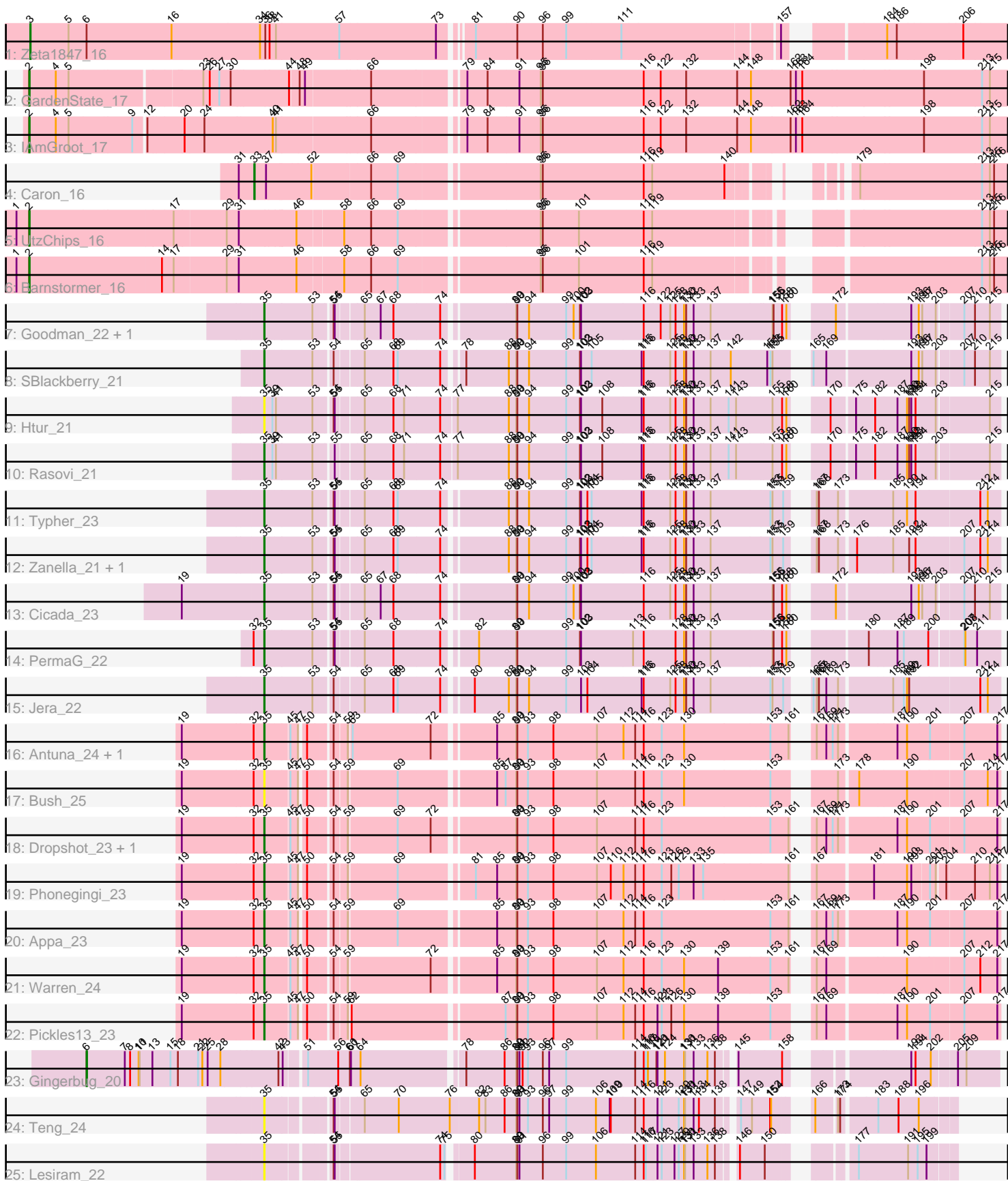


Pham 163847



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 163847 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163847 has 29 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Zeta1847_16
- Track 2 : GardenState_17
- Track 3 : IAmGroot_17
- Track 4 : Caron_16
- Track 5 : UtzChips_16
- Track 6 : Barnstormer_16
- Track 7 : Goodman_22, Johann_22
- Track 8 : SBlackberry_21
- Track 9 : Htur_21
- Track 10 : Rasovi_21
- Track 11 : Typher_23
- Track 12 : Zanella_21, TurboVicky_21
- Track 13 : Cicada_23
- Track 14 : PermaG_22
- Track 15 : Jera_22
- Track 16 : Antuna_24, MenE_27
- Track 17 : Bush_25
- Track 18 : Dropshot_23, Blett_24
- Track 19 : Phonegingi_23
- Track 20 : Appa_23
- Track 21 : Warren_24
- Track 22 : Pickles13_23
- Track 23 : Gingerbug_20
- Track 24 : Teng_24
- Track 25 : Lesiram_22

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

The start number called the most often in the published annotations is 35, it was called in 17 of the 24 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Antuna_24, Appa_23, Blett_24, Bush_25, Cicada_23, Dropshot_23, Goodman_22, Htur_21, Jera_22, Johann_22, Lesiram_22, MenE_27, PermaG_22, Phonegingi_23,

Pickles13_23, Rasovi_21, SBlackberry_21, Teng_24, TurboVicky_21, Typher_23, Warren_24, Zanella_21,

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

-

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

- Barnstormer_16, Caron_16, GardenState_17, Gingerbug_20, IAmGroot_17, UtzChips_16, Zeta1847_16,

Summary by start number:

Start 2:

- Found in 4 of 29 (13.8%) of genes in pham
- Manual Annotations of this start: 4 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Barnstormer_16 (EH), GardenState_17 (EH), IAmGroot_17 (EH), UtzChips_16 (EH),

Start 3:

- Found in 1 of 29 (3.4%) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Zeta1847_16 (EH),

