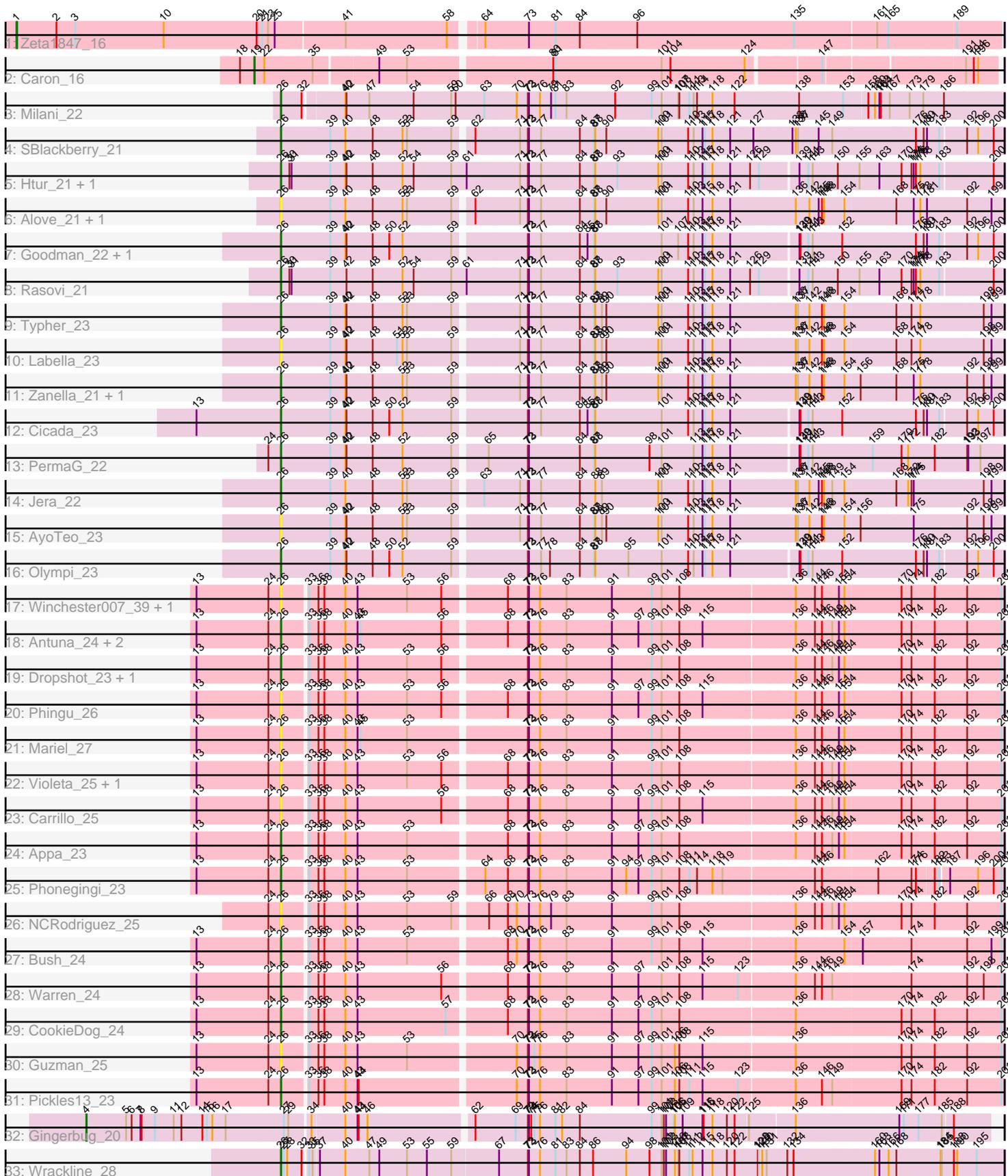# Pham 283960

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 283960 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283960 has 42 members, 13 are drafts.

Phages represented in each track:
• Track 1 : Zeta1847_16
• Track 2 : Caron_16
• Track 3 : Milani_22
• Track 4 : SBlackberry_21
• Track 5 : Htur_21, Linayshia_21
• Track 6 : Alove_21, Rootkit7_21
• Track 7 : Goodman_22, Johann_22
• Track 8 : Rasovi_21
• Track 9 : Typher_23
• Track 10 : Labella_23
• Track 11 : Zanella_21, TurboVicky_21
• Track 12 : Cicada_23
• Track 13 : PermaG_22
• Track 14 : Jera_22
• Track 15 : AyoTeo_23
• Track 16 : Olympi_23
• Track 17 : Winchester007_39, PhillyJawn_24
• Track 18 : Antuna_24, Losacky_25, MenE_24
• Track 19 : Dropshot_23, Blett_24
• Track 20 : Phingu_26
• Track 21 : Mariel_27
• Track 22 : Violeta_25, Jakelyne_26
• Track 23 : Carrillo_25
• Track 24 : Appa_23
• Track 25 : Phonegingi_23
• Track 26 : NCRodriguez_25
• Track 27 : Bush_24
• Track 28 : Warren_24
• Track 29 : CookieDog_24
• Track 30 : Guzman_25
• Track 31 : Pickles13_23
• Track 32 : Gingerbug_20
• Track 33 : Wrackline_28

