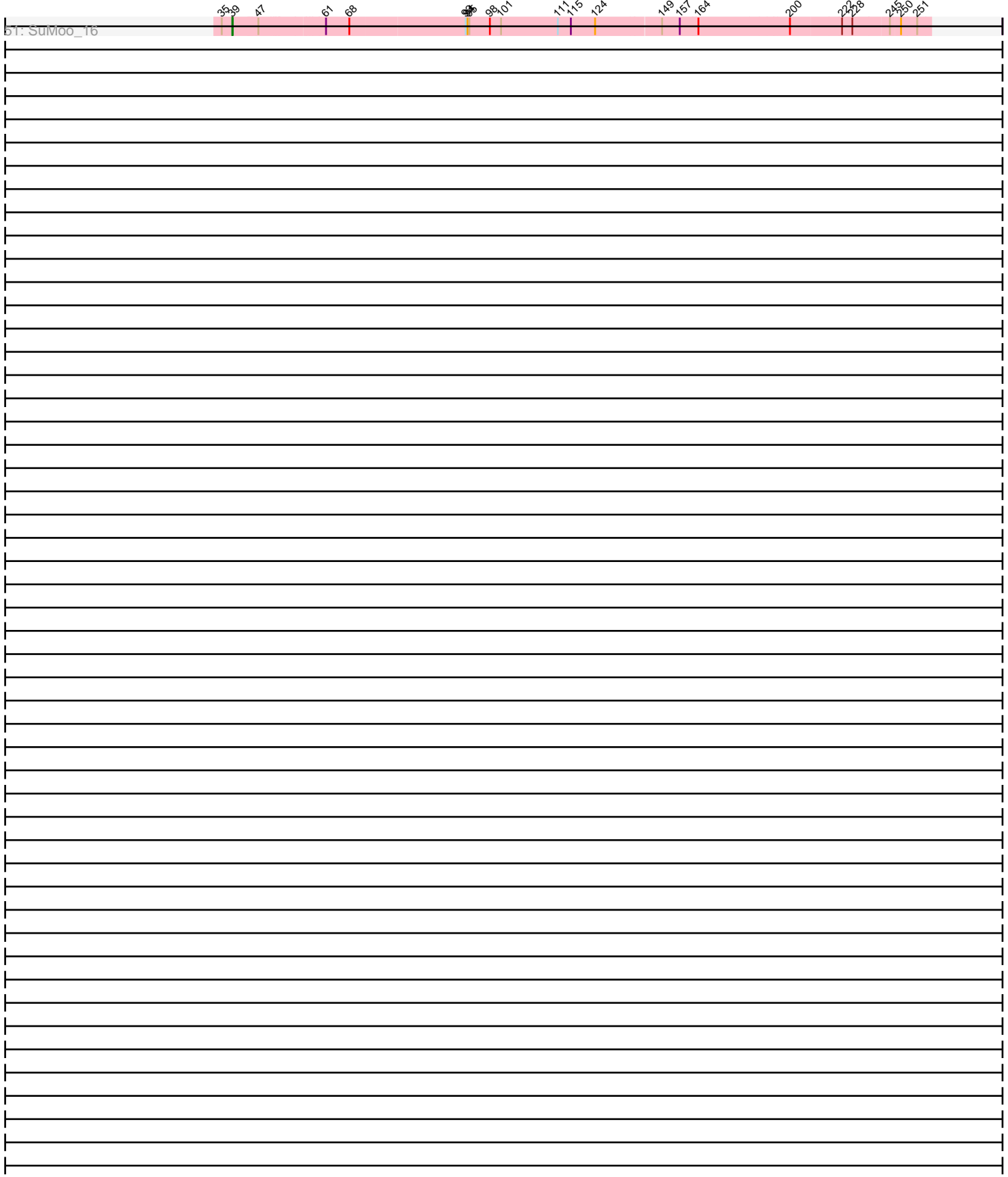


Pham 311605



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 311605 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311605 has 62 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Elva_19
- Track 2 : BelmontSKP_19, AnnaLie_19
- Track 3 : Jovita_18
- Track 4 : Stromboli_18
- Track 5 : Swervy_18, SarBear_18
- Track 6 : Softsoap_17, BubbaBear_18, SirBeanington_18
- Track 7 : DirtyBubble_18
- Track 8 : Johnathan_18
- Track 9 : Slay_18
- Track 10 : CupcakePrincess_18, Jabb_18, MsUbiquitous_18
- Track 11 : Quenya_18
- Track 12 : BabyYoda_18
- Track 13 : Cashington_18
- Track 14 : Didgeridoo_19
- Track 15 : Icarian_19
- Track 16 : CroZenni_18
- Track 17 : Bengal_18, LimaBean_18
- Track 18 : Abigail_18
- Track 19 : Burritobowl_18
- Track 20 : AylexOG_19
- Track 21 : TukTuk_18
- Track 22 : SanaSana_19, Stoor_18
- Track 23 : Phisb_18
- Track 24 : Arroyo_19
- Track 25 : CanFranMach_19
- Track 26 : Loviatar_18, Akino08_17
- Track 27 : DickRichards_18
- Track 28 : Eula_18, QMacho_19, Pecas_18
- Track 29 : PondAmelia_22
- Track 30 : Nicky22_19
- Track 31 : WalkingDead_18
- Track 32 : Lilo27_18
- Track 33 : SansAfet_18
- Track 34 : BabyDaisy_19
- Track 35 : AvGardian_18
- Track 36 : PhigPhack_19
- Track 37 : Albedo_18

- Track 38 : Avocadoman_18
- Track 39 : Karate_30
- Track 40 : Poultruss_30
- Track 41 : Percival_17
- Track 42 : GardenState_17
- Track 43 : IAmGroot_17
- Track 44 : Mabodamaca_17
- Track 45 : SuperHands_17
- Track 46 : Floof_17
- Track 47 : Gretchen_17
- Track 48 : UtzChips_16
- Track 49 : Forester_17
- Track 50 : Barnstormer_16
- Track 51 : SuMoo_16

