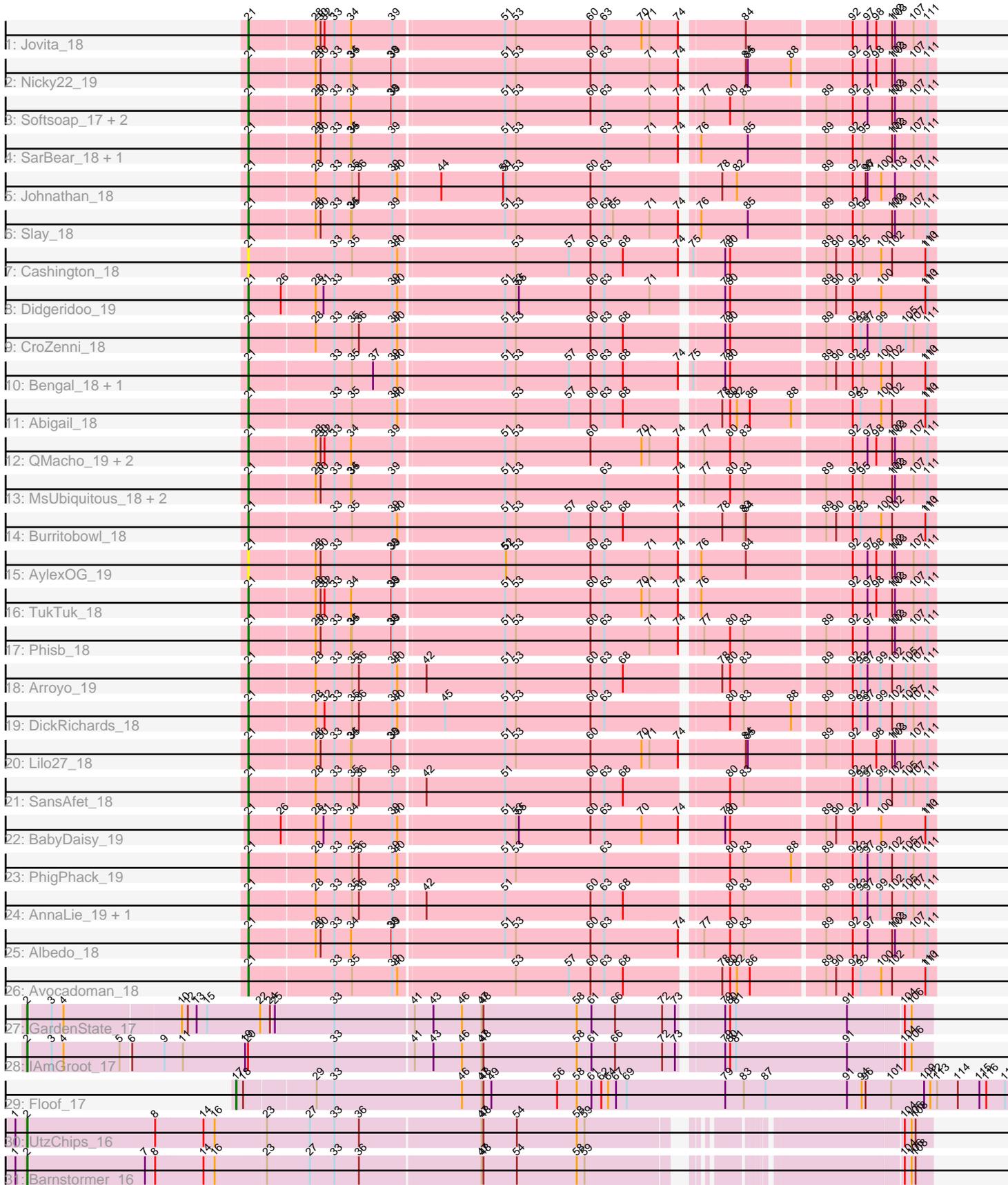


Pham 291323



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 291323 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291323 has 40 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Jovita_18
- Track 2 : Nicky22_19
- Track 3 : Softsoap_17, BubbaBear_18, SirBeanington_18
- Track 4 : SarBear_18, Swervy_18
- Track 5 : Johnathan_18
- Track 6 : Slay_18
- Track 7 : Cashington_18
- Track 8 : Didgeridoo_19
- Track 9 : CroZenni_18
- Track 10 : Bengal_18, LimaBean_18
- Track 11 : Abigail_18
- Track 12 : QMacho_19, Eula_18, Pecas_18
- Track 13 : MsUbiquitous_18, Jabb_18, CupcakePrincess_18
- Track 14 : Burritobowl_18
- Track 15 : AylexOG_19
- Track 16 : TukTuk_18
- Track 17 : Phisb_18
- Track 18 : Arroyo_19
- Track 19 : DickRichards_18
- Track 20 : Lilo27_18
- Track 21 : SansAfet_18
- Track 22 : BabyDaisy_19
- Track 23 : PhigPhack_19
- Track 24 : AnnaLie_19, BelmontSKP_19
- Track 25 : Albedo_18
- Track 26 : Avocadoman_18
- Track 27 : GardenState_17
- Track 28 : IAmGroot_17
- Track 29 : Floof_17
- Track 30 : UtzChips_16
- Track 31 : Barnstormer_16

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

The start number called the most often in the published annotations is 21, it was called in 31 of the 36 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abigail_18, Albedo_18, AnnaLie_19, Arroyo_19, Avocadoman_18, AylexOG_19, BabyDaisy_19, BelmontSKP_19, Bengal_18, BubbaBear_18, Burritobowl_18, Cashington_18, CroZenni_18, CupcakePrincess_18, DickRichards_18, Didgeridoo_19, Eula_18, Jabb_18, Johnathan_18, Jovita_18, Lilo27_18, LimaBean_18, MsUbiquitous_18, Nicky22_19, Pecas_18, PhigPhack_19, Phisb_18, QMacho_19, SansAfet_18, SarBear_18, SirBeanington_18, Slay_18, Softsoap_17, Swervy_18, TukTuk_18,