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

The start number called the most often in the published annotations is 26, it was called in 26 of the 29 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Alove_21, Antuna_24, Appa_23, AyoTeo_23, Blett_24, Bush_24, Carrillo_25, Cicada_23, CookieDog_24, Dropshot_23, Goodman_22, Guzman_25, Htur_21, Jakelyne_26, Jera_22, Johann_22, Labella_23, Linayshia_21, Losacky_25, Mariel_27, MenE_24, Milani_22, NCRodriguez_25, Olympi_23, PermaG_22, PhillyJawn_24, Phingu_26, Phonegingi_23, Pickles13_23, Rasovi_21, Rootkit7_21, SBlackberry_21, TurboVicky_21, Typher_23, Violeta_25, Warren_24, Winchester007_39, Wrackline_28, Zanella_21,

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

Genes that do not have the "Most Annotated" start:
• Caron_16, Gingerbug_20, Zeta1847_16,

Summary by start number:

Start 1:
• Found in 1 of 42 (2.4%) of genes in pham
• Manual Annotations of this start: 1 of 29
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Zeta1847_16 (EH),

Start 4:
• Found in 1 of 42 (2.4%) of genes in pham
• Manual Annotations of this start: 1 of 29
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Gingerbug_20 (GF),

Start 19:
• Found in 1 of 42 (2.4%) of genes in pham
• Manual Annotations of this start: 1 of 29
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Caron_16 (EH),

Start 26:
• Found in 39 of 42 (92.9%) of genes in pham
• Manual Annotations of this start: 26 of 29
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Alove_21 (EJ), Antuna_24 (GA), Appa_23 (GA), AyoTeo_23 (EJ), Blett_24 (GA), Bush_24 (GA), Carrillo_25 (GA), Cicada_23 (EJ), CookieDog_24 (GA), Dropshot_23 (GA), Goodman_22 (EJ), Guzman_25 (GA), Htur_21 (EJ), Jakelyne_26 (GA), Jera_22 (EJ), Johann_22 (EJ), Labella_23 (EJ), Linayshia_21 (EJ), Losacky_25 (GA), Mariel_27 (GA), MenE_24 (GA), Milani_22 (EJ), NCRodriguez_25 (GA), Olympi_23 (EJ), PermaG_22 (EJ), PhillyJawn_24 (GA), Phingu_26 (GA), Phonegingi_23 (GA), Pickles13_23 (GA), Rasovi_21 (EJ), Rootkit7_21 (EJ), SBlackberry_21 (EJ), TurboVicky_21 (EJ), Typher_23 (EJ), Violeta_25 (GA), Warren_24 (GA), Winchester007_39 (GA), Wrackline_28 (GF), Zanella_21 (EJ),

Summary by clusters:

There are 4 clusters represented in this pham: GF, EH, GA, EJ,

Info for manual annotations of cluster EH:
•Start number 1 was manually annotated 1 time for cluster EH.
•Start number 19 was manually annotated 1 time for cluster EH.

Info for manual annotations of cluster EJ:
•Start number 26 was manually annotated 14 times for cluster EJ.

Info for manual annotations of cluster GA:
•Start number 26 was manually annotated 11 times for cluster GA.

Info for manual annotations of cluster GF:
•Start number 4 was manually annotated 1 time for cluster GF.
•Start number 26 was manually annotated 1 time for cluster GF.

Gene Information:

Gene: Alove_21 Start: 16231, Stop: 18123, Start Num: 26
Candidate Starts for Alove_21:
(Start: 26 @16231 has 26 MA's), (39, 16360), (40, 16399), (48, 16471), (52, 16552), (53, 16564), (59, 16681), (62, 16723), (71, 16840), (72, 16861), (73, 16864), (77, 16897), (84, 17002), (87, 17041), (88, 17044), (90, 17074), (100, 17212), (101, 17218), (110, 17290), (113, 17305), (115, 17329), (118, 17356), (121, 17404), (136, 17569), (142, 17605), (145, 17629), (146, 17638), (148, 17644), (154, 17698), (168, 17833), (175, 17878), (178, 17896), (181, 17914), (192, 18022), (199, 18088),

Gene: Antuna_24 Start: 14563, Stop: 16431, Start Num: 26
Candidate Starts for Antuna_24:
(13, 14338), (24, 14533), (Start: 26 @14563 has 26 MA's), (33, 14623), (36, 14644), (38, 14656), (40, 14710), (43, 14743), (45, 14749), (56, 14965), (68, 15121), (72, 15175), (73, 15178), (76, 15208), (83, 15280), (91, 15403), (97, 15475), (99, 15508), (101, 15532), (108, 15580), (115, 15643), (136, 15877), (144, 15928), (146, 15946), (149, 15973), (151, 15991), (154, 16006), (170, 16153), (174, 16180), (182, 16243), (192, 16330), (201, 16423),

