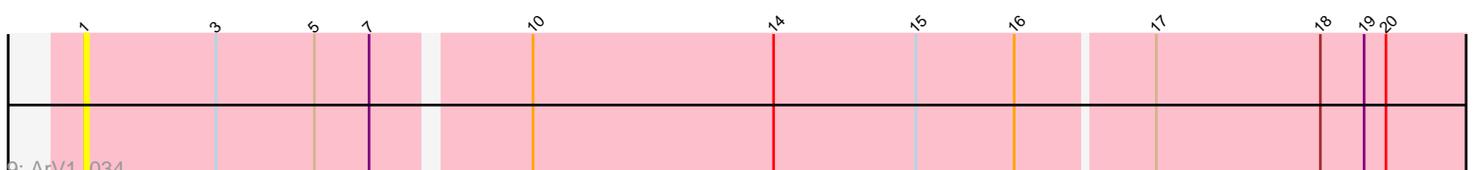
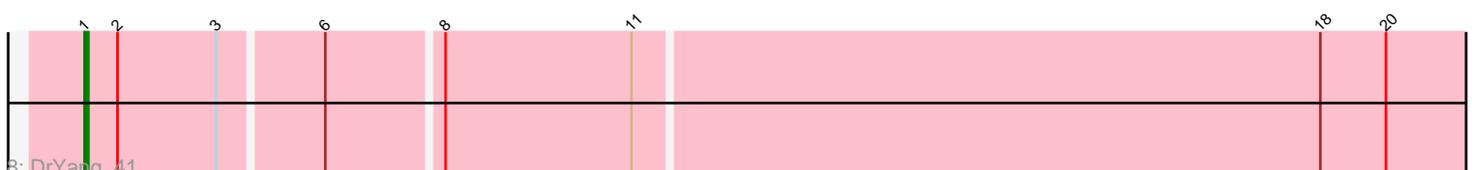
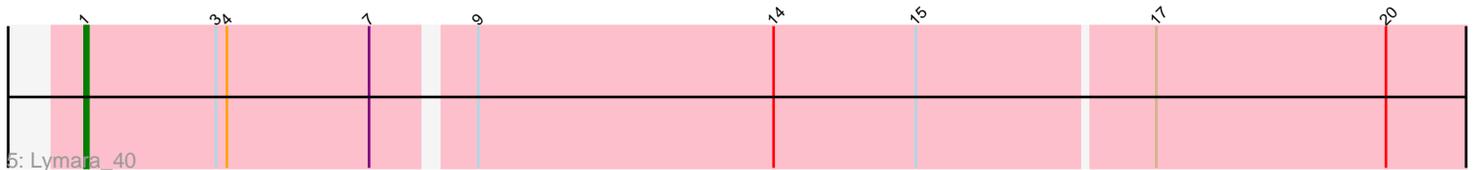
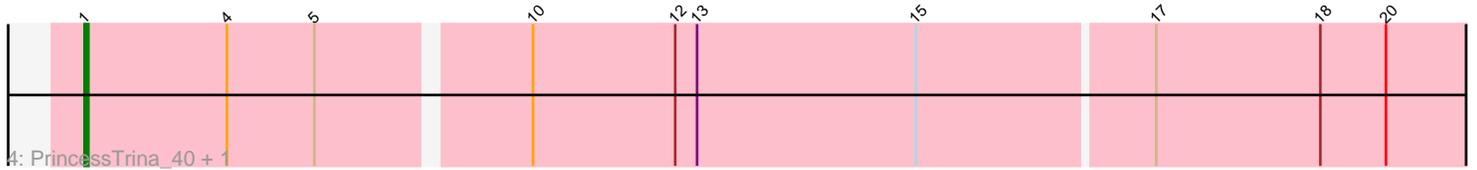
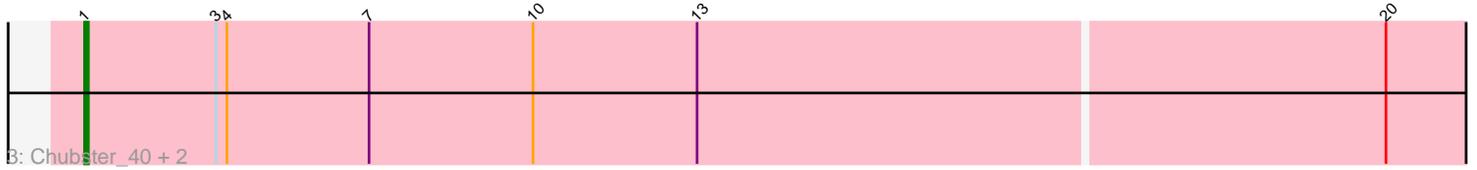
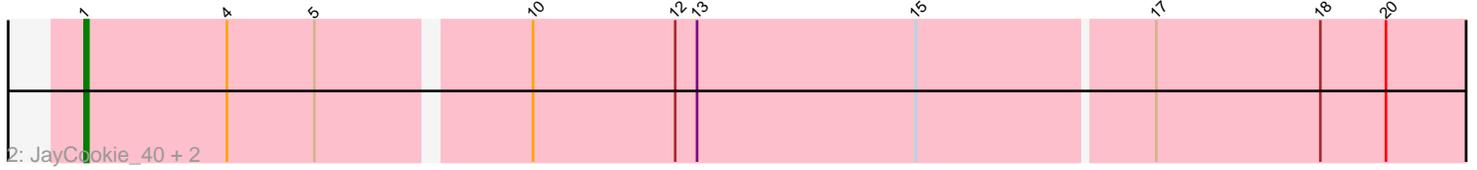
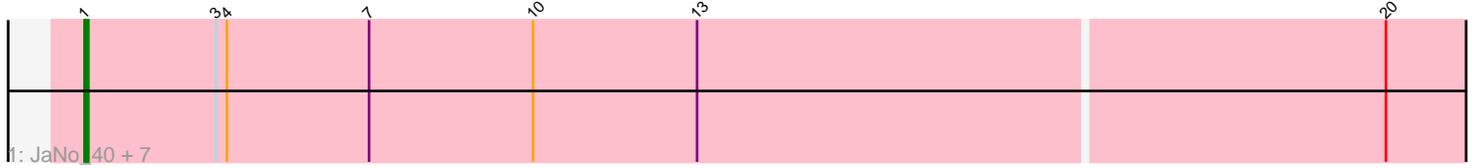