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

-

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

- Barnstormer_16, Floop_17, GardenState_17, IAmGroot_17, UtzChips_16,

Summary by start number:

Start 2:

- Found in 4 of 40 (10.0%) of genes in pham
- Manual Annotations of this start: 4 of 36
- 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 17:

- Found in 1 of 40 (2.5%) of genes in pham
- Manual Annotations of this start: 1 of 36
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Floop_17 (EH),

Start 21:

- Found in 35 of 40 (87.5%) of genes in pham
- Manual Annotations of this start: 31 of 36
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abigail_18 (EB), Albedo_18 (EB), AnnaLie_19 (EB), Arroyo_19 (EB), Avocadoman_18 (EB), AylexOG_19 (EB), BabyDaisy_19 (EB), BelmontSKP_19 (EB), Bengal_18 (EB), BubbaBear_18 (EB), Burritobowl_18 (EB), Cashington_18 (EB), CroZenni_18 (EB), CupcakePrincess_18 (EB), DickRichards_18 (EB), Didgeridoo_19 (EB), Eula_18 (EB), Jabb_18 (EB), Johnathan_18 (EB), Jovita_18 (EB), Lilo27_18 (EB), LimaBean_18 (EB), MsUbiquitous_18 (EB), Nicky22_19 (EB), Pecas_18 (EB), PhigPhack_19 (EB), Phisb_18 (EB), QMacho_19 (EB), SansAfet_18 (EB), SarBear_18 (EB), SirBeanington_18 (EB), Slay_18 (EB), Softsoap_17 (EB), Swervy_18 (EB), TukTuk_18 (EB),

Summary by clusters:

There are 2 clusters represented in this pham: EH, EB,

Info for manual annotations of cluster EB:

- Start number 21 was manually annotated 31 times for cluster EB.

Info for manual annotations of cluster EH:

- Start number 2 was manually annotated 4 times for cluster EH.
- Start number 17 was manually annotated 1 time for cluster EH.

