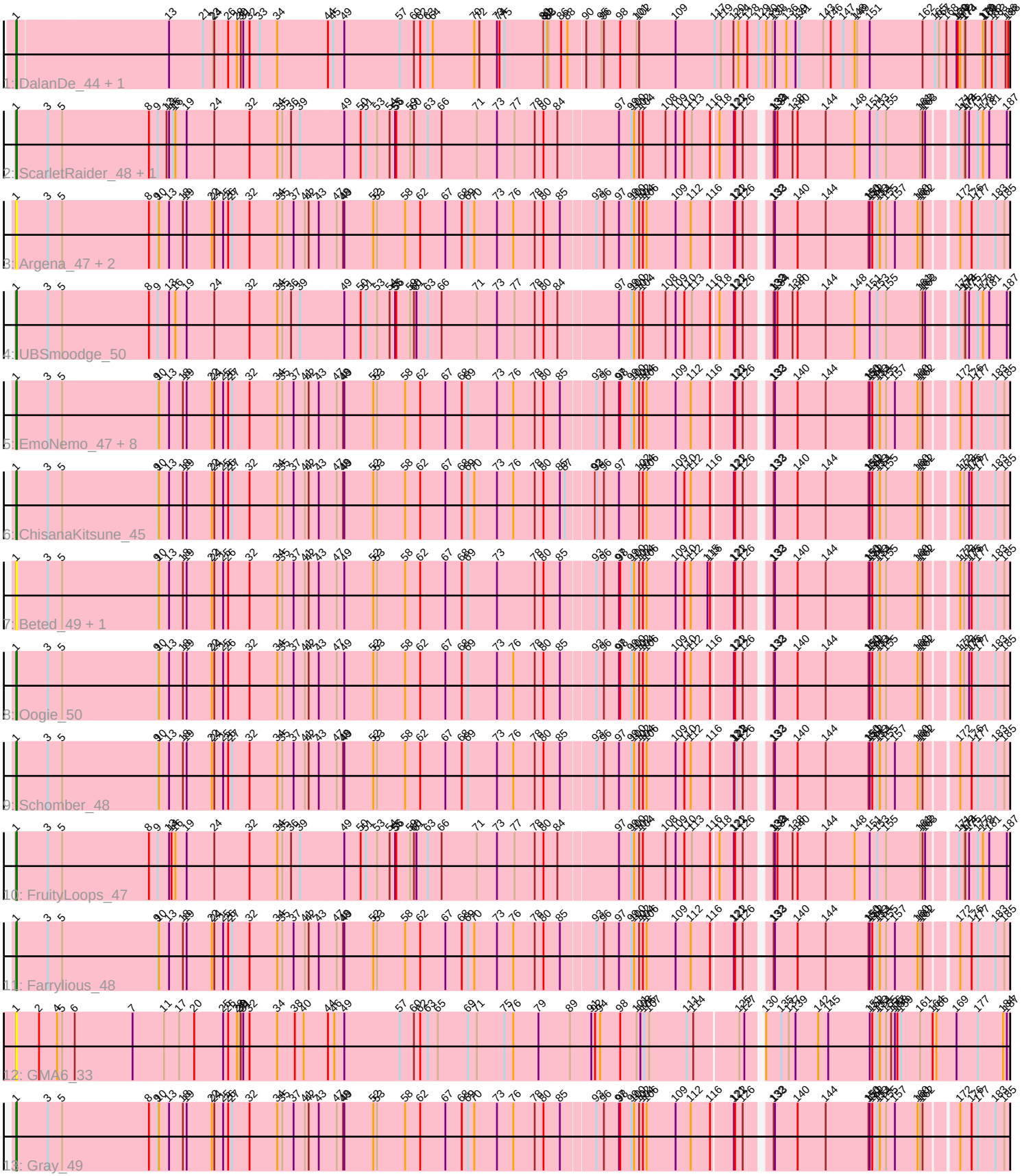
Zoomed Pham 337056



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 337056 Report

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

Pham number 337056 has 26 members, 11 are drafts.

Phages represented in each track:
• Track 1 : DalanDe_44, Thales_43
• Track 2 : ScarletRaider_48, FlyingTortilla_48
• Track 3 : Argena_47, Toneprano_47, Amoonguss_47
• Track 4 : UBSmoodge_50
• Track 5 : EmoNemo_47, Kabocha_50, Chidiebere_49, Hanem_49, Pakusa_47, Twin_47, Mikronejon_49, Aloki_49, MintFritos_47
• Track 6 : ChisanaKitsune_45
• Track 7 : Beted_49, Lenoshki_49
• Track 8 : Oogie_50
• Track 9 : Schomber_48
• Track 10 : FruityLoops_47
• Track 11 : Farrylious_48
• Track 12 : GMA6_33
• Track 13 : Gray_49

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 15 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Aloki_49, Amoonguss_47, Argena_47, Beted_49, Chidiebere_49, ChisanaKitsune_45, DalanDe_44, EmoNemo_47, Farrylious_48, FlyingTortilla_48, FruityLoops_47, GMA6_33, Gray_49, Hanem_49, Kabocha_50, Lenoshki_49, Mikronejon_49, MintFritos_47, Oogie_50, Pakusa_47, ScarletRaider_48, Schomber_48, Thales_43, Toneprano_47, Twin_47, UBSmoodge_50,

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 26 of 26 (100.0%) of genes in pham
• Manual Annotations of this start: 15 of 15
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aloki_49 (DQ), Amoonguss_47 (DQ), Argena_47 (DQ), Beted_49 (DQ), Chidiebere_49 (DQ), ChisanaKitsune_45 (DQ), DalanDe_44 (DQ), EmoNemo_47 (DQ), Farrylious_48 (DQ), FlyingTortilla_48 (DQ), FruityLoops_47 (DQ), GMA6_33 (DQ), Gray_49 (DQ), Hanem_49 (DQ), Kabocha_50 (DQ), Lenoshki_49 (DQ), Mikronejon_49 (DQ), MintFritos_47 (DQ), Oogie_50 (DQ), Pakusa_47 (DQ), ScarletRaider_48 (DQ), Schomber_48 (DQ), Thales_43 (DQ), Toneprano_47 (DQ), Twin_47 (DQ), UBSmoodge_50 (DQ),

Summary by clusters:

There is one cluster represented in this pham: DQ

Info for manual annotations of cluster DQ:
•Start number 1 was manually annotated 15 times for cluster DQ.