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

The start number called the most often in the published annotations is 44, it was called in 43 of the 56 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abigail_18, Akino08_17, Albedo_18, AnnaLie_19, Arroyo_19, AvGardian_18, Avocadoman_18, AylexOG_19, BabyDaisy_19, BabyYoda_18, BelmontSKP_19, Bengal_18, BubbaBear_18, Burritobowl_18, CanFranMach_19, Cashington_18, CroZenni_18, CupcakePrincess_18, DickRichards_18, Didgeridoo_19, DirtyBubble_18, Elva_19, Eula_18, Icarian_19, Jabb_18, Johnathan_18, Jovita_18, Lilo27_18, LimaBean_18, Loviatar_18, MsUbiquitous_18, Nicky22_19, Pecas_18, PhigPhack_19, Phisb_18, PondAmelia_22, QMacho_19, Quenya_18, SanaSana_19, SansAfet_18, SarBear_18, SirBeanington_18, Slay_18, Softsoap_17, Stoor_18, Stromboli_18, Swervy_18, TukTuk_18, WalkingDead_18,

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

-

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

- Barnstormer_16, Floof_17, Forester_17, GardenState_17, Gretchen_17, IAmGroot_17, Karate_30, Mabodamaca_17, Percival_17, Poultruss_30, SuMoo_16, SuperHands_17, UtzChips_16,

Summary by start number:

Start 2:

- Found in 6 of 62 (9.7%) of genes in pham
- Manual Annotations of this start: 6 of 56
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Barnstormer_16 (EH), Forester_17 (EH), GardenState_17 (EH), IAmGroot_17 (EH), SuperHands_17 (EH), UtzChips_16 (EH),

Start 6:

- Found in 2 of 62 (3.2%) of genes in pham

- Manual Annotations of this start: 2 of 56
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Karate_30 (EF), Poultruss_30 (EF),

Start 39:

- Found in 7 of 62 (11.3%) of genes in pham
- Manual Annotations of this start: 5 of 56
- Called 71.4% of time when present
- Phage (with cluster) where this start called: Floof_17 (EH), Gretchen_17 (EH), Mabodamaca_17 (EH), Percival_17 (EH), SuMoo_16 (EH),

Start 44:

- Found in 49 of 62 (79.0%) of genes in pham
- Manual Annotations of this start: 43 of 56
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abigail_18 (EB), Akino08_17 (EB), Albedo_18 (EB), AnnaLie_19 (EB), Arroyo_19 (EB), AvGardian_18 (EB), Avocadoman_18 (EB), AylexOG_19 (EB), BabyDaisy_19 (EB), BabyYoda_18 (EB), BelmontSKP_19 (EB), Bengal_18 (EB), BubbaBear_18 (EB), Burritobowl_18 (EB), CanFranMach_19 (EB), Cashington_18 (EB), CroZenni_18 (EB), CupcakePrincess_18 (EB), DickRichards_18 (EB), Didgeridoo_19 (EB), DirtyBubble_18 (EB), Elva_19 (EB), Eula_18 (EB), Icarian_19 (EB), Jabb_18 (EB), Johnathan_18 (EB), Jovita_18 (EB), Lilo27_18 (EB), LimaBean_18 (EB), Loviatar_18 (EB), MsUbiquitous_18 (EB), Nicky22_19 (EB), Pecas_18 (EB), PhigPhack_19 (EB), Phisb_18 (EB), PondAmelia_22 (EB), QMacho_19 (EB), Quenya_18 (EB), SanaSana_19 (EB), SansAfet_18 (EB), SarBear_18 (EB), SirBeannington_18 (EB), Slay_18 (EB), Softsoap_17 (EB), Stoor_18 (EB), Stromboli_18 (EB), Swervy_18 (EB), TukTuk_18 (EB), WalkingDead_18 (EB),

Summary by clusters:

There are 3 clusters represented in this pham: EF, EH, EB,

Info for manual annotations of cluster EB:

- Start number 44 was manually annotated 43 times for cluster EB.

Info for manual annotations of cluster EF:

- Start number 6 was manually annotated 2 times for cluster EF.

Info for manual annotations of cluster EH:

- Start number 2 was manually annotated 6 times for cluster EH.
- Start number 39 was manually annotated 5 times for cluster EH.

Gene Information:

Gene: Abigail_18 Start: 14117, Stop: 16090, Start Num: 44

Candidate Starts for Abigail_18:

(Start: 44 @14117 has 43 MA's), (61, 14363), (66, 14417), (74, 14537), (76, 14549), (100, 14888), (110, 15050), (115, 15116), (120, 15158), (128, 15215), (159, 15470), (162, 15494), (166, 15515), (174, 15554), (187, 15680), (206, 15839), (211, 15863), (221, 15926), (227, 15959), (240, 16058), (242, 16064),

Gene: Akino08_17 Start: 13904, Stop: 16030, Start Num: 44

Candidate Starts for Akino08_17:

(Start: 44 @13904 has 43 MA's), (57, 14105), (61, 14147), (67, 14210), (68, 14222), (69, 14225), (74, 14321), (76, 14333), (80, 14372), (81, 14390), (85, 14444), (100, 14672), (110, 14834), (111, 14858), (115, 14900), (117, 14906), (120, 14942), (127, 14987), (134, 15065), (143, 15128), (147, 15155), (175, 15344), (185, 15428), (189, 15470), (190, 15473), (192, 15491), (197, 15521), (216, 15665), (235, 15773), (257, 16010),

Gene: Albedo_18 Start: 13985, Stop: 15955, Start Num: 44

Candidate Starts for Albedo_18:

(Start: 44 @13985 has 43 MA's), (56, 14174), (57, 14189), (61, 14231), (65, 14282), (73, 14402), (74, 14405), (98, 14723), (100, 14756), (115, 14984), (120, 15026), (148, 15245), (153, 15284), (162, 15359), (170, 15401), (199, 15629), (206, 15704), (215, 15749), (227, 15824), (230, 15833), (236, 15887), (242, 15929),

