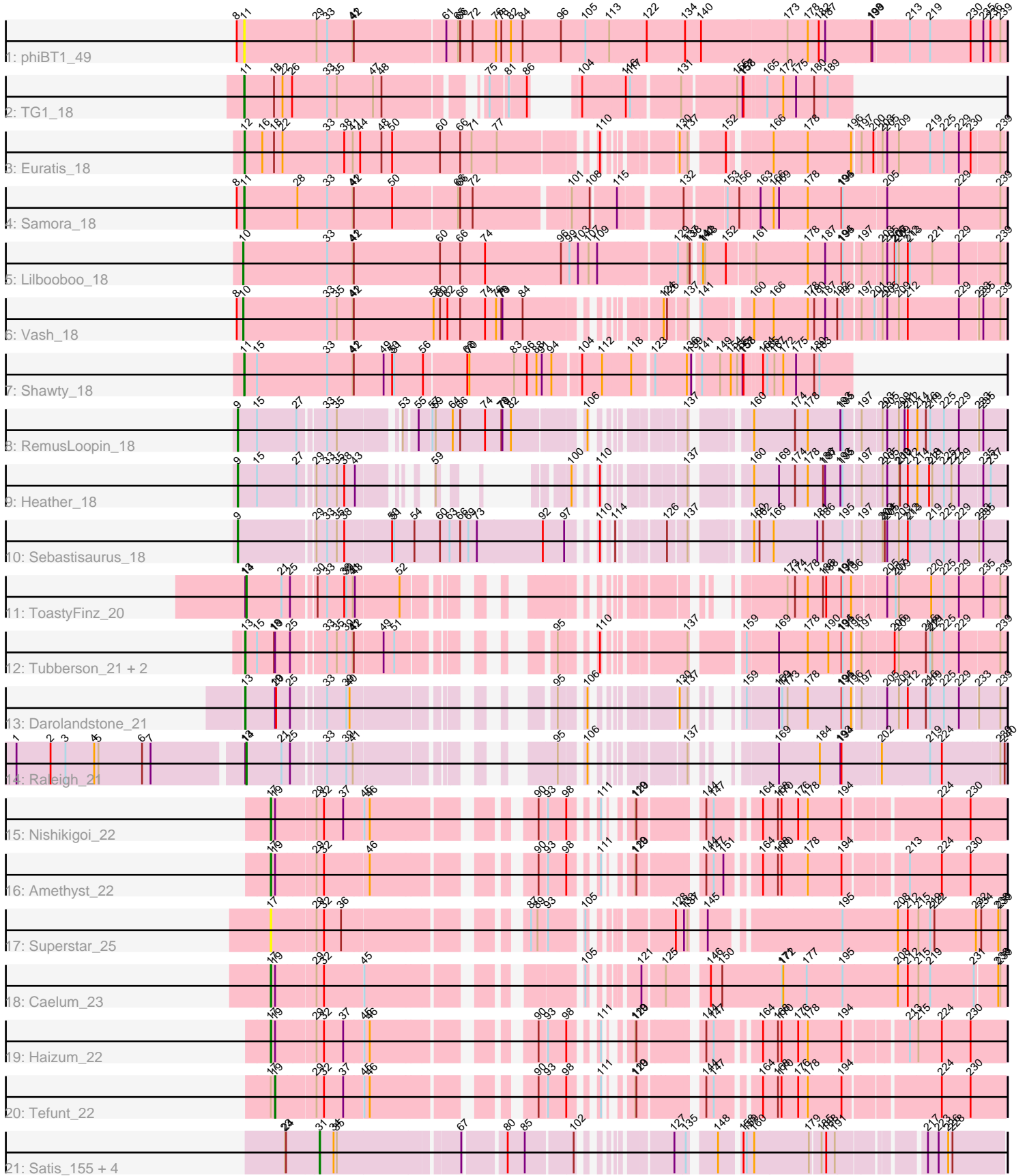


Pham 311907



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 311907 Report

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

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 311907 has 27 members, 3 are drafts.