Gene Information:

Gene: Aloki_49 Start: 34083, Stop: 37433, Start Num: 1
Candidate Starts for Aloki_49:
(Start: 1 @34083 has 15 MA's), (3, 34158), (5, 34191), (9, 34419), (10, 34422), (13, 34446), (18, 34479), (19, 34488), (22, 34548), (24, 34554), (25, 34575), (26, 34587), (27, 34596), (32, 34638), (34, 34704), (35, 34716), (37, 34743), (41, 34770), (42, 34779), (43, 34803), (47, 34845), (48, 34860), (49, 34863), (52, 34932), (53, 34941), (58, 35007), (62, 35040), (67, 35100), (68, 35139), (69, 35154), (73, 35223), (76, 35262), (78, 35313), (80, 35334), (85, 35373), (93, 35448), (96, 35466), (97, 35502), (98, 35505), (99, 35532), (100, 35538), (102, 35550), (104, 35559), (106, 35568), (109, 35637), (112, 35673), (116, 35718), (121, 35766), (122, 35769), (126, 35787), (132, 35832), (133, 35835), (140, 35889), (144, 35955), (150, 36057), (151, 36060), (152, 36066), (153, 36078), (154, 36084), (155, 36099), (157, 36120), (160, 36174), (161, 36180), (162, 36186), (172, 36252), (176, 36279), (177, 36294), (183, 36336), (185, 36357), (195, 36414), (196, 36423), (198, 36426), (202, 36465), (203, 36486), (205, 36501), (207, 36534), (210, 36567), (211, 36579), (212, 36582), (214, 36594), (222, 36657), (226, 36711), (227, 36714), (228, 36723), (229, 36732), (233, 36777), (234, 36786), (235, 36789), (236, 36798), (237, 36828), (239, 36840), (242, 36900), (247, 37017), (248, 37029), (249, 37038), (251, 37092), (255, 37158), (258, 37200), (262, 37299), (263, 37335),

Gene: Amoonguss_47 Start: 34086, Stop: 37436, Start Num: 1
Candidate Starts for Amoonguss_47:
(Start: 1 @34086 has 15 MA's), (3, 34161), (5, 34194), (8, 34401), (9, 34422), (10, 34425), (13, 34449), (18, 34482), (19, 34491), (22, 34551), (24, 34557), (25, 34578), (26, 34590), (27, 34599), (32, 34641), (34, 34707), (35, 34719), (37, 34746), (41, 34773), (42, 34782), (43, 34806), (47, 34848), (48, 34863), (49, 34866), (52, 34935), (53, 34944), (58, 35010), (62, 35043), (67, 35103), (68, 35142), (69, 35157), (70, 35172), (73, 35226), (76, 35265), (78, 35316), (80, 35337), (85, 35376), (93, 35451), (96, 35469), (97, 35505), (99, 35535), (100, 35541), (102, 35553), (104, 35562), (106, 35571), (109, 35640), (112, 35676), (116, 35721), (121, 35769), (122, 35772), (126, 35790), (132, 35835), (133, 35838), (140, 35892), (144, 35958), (150, 36060), (151, 36063), (152, 36069), (153, 36081), (154, 36087), (155, 36102), (157, 36123), (160, 36177), (161, 36183), (162, 36189), (172, 36255), (176, 36282), (177, 36297), (183, 36339), (185, 36360), (195, 36417), (196, 36426), (198, 36429), (202, 36468), (203,

36489), (205, 36504), (207, 36537), (208, 36543), (210, 36570), (211, 36582), (212, 36585), (214, 36597), (222, 36660), (226, 36714), (227, 36717), (228, 36726), (229, 36735), (233, 36780), (234, 36789), (235, 36792), (236, 36801), (237, 36831), (239, 36843), (242, 36903), (247, 37020), (248, 37032), (249, 37041), (251, 37095), (255, 37161), (258, 37203), (262, 37302), (263, 37338),

Gene: Argena_47 Start: 34083, Stop: 37433, Start Num: 1
Candidate Starts for Argena_47:
(Start: 1 @34083 has 15 MA's), (3, 34158), (5, 34191), (8, 34398), (9, 34419), (10, 34422), (13, 34446), (18, 34479), (19, 34488), (22, 34548), (24, 34554), (25, 34575), (26, 34587), (27, 34596), (32, 34638), (34, 34704), (35, 34716), (37, 34743), (41, 34770), (42, 34779), (43, 34803), (47, 34845), (48, 34860), (49, 34863), (52, 34932), (53, 34941), (58, 35007), (62, 35040), (67, 35100), (68, 35139), (69, 35154), (70, 35169), (73, 35223), (76, 35262), (78, 35313), (80, 35334), (85, 35373), (93, 35448), (96, 35466), (97, 35502), (99, 35532), (100, 35538), (102, 35550), (104, 35559), (106, 35568), (109, 35637), (112, 35673), (116, 35718), (121, 35766), (122, 35769), (126, 35787), (132, 35832), (133, 35835), (140, 35889), (144, 35955), (150, 36057), (151, 36060), (152, 36066), (153, 36078), (154, 36084), (155, 36099), (157, 36120), (160, 36174), (161, 36180), (162, 36186), (172, 36252), (176, 36279), (177, 36294), (183, 36336), (185, 36357), (195, 36414), (196, 36423), (198, 36426), (202, 36465), (203, 36486), (205, 36501), (207, 36534), (208, 36540), (210, 36567), (211, 36579), (212, 36582), (214, 36594), (222, 36657), (226, 36711), (227, 36714), (228, 36723), (229, 36732), (233, 36777), (234, 36786), (235, 36789), (236, 36798), (237, 36828), (239, 36840), (242, 36900), (247, 37017), (248, 37029), (249, 37038), (251, 37092), (255, 37158), (258, 37200), (262, 37299), (263, 37335),

Gene: Beted_49 Start: 35763, Stop: 39113, Start Num: 1
Candidate Starts for Beted_49:
(Start: 1 @35763 has 15 MA's), (3, 35838), (5, 35871), (9, 36099), (10, 36102), (13, 36126), (18, 36159), (19, 36168), (22, 36228), (24, 36234), (25, 36255), (26, 36267), (32, 36318), (34, 36384), (35, 36396), (37, 36423), (41, 36450), (42, 36459), (43, 36483), (47, 36525), (49, 36543), (52, 36612), (53, 36621), (58, 36687), (62, 36720), (67, 36780), (68, 36819), (69, 36834), (73, 36903), (78, 36993), (80, 37014), (85, 37053), (93, 37128), (96, 37146), (97, 37182), (98, 37185), (99, 37212), (100, 37218), (102, 37230), (104, 37239), (106, 37248), (109, 37317), (110, 37338), (112, 37353), (115, 37392), (116, 37398), (121, 37446), (122, 37449), (126, 37467), (132, 37512), (133, 37515), (140, 37569), (144, 37635), (150, 37737), (151, 37740), (152, 37746), (153, 37758), (154, 37764), (155, 37779), (160, 37854), (161, 37860), (162, 37866), (172, 37932), (173, 37941), (175, 37953), (176, 37959), (177, 37974), (183, 38016), (185, 38037), (195, 38094), (196, 38103), (203, 38166), (205, 38181), (207, 38214), (210, 38247), (211, 38259), (212, 38262), (214, 38274), (222, 38337), (226, 38391), (227, 38394), (228, 38403), (229, 38412), (233, 38457), (234, 38466), (235, 38469), (237, 38508), (239, 38520), (242, 38580), (247, 38697), (248, 38709), (249, 38718), (251, 38772), (254, 38826), (255, 38838), (258, 38880), (262, 38979), (263, 39015),