Gene: Appa_23 Start: 14425, Stop: 16293, Start Num: 26
Candidate Starts for Appa_23:
(13, 14200), (24, 14395), (Start: 26 @14425 has 26 MA's), (33, 14485), (36, 14506), (38, 14518), (40, 14572), (43, 14605), (53, 14734), (68, 14983), (72, 15037), (73, 15040), (76, 15070), (83, 15142), (91, 15265), (97, 15337), (99, 15370), (101, 15394), (108, 15442), (136, 15739), (144, 15790), (146, 15808), (149, 15835), (151, 15853), (154, 15868), (170, 16015), (174, 16042), (182, 16105), (192, 16192), (201, 16285),

Gene: AyoTeo_23 Start: 16358, Stop: 18250, Start Num: 26
Candidate Starts for AyoTeo_23:
(Start: 26 @16358 has 26 MA's), (39, 16487), (40, 16526), (42, 16529), (48, 16598), (52, 16679), (53, 16691), (59, 16808), (71, 16967), (72, 16988), (73, 16991), (77, 17024), (84, 17129), (87, 17168), (88, 17171), (89, 17189), (90, 17201), (100, 17339), (101, 17345), (110, 17417), (113, 17432), (115, 17456), (117, 17462), (118, 17483), (121, 17531), (136, 17696), (137, 17702), (142, 17732), (146,

17765), (148, 17771), (154, 17825), (156, 17864), (175, 18005), (192, 18149), (198, 18194), (199, 18215),

Gene: Blett_24 Start: 14578, Stop: 16446, Start Num: 26
Candidate Starts for Blett_24:
(13, 14353), (24, 14548), (Start: 26 @14578 has 26 MA's), (33, 14638), (36, 14659), (38, 14671), (40, 14725), (43, 14758), (53, 14887), (56, 14980), (72, 15190), (73, 15193), (76, 15223), (83, 15295), (91, 15418), (99, 15523), (101, 15547), (108, 15595), (136, 15892), (144, 15943), (146, 15961), (149, 15988), (151, 16006), (154, 16021), (170, 16168), (174, 16195), (182, 16258), (192, 16345), (201, 16438),

Gene: Bush_24 Start: 14559, Stop: 16421, Start Num: 26
Candidate Starts for Bush_24:
(13, 14334), (24, 14529), (Start: 26 @14559 has 26 MA's), (33, 14619), (36, 14640), (38, 14652), (40, 14706), (43, 14739), (53, 14868), (68, 15117), (70, 15141), (72, 15171), (73, 15174), (76, 15204), (83, 15276), (91, 15399), (99, 15504), (101, 15528), (108, 15576), (115, 15639), (136, 15867), (154, 15996), (157, 16041), (174, 16170), (192, 16320), (199, 16386), (201, 16413),

Gene: Caron_16 Start: 13192, Stop: 15042, Start Num: 19
Candidate Starts for Caron_16:
(18, 13156), (Start: 19 @13192 has 1 MA's), (22, 13219), (35, 13339), (49, 13495), (53, 13570), (80, 13933), (81, 13939), (101, 14224), (104, 14248), (124, 14449), (147, 14623), (191, 14959), (194, 14980), (196, 14992),

Gene: Carrillo_25 Start: 14532, Stop: 16400, Start Num: 26
Candidate Starts for Carrillo_25:
(13, 14307), (24, 14502), (Start: 26 @14532 has 26 MA's), (33, 14592), (36, 14613), (38, 14625), (40, 14679), (43, 14712), (56, 14934), (68, 15090), (72, 15144), (73, 15147), (76, 15177), (83, 15249), (91, 15372), (97, 15444), (99, 15477), (101, 15501), (108, 15549), (115, 15612), (136, 15846), (144, 15897), (146, 15915), (149, 15942), (151, 15960), (154, 15975), (170, 16122), (174, 16149), (182, 16212), (192, 16299), (201, 16392),

Gene: Cicada_23 Start: 16468, Stop: 18345, Start Num: 26
Candidate Starts for Cicada_23:
(13, 16243), (Start: 26 @16468 has 26 MA's), (39, 16597), (40, 16636), (42, 16639), (48, 16708), (50, 16753), (52, 16789), (59, 16918), (72, 17098), (73, 17101), (77, 17134), (84, 17239), (85, 17260), (87, 17278), (88, 17281), (101, 17455), (110, 17527), (113, 17542), (115, 17566), (117, 17572), (118, 17593), (121, 17641), (139, 17809), (140, 17812), (141, 17833), (143, 17845), (152, 17920), (176, 18115), (180, 18136), (181, 18145), (183, 18178), (192, 18244), (196, 18274), (200, 18316),

