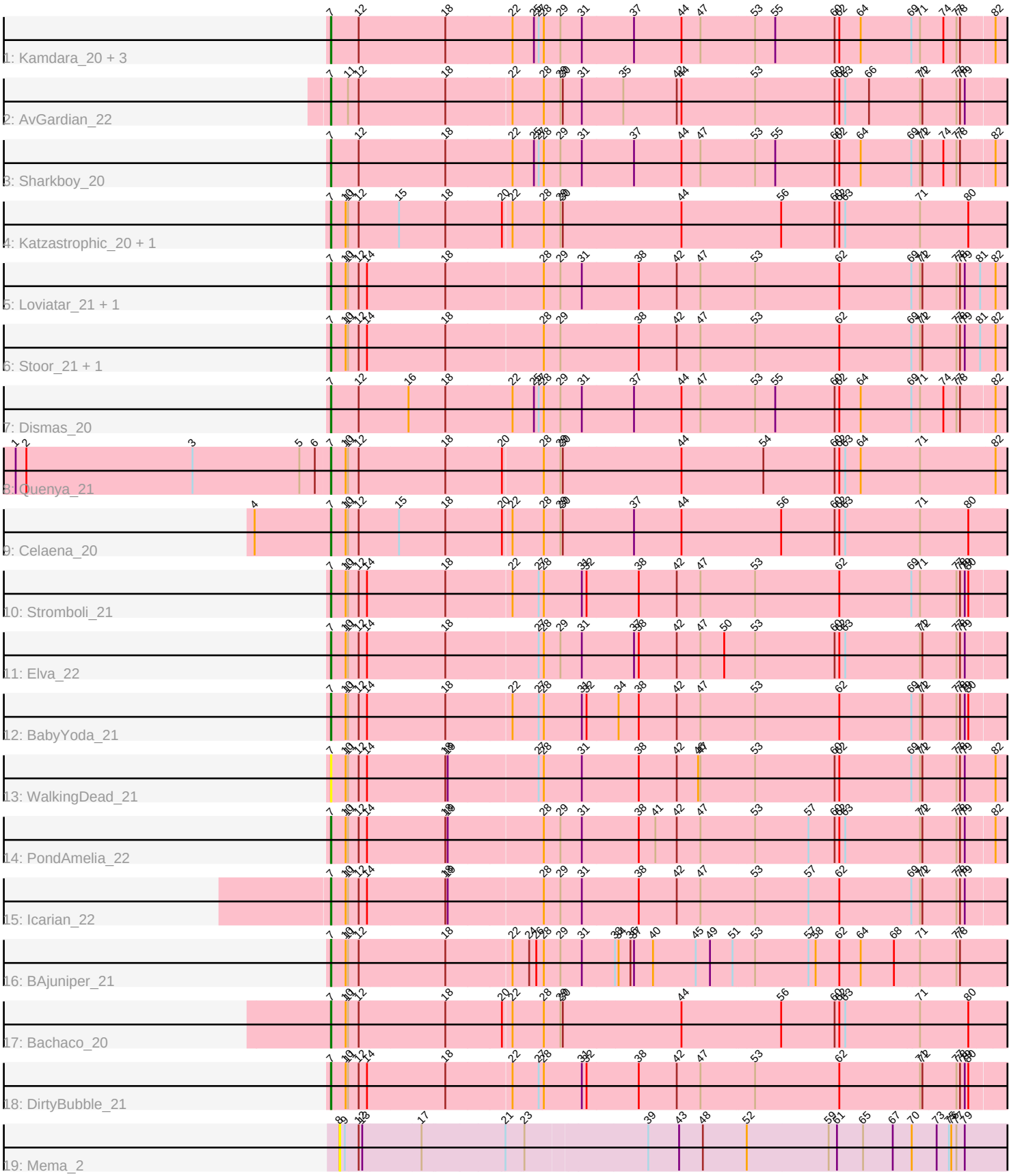
# Pham 347968


1: Kamdara_20 + 3
2: AvGardian_22
3: Sharkboy_20
4: Katzastrophic_20 + 1
5: Loviatar_21 + 1
6: Stoor_21 + 1
7: Dismas_20
8: Quenya_21
9: Celaena_20
10: Stromboli_21
11: Elva_22
12: BabyYoda_21
13: WalkingDead_21
14: PondAmelia_22
15: Icarian_22
16: BAjuniper_21
17: Bachaco_20
18: DirtyBubble_21
19: Mema_2

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 347968 Report

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

Pham number 347968 has 25 members, 2 are drafts.