Gene: AnnaLie_19 Start: 14304, Stop: 16274, Start Num: 44

Candidate Starts for AnnaLie_19:

(Start: 44 @14304 has 43 MA's), (56, 14493), (61, 14550), (66, 14604), (68, 14625), (74, 14724), (83, 14802), (98, 15042), (115, 15303), (120, 15345), (128, 15402), (162, 15678), (170, 15720), (199, 15948), (206, 16023), (211, 16047), (215, 16068), (220, 16107), (227, 16143), (234, 16182), (236, 16206), (242, 16248),

Gene: Arroyo_19 Start: 14505, Stop: 16475, Start Num: 44

Candidate Starts for Arroyo_19:

(Start: 44 @14505 has 43 MA's), (56, 14694), (61, 14751), (66, 14805), (68, 14826), (74, 14925), (76, 14937), (83, 15003), (98, 15243), (100, 15276), (115, 15504), (120, 15546), (128, 15603), (159, 15855), (162, 15879), (170, 15921), (199, 16149), (206, 16224), (211, 16248), (215, 16269), (220, 16308), (227, 16344), (234, 16383), (236, 16407), (242, 16449),

Gene: AvGardian_18 Start: 13647, Stop: 15533, Start Num: 44

Candidate Starts for AvGardian_18:

(Start: 44 @13647 has 43 MA's), (45, 13656), (57, 13851), (61, 13893), (67, 13956), (74, 14067), (77, 14082), (78, 14109), (81, 14136), (90, 14265), (92, 14283), (102, 14427), (111, 14604), (115, 14646), (117, 14652), (118, 14676), (120, 14688), (121, 14694), (127, 14733), (128, 14745), (142, 14859), (154, 14949), (156, 14961), (176, 15096), (188, 15207), (194, 15234), (195, 15243), (198, 15267), (210, 15354), (223, 15429), (225, 15438), (226, 15447), (239, 15522),

Gene: Avocadoman_18 Start: 14060, Stop: 16033, Start Num: 44

Candidate Starts for Avocadoman_18:

(Start: 44 @14060 has 43 MA's), (61, 14306), (66, 14360), (74, 14480), (76, 14492), (100, 14831), (110, 14993), (115, 15059), (120, 15101), (128, 15158), (159, 15413), (162, 15437), (166, 15458), (174, 15497), (199, 15707), (203, 15737), (206, 15782), (211, 15806), (221, 15869), (227, 15902), (240, 16001), (242, 16007),

Gene: AylexOG_19 Start: 14319, Stop: 16292, Start Num: 44

Candidate Starts for AylexOG_19:

(Start: 44 @14319 has 43 MA's), (56, 14508), (57, 14523), (61, 14565), (73, 14736), (74, 14739), (98, 15057), (99, 15060), (100, 15090), (115, 15318), (120, 15360), (135, 15495), (148, 15579), (151, 15609), (171, 15744), (206, 16041), (215, 16086), (218, 16113), (227, 16161), (230, 16170), (236, 16224), (242, 16266),

Gene: BabyDaisy_19 Start: 14120, Stop: 16090, Start Num: 44

Candidate Starts for BabyDaisy_19:

(Start: 44 @14120 has 43 MA's), (52, 14213), (56, 14309), (58, 14333), (61, 14366), (65, 14417), (74, 14540), (76, 14552), (98, 14858), (100, 14891), (102, 14900), (115, 15119), (120, 15161), (133, 15275), (148, 15380), (160, 15479), (162, 15494), (199, 15764), (203, 15794), (206, 15839), (221, 15926), (240, 16058), (242, 16064),

Gene: BabyYoda_18 Start: 13988, Stop: 16123, Start Num: 44

Candidate Starts for BabyYoda_18:

(Start: 44 @13988 has 43 MA's), (57, 14189), (61, 14231), (67, 14294), (74, 14405), (76, 14417), (80, 14456), (85, 14528), (100, 14756), (111, 14942), (115, 14984), (120, 15026), (128, 15083), (132, 15128), (134, 15149), (143, 15212), (147, 15239), (174, 15416), (175, 15428), (185, 15518), (190, 15563), (191, 15575), (196, 15605), (197, 15617), (201, 15638), (208, 15707), (215, 15749), (225, 15809), (257, 16103),

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

Candidate Starts for Barnstormer_16:

(1, 13114), (Start: 2 @13150 has 6 MA's), (16, 13510), (18, 13540), (29, 13684), (33, 13717), (47, 13867), (54, 13990), (61, 14062), (68, 14137), (94, 14500), (95, 14506), (101, 14608), (111, 14791), (113, 14815), (243, 15577), (246, 15598), (248, 15610),

Gene: BelmontSKP_19 Start: 14304, Stop: 16274, Start Num: 44

Candidate Starts for BelmontSKP_19:

(Start: 44 @14304 has 43 MA's), (56, 14493), (61, 14550), (66, 14604), (68, 14625), (74, 14724), (83, 14802), (98, 15042), (115, 15303), (120, 15345), (128, 15402), (162, 15678), (170, 15720), (199, 15948), (206, 16023), (211, 16047), (215, 16068), (220, 16107), (227, 16143), (234, 16182), (236, 16206), (242, 16248),

Gene: Bengal_18 Start: 13895, Stop: 15865, Start Num: 44

Candidate Starts for Bengal_18:

(Start: 44 @13895 has 43 MA's), (61, 14141), (66, 14195), (71, 14258), (74, 14315), (76, 14327), (98, 14633), (100, 14666), (110, 14828), (115, 14894), (120, 14936), (128, 14993), (148, 15155), (150, 15167), (160, 15254), (162, 15269), (199, 15539), (203, 15569), (206, 15614), (212, 15644), (221, 15701), (227, 15734), (240, 15833), (242, 15839),

