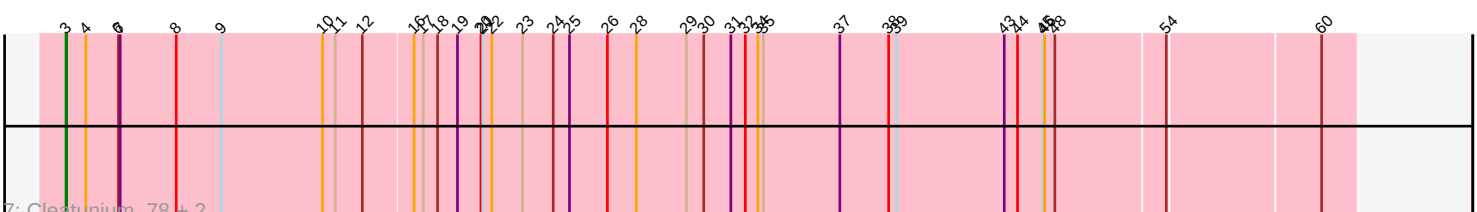
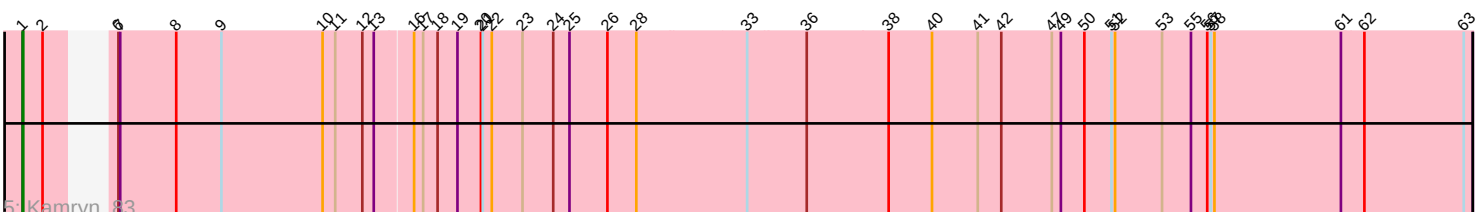
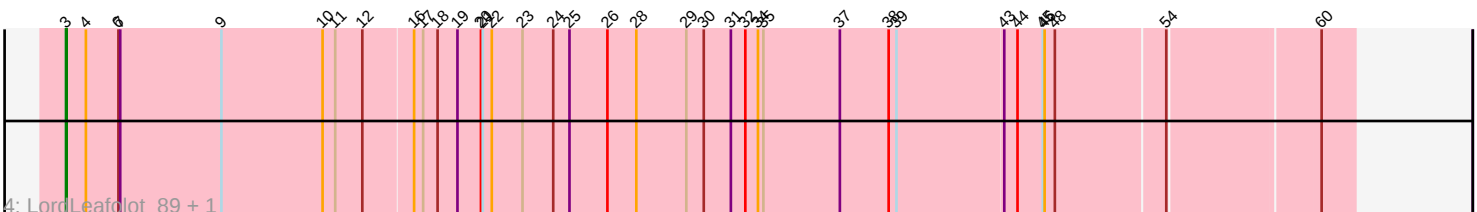