Gene: Chidiebere_49 Start: 34083, Stop: 37433, Start Num: 1
Candidate Starts for Chidiebere_49:
(Start: 1 @34083 has 15 MA's), (3, 34158), (5, 34191), (9, 34419), (10, 34422), (13, 34446), (18, 34479), (19, 34488), (22, 34548), (24, 34554), (25, 34575), (26, 34587), (27, 34596), (32, 34638), (34, 34704), (35, 34716), (37, 34743), (41, 34770), (42, 34779), (43, 34803), (47, 34845), (48, 34860), (49, 34863), (52, 34932), (53, 34941), (58, 35007), (62, 35040), (67, 35100), (68, 35139), (69, 35154), (73, 35223), (76, 35262), (78, 35313), (80, 35334), (85, 35373), (93, 35448), (96, 35466), (97, 35502), (98, 35505), (99, 35532), (100, 35538), (102, 35550), (104, 35559), (106, 35568), (109, 35637), (112, 35673), (116, 35718), (121, 35766), (122, 35769), (126, 35787), (132, 35832), (133, 35835), (140, 35889), (144, 35955), (150, 36057), (151, 36060), (152, 36066), (153, 36078), (154, 36084), (155, 36099), (157, 36120), (160, 36174), (161, 36180), (162, 36186), (172, 36252), (176, 36279), (177, 36294), (183, 36336), (185, 36357), (195, 36414), (196, 36423), (198, 36426), (202, 36465), (203, 36486), (205, 36501), (207, 36534), (210, 36567), (211, 36579), (212, 36582), (214, 36594), (222, 36657), (226, 36711), (227, 36714), (228, 36723), (229, 36732), (233, 36777), (234, 36786), (235,

36789), (236, 36798), (237, 36828), (239, 36840), (242, 36900), (247, 37017), (248, 37029), (249, 37038), (251, 37092), (255, 37158), (258, 37200), (262, 37299), (263, 37335),

Gene: ChisanaKitsune_45 Start: 32874, Stop: 36224, Start Num: 1
Candidate Starts for ChisanaKitsune_45:
(Start: 1 @32874 has 15 MA's), (3, 32949), (5, 32982), (9, 33210), (10, 33213), (13, 33237), (18, 33270), (19, 33279), (22, 33339), (24, 33345), (25, 33366), (26, 33378), (27, 33387), (32, 33429), (34, 33495), (35, 33507), (37, 33534), (41, 33561), (42, 33570), (43, 33594), (47, 33636), (48, 33651), (49, 33654), (52, 33723), (53, 33732), (58, 33798), (62, 33831), (67, 33891), (68, 33930), (69, 33945), (70, 33960), (73, 34014), (76, 34053), (78, 34104), (80, 34125), (85, 34164), (87, 34176), (92, 34236), (93, 34239), (96, 34257), (97, 34293), (102, 34341), (104, 34350), (106, 34359), (109, 34428), (110, 34449), (112, 34464), (116, 34509), (121, 34557), (122, 34560), (126, 34578), (132, 34623), (133, 34626), (140, 34680), (144, 34746), (150, 34848), (151, 34851), (152, 34857), (153, 34869), (154, 34875), (155, 34890), (160, 34965), (161, 34971), (162, 34977), (172, 35043), (173, 35052), (175, 35064), (176, 35070), (177, 35085), (183, 35127), (185, 35148), (195, 35205), (196, 35214), (203, 35277), (205, 35292), (207, 35325), (208, 35331), (210, 35358), (211, 35370), (212, 35373), (214, 35385), (222, 35448), (224, 35472), (226, 35502), (227, 35505), (228, 35514), (229, 35523), (233, 35568), (234, 35577), (235, 35580), (237, 35619), (239, 35631), (242, 35691), (247, 35808), (248, 35820), (249, 35829), (251, 35883), (254, 35937), (255, 35949), (258, 35991), (262, 36090), (263, 36126),

Gene: DalanDe_44 Start: 36983, Stop: 40471, Start Num: 1
Candidate Starts for DalanDe_44:
(Start: 1 @36983 has 15 MA's), (13, 37340), (21, 37421), (23, 37445), (24, 37448), (26, 37481), (28, 37502), (30, 37511), (31, 37517), (32, 37532), (33, 37556), (34, 37598), (44, 37718), (45, 37730), (49, 37757), (57, 37889), (60, 37919), (62, 37934), (63, 37952), (64, 37964), (70, 38063), (72, 38075), (73, 38117), (74, 38123), (75, 38135), (80, 38228), (81, 38231), (82, 38237), (83, 38240), (86, 38270), (88, 38285), (90, 38324), (95, 38360), (96, 38366), (98, 38405), (101, 38444), (102, 38450), (109, 38537), (117, 38630), (119, 38645), (120, 38675), (124, 38687), (128, 38708), (129, 38735), (130, 38753), (131, 38768), (133, 38774), (136, 38801), (139, 38822), (141, 38831), (143, 38888), (146, 38906), (147, 38936), (148, 38963), (149, 38969), (151, 38999), (162, 39125), (165, 39152), (167, 39161), (168, 39179), (169, 39203), (170, 39206), (172, 39212), (173, 39221), (174, 39224), (178, 39266), (179, 39269), (180, 39272), (182, 39287), (183, 39296), (186, 39320), (188, 39326), (191, 39344), (197, 39389), (198, 39419), (199, 39452), (204, 39515), (205, 39527), (206, 39539), (207, 39560), (208, 39566), (213, 39617), (214, 39620), (217, 39638), (219, 39659), (221, 39680), (222, 39683), (224, 39707), (225, 39734), (226, 39737), (228, 39749), (229, 39758), (230, 39767), (231, 39779), (233, 39803), (237, 39854), (239, 39866), (241, 39920), (242, 39926), (244, 39998), (246, 40016), (249, 40067), (251, 40121), (252, 40130), (256, 40217), (259, 40253), (262, 40334),

Gene: EmoNemo_47 Start: 34083, Stop: 37433, Start Num: 1
Candidate Starts for EmoNemo_47:
(Start: 1 @34083 has 15 MA's), (3, 34158), (5, 34191), (9, 34419), (10, 34422), (13, 34446), (18, 34479), (19, 34488), (22, 34548), (24, 34554), (25, 34575), (26, 34587), (27, 34596), (32, 34638), (34, 34704), (35, 34716), (37, 34743), (41, 34770), (42, 34779), (43, 34803), (47, 34845), (48, 34860), (49, 34863), (52, 34932), (53, 34941), (58, 35007), (62, 35040), (67, 35100), (68, 35139), (69, 35154), (73, 35223), (76, 35262), (78, 35313), (80, 35334), (85, 35373), (93, 35448), (96, 35466), (97, 35502), (98, 35505), (99, 35532), (100, 35538), (102, 35550), (104, 35559), (106, 35568), (109, 35637), (112, 35673), (116, 35718), (121, 35766), (122, 35769), (126, 35787), (132, 35832), (133, 35835), (140, 35889), (144, 35955), (150, 36057), (151, 36060), (152, 36066), (153, 36078), (154, 36084), (155, 36099), (157, 36120), (160, 36174), (161, 36180), (162, 36186), (172, 36252), (176, 36279), (177, 36294), (183, 36336), (185, 36357), (195, 36414), (196, 36423), (198, 36426), (202, 36465), (203, 36486), (205, 36501), (207, 36534), (210, 36567), (211, 36579), (212, 36582), (214, 36594), (222, 36657), (226, 36711), (227, 36714), (228, 36723), (229, 36732), (233, 36777), (234, 36786), (235,