Gene: CookieDog_24 Start: 14559, Stop: 16421, Start Num: 26
Candidate Starts for CookieDog_24:
(13, 14334), (24, 14529), (Start: 26 @14559 has 26 MA's), (33, 14619), (36, 14640), (38, 14652), (40, 14706), (43, 14739), (57, 14973), (68, 15117), (72, 15171), (73, 15174), (76, 15204), (83, 15276), (91, 15399), (97, 15471), (99, 15504), (101, 15528), (108, 15576), (136, 15867), (170, 16143), (174, 16170), (182, 16233), (192, 16320), (201, 16413),

Gene: Dropshot_23 Start: 14425, Stop: 16293, Start Num: 26
Candidate Starts for Dropshot_23:
(13, 14200), (24, 14395), (Start: 26 @14425 has 26 MA's), (33, 14485), (36, 14506), (38, 14518), (40, 14572), (43, 14605), (53, 14734), (56, 14827), (72, 15037), (73, 15040), (76, 15070), (83, 15142), (91, 15265), (99, 15370), (101, 15394), (108, 15442), (136, 15739), (144, 15790), (146, 15808), (149, 15835), (151, 15853), (154, 15868), (170, 16015), (174, 16042), (182, 16105), (192, 16192), (201,

16285),

Gene: Gingerbug_20 Start: 14337, Stop: 16679, Start Num: 4
Candidate Starts for Gingerbug_20:
(Start: 4 @14337 has 1 MA's), (5, 14445), (6, 14460), (7, 14484), (8, 14487), (9, 14523), (11, 14574), (12, 14595), (14, 14652), (15, 14664), (16, 14679), (17, 14715), (27, 14871), (29, 14883), (34, 14934), (40, 15018), (43, 15051), (44, 15054), (46, 15078), (62, 15345), (69, 15453), (72, 15486), (73, 15489), (74, 15495), (75, 15504), (76, 15519), (81, 15561), (82, 15579), (84, 15627), (99, 15819), (101, 15843), (102, 15849), (103, 15855), (105, 15876), (106, 15879), (109, 15900), (115, 15954), (116, 15957), (118, 15981), (120, 16020), (122, 16041), (125, 16074), (136, 16188), (169, 16452), (171, 16464), (177, 16503), (185, 16563), (188, 16587),

Gene: Goodman_22 Start: 16381, Stop: 18258, Start Num: 26
Candidate Starts for Goodman_22:
(Start: 26 @16381 has 26 MA's), (39, 16510), (40, 16549), (42, 16552), (48, 16621), (50, 16666), (52, 16702), (59, 16831), (72, 17011), (73, 17014), (77, 17047), (84, 17152), (85, 17173), (87, 17191), (88, 17194), (101, 17368), (107, 17413), (110, 17440), (113, 17455), (115, 17479), (117, 17485), (118, 17506), (121, 17554), (139, 17722), (140, 17725), (141, 17746), (143, 17758), (152, 17833), (176, 18028), (180, 18049), (181, 18058), (183, 18091), (192, 18157), (196, 18187), (200, 18229),

Gene: Guzman_25 Start: 14840, Stop: 16702, Start Num: 26
Candidate Starts for Guzman_25:
(13, 14615), (24, 14810), (Start: 26 @14840 has 26 MA's), (33, 14900), (36, 14921), (38, 14933), (40, 14987), (43, 15020), (53, 15149), (70, 15422), (72, 15452), (73, 15455), (75, 15470), (76, 15485), (83, 15557), (91, 15680), (97, 15752), (99, 15785), (101, 15809), (106, 15845), (108, 15857), (115, 15920), (136, 16148), (170, 16424), (174, 16451), (182, 16514), (192, 16601), (201, 16694),

Gene: Htur_21 Start: 16411, Stop: 18312, Start Num: 26
Candidate Starts for Htur_21:
(Start: 26 @16411 has 26 MA's), (30, 16432), (31, 16438), (39, 16540), (40, 16579), (42, 16582), (48, 16651), (52, 16732), (54, 16762), (59, 16861), (61, 16903), (71, 17044), (72, 17065), (73, 17068), (77, 17101), (84, 17206), (87, 17245), (88, 17248), (93, 17308), (100, 17416), (101, 17422), (110, 17494), (113, 17509), (115, 17533), (117, 17539), (118, 17560), (121, 17608), (126, 17659), (129, 17680), (139, 17776), (141, 17800), (143, 17812), (150, 17875), (155, 17932), (163, 17986), (170, 18043), (174, 18070), (175, 18076), (176, 18082), (178, 18094), (183, 18145), (200, 18283),

Gene: Jakelyne_26 Start: 14641, Stop: 16509, Start Num: 26
Candidate Starts for Jakelyne_26:
(13, 14416), (24, 14611), (Start: 26 @14641 has 26 MA's), (33, 14701), (36, 14722), (38, 14734), (40, 14788), (43, 14821), (53, 14950), (56, 15043), (68, 15199), (72, 15253), (73, 15256), (76, 15286), (83, 15358), (91, 15481), (99, 15586), (101, 15610), (108, 15658), (136, 15955), (144, 16006), (146, 16024), (149, 16051), (151, 16069), (154, 16084), (170, 16231), (174, 16258), (182, 16321), (192, 16408), (201, 16501),