Zoomed Pham 3650



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 3650 Report

This analysis was run 04/05/24 on database version 557.

Pham number 3650 has 21 members, 3 are drafts.

Phages represented in each track:

- Track 1 : JaNo_40, Kabreeze_40, Mordred_40, Chipper1996_400, HumptyDumpty_40, Tophat_40, RosiePosie_40, Scavito_40
- Track 2 : JayCookie_40, Chocolat_40, MoyaNatalis_40
- Track 3 : Chubster_40, EdgarPoe_40, Conboy_40
- Track 4 : PrincessTrina_40, Linus_40
- Track 5 : Lymara_40
- Track 6 : Colucci_40
- Track 7 : KBurrousTX_40
- Track 8 : DrYang_41
- Track 9 : ArV1_034

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 18 of the 18 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ArV1_034, Chipper1996_400, Chocolat_40, Chubster_40, Colucci_40, Conboy_40, DrYang_41, EdgarPoe_40, HumptyDumpty_40, JaNo_40, JayCookie_40, KBurrousTX_40, Kabreeze_40, Linus_40, Lymara_40, Mordred_40, MoyaNatalis_40, PrincessTrina_40, RosiePosie_40, Scavito_40, Tophat_40,

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

-

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

-

Summary by start number:

Start 1:

- Found in 21 of 21 (100.0%) of genes in pham
- Manual Annotations of this start: 18 of 18
- Called 100.0% of time when present

• Phage (with cluster) where this start called: ArV1_034 (AR), Chipper1996_400 (AR), Chocolat_40 (AR), Chubster_40 (AR), Colucci_40 (AR), Conboy_40 (AR), DrYang_41 (AR), EdgarPoe_40 (AR), HumptyDumpty_40 (AR), JaNo_40 (AR), JayCookie_40 (AR), KBurrousTX_40 (AR), Kabreeze_40 (AR), Linus_40 (AR), Lymara_40 (AR), Mordred_40 (AR), MoyaNatalis_40 (AR), PrincessTrina_40 (AR), RosiePosie_40 (AR), Scavito_40 (AR), Tophat_40 (AR),

Summary by clusters:

There is one cluster represented in this pham: AR

Info for manual annotations of cluster AR:

•Start number 1 was manually annotated 18 times for cluster AR.