36789), (236, 36798), (237, 36828), (239, 36840), (242, 36900), (247, 37017), (248, 37029), (249, 37038), (251, 37092), (255, 37158), (258, 37200), (262, 37299), (263, 37335),

Gene: Farrylious_48 Start: 33859, Stop: 37209, Start Num: 1
Candidate Starts for Farrylious_48:
(Start: 1 @33859 has 15 MA's), (3, 33934), (5, 33967), (9, 34195), (10, 34198), (13, 34222), (18, 34255), (19, 34264), (22, 34324), (24, 34330), (25, 34351), (26, 34363), (27, 34372), (32, 34414), (34, 34480), (35, 34492), (37, 34519), (41, 34546), (42, 34555), (43, 34579), (47, 34621), (48, 34636), (49, 34639), (52, 34708), (53, 34717), (58, 34783), (62, 34816), (67, 34876), (68, 34915), (69, 34930), (70, 34945), (73, 34999), (76, 35038), (78, 35089), (80, 35110), (85, 35149), (93, 35224), (96, 35242), (97, 35278), (99, 35308), (100, 35314), (102, 35326), (104, 35335), (106, 35344), (109, 35413), (112, 35449), (116, 35494), (121, 35542), (122, 35545), (126, 35563), (132, 35608), (133, 35611), (140, 35665), (144, 35731), (150, 35833), (151, 35836), (152, 35842), (153, 35854), (154, 35860), (155, 35875), (157, 35896), (160, 35950), (161, 35956), (162, 35962), (172, 36028), (176, 36055), (177, 36070), (183, 36112), (185, 36133), (195, 36190), (196, 36199), (198, 36202), (202, 36241), (203, 36262), (205, 36277), (207, 36310), (208, 36316), (210, 36343), (211, 36355), (212, 36358), (214, 36370), (222, 36433), (226, 36487), (227, 36490), (228, 36499), (229, 36508), (233, 36553), (234, 36562), (235, 36565), (236, 36574), (237, 36604), (239, 36616), (242, 36676), (247, 36793), (248, 36805), (249, 36814), (251, 36868), (255, 36934), (258, 36976), (262, 37075), (263, 37111),

Gene: FlyingTortilla_48 Start: 36938, Stop: 40285, Start Num: 1
Candidate Starts for FlyingTortilla_48:
(Start: 1 @36938 has 15 MA's), (3, 37013), (5, 37046), (8, 37253), (9, 37274), (12, 37295), (13, 37301), (15, 37310), (16, 37316), (19, 37343), (24, 37409), (32, 37493), (34, 37559), (35, 37571), (36, 37592), (39, 37613), (49, 37718), (50, 37757), (51, 37769), (53, 37796), (54, 37826), (55, 37835), (56, 37838), (59, 37871), (60, 37880), (63, 37913), (66, 37946), (71, 38030), (73, 38078), (77, 38120), (78, 38168), (80, 38189), (84, 38222), (97, 38357), (99, 38387), (100, 38393), (102, 38405), (104, 38414), (108, 38468), (109, 38492), (110, 38513), (113, 38531), (116, 38573), (118, 38588), (121, 38621), (122, 38624), (126, 38642), (132, 38687), (133, 38690), (134, 38696), (138, 38732), (140, 38744), (144, 38810), (148, 38879), (151, 38915), (153, 38933), (155, 38954), (161, 39035), (162, 39041), (163, 39047), (171, 39104), (173, 39116), (174, 39119), (175, 39128), (177, 39149), (178, 39161), (181, 39176), (187, 39218), (190, 39230), (192, 39248), (193, 39257), (194, 39263), (200, 39314), (203, 39341), (207, 39389), (210, 39422), (211, 39434), (214, 39449), (222, 39512), (223, 39521), (226, 39566), (228, 39578), (232, 39617), (233, 39632), (236, 39653), (237, 39683), (238, 39686), (239, 39695), (240, 39707), (242, 39755), (248, 39884), (251, 39947), (254, 40001), (255, 40013), (258, 40055), (262, 40157), (265, 40247),

Gene: FruityLoops_47 Start: 36957, Stop: 40304, Start Num: 1
Candidate Starts for FruityLoops_47:
(Start: 1 @36957 has 15 MA's), (3, 37032), (5, 37065), (8, 37272), (9, 37293), (13, 37320), (14, 37326), (16, 37335), (19, 37362), (24, 37428), (32, 37512), (34, 37578), (35, 37590), (36, 37611), (39, 37632), (49, 37737), (50, 37776), (51, 37788), (53, 37815), (54, 37845), (55, 37854), (56, 37857), (59, 37890), (60, 37899), (61, 37905), (63, 37932), (66, 37965), (71, 38049), (73, 38097), (77, 38139), (78, 38187), (80, 38208), (84, 38241), (97, 38376), (99, 38406), (100, 38412), (102, 38424), (104, 38433), (108, 38487), (109, 38511), (110, 38532), (113, 38550), (116, 38592), (118, 38607), (121, 38640), (122, 38643), (126, 38661), (132, 38706), (133, 38709), (134, 38715), (138, 38751), (140, 38763), (144, 38829), (148, 38898), (151, 38934), (153, 38952), (155, 38973), (161, 39054), (162, 39060), (163, 39066), (171, 39123), (173, 39135), (174, 39138), (175, 39147), (177, 39168), (178, 39180), (181, 39195), (187, 39237), (189, 39246), (190, 39249), (192, 39267), (193, 39276), (194, 39282), (200, 39333), (203, 39360), (207, 39408), (210, 39441), (211, 39453), (214, 39468), (222, 39531), (223, 39540), (226, 39585), (228, 39597), (233, 39651), (236, 39672), (237, 39702), (238, 39705), (239, 39714), (240, 39726), (242, 39774), (248, 39903), (251, 39966), (254, 40020), (255, 40032), (258, 40074), (262, 40176), (265, 40266),