Start 6:

- Found in 2 of 29 (6.9%) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Gingerbug_20 (GF),

Start 33:

- Found in 1 of 29 (3.4%) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Caron_16 (EH),

Start 35:

- Found in 22 of 29 (75.9%) of genes in pham
- Manual Annotations of this start: 17 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antuna_24 (GA), Appa_23 (GA), Blett_24 (GA), Bush_25 (GA), Cicada_23 (EJ), Dropshot_23 (GA), Goodman_22 (EJ), Htur_21 (EJ), Jera_22 (EJ), Johann_22 (EJ), Lesiram_22 (GF), MenE_27 (GA), PermaG_22 (EJ), Phonegingi_23 (GA), Pickles13_23 (GA), Rasovi_21 (EJ), SBlackberry_21 (EJ), Teng_24 (GF), TurboVicky_21 (EJ), Typher_23 (EJ), Warren_24 (GA), 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 2 was manually annotated 4 times for cluster EH.
- Start number 3 was manually annotated 1 time for cluster EH.
- Start number 33 was manually annotated 1 time for cluster EH.

Info for manual annotations of cluster EJ:

- Start number 35 was manually annotated 10 times for cluster EJ.

Info for manual annotations of cluster GA:

- Start number 35 was manually annotated 7 times for cluster GA.

Info for manual annotations of cluster GF:

- Start number 6 was manually annotated 1 time for cluster GF.

Gene Information:

Gene: Antuna_24 Start: 14563, Stop: 16431, Start Num: 35

Candidate Starts for Antuna_24:

(19, 14338), (32, 14533), (Start: 35 @14563 has 17 MA's), (45, 14623), (47, 14644), (50, 14656), (54, 14710), (59, 14743), (63, 14749), (72, 14965), (85, 15121), (89, 15175), (90, 15178), (93, 15208), (98, 15280), (107, 15403), (112, 15475), (114, 15508), (116, 15532), (123, 15580), (130, 15643), (153, 15877), (161, 15928), (167, 15946), (169, 15973), (171, 15991), (173, 16006), (187, 16153), (190, 16180), (201, 16243), (207, 16330), (217, 16423),