Gene: Jera_22 Start: 15478, Stop: 17370, Start Num: 26
Candidate Starts for Jera_22:
(Start: 26 @15478 has 26 MA's), (39, 15607), (40, 15646), (48, 15718), (52, 15799), (53, 15811), (59, 15928), (63, 15994), (71, 16087), (72, 16108), (73, 16111), (77, 16144), (84, 16249), (88, 16291), (89, 16309), (100, 16459), (101, 16465), (110, 16537), (113, 16552), (115, 16576), (117, 16582), (118, 16603), (121, 16651), (136, 16816), (137, 16822), (142, 16852), (145, 16876), (146, 16885), (148, 16891), (149, 16912), (154, 16945), (168, 17080), (172, 17110), (174, 17119), (175, 17125), (198, 17314), (199, 17335),

Gene: Johann_22 Start: 16381, Stop: 18258, Start Num: 26
Candidate Starts for Johann_22:
(Start: 26 @16381 has 26 MA's), (39, 16510), (40, 16549), (42, 16552), (48, 16621), (50, 16666), (52, 16702), (59, 16831), (72, 17011), (73, 17014), (77, 17047), (84, 17152), (85, 17173), (87, 17191), (88, 17194), (101, 17368), (107, 17413), (110, 17440), (113, 17455), (115, 17479), (117, 17485), (118, 17506), (121, 17554), (139, 17722), (140, 17725), (141, 17746), (143, 17758), (152, 17833), (176, 18028), (180, 18049), (181, 18058), (183, 18091), (192, 18157), (196, 18187), (200, 18229),

Gene: Labella_23 Start: 16361, Stop: 18253, Start Num: 26
Candidate Starts for Labella_23:
(Start: 26 @16361 has 26 MA's), (39, 16490), (40, 16529), (42, 16532), (48, 16601), (51, 16667), (52, 16682), (53, 16694), (59, 16811), (71, 16970), (72, 16991), (73, 16994), (77, 17027), (84, 17132), (87, 17171), (88, 17174), (89, 17192), (90, 17204), (100, 17342), (101, 17348), (110, 17420), (113, 17435), (115, 17459), (117, 17465), (118, 17486), (121, 17534), (136, 17699), (137, 17705), (142, 17735), (146, 17768), (148, 17774), (154, 17828), (168, 17963), (174, 18002), (178, 18026), (198, 18197), (199, 18218),

Gene: Linayshia_21 Start: 16403, Stop: 18304, Start Num: 26
Candidate Starts for Linayshia_21:
(Start: 26 @16403 has 26 MA's), (30, 16424), (31, 16430), (39, 16532), (40, 16571), (42, 16574), (48, 16643), (52, 16724), (54, 16754), (59, 16853), (61, 16895), (71, 17036), (72, 17057), (73, 17060), (77, 17093), (84, 17198), (87, 17237), (88, 17240), (93, 17300), (100, 17408), (101, 17414), (110, 17486), (113, 17501), (115, 17525), (117, 17531), (118, 17552), (121, 17600), (126, 17651), (129, 17672), (139, 17768), (141, 17792), (143, 17804), (150, 17867), (155, 17924), (163, 17978), (170, 18035), (174, 18062), (175, 18068), (176, 18074), (178, 18086), (183, 18137), (200, 18275),

Gene: Losacky_25 Start: 14705, Stop: 16573, Start Num: 26
Candidate Starts for Losacky_25:
(13, 14480), (24, 14675), (Start: 26 @14705 has 26 MA's), (33, 14765), (36, 14786), (38, 14798), (40, 14852), (43, 14885), (45, 14891), (56, 15107), (68, 15263), (72, 15317), (73, 15320), (76, 15350), (83, 15422), (91, 15545), (97, 15617), (99, 15650), (101, 15674), (108, 15722), (115, 15785), (136, 16019), (144, 16070), (146, 16088), (149, 16115), (151, 16133), (154, 16148), (170, 16295), (174, 16322), (182, 16385), (192, 16472), (201, 16565),

Gene: Mariel_27 Start: 14997, Stop: 16865, Start Num: 26
Candidate Starts for Mariel_27:
(13, 14772), (24, 14967), (Start: 26 @14997 has 26 MA's), (33, 15057), (36, 15078), (38, 15090), (40, 15144), (43, 15177), (45, 15183), (53, 15306), (72, 15609), (73, 15612), (76, 15642), (83, 15714), (91, 15837), (99, 15942), (101, 15966), (108, 16014), (136, 16311), (144, 16362), (146, 16380), (151, 16425), (154, 16440), (170, 16587), (174, 16614), (182, 16677), (192, 16764), (201, 16857),