Phages represented in each track:

- Track 1 : phiBT1_49
- Track 2 : TG1_18
- Track 3 : Euratis_18
- Track 4 : Samora_18
- Track 5 : Lilbooboo_18
- Track 6 : Vash_18
- Track 7 : Shawty_18
- Track 8 : RemusLoopin_18
- Track 9 : Heather_18
- Track 10 : Sebastisaurus_18
- Track 11 : ToastyFinz_20
- Track 12 : Tubberson_21, SoJo_21, DaRealMyers_21
- Track 13 : Darolandstone_21
- Track 14 : Raleigh_21
- Track 15 : Nishikigoi_22
- Track 16 : Amethyst_22
- Track 17 : Superstar_25
- Track 18 : Caelum_23
- Track 19 : Haizum_22
- Track 20 : Tefunt_22
- Track 21 : Satis_155, Quantum_154, Sarkar_155, Kradal_155, EhyElimayoE_156

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

The start number called the most often in the published annotations is 31, it was called in 5 of the 24 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- EhyElimayoE_156, Kradal_155, Quantum_154, Sarkar_155, Satis_155,

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

-

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

- Amethyst_22, Caelum_23, DaRealMyers_21, Darolandstone_21, Euratis_18, Haizum_22, Heather_18, Lilbooboo_18, Nishikigoi_22, Raleigh_21, RemusLoopin_18, Samora_18, Sebastisaurus_18, Shawty_18, SoJo_21, Superstar_25, TG1_18, Tefunt_22, ToastyFinz_20, Tubberson_21, Vash_18, phiBT1_49,

Summary by start number:

Start 9:

- Found in 3 of 27 (11.1%) of genes in pham
- Manual Annotations of this start: 3 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Heather_18 (BB2), RemusLoopin_18 (BB2), Sebastisaurus_18 (BB2),

Start 10:

- Found in 2 of 27 (7.4%) of genes in pham
- Manual Annotations of this start: 2 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lilbooboo_18 (BB1), Vash_18 (BB1),

Start 11:

- Found in 4 of 27 (14.8%) of genes in pham
- Manual Annotations of this start: 3 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Samora_18 (BB1), Shawty_18 (BB1), TG1_18 (BB1), phiBT1_49 (BB1),

Start 12:

- Found in 1 of 27 (3.7%) 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: Euratis_18 (BB1),

Start 13:

- Found in 6 of 27 (22.2%) of genes in pham
- Manual Annotations of this start: 3 of 24
- Called 66.7% of time when present
- Phage (with cluster) where this start called: DaRealMyers_21 (BC1), Darolandstone_21 (BC2), SoJo_21 (BC1), Tubberson_21 (BC1),

Start 14:

- Found in 2 of 27 (7.4%) of genes in pham
- Manual Annotations of this start: 2 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Raleigh_21 (BC2), ToastyFinz_20 (BC1),

Start 17:

- Found in 6 of 27 (22.2%) of genes in pham
- Manual Annotations of this start: 4 of 24
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Amethyst_22 (BD2), Caelum_23 (BD2), Haizum_22 (BD2), Nishikigoi_22 (BD2), Superstar_25 (BD2),

Start 19:

- Found in 9 of 27 (33.3%) of genes in pham
- Manual Annotations of this start: 1 of 24
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Tefunt_22 (BD2),

Start 31:

- Found in 5 of 27 (18.5%) of genes in pham
- Manual Annotations of this start: 5 of 24
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EhyElimayoE_156 (BM), Kradal_155 (BM), Quantum_154 (BM), Sarkar_155 (BM), Satis_155 (BM),

Summary by clusters:

There are 6 clusters represented in this pham: BM, BC1, BB1, BD2, BB2, BC2,

Info for manual annotations of cluster BB1:

- Start number 10 was manually annotated 2 times for cluster BB1.
- Start number 11 was manually annotated 3 times for cluster BB1.
- Start number 12 was manually annotated 1 time for cluster BB1.

Info for manual annotations of cluster BB2:

- Start number 9 was manually annotated 3 times for cluster BB2.

Info for manual annotations of cluster BC1:

- Start number 13 was manually annotated 2 times for cluster BC1.
- Start number 14 was manually annotated 1 time for cluster BC1.

Info for manual annotations of cluster BC2:

- Start number 13 was manually annotated 1 time for cluster BC2.
- Start number 14 was manually annotated 1 time for cluster BC2.

Info for manual annotations of cluster BD2:

- Start number 17 was manually annotated 4 times for cluster BD2.
- Start number 19 was manually annotated 1 time for cluster BD2.

Info for manual annotations of cluster BM:

- Start number 31 was manually annotated 5 times for cluster BM.