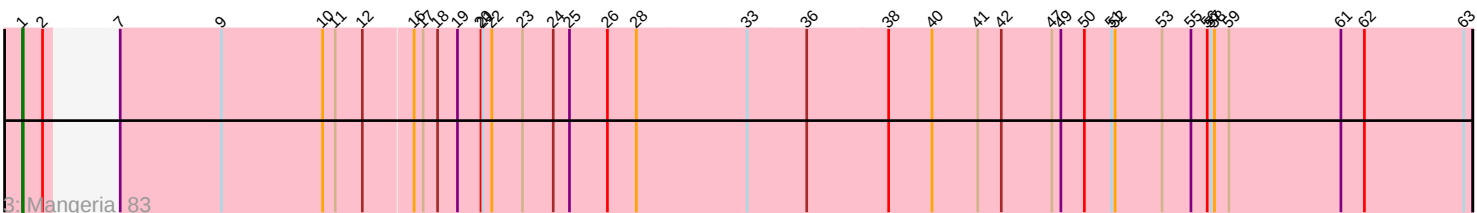
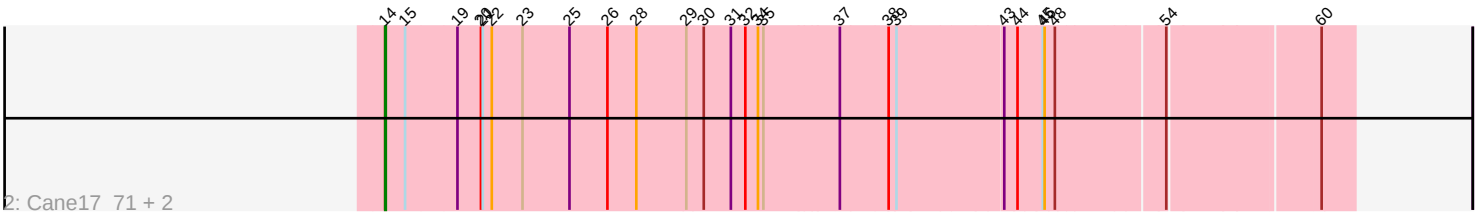
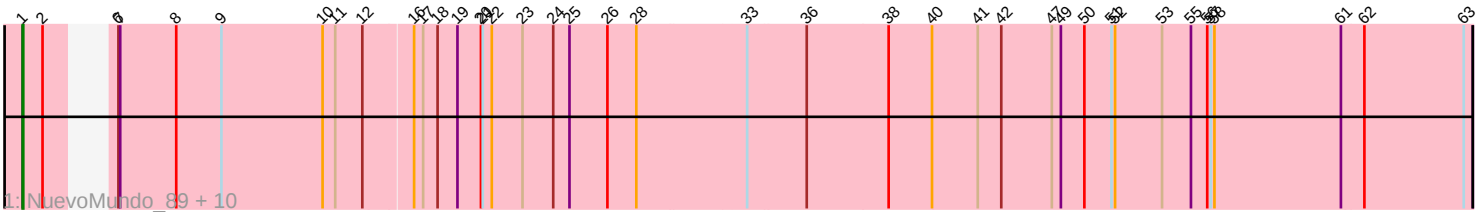