Gene: MenE_24 Start: 14693, Stop: 16561, Start Num: 26
Candidate Starts for MenE_24:
(13, 14468), (24, 14663), (Start: 26 @14693 has 26 MA's), (33, 14753), (36, 14774), (38, 14786), (40, 14840), (43, 14873), (45, 14879), (56, 15095), (68, 15251), (72, 15305), (73, 15308), (76, 15338), (83, 15410), (91, 15533), (97, 15605), (99, 15638), (101, 15662), (108, 15710), (115, 15773), (136, 16007), (144, 16058), (146, 16076), (149, 16103), (151, 16121), (154, 16136), (170, 16283), (174, 16310), (182, 16373), (192, 16460), (201, 16553),

Gene: Milani_22 Start: 15329, Stop: 17206, Start Num: 26
Candidate Starts for Milani_22:
(Start: 26 @15329 has 26 MA's), (32, 15380), (40, 15476), (42, 15479), (47, 15539), (54, 15656), (59, 15758), (60, 15770), (63, 15845), (70, 15932), (72, 15962), (73, 15965), (76, 15995), (79, 16025), (81,

16037), (83, 16067), (92, 16199), (99, 16295), (101, 16319), (107, 16364), (108, 16367), (111, 16394), (113, 16406), (114, 16415), (118, 16457), (122, 16517), (138, 16685), (153, 16802), (158, 16859), (160, 16877), (163, 16889), (164, 16892), (167, 16916), (173, 16964), (179, 16997), (186, 17051),

Gene: NCRodriguez_25 Start: 14754, Stop: 16613, Start Num: 26
Candidate Starts for NCRodriguez_25:
(24, 14724), (Start: 26 @14754 has 26 MA's), (33, 14814), (36, 14835), (38, 14847), (40, 14901), (43, 14934), (53, 15063), (59, 15177), (66, 15252), (68, 15303), (70, 15327), (73, 15360), (76, 15390), (79, 15420), (83, 15462), (91, 15585), (99, 15690), (101, 15714), (108, 15762), (136, 16059), (144, 16110), (146, 16128), (149, 16155), (151, 16173), (154, 16188), (170, 16335), (174, 16362), (182, 16425), (192, 16512), (201, 16605),

Gene: Olympi_23 Start: 16368, Stop: 18245, Start Num: 26
Candidate Starts for Olympi_23:
(Start: 26 @16368 has 26 MA's), (39, 16497), (40, 16536), (42, 16539), (48, 16608), (50, 16653), (52, 16689), (59, 16818), (72, 16998), (73, 17001), (77, 17034), (78, 17058), (84, 17139), (87, 17178), (88, 17181), (95, 17271), (101, 17355), (110, 17427), (113, 17442), (115, 17466), (117, 17472), (118, 17493), (121, 17541), (139, 17709), (140, 17712), (141, 17733), (143, 17745), (152, 17820), (176, 18015), (180, 18036), (181, 18045), (183, 18078), (192, 18144), (196, 18174), (200, 18216),

Gene: PermaG_22 Start: 16442, Stop: 18325, Start Num: 26
Candidate Starts for PermaG_22:
(24, 16412), (Start: 26 @16442 has 26 MA's), (39, 16571), (40, 16610), (42, 16613), (48, 16682), (52, 16763), (59, 16892), (65, 16970), (72, 17072), (73, 17075), (84, 17213), (87, 17252), (88, 17255), (98, 17399), (101, 17429), (113, 17516), (115, 17540), (117, 17546), (118, 17567), (121, 17615), (139, 17783), (140, 17786), (141, 17807), (143, 17819), (159, 17975), (170, 18050), (172, 18068), (182, 18137), (192, 18224), (193, 18227), (197, 18260),

Gene: PhillyJawn_24 Start: 14425, Stop: 16293, Start Num: 26
Candidate Starts for PhillyJawn_24:
(13, 14200), (24, 14395), (Start: 26 @14425 has 26 MA's), (33, 14485), (36, 14506), (38, 14518), (40, 14572), (43, 14605), (53, 14734), (56, 14827), (68, 14983), (72, 15037), (73, 15040), (76, 15070), (83, 15142), (91, 15265), (99, 15370), (101, 15394), (108, 15442), (136, 15739), (144, 15790), (146, 15808), (151, 15853), (154, 15868), (170, 16015), (174, 16042), (182, 16105), (192, 16192), (201, 16285),

Gene: Phingu_26 Start: 14644, Stop: 16512, Start Num: 26
Candidate Starts for Phingu_26:
(13, 14419), (24, 14614), (Start: 26 @14644 has 26 MA's), (33, 14704), (36, 14725), (38, 14737), (40, 14791), (43, 14824), (53, 14953), (56, 15046), (68, 15202), (72, 15256), (73, 15259), (76, 15289), (83, 15361), (91, 15484), (97, 15556), (99, 15589), (101, 15613), (108, 15661), (115, 15724), (136, 15958), (144, 16009), (146, 16027), (151, 16072), (154, 16087), (170, 16234), (174, 16261), (182, 16324), (192, 16411), (201, 16504),