Gene Information:

Gene: ArV1_034 Start: 30256, Stop: 32112, Start Num: 1

Candidate Starts for ArV1_034:

(Start: 1 @30256 has 18 MA's), (3, 30292), (5, 30319), (7, 30334), (10, 30373), (14, 30439), (15, 30478), (16, 30505), (17, 30541), (18, 30586), (19, 30598), (20, 30604), (26, 30673), (28, 30730), (29, 30736), (31, 30766), (34, 30790), (35, 30793), (36, 30802), (38, 30823), (40, 30871), (41, 30886), (45, 30925), (47, 30955), (49, 30985), (50, 31003), (52, 31021), (55, 31066), (56, 31075), (58, 31087), (60, 31108), (63, 31141), (65, 31168), (66, 31171), (68, 31198), (72, 31270), (73, 31276), (76, 31315), (77, 31327), (78, 31333), (82, 31351), (83, 31417), (85, 31462), (90, 31543), (91, 31573), (92, 31585), (93, 31603), (94, 31636), (97, 31684), (99, 31705), (101, 31738), (102, 31747), (105, 31771), (106, 31792), (107, 31813), (110, 31858), (114, 31891), (115, 31894), (116, 31897), (120, 31936), (127, 31984), (128, 31987), (133, 32092), (135, 32101),

Gene: Chipper1996_400 Start: 31959, Stop: 33824, Start Num: 1

Candidate Starts for Chipper1996_400:

(Start: 1 @31959 has 18 MA's), (3, 31995), (4, 31998), (7, 32037), (10, 32082), (13, 32127), (20, 32313), (22, 32343), (28, 32439), (29, 32445), (31, 32475), (34, 32499), (38, 32532), (41, 32595), (45, 32634), (47, 32664), (49, 32694), (50, 32712), (52, 32730), (55, 32775), (58, 32796), (60, 32817), (65, 32877), (66, 32880), (70, 32952), (71, 32955), (72, 32979), (76, 33024), (77, 33036), (78, 33042), (81, 33057), (83, 33126), (85, 33171), (86, 33207), (87, 33222), (90, 33252), (92, 33294), (93, 33312), (94, 33345), (96, 33363), (97, 33393), (99, 33414), (101, 33447), (103, 33468), (105, 33480), (108, 33546), (110, 33567), (111, 33570), (115, 33603), (117, 33609), (118, 33624), (124, 33675), (126, 33678), (128, 33699), (131, 33744),

Gene: Chocolat_40 Start: 31959, Stop: 33815, Start Num: 1

Candidate Starts for Chocolat_40:

(Start: 1 @31959 has 18 MA's), (4, 31998), (5, 32022), (10, 32076), (12, 32115), (13, 32121), (15, 32181), (17, 32244), (18, 32289), (20, 32307), (23, 32343), (28, 32433), (34, 32493), (35, 32496), (38, 32526), (40, 32574), (41, 32589), (43, 32616), (48, 32664), (49, 32688), (52, 32724), (54, 32757), (55, 32769), (58, 32790), (60, 32811), (61, 32835), (62, 32841), (74, 32994), (75, 33006), (76, 33015), (77, 33027), (78, 33033), (81, 33048), (82, 33051), (83, 33117), (85, 33162), (86, 33198), (87, 33213), (90, 33243), (92, 33285), (93, 33303), (94, 33336), (96, 33354), (97, 33384), (99, 33405), (101, 33438), (103, 33459), (105, 33471), (108, 33537), (110, 33558), (111, 33561), (115, 33594), (117, 33600), (118, 33615), (124, 33666), (126, 33669), (128, 33690), (131, 33735),

Gene: Chubster_40 Start: 31731, Stop: 33596, Start Num: 1

Candidate Starts for Chubster_40:

(Start: 1 @31731 has 18 MA's), (3, 31767), (4, 31770), (7, 31809), (10, 31854), (13, 31899), (20, 32085), (22, 32115), (28, 32211), (29, 32217), (31, 32247), (34, 32271), (38, 32304), (41, 32367), (45, 32406), (47, 32436), (49, 32466), (50, 32484), (52, 32502), (55, 32547), (58, 32568), (60, 32589), (63, 32622), (65, 32649), (66, 32652), (70, 32724), (71, 32727), (72, 32751), (76, 32796), (77, 32808), (78, 32814), (81, 32829), (83, 32898), (85, 32943), (86, 32979), (87, 32994), (90, 33024), (92, 33066), (93, 33084), (94, 33117), (96, 33135), (97, 33165), (99, 33186), (101, 33219), (103, 33240), (105, 33252), (108, 33318), (110, 33339), (111, 33342), (115, 33375), (117, 33381), (118, 33396), (124, 33447), (126, 33450), (128, 33471), (131, 33516),

Gene: Colucci_40 Start: 31540, Stop: 33396, Start Num: 1

Candidate Starts for Colucci_40:

(Start: 1 @31540 has 18 MA's), (3, 31576), (4, 31579), (7, 31618), (10, 31657), (13, 31702), (14, 31723), (15, 31762), (20, 31888), (24, 31942), (28, 32014), (34, 32074), (38, 32107), (40, 32155), (41, 32170), (45, 32209), (47, 32239), (48, 32245), (49, 32269), (50, 32287), (52, 32305), (56, 32359), (58, 32371), (60, 32392), (65, 32452), (66, 32455), (68, 32482), (73, 32560), (76, 32599), (77, 32611), (78, 32617), (83, 32701), (85, 32746), (87, 32797), (88, 32803), (90, 32827), (91, 32857), (92, 32869), (94, 32920), (96, 32938), (97, 32968), (99, 32989), (101, 33022), (103, 33043), (105, 33055), (106, 33076), (107, 33097), (110, 33142), (113, 33160), (114, 33175), (115, 33178), (118, 33199), (119, 33211), (121, 33223), (128, 33271), (132, 33334),

Gene: Conboy_40 Start: 31958, Stop: 33823, Start Num: 1

Candidate Starts for Conboy_40:

(Start: 1 @31958 has 18 MA's), (3, 31994), (4, 31997), (7, 32036), (10, 32081), (13, 32126), (20, 32312), (22, 32342), (28, 32438), (29, 32444), (31, 32474), (34, 32498), (38, 32531), (41, 32594), (45, 32633), (47, 32663), (49, 32693), (50, 32711), (52, 32729), (55, 32774), (58, 32795), (60, 32816), (63, 32849), (65, 32876), (66, 32879), (70, 32951), (71, 32954), (72, 32978), (76, 33023), (77, 33035), (78, 33041), (81, 33056), (83, 33125), (85, 33170), (86, 33206), (87, 33221), (90, 33251), (92, 33293), (93, 33311), (94, 33344), (96, 33362), (97, 33392), (99, 33413), (101, 33446), (103, 33467), (105, 33479), (108, 33545), (110, 33566), (111, 33569), (115, 33602), (117, 33608), (118, 33623), (124, 33674), (126, 33677), (128, 33698), (131, 33743),

Gene: DrYang_41 Start: 33291, Stop: 35756, Start Num: 1

Candidate Starts for DrYang_41:

(Start: 1 @33291 has 18 MA's), (2, 33300), (3, 33327), (6, 33354), (8, 33384), (11, 33435), (18, 33621), (20, 33639), (21, 33666), (25, 33699), (27, 33738), (30, 33786), (33, 33819), (37, 33846), (39, 33873), (49, 34020), (58, 34122), (60, 34143), (61, 34167), (62, 34173), (64, 34179), (67, 34218), (73, 34308), (77, 34359), (79, 34374), (80, 34377), (82, 34383), (85, 34494), (86, 34530), (88, 34551), (90, 34575), (91, 34605), (92, 34617), (93, 34635), (96, 34686), (97, 34716), (98, 34734), (101, 34770), (102, 34779), (105, 34803), (106, 34824), (107, 34845), (109, 34884), (112, 34902), (122, 34992), (123, 35013), (125, 35016), (129, 35067), (130, 35076), (134, 35160), (137, 35241), (138, 35268), (139, 35334), (140, 35343), (141, 35370), (142, 35463), (143, 35508), (144, 35532), (145, 35556), (146, 35580), (147, 35610), (148, 35628), (149, 35676), (150, 35748),