Pham 331222



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 331222 Report

This analysis was run 09/05/26 on database version 662.

Pham number 331222 has 22 members, 2 are drafts.

Phages represented in each track:

- Track 1 : NuevoMundo_89, Pio_86, Bxz1_83, Caravan_78, Montpel_80, Burrough_83, NoodleTree_86, Naval22_91, Dandelion_89, Lunareta_80, Chomp_82
- Track 2 : Cane17_71, Colt_73, Blubba_73
- Track 3 : Mangeria_83
- Track 4 : LordLeafolot_89, Essence_80
- Track 5 : Kamryn_83
- Track 6 : Bigswole_88
- Track 7 : Cleatunium_78, Bowman_86, Lukilu_73

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

The start number called the most often in the published annotations is 1, it was called in 12 of the 20 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bigswole_88, Burrough_83, Bxz1_83, Caravan_78, Chomp_82, Dandelion_89, Kamryn_83, Lunareta_80, Mangeria_83, Montpel_80, Naval22_91, NoodleTree_86, NuevoMundo_89, Pio_86,

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

-

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

- Blubba_73, Bowman_86, Cane17_71, Cleatunium_78, Colt_73, Essence_80, LordLeafolot_89, Lukilu_73,

Summary by start number:

Start 1:

- Found in 14 of 22 (63.6%) of genes in pham
- Manual Annotations of this start: 12 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bigswole_88 (C1), Burrough_83 (C1), Bxz1_83 (C1), Caravan_78 (C1), Chomp_82 (C1), Dandelion_89 (C1), Kamryn_83

(C1), Lunareta_80 (C1), Mangeria_83 (C1), Montpel_80 (C1), Naval22_91 (C1), NoodleTree_86 (C1), NuevoMundo_89 (C1), Pio_86 (C1),

Start 3:

- Found in 5 of 22 (22.7%) of genes in pham
- Manual Annotations of this start: 5 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bowman_86 (C1), Cleatunium_78 (C1), Essence_80 (C1), LordLeafolot_89 (C1), Lukilu_73 (C1),

Start 14:

- Found in 3 of 22 (13.6%) of genes in pham
- Manual Annotations of this start: 3 of 20
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Blubba_73 (C1), Cane17_71 (C1), Colt_73 (C1),

Summary by clusters:

There is one cluster represented in this pham: C1

Info for manual annotations of cluster C1:

- Start number 1 was manually annotated 12 times for cluster C1.
- Start number 3 was manually annotated 5 times for cluster C1.
- Start number 14 was manually annotated 3 times for cluster C1.

Gene Information:

Gene: Bigswole_88 Start: 31408, Stop: 33789, Start Num: 1

Candidate Starts for Bigswole_88:

(Start: 1 @31408 has 12 MA's), (2, 31441), (5, 31528), (6, 31567), (7, 31570), (8, 31663), (9, 31738), (10, 31906), (11, 31927), (12, 31972), (16, 32050), (17, 32065), (18, 32089), (19, 32122), (20, 32161), (21, 32164), (22, 32179), (23, 32230), (24, 32281), (25, 32308), (26, 32371), (27, 32377), (28, 32419), (33, 32593), (36, 32689), (38, 32824), (40, 32896), (41, 32971), (42, 33010), (47, 33094), (49, 33109), (50, 33148), (51, 33193), (52, 33199), (53, 33277), (55, 33325), (56, 33352), (57, 33358), (58, 33364), (61, 33574), (62, 33610), (63, 33775),

Gene: Blubba_73 Start: 26317, Stop: 27831, Start Num: 14

Candidate Starts for Blubba_73:

(Start: 14 @26317 has 3 MA's), (15, 26350), (19, 26431), (20, 26470), (21, 26473), (22, 26488), (23, 26539), (25, 26617), (26, 26680), (28, 26728), (29, 26809), (30, 26836), (31, 26881), (32, 26905), (34, 26926), (35, 26935), (37, 27052), (38, 27127), (39, 27139), (43, 27304), (44, 27325), (45, 27364), (46, 27367), (48, 27382), (54, 27547), (60, 27778),

Gene: Bowman_86 Start: 29552, Stop: 31594, Start Num: 3

Candidate Starts for Bowman_86:

(Start: 3 @29552 has 5 MA's), (4, 29585), (6, 29639), (7, 29642), (8, 29735), (9, 29810), (10, 29978), (11, 29999), (12, 30044), (16, 30122), (17, 30137), (18, 30161), (19, 30194), (20, 30233), (21, 30236), (22, 30251), (23, 30302), (24, 30353), (25, 30380), (26, 30443), (28, 30491), (29, 30572), (30, 30599), (31, 30644), (32, 30668), (34, 30689), (35, 30698), (37, 30815), (38, 30890), (39, 30902), (43, 31067), (44, 31088), (45, 31127), (46, 31130), (48, 31145), (54, 31310), (60, 31541),

Gene: Burrough_83 Start: 29412, Stop: 31721, Start Num: 1

Candidate Starts for Burrough_83:

(Start: 1 @29412 has 12 MA's), (2, 29445), (6, 29499), (7, 29502), (8, 29595), (9, 29670), (10, 29838), (11, 29859), (12, 29904), (16, 29982), (17, 29997), (18, 30021), (19, 30054), (20, 30093), (21, 30096), (22, 30111), (23, 30162), (24, 30213), (25, 30240), (26, 30303), (28, 30351), (33, 30525), (36, 30621), (38, 30756), (40, 30828), (41, 30903), (42, 30942), (47, 31026), (49, 31041), (50, 31080), (51, 31125), (52, 31131), (53, 31209), (55, 31257), (56, 31284), (57, 31290), (58, 31296), (61, 31506), (62, 31542), (63, 31707),

Gene: Bxz1_83 Start: 30463, Stop: 32772, Start Num: 1

Candidate Starts for Bxz1_83:

(Start: 1 @30463 has 12 MA's), (2, 30496), (6, 30550), (7, 30553), (8, 30646), (9, 30721), (10, 30889), (11, 30910), (12, 30955), (16, 31033), (17, 31048), (18, 31072), (19, 31105), (20, 31144), (21, 31147), (22, 31162), (23, 31213), (24, 31264), (25, 31291), (26, 31354), (28, 31402), (33, 31576), (36, 31672), (38, 31807), (40, 31879), (41, 31954), (42, 31993), (47, 32077), (49, 32092), (50, 32131), (51, 32176), (52, 32182), (53, 32260), (55, 32308), (56, 32335), (57, 32341), (58, 32347), (61, 32557), (62, 32593), (63, 32758),

Gene: Cane17_71 Start: 25927, Stop: 27441, Start Num: 14

Candidate Starts for Cane17_71:

(Start: 14 @25927 has 3 MA's), (15, 25960), (19, 26041), (20, 26080), (21, 26083), (22, 26098), (23, 26149), (25, 26227), (26, 26290), (28, 26338), (29, 26419), (30, 26446), (31, 26491), (32, 26515), (34, 26536), (35, 26545), (37, 26662), (38, 26737), (39, 26749), (43, 26914), (44, 26935), (45, 26974), (46, 26977), (48, 26992), (54, 27157), (60, 27388),

Gene: Caravan_78 Start: 28807, Stop: 31116, Start Num: 1

Candidate Starts for Caravan_78:

(Start: 1 @28807 has 12 MA's), (2, 28840), (6, 28894), (7, 28897), (8, 28990), (9, 29065), (10, 29233), (11, 29254), (12, 29299), (16, 29377), (17, 29392), (18, 29416), (19, 29449), (20, 29488), (21, 29491), (22, 29506), (23, 29557), (24, 29608), (25, 29635), (26, 29698), (28, 29746), (33, 29920), (36, 30016), (38, 30151), (40, 30223), (41, 30298), (42, 30337), (47, 30421), (49, 30436), (50, 30475), (51, 30520), (52, 30526), (53, 30604), (55, 30652), (56, 30679), (57, 30685), (58, 30691), (61, 30901), (62, 30937), (63, 31102),

Gene: Chomp_82 Start: 28644, Stop: 30953, Start Num: 1

Candidate Starts for Chomp_82:

(Start: 1 @28644 has 12 MA's), (2, 28677), (6, 28731), (7, 28734), (8, 28827), (9, 28902), (10, 29070), (11, 29091), (12, 29136), (16, 29214), (17, 29229), (18, 29253), (19, 29286), (20, 29325), (21, 29328), (22, 29343), (23, 29394), (24, 29445), (25, 29472), (26, 29535), (28, 29583), (33, 29757), (36, 29853), (38, 29988), (40, 30060), (41, 30135), (42, 30174), (47, 30258), (49, 30273), (50, 30312), (51, 30357), (52, 30363), (53, 30441), (55, 30489), (56, 30516), (57, 30522), (58, 30528), (61, 30738), (62, 30774), (63, 30939),