Gene: Phonegingi_23 Start: 14486, Stop: 16339, Start Num: 26
Candidate Starts for Phonegingi_23:
(13, 14261), (24, 14456), (Start: 26 @14486 has 26 MA's), (33, 14546), (36, 14567), (38, 14579), (40, 14633), (43, 14666), (53, 14795), (64, 14984), (68, 15044), (72, 15098), (73, 15101), (76, 15131), (83, 15203), (91, 15326), (94, 15365), (97, 15398), (99, 15431), (101, 15455), (108, 15503), (111, 15530), (114, 15551), (118, 15593), (119, 15620), (144, 15851), (146, 15869), (162, 16016), (174, 16103), (176, 16115), (182, 16160), (183, 16172), (187, 16193), (196, 16268), (200, 16310), (201, 16331),

Gene: Pickles13_23 Start: 14850, Stop: 16718, Start Num: 26

Candidate Starts for Pickles13_23:
(13, 14625), (24, 14820), (Start: 26 @14850 has 26 MA's), (33, 14910), (36, 14931), (38, 14943), (40, 14997), (43, 15030), (44, 15033), (70, 15432), (72, 15462), (73, 15465), (76, 15495), (83, 15567), (91, 15690), (97, 15762), (99, 15795), (101, 15819), (106, 15855), (108, 15867), (111, 15894), (115, 15930), (123, 16026), (136, 16164), (146, 16233), (149, 16260), (170, 16440), (174, 16467), (182, 16530), (192, 16617), (201, 16710),

Gene: Rasovi_21 Start: 16411, Stop: 18312, Start Num: 26
Candidate Starts for Rasovi_21:
(Start: 26 @16411 has 26 MA's), (30, 16432), (31, 16438), (39, 16540), (42, 16582), (48, 16651), (52, 16732), (54, 16762), (59, 16861), (61, 16903), (71, 17044), (72, 17065), (73, 17068), (77, 17101), (84, 17206), (87, 17245), (88, 17248), (93, 17308), (100, 17416), (101, 17422), (110, 17494), (113, 17509), (115, 17533), (117, 17539), (118, 17560), (121, 17608), (126, 17659), (129, 17680), (139, 17776), (141, 17800), (143, 17812), (150, 17875), (155, 17932), (163, 17986), (170, 18043), (174, 18070), (175, 18076), (176, 18082), (178, 18094), (183, 18145), (200, 18283),

Gene: Rootkit7_21 Start: 16231, Stop: 18123, Start Num: 26
Candidate Starts for Rootkit7_21:
(Start: 26 @16231 has 26 MA's), (39, 16360), (40, 16399), (48, 16471), (52, 16552), (53, 16564), (59, 16681), (62, 16723), (71, 16840), (72, 16861), (73, 16864), (77, 16897), (84, 17002), (87, 17041), (88, 17044), (90, 17074), (100, 17212), (101, 17218), (110, 17290), (113, 17305), (115, 17329), (118, 17356), (121, 17404), (136, 17569), (142, 17605), (145, 17629), (146, 17638), (148, 17644), (154, 17698), (168, 17833), (175, 17878), (178, 17896), (181, 17914), (192, 18022), (199, 18088),

Gene: SBlackberry_21 Start: 16237, Stop: 18123, Start Num: 26
Candidate Starts for SBlackberry_21:
(Start: 26 @16237 has 26 MA's), (39, 16366), (40, 16405), (48, 16477), (52, 16558), (53, 16570), (59, 16687), (62, 16729), (71, 16846), (72, 16867), (73, 16870), (77, 16903), (84, 17008), (87, 17047), (88, 17050), (90, 17080), (100, 17218), (101, 17224), (110, 17296), (113, 17311), (115, 17335), (117, 17341), (118, 17362), (121, 17410), (127, 17467), (133, 17566), (136, 17575), (137, 17581), (145, 17635), (149, 17671), (176, 17893), (180, 17914), (181, 17923), (183, 17956), (192, 18022), (196, 18052), (200, 18094),

Gene: TurboVicky_21 Start: 16231, Stop: 18123, Start Num: 26
Candidate Starts for TurboVicky_21:
(Start: 26 @16231 has 26 MA's), (39, 16360), (40, 16399), (42, 16402), (48, 16471), (52, 16552), (53, 16564), (59, 16681), (71, 16840), (72, 16861), (73, 16864), (77, 16897), (84, 17002), (87, 17041), (88, 17044), (89, 17062), (90, 17074), (100, 17212), (101, 17218), (110, 17290), (113, 17305), (115, 17329), (117, 17335), (118, 17356), (121, 17404), (136, 17569), (137, 17575), (142, 17605), (146, 17638), (148, 17644), (154, 17698), (156, 17737), (168, 17833), (175, 17878), (178, 17896), (192, 18022), (198, 18067), (199, 18088),