Gene Information:

Gene: Abigail_18 Start: 14117, Stop: 16090, Start Num: 21

Candidate Starts for Abigail_18:

(Start: 21 @14117 has 31 MA's), (33, 14363), (35, 14417), (39, 14537), (40, 14549), (53, 14888), (57, 15050), (60, 15116), (63, 15158), (68, 15215), (78, 15470), (80, 15494), (82, 15515), (86, 15554), (88, 15680), (92, 15839), (93, 15863), (100, 15926), (102, 15959), (110, 16058), (111, 16064),

Gene: Albedo_18 Start: 13985, Stop: 15955, Start Num: 21

Candidate Starts for Albedo_18:

(Start: 21 @13985 has 31 MA's), (28, 14174), (30, 14189), (33, 14231), (34, 14282), (38, 14402), (39, 14405), (51, 14723), (53, 14756), (60, 14984), (63, 15026), (74, 15245), (77, 15284), (80, 15359), (83, 15401), (89, 15629), (92, 15704), (97, 15749), (102, 15824), (103, 15833), (107, 15887), (111, 15929),

Gene: AnnaLie_19 Start: 14304, Stop: 16274, Start Num: 21

Candidate Starts for AnnaLie_19:

(Start: 21 @14304 has 31 MA's), (28, 14493), (33, 14550), (35, 14604), (36, 14625), (39, 14724), (42, 14802), (51, 15042), (60, 15303), (63, 15345), (68, 15402), (80, 15678), (83, 15720), (89, 15948), (92, 16023), (93, 16047), (97, 16068), (99, 16107), (102, 16143), (105, 16182), (107, 16206), (111, 16248),

Gene: Arroyo_19 Start: 14505, Stop: 16475, Start Num: 21

Candidate Starts for Arroyo_19:

(Start: 21 @14505 has 31 MA's), (28, 14694), (33, 14751), (35, 14805), (36, 14826), (39, 14925), (40, 14937), (42, 15003), (51, 15243), (53, 15276), (60, 15504), (63, 15546), (68, 15603), (78, 15855), (80, 15879), (83, 15921), (89, 16149), (92, 16224), (93, 16248), (97, 16269), (99, 16308), (102, 16344), (105, 16383), (107, 16407), (111, 16449),

Gene: Avocadoman_18 Start: 14060, Stop: 16033, Start Num: 21

Candidate Starts for Avocadoman_18:

(Start: 21 @14060 has 31 MA's), (33, 14306), (35, 14360), (39, 14480), (40, 14492), (53, 14831), (57, 14993), (60, 15059), (63, 15101), (68, 15158), (78, 15413), (80, 15437), (82, 15458), (86, 15497), (89, 15707), (90, 15737), (92, 15782), (93, 15806), (100, 15869), (102, 15902), (110, 16001), (111, 16007),

Gene: AylexOG_19 Start: 14319, Stop: 16292, Start Num: 21

Candidate Starts for AylexOG_19:

(Start: 21 @14319 has 31 MA's), (28, 14508), (30, 14523), (33, 14565), (38, 14736), (39, 14739), (51, 15057), (52, 15060), (53, 15090), (60, 15318), (63, 15360), (71, 15495), (74, 15579), (76, 15609), (84, 15744), (92, 16041), (97, 16086), (98, 16113), (102, 16161), (103, 16170), (107, 16224), (111, 16266),

Gene: BabyDaisy_19 Start: 14120, Stop: 16090, Start Num: 21

Candidate Starts for BabyDaisy_19:

(Start: 21 @14120 has 31 MA's), (26, 14213), (28, 14309), (31, 14333), (33, 14366), (34, 14417), (39, 14540), (40, 14552), (51, 14858), (53, 14891), (55, 14900), (60, 15119), (63, 15161), (70, 15275), (74, 15380), (79, 15479), (80, 15494), (89, 15764), (90, 15794), (92, 15839), (100, 15926), (110, 16058), (111, 16064),

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

Candidate Starts for Barnstormer_16:

(1, 13114), (Start: 2 @13150 has 4 MA's), (7, 13510), (8, 13540), (14, 13684), (16, 13717), (23, 13867), (27, 13990), (33, 14062), (36, 14137), (47, 14500), (48, 14506), (54, 14608), (58, 14791), (59, 14815), (104, 15577), (106, 15598), (108, 15610),

Gene: BelmontSKP_19 Start: 14304, Stop: 16274, Start Num: 21

Candidate Starts for BelmontSKP_19:

(Start: 21 @14304 has 31 MA's), (28, 14493), (33, 14550), (35, 14604), (36, 14625), (39, 14724), (42, 14802), (51, 15042), (60, 15303), (63, 15345), (68, 15402), (80, 15678), (83, 15720), (89, 15948), (92, 16023), (93, 16047), (97, 16068), (99, 16107), (102, 16143), (105, 16182), (107, 16206), (111, 16248),