Gene: GMA6_33 Start: 24842, Stop: 28261, Start Num: 1
Candidate Starts for GMA6_33:
(Start: 1 @24842 has 15 MA's), (2, 24896), (4, 24938), (5, 24950), (6, 24980), (7, 25118), (11, 25193), (17, 25229), (20, 25265), (25, 25334), (26, 25346), (28, 25367), (29, 25373), (30, 25376), (31, 25382), (32, 25397), (34, 25463), (38, 25505), (40, 25526), (44, 25583), (46, 25598), (49, 25622), (57, 25754), (60, 25784), (62, 25799), (63, 25817), (65, 25841), (69, 25913), (71, 25934), (75, 26000), (76, 26021), (79, 26081), (89, 26156), (91, 26207), (92, 26216), (94, 26228), (98, 26276), (101, 26315), (103, 26324), (105, 26333), (107, 26345), (111, 26435), (114, 26450), (125, 26549), (127, 26558), (130, 26582), (135, 26618), (137, 26636), (139, 26651), (142, 26705), (145, 26729), (151, 26828), (152, 26834), (153, 26846), (154, 26852), (155, 26867), (156, 26879), (157, 26888), (158, 26894), (159, 26903), (161, 26948), (164, 26978), (166, 26987), (169, 27032), (177, 27083), (184, 27143), (187, 27152), (189, 27161), (193, 27191), (200, 27293), (201, 27296), (208, 27374), (209, 27380), (215, 27434), (216, 27437), (218, 27452), (220, 27485), (225, 27542), (227, 27548), (233, 27611), (241, 27728), (243, 27794), (245, 27815), (250, 27926), (251, 27932), (253, 27950), (255, 27998), (257, 28037), (258, 28040), (260, 28079), (261, 28115), (262, 28133), (264, 28214),

Gene: Gray_49 Start: 34084, Stop: 37434, Start Num: 1
Candidate Starts for Gray_49:
(Start: 1 @34084 has 15 MA's), (3, 34159), (5, 34192), (8, 34399), (9, 34420), (10, 34423), (13, 34447), (18, 34480), (19, 34489), (22, 34549), (24, 34555), (25, 34576), (26, 34588), (27, 34597), (32, 34639), (34, 34705), (35, 34717), (37, 34744), (41, 34771), (42, 34780), (43, 34804), (47, 34846), (48, 34861), (49, 34864), (52, 34933), (53, 34942), (58, 35008), (62, 35041), (67, 35101), (68, 35140), (69, 35155), (70, 35170), (73, 35224), (76, 35263), (78, 35314), (80, 35335), (85, 35374), (93, 35449), (96, 35467), (97, 35503), (98, 35506), (99, 35533), (100, 35539), (102, 35551), (104, 35560), (106, 35569), (109, 35638), (112, 35674), (116, 35719), (121, 35767), (122, 35770), (126, 35788), (132, 35833), (133, 35836), (140, 35890), (144, 35956), (150, 36058), (151, 36061), (152, 36067), (153, 36079), (154, 36085), (155, 36100), (157, 36121), (160, 36175), (161, 36181), (162, 36187), (172, 36253), (176, 36280), (177, 36295), (183, 36337), (185, 36358), (195, 36415), (196, 36424), (198, 36427), (202, 36466), (203, 36487), (205, 36502), (207, 36535), (210, 36568), (211, 36580), (212, 36583), (214, 36595), (222, 36658), (226, 36712), (227, 36715), (228, 36724), (229, 36733), (233, 36778), (234, 36787), (235, 36790), (236, 36799), (237, 36829), (239, 36841), (242, 36901), (247, 37018), (248, 37030), (249, 37039), (251, 37093), (255, 37159), (258, 37201), (262, 37300), (263, 37336),

Gene: Hanem_49 Start: 34083, Stop: 37433, Start Num: 1
Candidate Starts for Hanem_49:
(Start: 1 @34083 has 15 MA's), (3, 34158), (5, 34191), (9, 34419), (10, 34422), (13, 34446), (18, 34479), (19, 34488), (22, 34548), (24, 34554), (25, 34575), (26, 34587), (27, 34596), (32, 34638), (34, 34704), (35, 34716), (37, 34743), (41, 34770), (42, 34779), (43, 34803), (47, 34845), (48, 34860), (49, 34863), (52, 34932), (53, 34941), (58, 35007), (62, 35040), (67, 35100), (68, 35139), (69, 35154), (73, 35223), (76, 35262), (78, 35313), (80, 35334), (85, 35373), (93, 35448), (96, 35466), (97, 35502), (98, 35505), (99, 35532), (100, 35538), (102, 35550), (104, 35559), (106, 35568), (109, 35637), (112, 35673), (116, 35718), (121, 35766), (122, 35769), (126, 35787), (132, 35832), (133, 35835), (140, 35889), (144, 35955), (150, 36057), (151, 36060), (152, 36066), (153, 36078), (154, 36084), (155, 36099), (157, 36120), (160, 36174), (161, 36180), (162, 36186), (172, 36252), (176, 36279), (177, 36294), (183, 36336), (185, 36357), (195, 36414), (196, 36423), (198, 36426), (202, 36465), (203, 36486), (205, 36501), (207, 36534), (210, 36567), (211, 36579), (212, 36582), (214, 36594), (222, 36657), (226, 36711), (227, 36714), (228, 36723), (229, 36732), (233, 36777), (234, 36786), (235, 36789), (236, 36798), (237, 36828), (239, 36840), (242, 36900), (247, 37017), (248, 37029), (249, 37038), (251, 37092), (255, 37158), (258, 37200), (262, 37299), (263, 37335),

Gene: Kabocha_50 Start: 34896, Stop: 38246, Start Num: 1
Candidate Starts for Kabocha_50:

(Start: 1 @34896 has 15 MA's), (3, 34971), (5, 35004), (9, 35232), (10, 35235), (13, 35259), (18, 35292), (19, 35301), (22, 35361), (24, 35367), (25, 35388), (26, 35400), (27, 35409), (32, 35451), (34, 35517), (35, 35529), (37, 35556), (41, 35583), (42, 35592), (43, 35616), (47, 35658), (48, 35673), (49, 35676), (52, 35745), (53, 35754), (58, 35820), (62, 35853), (67, 35913), (68, 35952), (69, 35967), (73, 36036), (76, 36075), (78, 36126), (80, 36147), (85, 36186), (93, 36261), (96, 36279), (97, 36315), (98, 36318), (99, 36345), (100, 36351), (102, 36363), (104, 36372), (106, 36381), (109, 36450), (112, 36486), (116, 36531), (121, 36579), (122, 36582), (126, 36600), (132, 36645), (133, 36648), (140, 36702), (144, 36768), (150, 36870), (151, 36873), (152, 36879), (153, 36891), (154, 36897), (155, 36912), (157, 36933), (160, 36987), (161, 36993), (162, 36999), (172, 37065), (176, 37092), (177, 37107), (183, 37149), (185, 37170), (195, 37227), (196, 37236), (198, 37239), (202, 37278), (203, 37299), (205, 37314), (207, 37347), (210, 37380), (211, 37392), (212, 37395), (214, 37407), (222, 37470), (226, 37524), (227, 37527), (228, 37536), (229, 37545), (233, 37590), (234, 37599), (235, 37602), (236, 37611), (237, 37641), (239, 37653), (242, 37713), (247, 37830), (248, 37842), (249, 37851), (251, 37905), (255, 37971), (258, 38013), (262, 38112), (263, 38148),