Gene: Appa_23 Start: 14425, Stop: 16293, Start Num: 35

Candidate Starts for Appa_23:

(19, 14200), (32, 14395), (Start: 35 @14425 has 17 MA's), (45, 14485), (47, 14506), (50, 14518), (54, 14572), (59, 14605), (69, 14734), (85, 14983), (89, 15037), (90, 15040), (93, 15070), (98, 15142), (107, 15265), (112, 15337), (114, 15370), (116, 15394), (123, 15442), (153, 15739), (161, 15790), (167, 15808), (169, 15835), (171, 15853), (173, 15868), (187, 16015), (190, 16042), (201, 16105), (207, 16192), (217, 16285),

Gene: Barnstormer_16 Start: 13150, Stop: 15660, Start Num: 2

Candidate Starts for Barnstormer_16:

(1, 13114), (Start: 2 @13150 has 4 MA's), (14, 13510), (17, 13540), (29, 13684), (31, 13717), (46, 13867), (58, 13990), (66, 14062), (69, 14137), (95, 14500), (96, 14506), (101, 14608), (116, 14791), (119, 14815), (213, 15577), (215, 15598), (216, 15610),

Gene: Blett_24 Start: 14578, Stop: 16446, Start Num: 35

Candidate Starts for Blett_24:

(19, 14353), (32, 14548), (Start: 35 @14578 has 17 MA's), (45, 14638), (47, 14659), (50, 14671), (54, 14725), (59, 14758), (69, 14887), (72, 14980), (89, 15190), (90, 15193), (93, 15223), (98, 15295), (107, 15418), (114, 15523), (116, 15547), (123, 15595), (153, 15892), (161, 15943), (167, 15961), (169, 15988), (171, 16006), (173, 16021), (187, 16168), (190, 16195), (201, 16258), (207, 16345), (217, 16438),

Gene: Bush_25 Start: 14559, Stop: 16421, Start Num: 35

Candidate Starts for Bush_25:

(19, 14334), (32, 14529), (Start: 35 @14559 has 17 MA's), (45, 14619), (47, 14640), (50, 14652), (54, 14706), (59, 14739), (69, 14868), (85, 15117), (87, 15141), (89, 15171), (90, 15174), (93, 15204), (98, 15276), (107, 15399), (114, 15504), (116, 15528), (123, 15576), (130, 15639), (153, 15867), (173, 15996), (178, 16041), (190, 16170), (207, 16320), (214, 16386), (217, 16413),

Gene: Caron_16 Start: 13192, Stop: 15042, Start Num: 33

Candidate Starts for Caron_16:

(31, 13156), (Start: 33 @13192 has 1 MA's), (37, 13219), (52, 13339), (66, 13495), (69, 13570), (95, 13933), (96, 13939), (116, 14224), (119, 14248), (140, 14449), (179, 14623), (213, 14959), (215, 14980), (216, 14992),

Gene: Cicada_23 Start: 16468, Stop: 18345, Start Num: 35

Candidate Starts for Cicada_23:

(19, 16243), (Start: 35 @16468 has 17 MA's), (53, 16597), (54, 16636), (55, 16639), (65, 16708), (67, 16753), (68, 16789), (74, 16918), (89, 17098), (90, 17101), (94, 17134), (99, 17239), (100, 17260), (102, 17278), (103, 17281), (116, 17455), (125, 17527), (128, 17542), (130, 17566), (132, 17572), (133, 17593), (137, 17641), (155, 17809), (156, 17812), (158, 17833), (160, 17845), (172, 17920), (193, 18115), (196, 18136), (197, 18145), (203, 18178), (207, 18244), (210, 18274), (215, 18316),

Gene: Dropshot_23 Start: 14425, Stop: 16293, Start Num: 35

Candidate Starts for Dropshot_23:

(19, 14200), (32, 14395), (Start: 35 @14425 has 17 MA's), (45, 14485), (47, 14506), (50, 14518), (54, 14572), (59, 14605), (69, 14734), (72, 14827), (89, 15037), (90, 15040), (93, 15070), (98, 15142), (107, 15265), (114, 15370), (116, 15394), (123, 15442), (153, 15739), (161, 15790), (167, 15808), (169, 15835), (171, 15853), (173, 15868), (187, 16015), (190, 16042), (201, 16105), (207, 16192), (217, 16285),

Gene: GardenState_17 Start: 13423, Stop: 16074, Start Num: 2

Candidate Starts for GardenState_17:

(Start: 2 @13423 has 4 MA's), (4, 13498), (5, 13534), (23, 13879), (26, 13897), (27, 13924), (30, 13954), (44, 14107), (48, 14128), (49, 14143), (66, 14320), (79, 14554), (84, 14611), (91, 14698), (95, 14758), (96, 14764), (116, 15049), (122, 15094), (132, 15166), (144, 15310), (148, 15349), (162, 15460), (163, 15475), (164, 15493), (198, 15832), (213, 15991), (215, 16012),

Gene: Gingerbug_20 Start: 14337, Stop: 16679, Start Num: 6

Candidate Starts for Gingerbug_20:

(Start: 6 @14337 has 1 MA's), (7, 14445), (8, 14460), (10, 14484), (11, 14487), (13, 14523), (15, 14574), (18, 14595), (21, 14652), (22, 14664), (25, 14679), (28, 14715), (42, 14871), (43, 14883), (51, 14934), (56, 15018), (60, 15051), (61, 15054), (64, 15078), (78, 15345), (86, 15453), (89, 15486), (90, 15489), (91, 15495), (92, 15504), (93, 15519), (96, 15561), (97, 15579), (99, 15627), (114, 15819), (116, 15843), (117, 15849), (118, 15855), (120, 15876), (121, 15879), (124, 15900), (130, 15954), (131, 15957), (133, 15981), (136, 16020), (138, 16041), (145, 16074), (158, 16188), (193, 16452), (194, 16464), (202, 16503), (205, 16563), (209, 16587),

Gene: Goodman_22 Start: 16381, Stop: 18258, Start Num: 35

Candidate Starts for Goodman_22:

(Start: 35 @16381 has 17 MA's), (53, 16510), (54, 16549), (55, 16552), (65, 16621), (67, 16666), (68, 16702), (74, 16831), (89, 17011), (90, 17014), (94, 17047), (99, 17152), (100, 17173), (102, 17191), (103, 17194), (116, 17368), (122, 17413), (125, 17440), (128, 17455), (130, 17479), (132, 17485), (133, 17506), (137, 17554), (155, 17722), (156, 17725), (158, 17746), (160, 17758), (172, 17833), (193, 18028), (196, 18049), (197, 18058), (203, 18091), (207, 18157), (210, 18187), (215, 18229),

Gene: Htur_21 Start: 16411, Stop: 18312, Start Num: 35

Candidate Starts for Htur_21:

(Start: 35 @16411 has 17 MA's), (39, 16432), (41, 16438), (53, 16540), (54, 16579), (55, 16582), (65, 16651), (68, 16732), (71, 16762), (74, 16861), (77, 16903), (88, 17044), (89, 17065), (90, 17068), (94, 17101), (99, 17206), (102, 17245), (103, 17248), (108, 17308), (115, 17416), (116, 17422), (125,

17494), (128, 17509), (130, 17533), (132, 17539), (133, 17560), (137, 17608), (141, 17659), (143, 17680), (155, 17776), (158, 17800), (160, 17812), (170, 17875), (175, 17932), (182, 17986), (187, 18043), (190, 18070), (192, 18076), (193, 18082), (194, 18094), (203, 18145), (215, 18283),

Gene: IAmGroot_17 Start: 14067, Stop: 16736, Start Num: 2

Candidate Starts for IAmGroot_17:

(Start: 2 @14067 has 4 MA's), (4, 14142), (5, 14178), (9, 14349), (12, 14379), (20, 14475), (24, 14529), (40, 14718), (41, 14727), (66, 14982), (79, 15216), (84, 15273), (91, 15360), (95, 15420), (96, 15426), (116, 15711), (122, 15756), (132, 15828), (144, 15972), (148, 16011), (162, 16122), (163, 16137), (164, 16155), (198, 16494), (213, 16653), (215, 16674),