Gene: EdgarPoe_40 Start: 31958, Stop: 33823, Start Num: 1

Candidate Starts for EdgarPoe_40:

(Start: 1 @31958 has 18 MA's), (3, 31994), (4, 31997), (7, 32036), (10, 32081), (13, 32126), (20, 32312), (22, 32342), (28, 32438), (29, 32444), (31, 32474), (34, 32498), (38, 32531), (41, 32594), (45, 32633), (47, 32663), (49, 32693), (50, 32711), (52, 32729), (55, 32774), (58, 32795), (60, 32816), (63, 32849), (65, 32876), (66, 32879), (70, 32951), (71, 32954), (72, 32978), (76, 33023), (77, 33035), (78, 33041), (81, 33056), (83, 33125), (85, 33170), (86, 33206), (87, 33221), (90, 33251), (92, 33293), (93, 33311), (94, 33344), (96, 33362), (97, 33392), (99, 33413), (101, 33446), (103, 33467), (105, 33479), (108, 33545), (110, 33566), (111, 33569), (115, 33602), (117, 33608), (118, 33623), (124, 33674),

(126, 33677), (128, 33698), (131, 33743),

Gene: HumptyDumpty_40 Start: 31957, Stop: 33822, Start Num: 1

Candidate Starts for HumptyDumpty_40:

(Start: 1 @31957 has 18 MA's), (3, 31993), (4, 31996), (7, 32035), (10, 32080), (13, 32125), (20, 32311), (22, 32341), (28, 32437), (29, 32443), (31, 32473), (34, 32497), (38, 32530), (41, 32593), (45, 32632), (47, 32662), (49, 32692), (50, 32710), (52, 32728), (55, 32773), (58, 32794), (60, 32815), (65, 32875), (66, 32878), (70, 32950), (71, 32953), (72, 32977), (76, 33022), (77, 33034), (78, 33040), (81, 33055), (83, 33124), (85, 33169), (86, 33205), (87, 33220), (90, 33250), (92, 33292), (93, 33310), (94, 33343), (96, 33361), (97, 33391), (99, 33412), (101, 33445), (103, 33466), (105, 33478), (108, 33544), (110, 33565), (111, 33568), (115, 33601), (117, 33607), (118, 33622), (124, 33673), (126, 33676), (128, 33697), (131, 33742),

Gene: JaNo_40 Start: 31957, Stop: 33822, Start Num: 1

Candidate Starts for JaNo_40:

(Start: 1 @31957 has 18 MA's), (3, 31993), (4, 31996), (7, 32035), (10, 32080), (13, 32125), (20, 32311), (22, 32341), (28, 32437), (29, 32443), (31, 32473), (34, 32497), (38, 32530), (41, 32593), (45, 32632), (47, 32662), (49, 32692), (50, 32710), (52, 32728), (55, 32773), (58, 32794), (60, 32815), (65, 32875), (66, 32878), (70, 32950), (71, 32953), (72, 32977), (76, 33022), (77, 33034), (78, 33040), (81, 33055), (83, 33124), (85, 33169), (86, 33205), (87, 33220), (90, 33250), (92, 33292), (93, 33310), (94, 33343), (96, 33361), (97, 33391), (99, 33412), (101, 33445), (103, 33466), (105, 33478), (108, 33544), (110, 33565), (111, 33568), (115, 33601), (117, 33607), (118, 33622), (124, 33673), (126, 33676), (128, 33697), (131, 33742),

Gene: JayCookie_40 Start: 31961, Stop: 33817, Start Num: 1

Candidate Starts for JayCookie_40:

(Start: 1 @31961 has 18 MA's), (4, 32000), (5, 32024), (10, 32078), (12, 32117), (13, 32123), (15, 32183), (17, 32246), (18, 32291), (20, 32309), (23, 32345), (28, 32435), (34, 32495), (35, 32498), (38, 32528), (40, 32576), (41, 32591), (43, 32618), (48, 32666), (49, 32690), (52, 32726), (54, 32759), (55, 32771), (58, 32792), (60, 32813), (61, 32837), (62, 32843), (74, 32996), (75, 33008), (76, 33017), (77, 33029), (78, 33035), (81, 33050), (82, 33053), (83, 33119), (85, 33164), (86, 33200), (87, 33215), (90, 33245), (92, 33287), (93, 33305), (94, 33338), (96, 33356), (97, 33386), (99, 33407), (101, 33440), (103, 33461), (105, 33473), (108, 33539), (110, 33560), (111, 33563), (115, 33596), (117, 33602), (118, 33617), (124, 33668), (126, 33671), (128, 33692), (131, 33737),

Gene: KBurrousTX_40 Start: 33060, Stop: 34916, Start Num: 1

Candidate Starts for KBurrousTX_40:

(Start: 1 @33060 has 18 MA's), (2, 33069), (3, 33096), (4, 33099), (5, 33123), (6, 33126), (11, 33207), (12, 33219), (19, 33405), (20, 33411), (27, 33510), (28, 33537), (32, 33579), (34, 33597), (42, 33708), (44, 33723), (49, 33792), (51, 33819), (52, 33828), (57, 33891), (59, 33906), (60, 33912), (61, 33936), (66, 33975), (69, 34008), (73, 34080), (77, 34131), (78, 34137), (79, 34146), (82, 34155), (84, 34239), (85, 34266), (86, 34302), (87, 34317), (89, 34338), (90, 34347), (92, 34389), (93, 34407), (94, 34440), (96, 34458), (99, 34509), (100, 34515), (104, 34566), (105, 34575), (106, 34596), (107, 34617), (109, 34656), (110, 34662), (114, 34695), (115, 34698), (118, 34719), (128, 34791), (131, 34836), (136, 34908),

Gene: Kabreeze_40 Start: 31957, Stop: 33822, Start Num: 1

Candidate Starts for Kabreeze_40:

(Start: 1 @31957 has 18 MA's), (3, 31993), (4, 31996), (7, 32035), (10, 32080), (13, 32125), (20, 32311), (22, 32341), (28, 32437), (29, 32443), (31, 32473), (34, 32497), (38, 32530), (41, 32593), (45, 32632), (47, 32662), (49, 32692), (50, 32710), (52, 32728), (55, 32773), (58, 32794), (60, 32815), (65, 32875), (66, 32878), (70, 32950), (71, 32953), (72, 32977), (76, 33022), (77, 33034), (78, 33040), (81, 33055), (83, 33124), (85, 33169), (86, 33205), (87, 33220), (90, 33250), (92, 33292), (93, 33310), (94,

33343), (96, 33361), (97, 33391), (99, 33412), (101, 33445), (103, 33466), (105, 33478), (108, 33544), (110, 33565), (111, 33568), (115, 33601), (117, 33607), (118, 33622), (124, 33673), (126, 33676), (128, 33697), (131, 33742),

Gene: Linus_40 Start: 31958, Stop: 33814, Start Num: 1

Candidate Starts for Linus_40:

(Start: 1 @31958 has 18 MA's), (4, 31997), (5, 32021), (10, 32075), (12, 32114), (13, 32120), (15, 32180), (17, 32243), (18, 32288), (20, 32306), (23, 32342), (28, 32432), (34, 32492), (35, 32495), (36, 32504), (40, 32573), (41, 32588), (43, 32615), (44, 32618), (48, 32663), (49, 32687), (52, 32723), (54, 32756), (55, 32768), (58, 32789), (60, 32810), (61, 32834), (62, 32840), (75, 33005), (76, 33014), (77, 33026), (78, 33032), (81, 33047), (82, 33050), (83, 33116), (85, 33161), (86, 33197), (87, 33212), (90, 33242), (92, 33284), (93, 33302), (94, 33335), (96, 33353), (97, 33383), (99, 33404), (101, 33437), (103, 33458), (105, 33470), (108, 33536), (110, 33557), (111, 33560), (115, 33593), (117, 33599), (118, 33614), (124, 33665), (126, 33668), (128, 33689), (131, 33734),