Gene: Cleatunium_78 Start: 28648, Stop: 30690, Start Num: 3

Candidate Starts for Cleatunium_78:

(Start: 3 @28648 has 5 MA's), (4, 28681), (6, 28735), (7, 28738), (8, 28831), (9, 28906), (10, 29074), (11, 29095), (12, 29140), (16, 29218), (17, 29233), (18, 29257), (19, 29290), (20, 29329), (21, 29332), (22, 29347), (23, 29398), (24, 29449), (25, 29476), (26, 29539), (28, 29587), (29, 29668), (30, 29695), (31, 29740), (32, 29764), (34, 29785), (35, 29794), (37, 29911), (38, 29986), (39, 29998), (43, 30163), (44, 30184), (45, 30223), (46, 30226), (48, 30241), (54, 30406), (60, 30637),

Gene: Colt_73 Start: 26989, Stop: 28503, Start Num: 14

Candidate Starts for Colt_73:

(Start: 14 @26989 has 3 MA's), (15, 27022), (19, 27103), (20, 27142), (21, 27145), (22, 27160), (23, 27211), (25, 27289), (26, 27352), (28, 27400), (29, 27481), (30, 27508), (31, 27553), (32, 27577), (34, 27598), (35, 27607), (37, 27724), (38, 27799), (39, 27811), (43, 27976), (44, 27997), (45, 28036), (46, 28039), (48, 28054), (54, 28219), (60, 28450),

Gene: Dandelion_89 Start: 31814, Stop: 34132, Start Num: 1

Candidate Starts for Dandelion_89:

(Start: 1 @31814 has 12 MA's), (2, 31847), (6, 31910), (7, 31913), (8, 32006), (9, 32081), (10, 32249), (11, 32270), (12, 32315), (16, 32393), (17, 32408), (18, 32432), (19, 32465), (20, 32504), (21, 32507), (22, 32522), (23, 32573), (24, 32624), (25, 32651), (26, 32714), (28, 32762), (33, 32936), (36, 33032), (38, 33167), (40, 33239), (41, 33314), (42, 33353), (47, 33437), (49, 33452), (50, 33491), (51, 33536), (52, 33542), (53, 33620), (55, 33668), (56, 33695), (57, 33701), (58, 33707), (61, 33917), (62, 33953), (63, 34118),

Gene: Essence_80 Start: 27727, Stop: 29769, Start Num: 3

Candidate Starts for Essence_80:

(Start: 3 @27727 has 5 MA's), (4, 27760), (6, 27814), (7, 27817), (9, 27985), (10, 28153), (11, 28174), (12, 28219), (16, 28297), (17, 28312), (18, 28336), (19, 28369), (20, 28408), (21, 28411), (22, 28426), (23, 28477), (24, 28528), (25, 28555), (26, 28618), (28, 28666), (29, 28747), (30, 28774), (31, 28819), (32, 28843), (34, 28864), (35, 28873), (37, 28990), (38, 29065), (39, 29077), (43, 29242), (44, 29263), (45, 29302), (46, 29305), (48, 29320), (54, 29485), (60, 29716),

Gene: Kamryn_83 Start: 29676, Stop: 31985, Start Num: 1

Candidate Starts for Kamryn_83:

(Start: 1 @29676 has 12 MA's), (2, 29709), (6, 29763), (7, 29766), (8, 29859), (9, 29934), (10, 30102), (11, 30123), (12, 30168), (13, 30186), (16, 30246), (17, 30261), (18, 30285), (19, 30318), (20, 30357), (21, 30360), (22, 30375), (23, 30426), (24, 30477), (25, 30504), (26, 30567), (28, 30615), (33, 30789), (36, 30885), (38, 31020), (40, 31092), (41, 31167), (42, 31206), (47, 31290), (49, 31305), (50, 31344), (51, 31389), (52, 31395), (53, 31473), (55, 31521), (56, 31548), (57, 31554), (58, 31560), (61, 31770), (62, 31806), (63, 31971),