Phages represented in each track:
- Track 1 : Kamdara_20, Rona_20, Kieran_20, ChiliPepper_20
- Track 2 : AvGardian_22
- Track 3 : Sharkboy_20
- Track 4 : Katzastrophic_20, FlameThrower_20
- Track 5 : Loviatar_21, Akino08_20
- Track 6 : Stoor_21, SanaSana_22
- Track 7 : Dismas_20
- Track 8 : Quenya_21
- Track 9 : Celaena_20
- Track 10 : Stromboli_21
- Track 11 : Elva_22
- Track 12 : BabyYoda_21
- Track 13 : WalkingDead_21
- Track 14 : PondAmelia_22
- Track 15 : Icarian_22
- Track 16 : BAjuniper_21
- Track 17 : Bachaco_20
- Track 18 : DirtyBubble_21
- Track 19 : Mema_2

***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 23 of the 23 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Akino08_20, AvGardian_22, BAjuniper_21, BabyYoda_21, Bachaco_20, Celaena_20, ChiliPepper_20, DirtyBubble_21, Dismas_20, Elva_22, FlameThrower_20, Icarian_22, Kamdara_20, Katzastrophic_20, Kieran_20, Loviatar_21, PondAmelia_22, Quenya_21, Rona_20, SanaSana_22, Sharkboy_20, Stoor_21, Stromboli_21, WalkingDead_21,

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

Genes that do not have the "Most Annotated" start:
• Mema_2,

**Summary by start number:**

Start 7:
• Found in 24 of 25 ( 96.0% ) of genes in pham
• Manual Annotations of this start: 23 of 23
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Akino08_20 (EB), AvGardian_22 (EB), BAjuniper_21 (EB), BabyYoda_21 (EB), Bachaco_20 (EB), Celaena_20 (EB), ChiliPepper_20 (EB), DirtyBubble_21 (EB), Dismas_20 (EB), Elva_22 (EB), FlameThrower_20 (EB), Icarian_22 (EB), Kamdara_20 (EB), Katzastrophic_20 (EB), Kieran_20 (EB), Loviatar_21 (EB), PondAmelia_22 (EB), Quenya_21 (EB), Rona_20 (EB), SanaSana_22 (EB), Sharkboy_20 (EB), Stoor_21 (EB), Stromboli_21 (EB), WalkingDead_21 (EB),

Start 8:
• Found in 1 of 25 ( 4.0% ) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Mema_2 (EL),

**Summary by clusters:**

There are 2 clusters represented in this pham: EL, EB,

Info for manual annotations of cluster EB:
•Start number 7 was manually annotated 23 times for cluster EB.

***Gene Information:***

Gene: Akino08_20 Start: 17703, Stop: 19409, Start Num: 7
Candidate Starts for Akino08_20:
(Start: 7 @17703 has 23 MA's), (10, 17739), (11, 17745), (12, 17772), (14, 17793), (18, 17988), (28, 18228), (29, 18270), (31, 18324), (38, 18465), (42, 18561), (47, 18621), (53, 18747), (62, 18957), (69, 19137), (71, 19158), (72, 19164), (77, 19248), (78, 19257), (79, 19269), (81, 19308), (82, 19344),

Gene: AvGardian_22 Start: 17320, Stop: 19014, Start Num: 7
Candidate Starts for AvGardian_22:
(Start: 7 @17320 has 23 MA's), (11, 17362), (12, 17389), (18, 17602), (22, 17764), (28, 17842), (29, 17884), (30, 17890), (31, 17938), (35, 18040), (42, 18175), (44, 18187), (53, 18364), (60, 18562), (62, 18574), (63, 18589), (66, 18649), (71, 18775), (72, 18781), (77, 18865), (78, 18874), (79, 18886),