Gene: Lymara_40 Start: 31776, Stop: 33635, Start Num: 1

Candidate Starts for Lymara_40:

(Start: 1 @31776 has 18 MA's), (3, 31812), (4, 31815), (7, 31854), (9, 31878), (14, 31959), (15, 31998), (17, 32061), (20, 32124), (24, 32178), (28, 32250), (34, 32310), (35, 32313), (36, 32322), (40, 32391), (41, 32406), (43, 32433), (45, 32445), (46, 32472), (49, 32505), (50, 32523), (52, 32541), (53, 32568), (55, 32586), (58, 32607), (60, 32628), (65, 32688), (66, 32691), (73, 32796), (76, 32835), (77, 32847), (78, 32853), (81, 32868), (82, 32871), (83, 32937), (85, 32982), (86, 33018), (87, 33033), (90, 33063), (92, 33105), (93, 33123), (94, 33156), (95, 33159), (96, 33174), (97, 33204), (99, 33225), (101, 33258), (102, 33267), (103, 33279), (106, 33312), (107, 33333), (108, 33357), (111, 33381), (115, 33414), (118, 33435), (128, 33510), (131, 33555),

Gene: Mordred_40 Start: 31957, Stop: 33822, Start Num: 1

Candidate Starts for Mordred_40:

(Start: 1 @31957 has 18 MA's), (3, 31993), (4, 31996), (7, 32035), (10, 32080), (13, 32125), (20, 32311), (22, 32341), (28, 32437), (29, 32443), (31, 32473), (34, 32497), (38, 32530), (41, 32593), (45, 32632), (47, 32662), (49, 32692), (50, 32710), (52, 32728), (55, 32773), (58, 32794), (60, 32815), (65, 32875), (66, 32878), (70, 32950), (71, 32953), (72, 32977), (76, 33022), (77, 33034), (78, 33040), (81, 33055), (83, 33124), (85, 33169), (86, 33205), (87, 33220), (90, 33250), (92, 33292), (93, 33310), (94, 33343), (96, 33361), (97, 33391), (99, 33412), (101, 33445), (103, 33466), (105, 33478), (108, 33544), (110, 33565), (111, 33568), (115, 33601), (117, 33607), (118, 33622), (124, 33673), (126, 33676), (128, 33697), (131, 33742),

Gene: MoyaNatalis_40 Start: 31961, Stop: 33817, Start Num: 1

Candidate Starts for MoyaNatalis_40:

(Start: 1 @31961 has 18 MA's), (4, 32000), (5, 32024), (10, 32078), (12, 32117), (13, 32123), (15, 32183), (17, 32246), (18, 32291), (20, 32309), (23, 32345), (28, 32435), (34, 32495), (35, 32498), (38, 32528), (40, 32576), (41, 32591), (43, 32618), (48, 32666), (49, 32690), (52, 32726), (54, 32759), (55, 32771), (58, 32792), (60, 32813), (61, 32837), (62, 32843), (74, 32996), (75, 33008), (76, 33017), (77, 33029), (78, 33035), (81, 33050), (82, 33053), (83, 33119), (85, 33164), (86, 33200), (87, 33215), (90, 33245), (92, 33287), (93, 33305), (94, 33338), (96, 33356), (97, 33386), (99, 33407), (101, 33440), (103, 33461), (105, 33473), (108, 33539), (110, 33560), (111, 33563), (115, 33596), (117, 33602), (118, 33617), (124, 33668), (126, 33671), (128, 33692), (131, 33737),

Gene: PrincessTrina_40 Start: 31961, Stop: 33817, Start Num: 1

Candidate Starts for PrincessTrina_40:

(Start: 1 @31961 has 18 MA's), (4, 32000), (5, 32024), (10, 32078), (12, 32117), (13, 32123), (15, 32183), (17, 32246), (18, 32291), (20, 32309), (23, 32345), (28, 32435), (34, 32495), (35, 32498), (36, 32507), (40, 32576), (41, 32591), (43, 32618), (44, 32621), (48, 32666), (49, 32690), (52, 32726), (54,