Gene: Lenoshki_49 Start: 35763, Stop: 39113, Start Num: 1
Candidate Starts for Lenoshki_49:
(Start: 1 @35763 has 15 MA's), (3, 35838), (5, 35871), (9, 36099), (10, 36102), (13, 36126), (18, 36159), (19, 36168), (22, 36228), (24, 36234), (25, 36255), (26, 36267), (32, 36318), (34, 36384), (35, 36396), (37, 36423), (41, 36450), (42, 36459), (43, 36483), (47, 36525), (49, 36543), (52, 36612), (53, 36621), (58, 36687), (62, 36720), (67, 36780), (68, 36819), (69, 36834), (73, 36903), (78, 36993), (80, 37014), (85, 37053), (93, 37128), (96, 37146), (97, 37182), (98, 37185), (99, 37212), (100, 37218), (102, 37230), (104, 37239), (106, 37248), (109, 37317), (110, 37338), (112, 37353), (115, 37392), (116, 37398), (121, 37446), (122, 37449), (126, 37467), (132, 37512), (133, 37515), (140, 37569), (144, 37635), (150, 37737), (151, 37740), (152, 37746), (153, 37758), (154, 37764), (155, 37779), (160, 37854), (161, 37860), (162, 37866), (172, 37932), (173, 37941), (175, 37953), (176, 37959), (177, 37974), (183, 38016), (185, 38037), (195, 38094), (196, 38103), (203, 38166), (205, 38181), (207, 38214), (210, 38247), (211, 38259), (212, 38262), (214, 38274), (222, 38337), (226, 38391), (227, 38394), (228, 38403), (229, 38412), (233, 38457), (234, 38466), (235, 38469), (237, 38508), (239, 38520), (242, 38580), (247, 38697), (248, 38709), (249, 38718), (251, 38772), (254, 38826), (255, 38838), (258, 38880), (262, 38979), (263, 39015),

Gene: Mikronejon_49 Start: 34083, Stop: 37433, Start Num: 1
Candidate Starts for Mikronejon_49:
(Start: 1 @34083 has 15 MA's), (3, 34158), (5, 34191), (9, 34419), (10, 34422), (13, 34446), (18, 34479), (19, 34488), (22, 34548), (24, 34554), (25, 34575), (26, 34587), (27, 34596), (32, 34638), (34, 34704), (35, 34716), (37, 34743), (41, 34770), (42, 34779), (43, 34803), (47, 34845), (48, 34860), (49, 34863), (52, 34932), (53, 34941), (58, 35007), (62, 35040), (67, 35100), (68, 35139), (69, 35154), (73, 35223), (76, 35262), (78, 35313), (80, 35334), (85, 35373), (93, 35448), (96, 35466), (97, 35502), (98, 35505), (99, 35532), (100, 35538), (102, 35550), (104, 35559), (106, 35568), (109, 35637), (112, 35673), (116, 35718), (121, 35766), (122, 35769), (126, 35787), (132, 35832), (133, 35835), (140, 35889), (144, 35955), (150, 36057), (151, 36060), (152, 36066), (153, 36078), (154, 36084), (155, 36099), (157, 36120), (160, 36174), (161, 36180), (162, 36186), (172, 36252), (176, 36279), (177, 36294), (183, 36336), (185, 36357), (195, 36414), (196, 36423), (198, 36426), (202, 36465), (203, 36486), (205, 36501), (207, 36534), (210, 36567), (211, 36579), (212, 36582), (214, 36594), (222, 36657), (226, 36711), (227, 36714), (228, 36723), (229, 36732), (233, 36777), (234, 36786), (235, 36789), (236, 36798), (237, 36828), (239, 36840), (242, 36900), (247, 37017), (248, 37029), (249, 37038), (251, 37092), (255, 37158), (258, 37200), (262, 37299), (263, 37335),

Gene: MintFritos_47 Start: 34084, Stop: 37434, Start Num: 1
Candidate Starts for MintFritos_47:
(Start: 1 @34084 has 15 MA's), (3, 34159), (5, 34192), (9, 34420), (10, 34423), (13, 34447), (18, 34480), (19, 34489), (22, 34549), (24, 34555), (25, 34576), (26, 34588), (27, 34597), (32, 34639), (34,

34705), (35, 34717), (37, 34744), (41, 34771), (42, 34780), (43, 34804), (47, 34846), (48, 34861), (49, 34864), (52, 34933), (53, 34942), (58, 35008), (62, 35041), (67, 35101), (68, 35140), (69, 35155), (73, 35224), (76, 35263), (78, 35314), (80, 35335), (85, 35374), (93, 35449), (96, 35467), (97, 35503), (98, 35506), (99, 35533), (100, 35539), (102, 35551), (104, 35560), (106, 35569), (109, 35638), (112, 35674), (116, 35719), (121, 35767), (122, 35770), (126, 35788), (132, 35833), (133, 35836), (140, 35890), (144, 35956), (150, 36058), (151, 36061), (152, 36067), (153, 36079), (154, 36085), (155, 36100), (157, 36121), (160, 36175), (161, 36181), (162, 36187), (172, 36253), (176, 36280), (177, 36295), (183, 36337), (185, 36358), (195, 36415), (196, 36424), (198, 36427), (202, 36466), (203, 36487), (205, 36502), (207, 36535), (210, 36568), (211, 36580), (212, 36583), (214, 36595), (222, 36658), (226, 36712), (227, 36715), (228, 36724), (229, 36733), (233, 36778), (234, 36787), (235, 36790), (236, 36799), (237, 36829), (239, 36841), (242, 36901), (247, 37018), (248, 37030), (249, 37039), (251, 37093), (255, 37159), (258, 37201), (262, 37300), (263, 37336),

Gene: Oogie_50 Start: 35789, Stop: 39139, Start Num: 1
Candidate Starts for Oogie_50:
(Start: 1 @35789 has 15 MA's), (3, 35864), (5, 35897), (9, 36125), (10, 36128), (13, 36152), (18, 36185), (19, 36194), (22, 36254), (24, 36260), (25, 36281), (26, 36293), (32, 36344), (34, 36410), (35, 36422), (37, 36449), (41, 36476), (42, 36485), (43, 36509), (47, 36551), (49, 36569), (52, 36638), (53, 36647), (58, 36713), (62, 36746), (67, 36806), (68, 36845), (69, 36860), (73, 36929), (76, 36968), (78, 37019), (80, 37040), (85, 37079), (93, 37154), (96, 37172), (97, 37208), (98, 37211), (99, 37238), (100, 37244), (102, 37256), (104, 37265), (106, 37274), (109, 37343), (110, 37364), (112, 37379), (116, 37424), (121, 37472), (122, 37475), (126, 37493), (132, 37538), (133, 37541), (140, 37595), (144, 37661), (150, 37763), (151, 37766), (152, 37772), (153, 37784), (154, 37790), (155, 37805), (160, 37880), (161, 37886), (162, 37892), (172, 37958), (173, 37967), (175, 37979), (176, 37985), (177, 38000), (183, 38042), (185, 38063), (195, 38120), (196, 38129), (203, 38192), (205, 38207), (207, 38240), (210, 38273), (211, 38285), (212, 38288), (214, 38300), (222, 38363), (226, 38417), (227, 38420), (228, 38429), (229, 38438), (233, 38483), (234, 38492), (235, 38495), (237, 38534), (239, 38546), (242, 38606), (247, 38723), (248, 38735), (249, 38744), (251, 38798), (254, 38852), (255, 38864), (258, 38906), (262, 39005), (263, 39041),