Gene: BAjuniper_21 Start: 17796, Stop: 19490, Start Num: 7
Candidate Starts for BAjuniper_21:
(Start: 7 @17796 has 23 MA's), (10, 17832), (11, 17838), (12, 17865), (18, 18078), (22, 18240), (24, 18282), (26, 18300), (28, 18318), (29, 18360), (31, 18414), (33, 18495), (34, 18504), (36, 18534), (37, 18543), (40, 18591), (45, 18699), (49, 18735), (51, 18792), (53, 18837), (57, 18972), (58, 18990), (62,

19047), (64, 19101), (68, 19185), (71, 19248), (77, 19338), (78, 19347),

Gene: BabyYoda_21 Start: 17792, Stop: 19492, Start Num: 7
Candidate Starts for BabyYoda_21:
(Start: 7 @17792 has 23 MA's), (10, 17828), (11, 17834), (12, 17861), (14, 17882), (18, 18077), (22, 18239), (27, 18305), (28, 18317), (31, 18413), (32, 18425), (34, 18503), (38, 18554), (42, 18650), (47, 18710), (53, 18836), (62, 19046), (69, 19226), (71, 19247), (72, 19253), (77, 19337), (78, 19346), (79, 19358), (80, 19367),

Gene: Bachaco_20 Start: 17854, Stop: 19551, Start Num: 7
Candidate Starts for Bachaco_20:
(Start: 7 @17854 has 23 MA's), (10, 17890), (11, 17896), (12, 17923), (18, 18136), (20, 18277), (22, 18298), (28, 18376), (29, 18418), (30, 18424), (44, 18718), (56, 18958), (60, 19090), (62, 19102), (63, 19117), (71, 19303), (80, 19423),

Gene: Celaena_20 Start: 17802, Stop: 19499, Start Num: 7
Candidate Starts for Celaena_20:
(4, 17610), (Start: 7 @17802 has 23 MA's), (10, 17838), (11, 17844), (12, 17871), (15, 17967), (18, 18084), (20, 18225), (22, 18246), (28, 18324), (29, 18366), (30, 18372), (37, 18546), (44, 18666), (56, 18906), (60, 19038), (62, 19050), (63, 19065), (71, 19251), (80, 19371),

Gene: ChiliPepper_20 Start: 17379, Stop: 19076, Start Num: 7
Candidate Starts for ChiliPepper_20:
(Start: 7 @17379 has 23 MA's), (12, 17448), (18, 17661), (22, 17829), (25, 17883), (27, 17895), (28, 17907), (29, 17949), (31, 18003), (37, 18132), (44, 18252), (47, 18300), (53, 18429), (55, 18480), (60, 18627), (62, 18639), (64, 18693), (69, 18819), (71, 18840), (74, 18897), (77, 18930), (78, 18939), (82, 19017),

Gene: DirtyBubble_21 Start: 17750, Stop: 19450, Start Num: 7
Candidate Starts for DirtyBubble_21:
(Start: 7 @17750 has 23 MA's), (10, 17786), (11, 17792), (12, 17819), (14, 17840), (18, 18035), (22, 18197), (27, 18263), (28, 18275), (31, 18371), (32, 18383), (38, 18512), (42, 18608), (47, 18668), (53, 18794), (62, 19004), (71, 19205), (72, 19211), (77, 19295), (78, 19304), (79, 19316), (80, 19325),

Gene: Dismas_20 Start: 17379, Stop: 19076, Start Num: 7
Candidate Starts for Dismas_20:
(Start: 7 @17379 has 23 MA's), (12, 17448), (16, 17568), (18, 17661), (22, 17829), (25, 17883), (27, 17895), (28, 17907), (29, 17949), (31, 18003), (37, 18132), (44, 18252), (47, 18300), (53, 18429), (55, 18480), (60, 18627), (62, 18639), (64, 18693), (69, 18819), (71, 18840), (74, 18897), (77, 18930), (78, 18939), (82, 19017),

Gene: Elva_22 Start: 17711, Stop: 19414, Start Num: 7
Candidate Starts for Elva_22:
(Start: 7 @17711 has 23 MA's), (10, 17747), (11, 17753), (12, 17780), (14, 17801), (18, 17996), (27, 18224), (28, 18236), (29, 18278), (31, 18332), (37, 18461), (38, 18473), (42, 18569), (47, 18629), (50, 18689), (53, 18758), (60, 18956), (62, 18968), (63, 18983), (71, 19169), (72, 19175), (77, 19259), (78, 19268), (79, 19280),