Gene: BubbaBear_18 Start: 13985, Stop: 15955, Start Num: 44

Candidate Starts for BubbaBear_18:

(Start: 44 @13985 has 43 MA's), (56, 14174), (57, 14189), (61, 14231), (65, 14282), (73, 14402), (74, 14405), (98, 14723), (100, 14756), (115, 14984), (120, 15026), (135, 15161), (148, 15245), (153, 15284), (162, 15359), (170, 15401), (199, 15629), (206, 15704), (215, 15749), (227, 15824), (230, 15833), (236, 15887), (242, 15929),

Gene: Burritobowl_18 Start: 14063, Stop: 16033, Start Num: 44

Candidate Starts for Burritobowl_18:

(Start: 44 @14063 has 43 MA's), (61, 14309), (66, 14363), (74, 14483), (76, 14495), (98, 14801), (100, 14834), (110, 14996), (115, 15062), (120, 15104), (128, 15161), (148, 15323), (159, 15413), (170, 15479), (171, 15485), (199, 15707), (203, 15737), (206, 15782), (211, 15806), (221, 15869), (227, 15902), (240, 16001), (242, 16007),

Gene: CanFranMach_19 Start: 13989, Stop: 15962, Start Num: 44

Candidate Starts for CanFranMach_19:

(Start: 44 @13989 has 43 MA's), (56, 14178), (60, 14220), (61, 14235), (74, 14409), (82, 14484), (98, 14727), (100, 14760), (108, 14907), (111, 14946), (115, 14988), (116, 14991), (120, 15030), (130, 15111), (153, 15288), (162, 15366), (171, 15414), (181, 15474), (187, 15552), (203, 15666), (206,

15711), (211, 15735), (218, 15783), (227, 15831), (242, 15936),

Gene: Cashington_18 Start: 13912, Stop: 15882, Start Num: 44

Candidate Starts for Cashington_18:

(Start: 44 @13912 has 43 MA's), (61, 14158), (66, 14212), (74, 14332), (76, 14344), (100, 14683), (110, 14845), (115, 14911), (120, 14953), (128, 15010), (148, 15172), (150, 15184), (160, 15271), (162, 15286), (199, 15556), (203, 15586), (206, 15631), (212, 15661), (221, 15718), (227, 15751), (240, 15850), (242, 15856),

Gene: CroZenni_18 Start: 13895, Stop: 15865, Start Num: 44

Candidate Starts for CroZenni_18:

(Start: 44 @13895 has 43 MA's), (56, 14084), (61, 14141), (66, 14195), (68, 14216), (74, 14315), (76, 14327), (98, 14633), (100, 14666), (115, 14894), (120, 14936), (128, 14993), (160, 15254), (162, 15269), (199, 15539), (206, 15614), (211, 15638), (215, 15659), (220, 15698), (234, 15773), (236, 15797), (242, 15839),

Gene: CupcakePrincess_18 Start: 14012, Stop: 15982, Start Num: 44

Candidate Starts for CupcakePrincess_18:

(Start: 44 @14012 has 43 MA's), (56, 14201), (57, 14216), (61, 14258), (65, 14309), (66, 14312), (74, 14432), (98, 14750), (100, 14783), (120, 15053), (148, 15272), (153, 15311), (162, 15386), (170, 15428), (199, 15656), (206, 15731), (212, 15761), (227, 15851), (230, 15860), (236, 15914), (242, 15956),

Gene: DickRichards_18 Start: 14390, Stop: 16360, Start Num: 44

Candidate Starts for DickRichards_18:

(Start: 44 @14390 has 43 MA's), (56, 14579), (59, 14606), (61, 14636), (66, 14690), (68, 14711), (74, 14810), (76, 14822), (86, 14945), (98, 15128), (100, 15161), (115, 15389), (120, 15431), (162, 15764), (170, 15806), (187, 15950), (199, 16034), (206, 16109), (211, 16133), (215, 16154), (220, 16193), (227, 16229), (234, 16268), (236, 16292), (242, 16334),

Gene: Didgeridoo_19 Start: 14122, Stop: 16092, Start Num: 44

Candidate Starts for Didgeridoo_19:

(Start: 44 @14122 has 43 MA's), (52, 14215), (56, 14311), (58, 14335), (61, 14368), (74, 14542), (76, 14554), (98, 14860), (100, 14893), (102, 14902), (115, 15121), (120, 15163), (135, 15298), (160, 15481), (162, 15496), (199, 15766), (203, 15796), (206, 15841), (221, 15928), (240, 16060), (242, 16066),

Gene: DirtyBubble_18 Start: 13946, Stop: 16081, Start Num: 44

Candidate Starts for DirtyBubble_18:

(Start: 44 @13946 has 43 MA's), (57, 14147), (61, 14189), (67, 14252), (74, 14363), (76, 14375), (85, 14486), (100, 14714), (111, 14900), (115, 14942), (120, 14984), (127, 15029), (128, 15041), (132, 15086), (134, 15107), (143, 15170), (147, 15197), (174, 15374), (175, 15386), (185, 15476), (190, 15521), (191, 15533), (196, 15563), (197, 15575), (201, 15596), (208, 15665), (215, 15707), (224, 15764), (225, 15767), (257, 16061),

Gene: Elva_19 Start: 13907, Stop: 16039, Start Num: 44

Candidate Starts for Elva_19:

(Start: 44 @13907 has 43 MA's), (48, 13943), (57, 14108), (61, 14150), (74, 14324), (76, 14336), (81, 14393), (85, 14447), (92, 14540), (106, 14771), (111, 14861), (115, 14903), (119, 14936), (120, 14945), (127, 14990), (132, 15047), (158, 15245), (174, 15332), (175, 15344), (179, 15365), (185, 15434), (190, 15479), (191, 15491), (196, 15521), (197, 15533), (201, 15554), (208, 15623), (224, 15722), (225, 15725), (257, 16019),