Gene: Pakusa_47 Start: 33825, Stop: 37175, Start Num: 1
Candidate Starts for Pakusa_47:
(Start: 1 @33825 has 15 MA's), (3, 33900), (5, 33933), (9, 34161), (10, 34164), (13, 34188), (18, 34221), (19, 34230), (22, 34290), (24, 34296), (25, 34317), (26, 34329), (27, 34338), (32, 34380), (34, 34446), (35, 34458), (37, 34485), (41, 34512), (42, 34521), (43, 34545), (47, 34587), (48, 34602), (49, 34605), (52, 34674), (53, 34683), (58, 34749), (62, 34782), (67, 34842), (68, 34881), (69, 34896), (73, 34965), (76, 35004), (78, 35055), (80, 35076), (85, 35115), (93, 35190), (96, 35208), (97, 35244), (98, 35247), (99, 35274), (100, 35280), (102, 35292), (104, 35301), (106, 35310), (109, 35379), (112, 35415), (116, 35460), (121, 35508), (122, 35511), (126, 35529), (132, 35574), (133, 35577), (140, 35631), (144, 35697), (150, 35799), (151, 35802), (152, 35808), (153, 35820), (154, 35826), (155, 35841), (157, 35862), (160, 35916), (161, 35922), (162, 35928), (172, 35994), (176, 36021), (177, 36036), (183, 36078), (185, 36099), (195, 36156), (196, 36165), (198, 36168), (202, 36207), (203, 36228), (205, 36243), (207, 36276), (210, 36309), (211, 36321), (212, 36324), (214, 36336), (222, 36399), (226, 36453), (227, 36456), (228, 36465), (229, 36474), (233, 36519), (234, 36528), (235, 36531), (236, 36540), (237, 36570), (239, 36582), (242, 36642), (247, 36759), (248, 36771), (249, 36780), (251, 36834), (255, 36900), (258, 36942), (262, 37041), (263, 37077),

Gene: ScarletRaider_48 Start: 36965, Stop: 40312, Start Num: 1
Candidate Starts for ScarletRaider_48:
(Start: 1 @36965 has 15 MA's), (3, 37040), (5, 37073), (8, 37280), (9, 37301), (12, 37322), (13, 37328), (15, 37337), (16, 37343), (19, 37370), (24, 37436), (32, 37520), (34, 37586), (35, 37598), (36, 37619), (39, 37640), (49, 37745), (50, 37784), (51, 37796), (53, 37823), (54, 37853), (55, 37862), (56, 37865), (59, 37898), (60, 37907), (63, 37940), (66, 37973), (71, 38057), (73, 38105), (77, 38147), (78, 38195),

(80, 38216), (84, 38249), (97, 38384), (99, 38414), (100, 38420), (102, 38432), (104, 38441), (108, 38495), (109, 38519), (110, 38540), (113, 38558), (116, 38600), (118, 38615), (121, 38648), (122, 38651), (126, 38669), (132, 38714), (133, 38717), (134, 38723), (138, 38759), (140, 38771), (144, 38837), (148, 38906), (151, 38942), (153, 38960), (155, 38981), (161, 39062), (162, 39068), (163, 39074), (171, 39131), (173, 39143), (174, 39146), (175, 39155), (177, 39176), (178, 39188), (181, 39203), (187, 39245), (190, 39257), (192, 39275), (193, 39284), (194, 39290), (200, 39341), (203, 39368), (207, 39416), (210, 39449), (211, 39461), (214, 39476), (222, 39539), (223, 39548), (226, 39593), (228, 39605), (232, 39644), (233, 39659), (236, 39680), (237, 39710), (238, 39713), (239, 39722), (240, 39734), (242, 39782), (248, 39911), (251, 39974), (254, 40028), (255, 40040), (258, 40082), (262, 40184), (265, 40274),

Gene: Schomber_48 Start: 33833, Stop: 37183, Start Num: 1
Candidate Starts for Schomber_48:
(Start: 1 @33833 has 15 MA's), (3, 33908), (5, 33941), (9, 34169), (10, 34172), (13, 34196), (18, 34229), (19, 34238), (22, 34298), (24, 34304), (25, 34325), (26, 34337), (27, 34346), (32, 34388), (34, 34454), (35, 34466), (37, 34493), (41, 34520), (42, 34529), (43, 34553), (47, 34595), (48, 34610), (49, 34613), (52, 34682), (53, 34691), (58, 34757), (62, 34790), (67, 34850), (68, 34889), (69, 34904), (73, 34973), (76, 35012), (78, 35063), (80, 35084), (85, 35123), (93, 35198), (96, 35216), (97, 35252), (99, 35282), (100, 35288), (102, 35300), (104, 35309), (106, 35318), (109, 35387), (110, 35408), (112, 35423), (116, 35468), (121, 35516), (122, 35519), (123, 35522), (126, 35537), (132, 35582), (133, 35585), (140, 35639), (144, 35705), (150, 35807), (151, 35810), (152, 35816), (153, 35828), (154, 35834), (155, 35849), (157, 35870), (160, 35924), (161, 35930), (162, 35936), (172, 36002), (176, 36029), (177, 36044), (183, 36086), (185, 36107), (195, 36164), (196, 36173), (198, 36176), (202, 36215), (203, 36236), (205, 36251), (207, 36284), (210, 36317), (211, 36329), (212, 36332), (214, 36344), (222, 36407), (226, 36461), (227, 36464), (228, 36473), (229, 36482), (233, 36527), (234, 36536), (235, 36539), (236, 36548), (237, 36578), (239, 36590), (242, 36650), (247, 36767), (248, 36779), (249, 36788), (251, 36842), (254, 36896), (255, 36908), (258, 36950), (262, 37049), (263, 37085),