Gene: Jera_22 Start: 15478, Stop: 17370, Start Num: 35

Candidate Starts for Jera_22:

(Start: 35 @15478 has 17 MA's), (53, 15607), (54, 15646), (65, 15718), (68, 15799), (69, 15811), (74, 15928), (80, 15994), (88, 16087), (89, 16108), (90, 16111), (94, 16144), (99, 16249), (103, 16291), (104, 16309), (115, 16459), (116, 16465), (125, 16537), (128, 16552), (130, 16576), (132, 16582), (133, 16603), (137, 16651), (153, 16816), (155, 16822), (159, 16852), (165, 16876), (167, 16885), (168, 16891), (169, 16912), (173, 16945), (185, 17080), (189, 17110), (190, 17119), (192, 17125), (212, 17314), (214, 17335),

Gene: Johann_22 Start: 16381, Stop: 18258, Start Num: 35

Candidate Starts for Johann_22:

(Start: 35 @16381 has 17 MA's), (53, 16510), (54, 16549), (55, 16552), (65, 16621), (67, 16666), (68, 16702), (74, 16831), (89, 17011), (90, 17014), (94, 17047), (99, 17152), (100, 17173), (102, 17191), (103, 17194), (116, 17368), (122, 17413), (125, 17440), (128, 17455), (130, 17479), (132, 17485), (133, 17506), (137, 17554), (155, 17722), (156, 17725), (158, 17746), (160, 17758), (172, 17833), (193, 18028), (196, 18049), (197, 18058), (203, 18091), (207, 18157), (210, 18187), (215, 18229),

Gene: Lesiram_22 Start: 15098, Stop: 16786, Start Num: 35

Candidate Starts for Lesiram_22:

(Start: 35 @15098 has 17 MA's), (54, 15245), (55, 15248), (74, 15527), (75, 15539), (80, 15593), (89, 15710), (90, 15713), (91, 15719), (96, 15785), (99, 15851), (106, 15935), (114, 16043), (116, 16067), (117, 16073), (121, 16103), (123, 16115), (127, 16151), (129, 16163), (130, 16178), (131, 16181), (133, 16205), (136, 16244), (138, 16265), (146, 16301), (150, 16364), (177, 16526), (191, 16661), (195, 16688), (199, 16712),

Gene: MenE_27 Start: 14693, Stop: 16561, Start Num: 35

Candidate Starts for MenE_27:

(19, 14468), (32, 14663), (Start: 35 @14693 has 17 MA's), (45, 14753), (47, 14774), (50, 14786), (54, 14840), (59, 14873), (63, 14879), (72, 15095), (85, 15251), (89, 15305), (90, 15308), (93, 15338), (98, 15410), (107, 15533), (112, 15605), (114, 15638), (116, 15662), (123, 15710), (130, 15773), (153, 16007), (161, 16058), (167, 16076), (169, 16103), (171, 16121), (173, 16136), (187, 16283), (190, 16310), (201, 16373), (207, 16460), (217, 16553),

Gene: PermaG_22 Start: 16442, Stop: 18325, Start Num: 35

Candidate Starts for PermaG_22:

(32, 16412), (Start: 35 @16442 has 17 MA's), (53, 16571), (54, 16610), (55, 16613), (65, 16682), (68, 16763), (74, 16892), (82, 16970), (89, 17072), (90, 17075), (99, 17213), (102, 17252), (103, 17255), (113, 17399), (116, 17429), (128, 17516), (130, 17540), (132, 17546), (133, 17567), (137, 17615), (155, 17783), (156, 17786), (158, 17807), (160, 17819), (180, 17975), (187, 18050), (189, 18068), (200, 18137), (207, 18224), (208, 18227), (211, 18260),

Gene: Phonegingi_23 Start: 14486, Stop: 16339, Start Num: 35

Candidate Starts for Phonegingi_23:

(19, 14261), (32, 14456), (Start: 35 @14486 has 17 MA's), (45, 14546), (47, 14567), (50, 14579), (54, 14633), (59, 14666), (69, 14795), (81, 14984), (85, 15044), (89, 15098), (90, 15101), (93, 15131), (98, 15203), (107, 15326), (110, 15365), (112, 15398), (114, 15431), (116, 15455), (123, 15503), (126, 15530), (129, 15551), (133, 15593), (135, 15620), (161, 15851), (167, 15869), (181, 16016), (190, 16103), (193, 16115), (201, 16160), (203, 16172), (204, 16193), (210, 16268), (215, 16310), (217, 16331),

Gene: Pickles13_23 Start: 14850, Stop: 16718, Start Num: 35

Candidate Starts for Pickles13_23:

(19, 14625), (32, 14820), (Start: 35 @14850 has 17 MA's), (45, 14910), (47, 14931), (50, 14943), (54, 14997), (59, 15030), (62, 15033), (87, 15432), (89, 15462), (90, 15465), (93, 15495), (98, 15567), (107, 15690), (112, 15762), (114, 15795), (116, 15819), (121, 15855), (123, 15867), (126, 15894), (130, 15930), (139, 16026), (153, 16164), (167, 16233), (169, 16260), (187, 16440), (190, 16467), (201, 16530), (207, 16617), (217, 16710),

Gene: Rasovi_21 Start: 16411, Stop: 18312, Start Num: 35

Candidate Starts for Rasovi_21:

(Start: 35 @16411 has 17 MA's), (39, 16432), (41, 16438), (53, 16540), (55, 16582), (65, 16651), (68, 16732), (71, 16762), (74, 16861), (77, 16903), (88, 17044), (89, 17065), (90, 17068), (94, 17101), (99, 17206), (102, 17245), (103, 17248), (108, 17308), (115, 17416), (116, 17422), (125, 17494), (128, 17509), (130, 17533), (132, 17539), (133, 17560), (137, 17608), (141, 17659), (143, 17680), (155, 17776), (158, 17800), (160, 17812), (170, 17875), (175, 17932), (182, 17986), (187, 18043), (190, 18070), (192, 18076), (193, 18082), (194, 18094), (203, 18145), (215, 18283),

Gene: SBlackberry_21 Start: 16237, Stop: 18123, Start Num: 35

Candidate Starts for SBlackberry_21:

(Start: 35 @16237 has 17 MA's), (53, 16366), (54, 16405), (65, 16477), (68, 16558), (69, 16570), (74, 16687), (78, 16729), (88, 16846), (89, 16867), (90, 16870), (94, 16903), (99, 17008), (102, 17047), (103, 17050), (105, 17080), (115, 17218), (116, 17224), (125, 17296), (128, 17311), (130, 17335), (132, 17341), (133, 17362), (137, 17410), (142, 17467), (151, 17566), (153, 17575), (155, 17581), (165, 17635), (169, 17671), (193, 17893), (196, 17914), (197, 17923), (203, 17956), (207, 18022), (210, 18052), (215, 18094),

Gene: Teng_24 Start: 15125, Stop: 16837, Start Num: 35

Candidate Starts for Teng_24:

(Start: 35 @15125 has 17 MA's), (54, 15272), (55, 15275), (65, 15341), (70, 15437), (76, 15581), (82, 15659), (83, 15677), (86, 15731), (89, 15764), (90, 15767), (91, 15773), (93, 15797), (96, 15839), (97, 15857), (99, 15905), (106, 15989), (109, 16028), (110, 16031), (114, 16097), (116, 16121), (121, 16157), (123, 16169), (129, 16217), (130, 16232), (131, 16235), (133, 16259), (134, 16274), (138, 16319), (147, 16358), (149, 16382), (152, 16433), (154, 16436), (166, 16490), (173, 16541), (174, 16547), (183, 16631), (188, 16688), (196, 16745),

Gene: TurboVicky_21 Start: 16231, Stop: 18123, Start Num: 35

Candidate Starts for TurboVicky_21:

(Start: 35 @16231 has 17 MA's), (53, 16360), (54, 16399), (55, 16402), (65, 16471), (68, 16552), (69, 16564), (74, 16681), (88, 16840), (89, 16861), (90, 16864), (94, 16897), (99, 17002), (102, 17041), (103, 17044), (104, 17062), (105, 17074), (115, 17212), (116, 17218), (125, 17290), (128, 17305), (130, 17329), (132, 17335), (133, 17356), (137, 17404), (153, 17569), (155, 17575), (159, 17605), (167, 17638), (168, 17644), (173, 17698), (176, 17737), (185, 17833), (192, 17878), (194, 17896), (207, 18022), (212, 18067), (214, 18088),

Gene: Typher_23 Start: 16361, Stop: 18253, Start Num: 35

Candidate Starts for Typher_23:

(Start: 35 @16361 has 17 MA's), (53, 16490), (54, 16529), (55, 16532), (65, 16601), (68, 16682), (69, 16694), (74, 16811), (88, 16970), (89, 16991), (90, 16994), (94, 17027), (99, 17132), (102, 17171), (103, 17174), (104, 17192), (105, 17204), (115, 17342), (116, 17348), (125, 17420), (128, 17435), (130, 17459), (132, 17465), (133, 17486), (137, 17534), (153, 17699), (155, 17705), (159, 17735), (167, 17768), (168, 17774), (173, 17828), (185, 17963), (190, 18002), (194, 18026), (212, 18197), (214, 18218),

Gene: UtzChips_16 Start: 13138, Stop: 15648, Start Num: 2

Candidate Starts for UtzChips_16:

(1, 13102), (Start: 2 @13138 has 4 MA's), (17, 13528), (29, 13672), (31, 13705), (46, 13855), (58, 13978), (66, 14050), (69, 14125), (95, 14488), (96, 14494), (101, 14596), (116, 14779), (119, 14803), (213, 15565), (215, 15586), (216, 15598),

Gene: Warren_24 Start: 14623, Stop: 16491, Start Num: 35

Candidate Starts for Warren_24:

(19, 14398), (32, 14593), (Start: 35 @14623 has 17 MA's), (45, 14683), (47, 14704), (50, 14716), (54, 14770), (59, 14803), (72, 15025), (85, 15181), (89, 15235), (90, 15238), (93, 15268), (98, 15340), (107, 15463), (112, 15535), (116, 15592), (123, 15640), (130, 15703), (139, 15799), (153, 15937), (161, 15988), (167, 16006), (169, 16033), (190, 16240), (207, 16390), (212, 16435), (217, 16483),

Gene: Zanella_21 Start: 16234, Stop: 18126, Start Num: 35

Candidate Starts for Zanella_21:

(Start: 35 @16234 has 17 MA's), (53, 16363), (54, 16402), (55, 16405), (65, 16474), (68, 16555), (69, 16567), (74, 16684), (88, 16843), (89, 16864), (90, 16867), (94, 16900), (99, 17005), (102, 17044), (103, 17047), (104, 17065), (105, 17077), (115, 17215), (116, 17221), (125, 17293), (128, 17308), (130, 17332), (132, 17338), (133, 17359), (137, 17407), (153, 17572), (155, 17578), (159, 17608), (167, 17641), (168, 17647), (173, 17701), (176, 17740), (185, 17836), (192, 17881), (194, 17899), (207, 18025), (212, 18070), (214, 18091),

Gene: Zeta1847_16 Start: 13524, Stop: 16088, Start Num: 3

Candidate Starts for Zeta1847_16:

(Start: 3 @13524 has 1 MA's), (5, 13632), (Start: 6 @13683 has 1 MA's), (16, 13923), (34, 14172), (36, 14187), (38, 14199), (41, 14217), (57, 14394), (73, 14664), (81, 14733), (90, 14844), (96, 14916), (99, 14982), (111, 15132), (157, 15552), (184, 15765), (186, 15792), (206, 15969),