Gene: Eula_18 Start: 13973, Stop: 15943, Start Num: 44

Candidate Starts for Eula_18:

(Start: 44 @13973 has 43 MA's), (56, 14162), (57, 14177), (59, 14189), (61, 14219), (65, 14270), (74, 14393), (98, 14711), (100, 14744), (115, 14972), (133, 15128), (135, 15149), (148, 15233), (153, 15272), (162, 15347), (170, 15389), (206, 15692), (215, 15737), (218, 15764), (227, 15812), (230, 15821), (236, 15875), (242, 15917),

Gene: Floof_17 Start: 13331, Stop: 15664, Start Num: 39

Candidate Starts for Floof_17:

(Start: 39 @13331 has 5 MA's), (43, 13352), (56, 13553), (61, 13604), (89, 13994), (94, 14054), (95, 14060), (96, 14084), (107, 14285), (111, 14345), (116, 14390), (119, 14420), (122, 14441), (125, 14465), (129, 14498), (177, 14795), (183, 14852), (187, 14918), (222, 15158), (231, 15203), (232, 15215), (243, 15293), (252, 15392), (254, 15410), (256, 15431), (258, 15494), (259, 15560), (260, 15581), (261, 15638),

Gene: Forester_17 Start: 14864, Stop: 17614, Start Num: 2

Candidate Starts for Forester_17:

(1, 14831), (Start: 2 @14864 has 6 MA's), (3, 14885), (10, 15158), (11, 15161), (23, 15326), (Start: 39 @15524 has 5 MA's), (43, 15545), (61, 15809), (62, 15827), (94, 16259), (95, 16265), (107, 16490), (111, 16550), (116, 16595), (119, 16625), (122, 16646), (125, 16670), (129, 16703), (168, 16958), (169, 16961), (178, 17027), (182, 17051), (199, 17207), (237, 17444), (244, 17486), (247, 17501), (253, 17579),

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

Candidate Starts for GardenState_17:

(Start: 2 @13423 has 6 MA's), (5, 13498), (7, 13534), (24, 13879), (26, 13897), (27, 13924), (31, 13954), (46, 14107), (49, 14128), (50, 14143), (61, 14320), (79, 14554), (84, 14611), (89, 14698), (94, 14758), (95, 14764), (111, 15049), (116, 15094), (124, 15166), (141, 15310), (146, 15349), (161, 15460), (163, 15475), (167, 15493), (216, 15832), (243, 15991), (246, 16012),

Gene: Gretchen_17 Start: 14858, Stop: 16924, Start Num: 39

Candidate Starts for Gretchen_17:

(35, 14825), (Start: 39 @14858 has 5 MA's), (43, 14879), (61, 15131), (62, 15149), (94, 15569), (95, 15575), (104, 15764), (107, 15800), (111, 15860), (116, 15905), (119, 15935), (122, 15956), (125, 15980), (129, 16013), (168, 16268), (169, 16271), (182, 16361), (199, 16517), (244, 16796), (247, 16811), (253, 16889),

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

Candidate Starts for IAmGroot_17:

(Start: 2 @14067 has 6 MA's), (5, 14142), (7, 14178), (9, 14349), (13, 14379), (20, 14475), (25, 14529), (42, 14718), (43, 14727), (61, 14982), (79, 15216), (84, 15273), (89, 15360), (94, 15420), (95, 15426), (111, 15711), (116, 15756), (124, 15828), (141, 15972), (146, 16011), (161, 16122), (163, 16137), (167, 16155), (216, 16494), (243, 16653), (246, 16674),

Gene: Icarian_19 Start: 13828, Stop: 15954, Start Num: 44

Candidate Starts for Icarian_19:

(Start: 44 @13828 has 43 MA's), (57, 14029), (61, 14071), (67, 14134), (68, 14146), (69, 14149), (73, 14242), (74, 14245), (85, 14368), (100, 14596), (111, 14782), (115, 14824), (117, 14830), (120, 14866), (127, 14911), (134, 14989), (143, 15052), (147, 15079), (175, 15268), (185, 15352), (189, 15394), (190, 15397), (196, 15433), (197, 15445), (201, 15466), (203, 15487), (216, 15589), (257, 15934),

Gene: Jabb_18 Start: 14012, Stop: 15982, Start Num: 44

Candidate Starts for Jabb_18:

(Start: 44 @14012 has 43 MA's), (56, 14201), (57, 14216), (61, 14258), (65, 14309), (66, 14312), (74, 14432), (98, 14750), (100, 14783), (120, 15053), (148, 15272), (153, 15311), (162, 15386), (170, 15428), (199, 15656), (206, 15731), (212, 15761), (227, 15851), (230, 15860), (236, 15914), (242, 15956),

Gene: Johnathan_18 Start: 13999, Stop: 15969, Start Num: 44

Candidate Starts for Johnathan_18:

(Start: 44 @13999 has 43 MA's), (56, 14188), (61, 14245), (66, 14299), (68, 14320), (74, 14419), (76, 14431), (85, 14542), (97, 14731), (98, 14737), (100, 14770), (115, 14998), (120, 15040), (159, 15349), (166, 15394), (199, 15643), (206, 15718), (214, 15757), (215, 15763), (221, 15805), (230, 15847), (236, 15901), (242, 15943),

Gene: Jovita_18 Start: 14074, Stop: 16047, Start Num: 44

Candidate Starts for Jovita_18:

(Start: 44 @14074 has 43 MA's), (56, 14263), (57, 14278), (59, 14290), (61, 14320), (65, 14371), (74, 14494), (98, 14812), (100, 14845), (115, 15073), (120, 15115), (133, 15229), (135, 15250), (148, 15334), (171, 15499), (206, 15796), (215, 15841), (218, 15868), (227, 15916), (230, 15925), (236, 15979), (242, 16021),

Gene: Karate_30 Start: 18091, Stop: 20484, Start Num: 6

Candidate Starts for Karate_30:

(4, 18049), (Start: 6 @18091 has 2 MA's), (8, 18280), (10, 18301), (12, 18307), (14, 18340), (15, 18346), (22, 18466), (28, 18532), (30, 18556), (32, 18583), (34, 18625), (38, 18652), (40, 18670), (41, 18676), (51, 18808), (53, 18871), (63, 18994), (66, 19003), (72, 19105), (74, 19132), (88, 19321), (97, 19456), (102, 19504), (109, 19651), (111, 19681), (112, 19690), (114, 19717), (116, 19726), (122, 19780), (126, 19807), (131, 19861), (136, 19912), (139, 19927), (144, 19960), (145, 19975), (165, 20113), (172, 20158), (186, 20287), (207, 20464),

Gene: Lilo27_18 Start: 13946, Stop: 15919, Start Num: 44

Candidate Starts for Lilo27_18:

(Start: 44 @13946 has 43 MA's), (56, 14135), (57, 14150), (61, 14192), (65, 14243), (66, 14246), (73, 14363), (74, 14366), (98, 14684), (100, 14717), (115, 14945), (133, 15101), (135, 15122), (148, 15206), (171, 15371), (173, 15377), (199, 15593), (206, 15668), (218, 15740), (227, 15788), (230, 15797), (236, 15851), (242, 15893),

Gene: LimaBean_18 Start: 13998, Stop: 15968, Start Num: 44

Candidate Starts for LimaBean_18:

(Start: 44 @13998 has 43 MA's), (61, 14244), (66, 14298), (71, 14361), (74, 14418), (76, 14430), (98, 14736), (100, 14769), (110, 14931), (115, 14997), (120, 15039), (128, 15096), (148, 15258), (150, 15270), (160, 15357), (162, 15372), (199, 15642), (203, 15672), (206, 15717), (212, 15747), (221, 15804), (227, 15837), (240, 15936), (242, 15942),

Gene: Loviatar_18 Start: 13919, Stop: 16045, Start Num: 44

Candidate Starts for Loviatar_18:

(Start: 44 @13919 has 43 MA's), (57, 14120), (61, 14162), (67, 14225), (68, 14237), (69, 14240), (74, 14336), (76, 14348), (80, 14387), (81, 14405), (85, 14459), (100, 14687), (110, 14849), (111, 14873), (115, 14915), (117, 14921), (120, 14957), (127, 15002), (134, 15080), (143, 15143), (147, 15170), (175, 15359), (185, 15443), (189, 15485), (190, 15488), (192, 15506), (197, 15536), (216, 15680), (235, 15788), (257, 16025),

Gene: Mabodamaca_17 Start: 13974, Stop: 16115, Start Num: 39

Candidate Starts for Mabodamaca_17:

(35, 13941), (Start: 39 @13974 has 5 MA's), (47, 14049), (61, 14244), (68, 14319), (70, 14337), (93, 14676), (94, 14682), (95, 14688), (101, 14790), (111, 14973), (124, 15090), (140, 15225), (193, 15642), (202, 15702), (204, 15720), (219, 15822), (229, 15867), (237, 15927), (241, 15963), (249, 16011), (255, 16098),

Gene: MsUbiquitous_18 Start: 14012, Stop: 15982, Start Num: 44

Candidate Starts for MsUbiquitous_18:

(Start: 44 @14012 has 43 MA's), (56, 14201), (57, 14216), (61, 14258), (65, 14309), (66, 14312), (74, 14432), (98, 14750), (100, 14783), (120, 15053), (148, 15272), (153, 15311), (162, 15386), (170, 15428), (199, 15656), (206, 15731), (212, 15761), (227, 15851), (230, 15860), (236, 15914), (242, 15956),

Gene: Nicky22_19 Start: 14417, Stop: 16390, Start Num: 44

Candidate Starts for Nicky22_19:

(Start: 44 @14417 has 43 MA's), (56, 14606), (57, 14621), (61, 14663), (65, 14714), (66, 14717), (73, 14834), (74, 14837), (98, 15155), (100, 15188), (115, 15416), (120, 15458), (135, 15593), (148, 15677), (171, 15842), (173, 15848), (187, 15980), (206, 16139), (215, 16184), (218, 16211), (227, 16259), (230, 16268), (236, 16322), (242, 16364),

Gene: Pecas_18 Start: 13973, Stop: 15943, Start Num: 44

Candidate Starts for Pecas_18:

(Start: 44 @13973 has 43 MA's), (56, 14162), (57, 14177), (59, 14189), (61, 14219), (65, 14270), (74, 14393), (98, 14711), (100, 14744), (115, 14972), (133, 15128), (135, 15149), (148, 15233), (153, 15272), (162, 15347), (170, 15389), (206, 15692), (215, 15737), (218, 15764), (227, 15812), (230, 15821), (236, 15875), (242, 15917),

Gene: Percival_17 Start: 14692, Stop: 16758, Start Num: 39

Candidate Starts for Percival_17:

(Start: 39 @14692 has 5 MA's), (43, 14713), (61, 14965), (94, 15403), (95, 15409), (104, 15598), (107, 15634), (111, 15694), (116, 15739), (119, 15769), (122, 15790), (125, 15814), (129, 15847), (168, 16102), (169, 16105), (182, 16195), (184, 16237), (199, 16351), (237, 16588), (244, 16630), (247, 16645), (253, 16723),

Gene: PhigPhack_19 Start: 13972, Stop: 15942, Start Num: 44

Candidate Starts for PhigPhack_19:

(Start: 44 @13972 has 43 MA's), (56, 14161), (61, 14218), (66, 14272), (68, 14293), (74, 14392), (76, 14404), (98, 14710), (100, 14743), (120, 15013), (162, 15346), (170, 15388), (187, 15532), (199, 15616), (206, 15691), (211, 15715), (215, 15736), (220, 15775), (227, 15811), (234, 15850), (236, 15874), (242, 15916),