Gene: Bengal_18 Start: 13895, Stop: 15865, Start Num: 21

Candidate Starts for Bengal_18:

(Start: 21 @13895 has 31 MA's), (33, 14141), (35, 14195), (37, 14258), (39, 14315), (40, 14327), (51, 14633), (53, 14666), (57, 14828), (60, 14894), (63, 14936), (68, 14993), (74, 15155), (75, 15167), (79, 15254), (80, 15269), (89, 15539), (90, 15569), (92, 15614), (95, 15644), (100, 15701), (102, 15734), (110, 15833), (111, 15839),

Gene: BubbaBear_18 Start: 13985, Stop: 15955, Start Num: 21

Candidate Starts for BubbaBear_18:

(Start: 21 @13985 has 31 MA's), (28, 14174), (30, 14189), (33, 14231), (34, 14282), (38, 14402), (39, 14405), (51, 14723), (53, 14756), (60, 14984), (63, 15026), (71, 15161), (74, 15245), (77, 15284), (80, 15359), (83, 15401), (89, 15629), (92, 15704), (97, 15749), (102, 15824), (103, 15833), (107, 15887), (111, 15929),

Gene: Burritobowl_18 Start: 14063, Stop: 16033, Start Num: 21

Candidate Starts for Burritobowl_18:

(Start: 21 @14063 has 31 MA's), (33, 14309), (35, 14363), (39, 14483), (40, 14495), (51, 14801), (53, 14834), (57, 14996), (60, 15062), (63, 15104), (68, 15161), (74, 15323), (78, 15413), (83, 15479), (84, 15485), (89, 15707), (90, 15737), (92, 15782), (93, 15806), (100, 15869), (102, 15902), (110, 16001), (111, 16007),

Gene: Cashington_18 Start: 13912, Stop: 15882, Start Num: 21

Candidate Starts for Cashington_18:

(Start: 21 @13912 has 31 MA's), (33, 14158), (35, 14212), (39, 14332), (40, 14344), (53, 14683), (57, 14845), (60, 14911), (63, 14953), (68, 15010), (74, 15172), (75, 15184), (79, 15271), (80, 15286), (89, 15556), (90, 15586), (92, 15631), (95, 15661), (100, 15718), (102, 15751), (110, 15850), (111, 15856),

Gene: CroZenni_18 Start: 13895, Stop: 15865, Start Num: 21

Candidate Starts for CroZenni_18:

(Start: 21 @13895 has 31 MA's), (28, 14084), (33, 14141), (35, 14195), (36, 14216), (39, 14315), (40, 14327), (51, 14633), (53, 14666), (60, 14894), (63, 14936), (68, 14993), (79, 15254), (80, 15269), (89, 15539), (92, 15614), (93, 15638), (97, 15659), (99, 15698), (105, 15773), (107, 15797), (111, 15839),

Gene: CupcakePrincess_18 Start: 14012, Stop: 15982, Start Num: 21

Candidate Starts for CupcakePrincess_18:

(Start: 21 @14012 has 31 MA's), (28, 14201), (30, 14216), (33, 14258), (34, 14309), (35, 14312), (39, 14432), (51, 14750), (53, 14783), (63, 15053), (74, 15272), (77, 15311), (80, 15386), (83, 15428), (89, 15656), (92, 15731), (95, 15761), (102, 15851), (103, 15860), (107, 15914), (111, 15956),

Gene: DickRichards_18 Start: 14390, Stop: 16360, Start Num: 21

Candidate Starts for DickRichards_18:

(Start: 21 @14390 has 31 MA's), (28, 14579), (32, 14606), (33, 14636), (35, 14690), (36, 14711), (39, 14810), (40, 14822), (45, 14945), (51, 15128), (53, 15161), (60, 15389), (63, 15431), (80, 15764), (83, 15806), (88, 15950), (89, 16034), (92, 16109), (93, 16133), (97, 16154), (99, 16193), (102, 16229), (105, 16268), (107, 16292), (111, 16334),

Gene: Didgeridoo_19 Start: 14122, Stop: 16092, Start Num: 21

Candidate Starts for Didgeridoo_19:

(Start: 21 @14122 has 31 MA's), (26, 14215), (28, 14311), (31, 14335), (33, 14368), (39, 14542), (40, 14554), (51, 14860), (53, 14893), (55, 14902), (60, 15121), (63, 15163), (71, 15298), (79, 15481), (80, 15496), (89, 15766), (90, 15796), (92, 15841), (100, 15928), (110, 16060), (111, 16066),