Gene: LordLeafolot_89 Start: 31065, Stop: 33107, Start Num: 3

Candidate Starts for LordLeafolot_89:

(Start: 3 @31065 has 5 MA's), (4, 31098), (6, 31152), (7, 31155), (9, 31323), (10, 31491), (11, 31512), (12, 31557), (16, 31635), (17, 31650), (18, 31674), (19, 31707), (20, 31746), (21, 31749), (22, 31764), (23, 31815), (24, 31866), (25, 31893), (26, 31956), (28, 32004), (29, 32085), (30, 32112), (31, 32157), (32, 32181), (34, 32202), (35, 32211), (37, 32328), (38, 32403), (39, 32415), (43, 32580), (44, 32601), (45, 32640), (46, 32643), (48, 32658), (54, 32823), (60, 33054),

Gene: Lukilu_73 Start: 28187, Stop: 30229, Start Num: 3

Candidate Starts for Lukilu_73:

(Start: 3 @28187 has 5 MA's), (4, 28220), (6, 28274), (7, 28277), (8, 28370), (9, 28445), (10, 28613), (11, 28634), (12, 28679), (16, 28757), (17, 28772), (18, 28796), (19, 28829), (20, 28868), (21, 28871), (22, 28886), (23, 28937), (24, 28988), (25, 29015), (26, 29078), (28, 29126), (29, 29207), (30, 29234), (31, 29279), (32, 29303), (34, 29324), (35, 29333), (37, 29450), (38, 29525), (39, 29537), (43, 29702), (44, 29723), (45, 29762), (46, 29765), (48, 29780), (54, 29945), (60, 30176),

Gene: Lunareta_80 Start: 30000, Stop: 32309, Start Num: 1

Candidate Starts for Lunareta_80:

(Start: 1 @30000 has 12 MA's), (2, 30033), (6, 30087), (7, 30090), (8, 30183), (9, 30258), (10, 30426), (11, 30447), (12, 30492), (16, 30570), (17, 30585), (18, 30609), (19, 30642), (20, 30681), (21, 30684), (22, 30699), (23, 30750), (24, 30801), (25, 30828), (26, 30891), (28, 30939), (33, 31113), (36, 31209),

(38, 31344), (40, 31416), (41, 31491), (42, 31530), (47, 31614), (49, 31629), (50, 31668), (51, 31713), (52, 31719), (53, 31797), (55, 31845), (56, 31872), (57, 31878), (58, 31884), (61, 32094), (62, 32130), (63, 32295),

Gene: Mangeria_83 Start: 29155, Stop: 31422, Start Num: 1

Candidate Starts for Mangeria_83:

(Start: 1 @29155 has 12 MA's), (2, 29188), (7, 29203), (9, 29371), (10, 29539), (11, 29560), (12, 29605), (16, 29683), (17, 29698), (18, 29722), (19, 29755), (20, 29794), (21, 29797), (22, 29812), (23, 29863), (24, 29914), (25, 29941), (26, 30004), (28, 30052), (33, 30226), (36, 30322), (38, 30457), (40, 30529), (41, 30604), (42, 30643), (47, 30727), (49, 30742), (50, 30781), (51, 30826), (52, 30832), (53, 30910), (55, 30958), (56, 30985), (57, 30991), (58, 30997), (59, 31021), (61, 31207), (62, 31243), (63, 31408),

Gene: Montpel_80 Start: 30000, Stop: 32309, Start Num: 1

Candidate Starts for Montpel_80:

(Start: 1 @30000 has 12 MA's), (2, 30033), (6, 30087), (7, 30090), (8, 30183), (9, 30258), (10, 30426), (11, 30447), (12, 30492), (16, 30570), (17, 30585), (18, 30609), (19, 30642), (20, 30681), (21, 30684), (22, 30699), (23, 30750), (24, 30801), (25, 30828), (26, 30891), (28, 30939), (33, 31113), (36, 31209), (38, 31344), (40, 31416), (41, 31491), (42, 31530), (47, 31614), (49, 31629), (50, 31668), (51, 31713), (52, 31719), (53, 31797), (55, 31845), (56, 31872), (57, 31878), (58, 31884), (61, 32094), (62, 32130), (63, 32295),

Gene: Naval22_91 Start: 30756, Stop: 33065, Start Num: 1

Candidate Starts for Naval22_91:

(Start: 1 @30756 has 12 MA's), (2, 30789), (6, 30843), (7, 30846), (8, 30939), (9, 31014), (10, 31182), (11, 31203), (12, 31248), (16, 31326), (17, 31341), (18, 31365), (19, 31398), (20, 31437), (21, 31440), (22, 31455), (23, 31506), (24, 31557), (25, 31584), (26, 31647), (28, 31695), (33, 31869), (36, 31965), (38, 32100), (40, 32172), (41, 32247), (42, 32286), (47, 32370), (49, 32385), (50, 32424), (51, 32469), (52, 32475), (53, 32553), (55, 32601), (56, 32628), (57, 32634), (58, 32640), (61, 32850), (62, 32886), (63, 33051),

Gene: NoodleTree_86 Start: 30183, Stop: 32492, Start Num: 1

Candidate Starts for NoodleTree_86:

(Start: 1 @30183 has 12 MA's), (2, 30216), (6, 30270), (7, 30273), (8, 30366), (9, 30441), (10, 30609), (11, 30630), (12, 30675), (16, 30753), (17, 30768), (18, 30792), (19, 30825), (20, 30864), (21, 30867), (22, 30882), (23, 30933), (24, 30984), (25, 31011), (26, 31074), (28, 31122), (33, 31296), (36, 31392), (38, 31527), (40, 31599), (41, 31674), (42, 31713), (47, 31797), (49, 31812), (50, 31851), (51, 31896), (52, 31902), (53, 31980), (55, 32028), (56, 32055), (57, 32061), (58, 32067), (61, 32277), (62, 32313), (63, 32478),

Gene: NuevoMundo_89 Start: 31113, Stop: 33422, Start Num: 1

Candidate Starts for NuevoMundo_89:

(Start: 1 @31113 has 12 MA's), (2, 31146), (6, 31200), (7, 31203), (8, 31296), (9, 31371), (10, 31539), (11, 31560), (12, 31605), (16, 31683), (17, 31698), (18, 31722), (19, 31755), (20, 31794), (21, 31797), (22, 31812), (23, 31863), (24, 31914), (25, 31941), (26, 32004), (28, 32052), (33, 32226), (36, 32322), (38, 32457), (40, 32529), (41, 32604), (42, 32643), (47, 32727), (49, 32742), (50, 32781), (51, 32826), (52, 32832), (53, 32910), (55, 32958), (56, 32985), (57, 32991), (58, 32997), (61, 33207), (62, 33243), (63, 33408),

Gene: Pio_86 Start: 30081, Stop: 32390, Start Num: 1

Candidate Starts for Pio_86:

(Start: 1 @30081 has 12 MA's), (2, 30114), (6, 30168), (7, 30171), (8, 30264), (9, 30339), (10, 30507), (11, 30528), (12, 30573), (16, 30651), (17, 30666), (18, 30690), (19, 30723), (20, 30762), (21, 30765),

(22, 30780), (23, 30831), (24, 30882), (25, 30909), (26, 30972), (28, 31020), (33, 31194), (36, 31290),
(38, 31425), (40, 31497), (41, 31572), (42, 31611), (47, 31695), (49, 31710), (50, 31749), (51, 31794),
(52, 31800), (53, 31878), (55, 31926), (56, 31953), (57, 31959), (58, 31965), (61, 32175), (62, 32211),
(63, 32376),