Gene: Phisb_18 Start: 13986, Stop: 15956, Start Num: 44

Candidate Starts for Phisb_18:

(Start: 44 @13986 has 43 MA's), (56, 14175), (57, 14190), (61, 14232), (65, 14283), (66, 14286), (73, 14403), (74, 14406), (98, 14724), (100, 14757), (115, 14985), (120, 15027), (135, 15162), (148, 15246), (153, 15285), (162, 15360), (170, 15402), (199, 15630), (206, 15705), (215, 15750), (227, 15825), (230, 15834), (236, 15888), (242, 15930),

Gene: PondAmelia_22 Start: 13971, Stop: 16097, Start Num: 44

Candidate Starts for PondAmelia_22:

(Start: 44 @13971 has 43 MA's), (57, 14172), (61, 14214), (67, 14277), (68, 14289), (74, 14388), (76, 14400), (80, 14439), (81, 14457), (85, 14511), (100, 14739), (106, 14835), (111, 14925), (115, 14967), (117, 14973), (120, 15009), (127, 15054), (134, 15132), (143, 15195), (147, 15222), (175, 15411), (185, 15495), (189, 15537), (190, 15540), (192, 15558), (196, 15576), (197, 15588), (201, 15609),

(203, 15630), (216, 15732), (235, 15840), (257, 16077),

Gene: Poultruss_30 Start: 18442, Stop: 20820, Start Num: 6

Candidate Starts for Poultruss_30:

(Start: 6 @18442 has 2 MA's), (9, 18637), (19, 18751), (21, 18808), (28, 18880), (36, 18994), (37, 18997), (40, 19018), (41, 19024), (51, 19156), (53, 19219), (63, 19342), (64, 19345), (66, 19351), (72, 19453), (74, 19480), (75, 19492), (87, 19633), (91, 19702), (97, 19804), (102, 19852), (105, 19936), (109, 19999), (111, 20029), (112, 20038), (114, 20065), (116, 20074), (122, 20128), (126, 20155), (136, 20260), (138, 20272), (139, 20275), (145, 20311), (152, 20359), (172, 20494), (186, 20623), (199, 20728), (205, 20788), (207, 20800),

Gene: QMacho_19 Start: 14456, Stop: 16426, Start Num: 44

Candidate Starts for QMacho_19:

(Start: 44 @14456 has 43 MA's), (56, 14645), (57, 14660), (59, 14672), (61, 14702), (65, 14753), (74, 14876), (98, 15194), (100, 15227), (115, 15455), (133, 15611), (135, 15632), (148, 15716), (153, 15755), (162, 15830), (170, 15872), (206, 16175), (215, 16220), (218, 16247), (227, 16295), (230, 16304), (236, 16358), (242, 16400),

Gene: Quenya_18 Start: 13518, Stop: 15635, Start Num: 44

Candidate Starts for Quenya_18:

(Start: 44 @13518 has 43 MA's), (52, 13611), (55, 13704), (57, 13722), (61, 13764), (65, 13815), (66, 13818), (67, 13827), (74, 13938), (76, 13950), (85, 14061), (90, 14136), (98, 14256), (103, 14328), (108, 14436), (110, 14451), (111, 14475), (115, 14517), (116, 14520), (117, 14523), (119, 14550), (126, 14598), (127, 14604), (128, 14616), (137, 14709), (143, 14727), (155, 14808), (180, 14979), (182, 14985), (185, 15036), (191, 15093), (192, 15099), (196, 15120), (197, 15132), (201, 15153), (203, 15174), (206, 15222), (212, 15252), (213, 15255), (217, 15279), (224, 15318), (235, 15378), (238, 15399), (257, 15615),

Gene: SanaSana_19 Start: 13858, Stop: 15984, Start Num: 44

Candidate Starts for SanaSana_19:

(Start: 44 @13858 has 43 MA's), (57, 14059), (61, 14101), (67, 14164), (68, 14176), (69, 14179), (74, 14275), (76, 14287), (80, 14326), (81, 14344), (85, 14398), (89, 14461), (100, 14626), (111, 14812), (115, 14854), (120, 14896), (127, 14941), (134, 15019), (147, 15109), (175, 15298), (185, 15382), (189, 15424), (190, 15427), (196, 15463), (197, 15475), (203, 15517), (209, 15574), (216, 15619), (257, 15964),

Gene: SansAfet_18 Start: 13906, Stop: 15876, Start Num: 44

Candidate Starts for SansAfet_18:

(Start: 44 @13906 has 43 MA's), (56, 14095), (61, 14152), (66, 14206), (68, 14227), (74, 14326), (83, 14404), (98, 14644), (115, 14905), (120, 14947), (128, 15004), (162, 15280), (170, 15322), (206, 15625), (211, 15649), (215, 15670), (220, 15709), (227, 15745), (234, 15784), (236, 15808), (242, 15850),

Gene: SarBear_18 Start: 13951, Stop: 15924, Start Num: 44

Candidate Starts for SarBear_18:

(Start: 44 @13951 has 43 MA's), (56, 14140), (57, 14155), (61, 14197), (65, 14248), (66, 14251), (74, 14371), (98, 14689), (100, 14722), (120, 14992), (135, 15127), (148, 15211), (151, 15241), (173, 15382), (199, 15598), (206, 15673), (212, 15703), (227, 15793), (230, 15802), (236, 15856), (242, 15898),

Gene: SirBeanington_18 Start: 13993, Stop: 15963, Start Num: 44

Candidate Starts for SirBeanington_18:

(Start: 44 @13993 has 43 MA's), (56, 14182), (57, 14197), (61, 14239), (65, 14290), (73, 14410), (74, 14413), (98, 14731), (100, 14764), (115, 14992), (120, 15034), (135, 15169), (148, 15253), (153, 15292), (162, 15367), (170, 15409), (199, 15637), (206, 15712), (215, 15757), (227, 15832), (230, 15841), (236, 15895), (242, 15937),