Gene: Eula_18 Start: 13973, Stop: 15943, Start Num: 21

Candidate Starts for Eula_18:

(Start: 21 @13973 has 31 MA's), (28, 14162), (30, 14177), (32, 14189), (33, 14219), (34, 14270), (39, 14393), (51, 14711), (53, 14744), (60, 14972), (70, 15128), (71, 15149), (74, 15233), (77, 15272), (80, 15347), (83, 15389), (92, 15692), (97, 15737), (98, 15764), (102, 15812), (103, 15821), (107, 15875), (111, 15917),

Gene: Floof_17 Start: 13331, Stop: 15664, Start Num: 17

Candidate Starts for Floof_17:

(Start: 17 @13331 has 1 MA's), (18, 13352), (29, 13553), (33, 13604), (46, 13994), (47, 14054), (48, 14060), (49, 14084), (56, 14285), (58, 14345), (61, 14390), (62, 14420), (64, 14441), (67, 14465), (69, 14498), (79, 14795), (83, 14852), (87, 14918), (91, 15158), (94, 15203), (96, 15215), (101, 15293), (109, 15392), (112, 15410), (113, 15431), (114, 15494), (115, 15560), (116, 15581), (117, 15638),

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

Candidate Starts for GardenState_17:

(Start: 2 @13423 has 4 MA's), (3, 13498), (4, 13534), (10, 13879), (12, 13897), (13, 13924), (15, 13954), (22, 14107), (24, 14128), (25, 14143), (33, 14320), (41, 14554), (43, 14611), (46, 14698), (47, 14758), (48, 14764), (58, 15049), (61, 15094), (66, 15166), (72, 15310), (73, 15349), (79, 15460), (80, 15475), (81, 15493), (91, 15832), (104, 15991), (106, 16012),

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

Candidate Starts for IAmGroot_17:

(Start: 2 @14067 has 4 MA's), (3, 14142), (4, 14178), (5, 14349), (6, 14379), (9, 14475), (11, 14529), (19, 14718), (20, 14727), (33, 14982), (41, 15216), (43, 15273), (46, 15360), (47, 15420), (48, 15426), (58, 15711), (61, 15756), (66, 15828), (72, 15972), (73, 16011), (79, 16122), (80, 16137), (81, 16155), (91, 16494), (104, 16653), (106, 16674),

Gene: Jabb_18 Start: 14012, Stop: 15982, Start Num: 21

Candidate Starts for Jabb_18:

(Start: 21 @14012 has 31 MA's), (28, 14201), (30, 14216), (33, 14258), (34, 14309), (35, 14312), (39, 14432), (51, 14750), (53, 14783), (63, 15053), (74, 15272), (77, 15311), (80, 15386), (83, 15428), (89, 15656), (92, 15731), (95, 15761), (102, 15851), (103, 15860), (107, 15914), (111, 15956),

Gene: Johnathan_18 Start: 13999, Stop: 15969, Start Num: 21

Candidate Starts for Johnathan_18:

(Start: 21 @13999 has 31 MA's), (28, 14188), (33, 14245), (35, 14299), (36, 14320), (39, 14419), (40, 14431), (44, 14542), (50, 14731), (51, 14737), (53, 14770), (60, 14998), (63, 15040), (78, 15349), (82, 15394), (89, 15643), (92, 15718), (96, 15757), (97, 15763), (100, 15805), (103, 15847), (107, 15901), (111, 15943),

Gene: Jovita_18 Start: 14074, Stop: 16047, Start Num: 21

Candidate Starts for Jovita_18:

(Start: 21 @14074 has 31 MA's), (28, 14263), (30, 14278), (32, 14290), (33, 14320), (34, 14371), (39, 14494), (51, 14812), (53, 14845), (60, 15073), (63, 15115), (70, 15229), (71, 15250), (74, 15334), (84, 15499), (92, 15796), (97, 15841), (98, 15868), (102, 15916), (103, 15925), (107, 15979), (111, 16021),

Gene: Lilo27_18 Start: 13946, Stop: 15919, Start Num: 21

Candidate Starts for Lilo27_18:

(Start: 21 @13946 has 31 MA's), (28, 14135), (30, 14150), (33, 14192), (34, 14243), (35, 14246), (38, 14363), (39, 14366), (51, 14684), (53, 14717), (60, 14945), (70, 15101), (71, 15122), (74, 15206), (84, 15371), (85, 15377), (89, 15593), (92, 15668), (98, 15740), (102, 15788), (103, 15797), (107, 15851), (111, 15893),

Gene: LimaBean_18 Start: 13998, Stop: 15968, Start Num: 21

Candidate Starts for LimaBean_18:

(Start: 21 @13998 has 31 MA's), (33, 14244), (35, 14298), (37, 14361), (39, 14418), (40, 14430), (51, 14736), (53, 14769), (57, 14931), (60, 14997), (63, 15039), (68, 15096), (74, 15258), (75, 15270), (79, 15357), (80, 15372), (89, 15642), (90, 15672), (92, 15717), (95, 15747), (100, 15804), (102, 15837), (110, 15936), (111, 15942),

Gene: MsUbiquitous_18 Start: 14012, Stop: 15982, Start Num: 21

Candidate Starts for MsUbiquitous_18:

(Start: 21 @14012 has 31 MA's), (28, 14201), (30, 14216), (33, 14258), (34, 14309), (35, 14312), (39, 14432), (51, 14750), (53, 14783), (63, 15053), (74, 15272), (77, 15311), (80, 15386), (83, 15428), (89, 15656), (92, 15731), (95, 15761), (102, 15851), (103, 15860), (107, 15914), (111, 15956),

Gene: Nicky22_19 Start: 14417, Stop: 16390, Start Num: 21

Candidate Starts for Nicky22_19:

(Start: 21 @14417 has 31 MA's), (28, 14606), (30, 14621), (33, 14663), (34, 14714), (35, 14717), (38, 14834), (39, 14837), (51, 15155), (53, 15188), (60, 15416), (63, 15458), (71, 15593), (74, 15677), (84, 15842), (85, 15848), (88, 15980), (92, 16139), (97, 16184), (98, 16211), (102, 16259), (103, 16268), (107, 16322), (111, 16364),

Gene: Pecas_18 Start: 13973, Stop: 15943, Start Num: 21

Candidate Starts for Pecas_18:

(Start: 21 @13973 has 31 MA's), (28, 14162), (30, 14177), (32, 14189), (33, 14219), (34, 14270), (39, 14393), (51, 14711), (53, 14744), (60, 14972), (70, 15128), (71, 15149), (74, 15233), (77, 15272), (80, 15347), (83, 15389), (92, 15692), (97, 15737), (98, 15764), (102, 15812), (103, 15821), (107, 15875), (111, 15917),

Gene: PhigPhack_19 Start: 13972, Stop: 15942, Start Num: 21

Candidate Starts for PhigPhack_19:

(Start: 21 @13972 has 31 MA's), (28, 14161), (33, 14218), (35, 14272), (36, 14293), (39, 14392), (40, 14404), (51, 14710), (53, 14743), (63, 15013), (80, 15346), (83, 15388), (88, 15532), (89, 15616), (92, 15691), (93, 15715), (97, 15736), (99, 15775), (102, 15811), (105, 15850), (107, 15874), (111, 15916),

Gene: Phisb_18 Start: 13986, Stop: 15956, Start Num: 21

Candidate Starts for Phisb_18:

(Start: 21 @13986 has 31 MA's), (28, 14175), (30, 14190), (33, 14232), (34, 14283), (35, 14286), (38, 14403), (39, 14406), (51, 14724), (53, 14757), (60, 14985), (63, 15027), (71, 15162), (74, 15246), (77, 15285), (80, 15360), (83, 15402), (89, 15630), (92, 15705), (97, 15750), (102, 15825), (103, 15834), (107, 15888), (111, 15930),

Gene: QMacho_19 Start: 14456, Stop: 16426, Start Num: 21

Candidate Starts for QMacho_19:

(Start: 21 @14456 has 31 MA's), (28, 14645), (30, 14660), (32, 14672), (33, 14702), (34, 14753), (39, 14876), (51, 15194), (53, 15227), (60, 15455), (70, 15611), (71, 15632), (74, 15716), (77, 15755), (80, 15830), (83, 15872), (92, 16175), (97, 16220), (98, 16247), (102, 16295), (103, 16304), (107, 16358), (111, 16400),