32759), (55, 32771), (58, 32792), (60, 32813), (61, 32837), (62, 32843), (75, 33008), (76, 33017), (77, 33029), (78, 33035), (81, 33050), (82, 33053), (83, 33119), (85, 33164), (86, 33200), (87, 33215), (90, 33245), (92, 33287), (93, 33305), (94, 33338), (96, 33356), (97, 33386), (99, 33407), (101, 33440), (103, 33461), (105, 33473), (108, 33539), (110, 33560), (111, 33563), (115, 33596), (117, 33602), (118, 33617), (124, 33668), (126, 33671), (128, 33692), (131, 33737),

Gene: RosiePosie_40 Start: 31960, Stop: 33825, Start Num: 1

Candidate Starts for RosiePosie_40:

(Start: 1 @31960 has 18 MA's), (3, 31996), (4, 31999), (7, 32038), (10, 32083), (13, 32128), (20, 32314), (22, 32344), (28, 32440), (29, 32446), (31, 32476), (34, 32500), (38, 32533), (41, 32596), (45, 32635), (47, 32665), (49, 32695), (50, 32713), (52, 32731), (55, 32776), (58, 32797), (60, 32818), (65, 32878), (66, 32881), (70, 32953), (71, 32956), (72, 32980), (76, 33025), (77, 33037), (78, 33043), (81, 33058), (83, 33127), (85, 33172), (86, 33208), (87, 33223), (90, 33253), (92, 33295), (93, 33313), (94, 33346), (96, 33364), (97, 33394), (99, 33415), (101, 33448), (103, 33469), (105, 33481), (108, 33547), (110, 33568), (111, 33571), (115, 33604), (117, 33610), (118, 33625), (124, 33676), (126, 33679), (128, 33700), (131, 33745),

Gene: Scavito_40 Start: 31958, Stop: 33823, Start Num: 1

Candidate Starts for Scavito_40:

(Start: 1 @31958 has 18 MA's), (3, 31994), (4, 31997), (7, 32036), (10, 32081), (13, 32126), (20, 32312), (22, 32342), (28, 32438), (29, 32444), (31, 32474), (34, 32498), (38, 32531), (41, 32594), (45, 32633), (47, 32663), (49, 32693), (50, 32711), (52, 32729), (55, 32774), (58, 32795), (60, 32816), (65, 32876), (66, 32879), (70, 32951), (71, 32954), (72, 32978), (76, 33023), (77, 33035), (78, 33041), (81, 33056), (83, 33125), (85, 33170), (86, 33206), (87, 33221), (90, 33251), (92, 33293), (93, 33311), (94, 33344), (96, 33362), (97, 33392), (99, 33413), (101, 33446), (103, 33467), (105, 33479), (108, 33545), (110, 33566), (111, 33569), (115, 33602), (117, 33608), (118, 33623), (124, 33674), (126, 33677), (128, 33698), (131, 33743),

Gene: Tophat_40 Start: 31959, Stop: 33824, Start Num: 1

Candidate Starts for Tophat_40:

(Start: 1 @31959 has 18 MA's), (3, 31995), (4, 31998), (7, 32037), (10, 32082), (13, 32127), (20, 32313), (22, 32343), (28, 32439), (29, 32445), (31, 32475), (34, 32499), (38, 32532), (41, 32595), (45, 32634), (47, 32664), (49, 32694), (50, 32712), (52, 32730), (55, 32775), (58, 32796), (60, 32817), (65, 32877), (66, 32880), (70, 32952), (71, 32955), (72, 32979), (76, 33024), (77, 33036), (78, 33042), (81, 33057), (83, 33126), (85, 33171), (86, 33207), (87, 33222), (90, 33252), (92, 33294), (93, 33312), (94, 33345), (96, 33363), (97, 33393), (99, 33414), (101, 33447), (103, 33468), (105, 33480), (108, 33546), (110, 33567), (111, 33570), (115, 33603), (117, 33609), (118, 33624), (124, 33675), (126, 33678), (128, 33699), (131, 33744),