Gene: Typher_23 Start: 16361, Stop: 18253, Start Num: 26
Candidate Starts for Typher_23:
(Start: 26 @16361 has 26 MA's), (39, 16490), (40, 16529), (42, 16532), (48, 16601), (52, 16682), (53, 16694), (59, 16811), (71, 16970), (72, 16991), (73, 16994), (77, 17027), (84, 17132), (87, 17171), (88, 17174), (89, 17192), (90, 17204), (100, 17342), (101, 17348), (110, 17420), (113, 17435), (115, 17459), (117, 17465), (118, 17486), (121, 17534), (136, 17699), (137, 17705), (142, 17735), (146, 17768), (148, 17774), (154, 17828), (168, 17963), (174, 18002), (178, 18026), (198, 18197), (199, 18218),

Gene: Violeta_25 Start: 14523, Stop: 16391, Start Num: 26
Candidate Starts for Violeta_25:

(13, 14298), (24, 14493), (Start: 26 @14523 has 26 MA's), (33, 14583), (36, 14604), (38, 14616), (40, 14670), (43, 14703), (53, 14832), (56, 14925), (68, 15081), (72, 15135), (73, 15138), (76, 15168), (83, 15240), (91, 15363), (99, 15468), (101, 15492), (108, 15540), (136, 15837), (144, 15888), (146, 15906), (149, 15933), (151, 15951), (154, 15966), (170, 16113), (174, 16140), (182, 16203), (192, 16290), (201, 16383),

Gene: Warren_24 Start: 14623, Stop: 16491, Start Num: 26
Candidate Starts for Warren_24:
(13, 14398), (24, 14593), (Start: 26 @14623 has 26 MA's), (33, 14683), (36, 14704), (38, 14716), (40, 14770), (43, 14803), (56, 15025), (68, 15181), (72, 15235), (73, 15238), (76, 15268), (83, 15340), (91, 15463), (97, 15535), (101, 15592), (108, 15640), (115, 15703), (123, 15799), (136, 15937), (144, 15988), (146, 16006), (149, 16033), (174, 16240), (192, 16390), (198, 16435), (201, 16483),

Gene: Winchester007_39 Start: 20543, Stop: 22411, Start Num: 26
Candidate Starts for Winchester007_39:
(13, 20318), (24, 20513), (Start: 26 @20543 has 26 MA's), (33, 20603), (36, 20624), (38, 20636), (40, 20690), (43, 20723), (53, 20852), (56, 20945), (68, 21101), (72, 21155), (73, 21158), (76, 21188), (83, 21260), (91, 21383), (99, 21488), (101, 21512), (108, 21560), (136, 21857), (144, 21908), (146, 21926), (151, 21971), (154, 21986), (170, 22133), (174, 22160), (182, 22223), (192, 22310), (201, 22403),

Gene: Wrackline_28 Start: 15957, Stop: 17840, Start Num: 26
Candidate Starts for Wrackline_28:
(Start: 26 @15957 has 26 MA's), (27, 15963), (28, 15972), (32, 16008), (33, 16017), (35, 16026), (37, 16038), (40, 16104), (47, 16167), (49, 16191), (53, 16266), (55, 16320), (59, 16386), (67, 16509), (72, 16587), (73, 16590), (76, 16620), (81, 16662), (83, 16692), (84, 16728), (86, 16764), (94, 16854), (98, 16914), (101, 16944), (102, 16950), (103, 16956), (106, 16980), (107, 16989), (108, 16992), (111, 17019), (112, 17028), (115, 17055), (118, 17082), (120, 17121), (122, 17142), (128, 17202), (129, 17205), (130, 17214), (131, 17226), (132, 17280), (134, 17295), (160, 17508), (163, 17520), (166, 17544), (168, 17565), (184, 17676), (185, 17679), (188, 17706), (190, 17715), (195, 17766),

Gene: Zanella_21 Start: 16234, Stop: 18126, Start Num: 26
Candidate Starts for Zanella_21:
(Start: 26 @16234 has 26 MA's), (39, 16363), (40, 16402), (42, 16405), (48, 16474), (52, 16555), (53, 16567), (59, 16684), (71, 16843), (72, 16864), (73, 16867), (77, 16900), (84, 17005), (87, 17044), (88, 17047), (89, 17065), (90, 17077), (100, 17215), (101, 17221), (110, 17293), (113, 17308), (115, 17332), (117, 17338), (118, 17359), (121, 17407), (136, 17572), (137, 17578), (142, 17608), (146, 17641), (148, 17647), (154, 17701), (156, 17740), (168, 17836), (175, 17881), (178, 17899), (192, 18025), (198, 18070), (199, 18091),

Gene: Zeta1847_16 Start: 13524, Stop: 16088, Start Num: 1
Candidate Starts for Zeta1847_16:
(Start: 1 @13524 has 1 MA's), (2, 13632), (3, 13683), (10, 13923), (20, 14172), (21, 14187), (23, 14199), (25, 14217), (41, 14394), (58, 14664), (64, 14733), (73, 14844), (81, 14916), (84, 14982), (96, 15132), (135, 15552), (161, 15765), (165, 15792), (189, 15969),