Gene: Thales_43 Start: 35899, Stop: 39387, Start Num: 1
Candidate Starts for Thales_43:
(Start: 1 @35899 has 15 MA's), (13, 36256), (21, 36337), (23, 36361), (24, 36364), (26, 36397), (28, 36418), (30, 36427), (31, 36433), (32, 36448), (33, 36472), (34, 36514), (44, 36634), (45, 36646), (49, 36673), (57, 36805), (60, 36835), (62, 36850), (63, 36868), (64, 36880), (70, 36979), (72, 36991), (73, 37033), (74, 37039), (75, 37051), (80, 37144), (81, 37147), (82, 37153), (83, 37156), (86, 37186), (88, 37201), (90, 37240), (95, 37276), (96, 37282), (98, 37321), (101, 37360), (102, 37366), (109, 37453), (117, 37546), (119, 37561), (120, 37591), (124, 37603), (128, 37624), (129, 37651), (130, 37669), (131, 37684), (133, 37690), (136, 37717), (139, 37738), (141, 37747), (143, 37804), (146, 37822), (147, 37852), (148, 37879), (149, 37885), (151, 37915), (162, 38041), (165, 38068), (167, 38077), (168, 38095), (169, 38119), (170, 38122), (172, 38128), (173, 38137), (174, 38140), (178, 38182), (179, 38185), (180, 38188), (182, 38203), (183, 38212), (186, 38236), (188, 38242), (191, 38260), (197, 38305), (198, 38335), (199, 38368), (204, 38431), (205, 38443), (206, 38455), (207, 38476), (208, 38482), (213, 38533), (214, 38536), (217, 38554), (219, 38575), (221, 38596), (222, 38599), (224, 38623), (225, 38650), (226, 38653), (228, 38665), (229, 38674), (230, 38683), (231, 38695), (233, 38719), (237, 38770), (239, 38782), (241, 38836), (242, 38842), (244, 38914), (246, 38932), (249, 38983), (251, 39037), (252, 39046), (256, 39133), (259, 39169), (262, 39250),

Gene: Toneprano_47 Start: 34083, Stop: 37433, Start Num: 1
Candidate Starts for Toneprano_47:
(Start: 1 @34083 has 15 MA's), (3, 34158), (5, 34191), (8, 34398), (9, 34419), (10, 34422), (13, 34446), (18, 34479), (19, 34488), (22, 34548), (24, 34554), (25, 34575), (26, 34587), (27, 34596), (32, 34638), (34, 34704), (35, 34716), (37, 34743), (41, 34770), (42, 34779), (43, 34803), (47, 34845), (48, 34860), (49, 34863), (52, 34932), (53, 34941), (58, 35007), (62, 35040), (67, 35100), (68, 35139), (69, 35154),

(70, 35169), (73, 35223), (76, 35262), (78, 35313), (80, 35334), (85, 35373), (93, 35448), (96, 35466), (97, 35502), (99, 35532), (100, 35538), (102, 35550), (104, 35559), (106, 35568), (109, 35637), (112, 35673), (116, 35718), (121, 35766), (122, 35769), (126, 35787), (132, 35832), (133, 35835), (140, 35889), (144, 35955), (150, 36057), (151, 36060), (152, 36066), (153, 36078), (154, 36084), (155, 36099), (157, 36120), (160, 36174), (161, 36180), (162, 36186), (172, 36252), (176, 36279), (177, 36294), (183, 36336), (185, 36357), (195, 36414), (196, 36423), (198, 36426), (202, 36465), (203, 36486), (205, 36501), (207, 36534), (208, 36540), (210, 36567), (211, 36579), (212, 36582), (214, 36594), (222, 36657), (226, 36711), (227, 36714), (228, 36723), (229, 36732), (233, 36777), (234, 36786), (235, 36789), (236, 36798), (237, 36828), (239, 36840), (242, 36900), (247, 37017), (248, 37029), (249, 37038), (251, 37092), (255, 37158), (258, 37200), (262, 37299), (263, 37335),

Gene: Twin_47 Start: 34083, Stop: 37433, Start Num: 1
Candidate Starts for Twin_47:
(Start: 1 @34083 has 15 MA's), (3, 34158), (5, 34191), (9, 34419), (10, 34422), (13, 34446), (18, 34479), (19, 34488), (22, 34548), (24, 34554), (25, 34575), (26, 34587), (27, 34596), (32, 34638), (34, 34704), (35, 34716), (37, 34743), (41, 34770), (42, 34779), (43, 34803), (47, 34845), (48, 34860), (49, 34863), (52, 34932), (53, 34941), (58, 35007), (62, 35040), (67, 35100), (68, 35139), (69, 35154), (73, 35223), (76, 35262), (78, 35313), (80, 35334), (85, 35373), (93, 35448), (96, 35466), (97, 35502), (98, 35505), (99, 35532), (100, 35538), (102, 35550), (104, 35559), (106, 35568), (109, 35637), (112, 35673), (116, 35718), (121, 35766), (122, 35769), (126, 35787), (132, 35832), (133, 35835), (140, 35889), (144, 35955), (150, 36057), (151, 36060), (152, 36066), (153, 36078), (154, 36084), (155, 36099), (157, 36120), (160, 36174), (161, 36180), (162, 36186), (172, 36252), (176, 36279), (177, 36294), (183, 36336), (185, 36357), (195, 36414), (196, 36423), (198, 36426), (202, 36465), (203, 36486), (205, 36501), (207, 36534), (210, 36567), (211, 36579), (212, 36582), (214, 36594), (222, 36657), (226, 36711), (227, 36714), (228, 36723), (229, 36732), (233, 36777), (234, 36786), (235, 36789), (236, 36798), (237, 36828), (239, 36840), (242, 36900), (247, 37017), (248, 37029), (249, 37038), (251, 37092), (255, 37158), (258, 37200), (262, 37299), (263, 37335),

Gene: UBSmoodge_50 Start: 36704, Stop: 40051, Start Num: 1
Candidate Starts for UBSmoodge_50:
(Start: 1 @36704 has 15 MA's), (3, 36779), (5, 36812), (8, 37019), (9, 37040), (13, 37067), (16, 37082), (19, 37109), (24, 37175), (32, 37259), (34, 37325), (35, 37337), (36, 37358), (39, 37379), (49, 37484), (50, 37523), (51, 37535), (53, 37562), (54, 37592), (55, 37601), (56, 37604), (59, 37637), (60, 37646), (61, 37652), (63, 37679), (66, 37712), (71, 37796), (73, 37844), (77, 37886), (78, 37934), (80, 37955), (84, 37988), (97, 38123), (99, 38153), (100, 38159), (102, 38171), (104, 38180), (108, 38234), (109, 38258), (110, 38279), (113, 38297), (116, 38339), (118, 38354), (121, 38387), (122, 38390), (126, 38408), (132, 38453), (133, 38456), (134, 38462), (138, 38498), (140, 38510), (144, 38576), (148, 38645), (151, 38681), (153, 38699), (155, 38720), (161, 38801), (162, 38807), (163, 38813), (171, 38870), (173, 38882), (174, 38885), (175, 38894), (177, 38915), (178, 38927), (181, 38942), (187, 38984), (192, 39014), (193, 39023), (194, 39029), (195, 39035), (200, 39080), (202, 39086), (203, 39107), (205, 39122), (207, 39155), (208, 39161), (210, 39188), (211, 39200), (212, 39203), (214, 39215), (222, 39278), (223, 39287), (226, 39332), (228, 39344), (232, 39383), (233, 39398), (236, 39419), (237, 39449), (238, 39452), (240, 39473), (242, 39521), (248, 39650), (251, 39713), (254, 39767), (255, 39779), (258, 39821), (262, 39923), (265, 40013),