Gene: FlameThrower_20 Start: 17318, Stop: 19009, Start Num: 7
Candidate Starts for FlameThrower_20:
(Start: 7 @17318 has 23 MA's), (10, 17354), (11, 17360), (12, 17387), (15, 17483), (18, 17600), (20, 17741), (22, 17762), (28, 17840), (29, 17882), (30, 17888), (44, 18182), (56, 18422), (60, 18554), (62, 18566), (63, 18581), (71, 18767), (80, 18887),

Gene: Icarian_22 Start: 17629, Stop: 19329, Start Num: 7
Candidate Starts for Icarian_22:
(Start: 7 @17629 has 23 MA's), (10, 17665), (11, 17671), (12, 17698), (14, 17719), (18, 17914), (19, 17920), (28, 18154), (29, 18196), (31, 18250), (38, 18391), (42, 18487), (47, 18547), (53, 18673), (57, 18808), (62, 18883), (69, 19063), (71, 19084), (72, 19090), (77, 19174), (78, 19183), (79, 19195),

Gene: Kamdara_20 Start: 17378, Stop: 19075, Start Num: 7
Candidate Starts for Kamdara_20:
(Start: 7 @17378 has 23 MA's), (12, 17447), (18, 17660), (22, 17828), (25, 17882), (27, 17894), (28, 17906), (29, 17948), (31, 18002), (37, 18131), (44, 18251), (47, 18299), (53, 18428), (55, 18479), (60, 18626), (62, 18638), (64, 18692), (69, 18818), (71, 18839), (74, 18896), (77, 18929), (78, 18938), (82, 19016),

Gene: Katzastrophic_20 Start: 17460, Stop: 19157, Start Num: 7
Candidate Starts for Katzastrophic_20:
(Start: 7 @17460 has 23 MA's), (10, 17496), (11, 17502), (12, 17529), (15, 17625), (18, 17742), (20, 17883), (22, 17904), (28, 17982), (29, 18024), (30, 18030), (44, 18324), (56, 18564), (60, 18696), (62, 18708), (63, 18723), (71, 18909), (80, 19029),

Gene: Kieran_20 Start: 17382, Stop: 19079, Start Num: 7
Candidate Starts for Kieran_20:
(Start: 7 @17382 has 23 MA's), (12, 17451), (18, 17664), (22, 17832), (25, 17886), (27, 17898), (28, 17910), (29, 17952), (31, 18006), (37, 18135), (44, 18255), (47, 18303), (53, 18432), (55, 18483), (60, 18630), (62, 18642), (64, 18696), (69, 18822), (71, 18843), (74, 18900), (77, 18933), (78, 18942), (82, 19020),

Gene: Loviatar_21 Start: 17718, Stop: 19424, Start Num: 7
Candidate Starts for Loviatar_21:
(Start: 7 @17718 has 23 MA's), (10, 17754), (11, 17760), (12, 17787), (14, 17808), (18, 18003), (28, 18243), (29, 18285), (31, 18339), (38, 18480), (42, 18576), (47, 18636), (53, 18762), (62, 18972), (69, 19152), (71, 19173), (72, 19179), (77, 19263), (78, 19272), (79, 19284), (81, 19323), (82, 19359),

Gene: Mema_2 Start: 344, Stop: 2047, Start Num: 8
Candidate Starts for Mema_2:
(8, 344), (9, 356), (12, 389), (13, 398), (17, 539), (21, 743), (23, 788), (39, 1085), (43, 1163), (48, 1223), (52, 1334), (59, 1538), (61, 1559), (65, 1625), (67, 1700), (70, 1748), (73, 1811), (75, 1841), (76, 1847), (77, 1859), (79, 1880),

Gene: PondAmelia_22 Start: 17770, Stop: 19464, Start Num: 7
Candidate Starts for PondAmelia_22:
(Start: 7 @17770 has 23 MA's), (10, 17806), (11, 17812), (12, 17839), (14, 17860), (18, 18055), (19, 18061), (28, 18295), (29, 18337), (31, 18391), (38, 18532), (41, 18574), (42, 18628), (47, 18688), (53, 18814), (57, 18949), (60, 19012), (62, 19024), (63, 19039), (71, 19225), (72, 19231), (77, 19315), (78, 19324), (79, 19336), (82, 19405),