Gene: SansAfet_18 Start: 13906, Stop: 15876, Start Num: 21

Candidate Starts for SansAfet_18:

(Start: 21 @13906 has 31 MA's), (28, 14095), (33, 14152), (35, 14206), (36, 14227), (39, 14326), (42, 14404), (51, 14644), (60, 14905), (63, 14947), (68, 15004), (80, 15280), (83, 15322), (92, 15625), (93, 15649), (97, 15670), (99, 15709), (102, 15745), (105, 15784), (107, 15808), (111, 15850),

Gene: SarBear_18 Start: 13951, Stop: 15924, Start Num: 21

Candidate Starts for SarBear_18:

(Start: 21 @13951 has 31 MA's), (28, 14140), (30, 14155), (33, 14197), (34, 14248), (35, 14251), (39, 14371), (51, 14689), (53, 14722), (63, 14992), (71, 15127), (74, 15211), (76, 15241), (85, 15382), (89, 15598), (92, 15673), (95, 15703), (102, 15793), (103, 15802), (107, 15856), (111, 15898),

Gene: SirBeanington_18 Start: 13993, Stop: 15963, Start Num: 21

Candidate Starts for SirBeanington_18:

(Start: 21 @13993 has 31 MA's), (28, 14182), (30, 14197), (33, 14239), (34, 14290), (38, 14410), (39, 14413), (51, 14731), (53, 14764), (60, 14992), (63, 15034), (71, 15169), (74, 15253), (77, 15292), (80, 15367), (83, 15409), (89, 15637), (92, 15712), (97, 15757), (102, 15832), (103, 15841), (107, 15895), (111, 15937),

Gene: Slay_18 Start: 14493, Stop: 16466, Start Num: 21

Candidate Starts for Slay_18:

(Start: 21 @14493 has 31 MA's), (28, 14682), (30, 14697), (33, 14739), (34, 14790), (35, 14793), (39, 14913), (51, 15231), (53, 15264), (60, 15492), (63, 15534), (65, 15561), (71, 15669), (74, 15753), (76, 15783), (85, 15924), (89, 16140), (92, 16215), (95, 16245), (102, 16335), (103, 16344), (107, 16398), (111, 16440),

Gene: Softsoap_17 Start: 13727, Stop: 15697, Start Num: 21

Candidate Starts for Softsoap_17:

(Start: 21 @13727 has 31 MA's), (28, 13916), (30, 13931), (33, 13973), (34, 14024), (38, 14144), (39, 14147), (51, 14465), (53, 14498), (60, 14726), (63, 14768), (71, 14903), (74, 14987), (77, 15026), (80, 15101), (83, 15143), (89, 15371), (92, 15446), (97, 15491), (102, 15566), (103, 15575), (107, 15629), (111, 15671),

Gene: Swervy_18 Start: 13951, Stop: 15924, Start Num: 21

Candidate Starts for Swervy_18:

(Start: 21 @13951 has 31 MA's), (28, 14140), (30, 14155), (33, 14197), (34, 14248), (35, 14251), (39, 14371), (51, 14689), (53, 14722), (63, 14992), (71, 15127), (74, 15211), (76, 15241), (85, 15382), (89, 15598), (92, 15673), (95, 15703), (102, 15793), (103, 15802), (107, 15856), (111, 15898),

Gene: TukTuk_18 Start: 14009, Stop: 15982, Start Num: 21

Candidate Starts for TukTuk_18:

(Start: 21 @14009 has 31 MA's), (28, 14198), (30, 14213), (32, 14225), (33, 14255), (34, 14306), (38, 14426), (39, 14429), (51, 14747), (53, 14780), (60, 15008), (63, 15050), (70, 15164), (71, 15185), (74, 15269), (76, 15299), (92, 15731), (97, 15776), (98, 15803), (102, 15851), (103, 15860), (107, 15914), (111, 15956),

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

Candidate Starts for UtzChips_16:

(1, 13102), (Start: 2 @13138 has 4 MA's), (8, 13528), (14, 13672), (16, 13705), (23, 13855), (27, 13978), (33, 14050), (36, 14125), (47, 14488), (48, 14494), (54, 14596), (58, 14779), (59, 14803), (104, 15565), (106, 15586), (108, 15598),