Gene: Slay_18 Start: 14493, Stop: 16466, Start Num: 44

Candidate Starts for Slay_18:

(Start: 44 @14493 has 43 MA's), (56, 14682), (57, 14697), (61, 14739), (65, 14790), (66, 14793), (74, 14913), (98, 15231), (100, 15264), (115, 15492), (120, 15534), (123, 15561), (135, 15669), (148, 15753), (151, 15783), (173, 15924), (199, 16140), (206, 16215), (212, 16245), (227, 16335), (230, 16344), (236, 16398), (242, 16440),

Gene: Softsoap_17 Start: 13727, Stop: 15697, Start Num: 44

Candidate Starts for Softsoap_17:

(Start: 44 @13727 has 43 MA's), (56, 13916), (57, 13931), (61, 13973), (65, 14024), (73, 14144), (74, 14147), (98, 14465), (100, 14498), (115, 14726), (120, 14768), (135, 14903), (148, 14987), (153, 15026), (162, 15101), (170, 15143), (199, 15371), (206, 15446), (215, 15491), (227, 15566), (230, 15575), (236, 15629), (242, 15671),

Gene: Stoor_18 Start: 13855, Stop: 15981, Start Num: 44

Candidate Starts for Stoor_18:

(Start: 44 @13855 has 43 MA's), (57, 14056), (61, 14098), (67, 14161), (68, 14173), (69, 14176), (74, 14272), (76, 14284), (80, 14323), (81, 14341), (85, 14395), (89, 14458), (100, 14623), (111, 14809), (115, 14851), (120, 14893), (127, 14938), (134, 15016), (147, 15106), (175, 15295), (185, 15379), (189, 15421), (190, 15424), (196, 15460), (197, 15472), (203, 15514), (209, 15571), (216, 15616), (257, 15961),

Gene: Stromboli_18 Start: 13986, Stop: 16121, Start Num: 44

Candidate Starts for Stromboli_18:

(Start: 44 @13986 has 43 MA's), (57, 14187), (61, 14229), (67, 14292), (74, 14403), (76, 14415), (80, 14454), (85, 14526), (100, 14754), (111, 14940), (115, 14982), (120, 15024), (127, 15069), (128, 15081), (132, 15126), (134, 15147), (143, 15210), (147, 15237), (174, 15414), (175, 15426), (185, 15516), (190, 15561), (191, 15573), (196, 15603), (197, 15615), (201, 15636), (208, 15705), (215, 15747), (225, 15807), (257, 16101),

Gene: SuMoo_16 Start: 12931, Stop: 15072, Start Num: 39

Candidate Starts for SuMoo_16:

(35, 12898), (Start: 39 @12931 has 5 MA's), (47, 13006), (61, 13201), (68, 13276), (93, 13639), (94, 13645), (95, 13651), (98, 13717), (101, 13753), (111, 13936), (115, 13978), (124, 14053), (149, 14257), (157, 14314), (164, 14371), (200, 14650), (222, 14809), (228, 14839), (245, 14953), (250, 14983), (251, 15031),

Gene: SuperHands_17 Start: 14864, Stop: 17620, Start Num: 2

Candidate Starts for SuperHands_17:

(1, 14831), (Start: 2 @14864 has 6 MA's), (3, 14885), (10, 15158), (11, 15161), (17, 15248), (23, 15332), (Start: 39 @15530 has 5 MA's), (43, 15551), (61, 15815), (62, 15833), (94, 16265), (95, 16271), (104, 16460), (107, 16496), (111, 16556), (116, 16601), (119, 16631), (122, 16652), (125, 16676), (129, 16709), (137, 16802), (168, 16964), (169, 16967), (178, 17033), (182, 17057), (199, 17213), (244, 17492), (247, 17507), (253, 17585),

Gene: Swervy_18 Start: 13951, Stop: 15924, Start Num: 44

Candidate Starts for Swervy_18:

(Start: 44 @13951 has 43 MA's), (56, 14140), (57, 14155), (61, 14197), (65, 14248), (66, 14251), (74, 14371), (98, 14689), (100, 14722), (120, 14992), (135, 15127), (148, 15211), (151, 15241), (173, 15382), (199, 15598), (206, 15673), (212, 15703), (227, 15793), (230, 15802), (236, 15856), (242, 15898),

Gene: TukTuk_18 Start: 14009, Stop: 15982, Start Num: 44

Candidate Starts for TukTuk_18:

(Start: 44 @14009 has 43 MA's), (56, 14198), (57, 14213), (59, 14225), (61, 14255), (65, 14306), (73, 14426), (74, 14429), (98, 14747), (100, 14780), (115, 15008), (120, 15050), (133, 15164), (135, 15185), (148, 15269), (151, 15299), (206, 15731), (215, 15776), (218, 15803), (227, 15851), (230, 15860), (236, 15914), (242, 15956),

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

Candidate Starts for UtzChips_16:

(1, 13102), (Start: 2 @13138 has 6 MA's), (18, 13528), (29, 13672), (33, 13705), (47, 13855), (54, 13978), (61, 14050), (68, 14125), (94, 14488), (95, 14494), (101, 14596), (111, 14779), (113, 14803), (243, 15565), (246, 15586), (248, 15598),

Gene: WalkingDead_18 Start: 13978, Stop: 16113, Start Num: 44

Candidate Starts for WalkingDead_18:

(Start: 44 @13978 has 43 MA's), (57, 14179), (61, 14221), (67, 14284), (68, 14296), (74, 14395), (76, 14407), (80, 14446), (81, 14464), (85, 14518), (100, 14746), (111, 14932), (115, 14974), (120, 15016), (127, 15061), (134, 15139), (143, 15202), (147, 15229), (175, 15418), (185, 15508), (190, 15553), (191, 15565), (196, 15595), (197, 15607), (201, 15628), (215, 15739), (224, 15796), (225, 15799), (233, 15838), (257, 16093),