Gene: Quenya_21 Start: 17325, Stop: 19022, Start Num: 7
Candidate Starts for Quenya_21:
(1, 16533), (2, 16560), (3, 16980), (5, 17250), (6, 17289), (Start: 7 @17325 has 23 MA's), (10, 17361), (11, 17367), (12, 17394), (18, 17607), (20, 17748), (28, 17847), (29, 17889), (30, 17895), (44, 18189), (54, 18384), (60, 18561), (62, 18573), (63, 18588), (64, 18627), (71, 18774), (82, 18957),

Gene: Rona_20 Start: 17379, Stop: 19076, Start Num: 7

Candidate Starts for Rona_20:
(Start: 7 @17379 has 23 MA's), (12, 17448), (18, 17661), (22, 17829), (25, 17883), (27, 17895), (28, 17907), (29, 17949), (31, 18003), (37, 18132), (44, 18252), (47, 18300), (53, 18429), (55, 18480), (60, 18627), (62, 18639), (64, 18693), (69, 18819), (71, 18840), (74, 18897), (77, 18930), (78, 18939), (82, 19017),

Gene: SanaSana_22 Start: 17657, Stop: 19363, Start Num: 7
Candidate Starts for SanaSana_22:
(Start: 7 @17657 has 23 MA's), (10, 17693), (11, 17699), (12, 17726), (14, 17747), (18, 17942), (28, 18182), (29, 18224), (38, 18419), (42, 18515), (47, 18575), (53, 18701), (62, 18911), (69, 19091), (71, 19112), (72, 19118), (77, 19202), (78, 19211), (79, 19223), (81, 19262), (82, 19298),

Gene: Sharkboy_20 Start: 17366, Stop: 19063, Start Num: 7
Candidate Starts for Sharkboy_20:
(Start: 7 @17366 has 23 MA's), (12, 17435), (18, 17648), (22, 17816), (25, 17870), (27, 17882), (28, 17894), (29, 17936), (31, 17990), (37, 18119), (44, 18239), (47, 18287), (53, 18416), (55, 18467), (60, 18614), (62, 18626), (64, 18680), (69, 18806), (71, 18827), (72, 18833), (74, 18884), (77, 18917), (78, 18926), (82, 19004),

Gene: Stoor_21 Start: 17654, Stop: 19360, Start Num: 7
Candidate Starts for Stoor_21:
(Start: 7 @17654 has 23 MA's), (10, 17690), (11, 17696), (12, 17723), (14, 17744), (18, 17939), (28, 18179), (29, 18221), (38, 18416), (42, 18512), (47, 18572), (53, 18698), (62, 18908), (69, 19088), (71, 19109), (72, 19115), (77, 19199), (78, 19208), (79, 19220), (81, 19259), (82, 19295),

Gene: Stromboli_21 Start: 17790, Stop: 19490, Start Num: 7
Candidate Starts for Stromboli_21:
(Start: 7 @17790 has 23 MA's), (10, 17826), (11, 17832), (12, 17859), (14, 17880), (18, 18075), (22, 18237), (27, 18303), (28, 18315), (31, 18411), (32, 18423), (38, 18552), (42, 18648), (47, 18708), (53, 18834), (62, 19044), (69, 19224), (71, 19245), (77, 19335), (78, 19344), (79, 19356), (80, 19365),

Gene: WalkingDead_21 Start: 17782, Stop: 19479, Start Num: 7
Candidate Starts for WalkingDead_21:
(Start: 7 @17782 has 23 MA's), (10, 17818), (11, 17824), (12, 17851), (14, 17872), (18, 18067), (19, 18073), (27, 18295), (28, 18307), (31, 18403), (38, 18544), (42, 18640), (46, 18694), (47, 18700), (53, 18823), (60, 19021), (62, 19033), (69, 19213), (71, 19234), (72, 19240), (77, 19324), (78, 19333), (79, 19345), (82, 19420),