Gene Information:

Gene: Amethyst_22 Start: 17833, Stop: 19476, Start Num: 17

Candidate Starts for Amethyst_22:

(Start: 17 @17833 has 4 MA's), (Start: 19 @17845 has 1 MA's), (29, 17953), (32, 17974), (46, 18094), (90, 18445), (93, 18466), (98, 18514), (111, 18559), (119, 18592), (120, 18595), (144, 18736), (147, 18757), (151, 18781), (164, 18853), (168, 18895), (170, 18904), (178, 18970), (194, 19063), (213, 19219), (224, 19306), (230, 19381),

Gene: Caelum_23 Start: 17860, Stop: 19602, Start Num: 17

Candidate Starts for Caelum_23:

(Start: 17 @17860 has 4 MA's), (Start: 19 @17872 has 1 MA's), (29, 17980), (32, 18001), (45, 18106), (105, 18571), (121, 18655), (125, 18712), (146, 18799), (150, 18829), (171, 18997), (172, 19000), (177, 19063), (195, 19162), (208, 19315), (212, 19342), (215, 19372), (219, 19405), (231, 19525), (238, 19582), (239, 19588),

Gene: DaRealMyers_21 Start: 16587, Stop: 18239, Start Num: 13

Candidate Starts for DaRealMyers_21:

(Start: 13 @16587 has 3 MA's), (15, 16620), (18, 16668), (Start: 19 @16671 has 1 MA's), (25, 16713), (33, 16797), (35, 16824), (39, 16851), (41, 16869), (42, 16872), (49, 16950), (51, 16980), (95, 17220), (110, 17283), (137, 17448), (159, 17556), (169, 17640), (178, 17718), (190, 17772), (194, 17808), (195, 17811), (196, 17835), (197, 17853), (206, 17937), (209, 17949), (216, 18021), (219, 18033), (221, 18039), (225, 18072), (229, 18111), (239, 18222),

Gene: Darolandstone_21 Start: 16738, Stop: 18312, Start Num: 13

Candidate Starts for Darolandstone_21:

(Start: 13 @16738 has 3 MA's), (Start: 19 @16822 has 1 MA's), (20, 16825), (25, 16864), (33, 16948), (39, 17002), (40, 17011), (95, 17371), (106, 17425), (130, 17569), (137, 17587), (159, 17629), (169, 17713), (171, 17722), (173, 17737), (178, 17791), (194, 17881), (195, 17884), (196, 17908), (197, 17926), (205, 17989), (209, 18022), (212, 18046), (216, 18094), (219, 18106), (225, 18145), (229, 18184), (233, 18235), (239, 18295),

Gene: EhyElimayoE_156 Start: 102363, Stop: 100765, Start Num: 31

Candidate Starts for EhyElimayoE_156:

(23, 102456), (24, 102453), (Start: 31 @102363 has 5 MA's), (34, 102324), (35, 102315), (67, 101997), (80, 101895), (85, 101847), (102, 101724), (127, 101559), (135, 101529), (148, 101469), (158, 101418), (159, 101409), (160, 101388), (179, 101235), (185, 101208), (188, 101196), (191, 101172), (217, 100971), (223, 100941), (226, 100914), (228, 100908),

Gene: Euratis_18 Start: 14331, Stop: 16187, Start Num: 12

Candidate Starts for Euratis_18:

(Start: 12 @14331 has 1 MA's), (16, 14379), (18, 14412), (22, 14436), (33, 14562), (38, 14610), (41, 14634), (44, 14655), (48, 14715), (50, 14745), (60, 14880), (66, 14937), (71, 14967), (77, 15036), (110, 15258), (130, 15393), (137, 15411), (152, 15480), (166, 15579), (178, 15669), (196, 15786), (197, 15804), (200, 15837), (203, 15855), (205, 15867), (209, 15900), (219, 15984), (225, 16023), (229, 16062), (230, 16095), (239, 16173),

Gene: Haizum_22 Start: 17858, Stop: 19498, Start Num: 17

Candidate Starts for Haizum_22:

(Start: 17 @17858 has 4 MA's), (Start: 19 @17870 has 1 MA's), (29, 17978), (32, 17999), (37, 18053), (45, 18104), (46, 18119), (90, 18467), (93, 18488), (98, 18536), (111, 18581), (119, 18614), (120, 18617), (144, 18758), (147, 18779), (164, 18875), (168, 18917), (170, 18926), (176, 18971), (178, 18992), (194, 19085), (213, 19241), (215, 19262), (224, 19328), (230, 19403),

Gene: Heather_18 Start: 14244, Stop: 15737, Start Num: 9

Candidate Starts for Heather_18:

(Start: 9 @14244 has 3 MA's), (15, 14298), (27, 14409), (29, 14445), (33, 14475), (35, 14502), (38, 14523), (43, 14553), (59, 14664), (100, 14781), (110, 14811), (137, 14958), (160, 15072), (169, 15141), (174, 15183), (178, 15219), (186, 15258), (187, 15264), (193, 15306), (195, 15312), (197, 15354), (203, 15405), (205, 15417), (209, 15450), (210, 15453), (212, 15474), (214, 15501), (218, 15531), (221, 15540), (225, 15573), (227, 15591), (229, 15612), (235, 15675), (237, 15696),

Gene: Kradal_155 Start: 102360, Stop: 100762, Start Num: 31

Candidate Starts for Kradal_155:

(23, 102453), (24, 102450), (Start: 31 @102360 has 5 MA's), (34, 102321), (35, 102312), (67, 101994), (80, 101892), (85, 101844), (102, 101721), (127, 101556), (135, 101526), (148, 101466), (158, 101415), (159, 101406), (160, 101385), (179, 101232), (185, 101205), (188, 101193), (191, 101169), (217, 100968), (223, 100938), (226, 100911), (228, 100905),

Gene: Lilbooboo_18 Start: 14344, Stop: 16377, Start Num: 10

Candidate Starts for Lilbooboo_18:

(Start: 10 @14344 has 2 MA's), (33, 14578), (41, 14650), (42, 14653), (60, 14893), (66, 14950), (74, 15016), (96, 15226), (99, 15250), (103, 15274), (107, 15304), (109, 15328), (129, 15535), (137, 15562), (138, 15568), (141, 15586), (142, 15589), (143, 15595), (152, 15649), (161, 15721), (178, 15859), (187, 15904), (194, 15949), (195, 15952), (197, 15994), (203, 16045), (205, 16057), (206, 16078), (207, 16081), (209, 16090), (212, 16114), (213, 16120), (221, 16180), (229, 16252), (239, 16363),

Gene: Nishikigoi_22 Start: 17858, Stop: 19498, Start Num: 17

Candidate Starts for Nishikigoi_22:

(Start: 17 @17858 has 4 MA's), (Start: 19 @17870 has 1 MA's), (29, 17978), (32, 17999), (37, 18053), (45, 18104), (46, 18119), (90, 18467), (93, 18488), (98, 18536), (111, 18581), (119, 18614), (120, 18617), (144, 18758), (147, 18779), (164, 18875), (168, 18917), (170, 18926), (176, 18971), (178, 18992), (194, 19085), (224, 19328), (230, 19403),

Gene: Quantum_154 Start: 102360, Stop: 100762, Start Num: 31

Candidate Starts for Quantum_154:

(23, 102453), (24, 102450), (Start: 31 @102360 has 5 MA's), (34, 102321), (35, 102312), (67, 101994), (80, 101892), (85, 101844), (102, 101721), (127, 101556), (135, 101526), (148, 101466), (158, 101415), (159, 101406), (160, 101385), (179, 101232), (185, 101205), (188, 101193), (191, 101169), (217, 100968), (223, 100938), (226, 100911), (228, 100905),

Gene: Raleigh_21 Start: 16919, Stop: 18523, Start Num: 14

Candidate Starts for Raleigh_21:

(1, 16298), (2, 16394), (3, 16436), (4, 16517), (5, 16529), (6, 16652), (7, 16676), (Start: 13 @16916 has 3 MA's), (Start: 14 @16919 has 2 MA's), (21, 17018), (25, 17042), (33, 17126), (39, 17180), (41, 17198), (95, 17567), (106, 17621), (137, 17783), (169, 17909), (184, 18017), (193, 18074), (194, 18077), (202, 18182), (219, 18317), (224, 18350), (239, 18503), (240, 18515),

Gene: RemusLoopin_18 Start: 14319, Stop: 16106, Start Num: 9

Candidate Starts for RemusLoopin_18:

(Start: 9 @14319 has 3 MA's), (15, 14373), (27, 14484), (33, 14550), (35, 14577), (53, 14721), (55, 14754), (57, 14787), (59, 14793), (64, 14841), (66, 14862), (74, 14928), (78, 14973), (79, 14976), (82, 15000), (106, 15171), (137, 15327), (160, 15441), (174, 15552), (178, 15588), (193, 15675), (195, 15681), (197, 15723), (203, 15774), (205, 15786), (209, 15819), (211, 15834), (212, 15843), (214, 15870), (216, 15891), (219, 15903), (225, 15942), (229, 15981), (233, 16032), (235, 16044),

Gene: Samora_18 Start: 14521, Stop: 16503, Start Num: 11

Candidate Starts for Samora_18:

(8, 14509), (Start: 11 @14521 has 3 MA's), (28, 14671), (33, 14755), (41, 14827), (42, 14830), (50, 14938), (65, 15112), (66, 15118), (72, 15151), (101, 15397), (108, 15442), (115, 15496), (132, 15646), (153, 15748), (156, 15781), (163, 15835), (166, 15871), (169, 15886), (178, 15961), (194, 16051), (195, 16054), (205, 16171), (229, 16366), (239, 16483),

Gene: Sarkar_155 Start: 102360, Stop: 100762, Start Num: 31

Candidate Starts for Sarkar_155:

(23, 102453), (24, 102450), (Start: 31 @102360 has 5 MA's), (34, 102321), (35, 102312), (67, 101994), (80, 101892), (85, 101844), (102, 101721), (127, 101556), (135, 101526), (148, 101466), (158, 101415), (159, 101406), (160, 101385), (179, 101232), (185, 101205), (188, 101193), (191, 101169), (217, 100968), (223, 100938), (226, 100911), (228, 100905),

Gene: Satis_155 Start: 102356, Stop: 100758, Start Num: 31

Candidate Starts for Satis_155:

(23, 102449), (24, 102446), (Start: 31 @102356 has 5 MA's), (34, 102317), (35, 102308), (67, 101990), (80, 101888), (85, 101840), (102, 101717), (127, 101552), (135, 101522), (148, 101462), (158, 101411), (159, 101402), (160, 101381), (179, 101228), (185, 101201), (188, 101189), (191, 101165), (217, 100964), (223, 100934), (226, 100907), (228, 100901),

Gene: Sebastisaurus_18 Start: 14267, Stop: 16123, Start Num: 9

Candidate Starts for Sebastisaurus_18:

(Start: 9 @14267 has 3 MA's), (29, 14468), (33, 14498), (35, 14525), (38, 14546), (50, 14675), (51, 14681), (54, 14738), (60, 14807), (63, 14834), (66, 14864), (69, 14885), (73, 14909), (92, 15092), (97, 15149), (110, 15194), (114, 15209), (126, 15305), (137, 15347), (160, 15461), (162, 15476), (166, 15515), (181, 15629), (186, 15644), (195, 15698), (197, 15740), (203, 15791), (204, 15797), (205, 15803), (209, 15836), (212, 15860), (213, 15866), (219, 15920), (225, 15959), (229, 15998), (233, 16049), (235, 16061),

Gene: Shawty_18 Start: 14444, Stop: 16054, Start Num: 11

Candidate Starts for Shawty_18:

(Start: 11 @14444 has 3 MA's), (15, 14480), (33, 14678), (41, 14750), (42, 14753), (49, 14837), (50, 14861), (51, 14867), (56, 14948), (68, 15062), (70, 15068), (83, 15191), (86, 15224), (88, 15251), (91, 15266), (94, 15293), (104, 15362), (112, 15416), (118, 15485), (123, 15536), (136, 15623), (139, 15635), (141, 15653), (149, 15704), (154, 15734), (155, 15752), (157, 15767), (158, 15770), (164, 15815), (165, 15827), (167, 15845), (172, 15869), (175, 15902), (180, 15950), (183, 15965),

Gene: SoJo_21 Start: 16588, Stop: 18240, Start Num: 13

Candidate Starts for SoJo_21:

(Start: 13 @16588 has 3 MA's), (15, 16621), (18, 16669), (Start: 19 @16672 has 1 MA's), (25, 16714), (33, 16798), (35, 16825), (39, 16852), (41, 16870), (42, 16873), (49, 16951), (51, 16981), (95, 17221), (110, 17284), (137, 17449), (159, 17557), (169, 17641), (178, 17719), (190, 17773), (194, 17809), (195, 17812), (196, 17836), (197, 17854), (206, 17938), (209, 17950), (216, 18022), (219, 18034), (221, 18040), (225, 18073), (229, 18112), (239, 18223),

Gene: Superstar_25 Start: 19064, Stop: 20764, Start Num: 17

Candidate Starts for Superstar_25:

(Start: 17 @19064 has 4 MA's), (29, 19184), (32, 19205), (36, 19253), (87, 19655), (89, 19673), (93, 19697), (105, 19775), (128, 19937), (133, 19955), (137, 19964), (145, 19988), (195, 20312), (208, 20465), (212, 20492), (215, 20522), (219, 20555), (222, 20567), (232, 20681), (234, 20696), (238, 20744), (239, 20750),

Gene: TG1_18 Start: 14295, Stop: 15701, Start Num: 11

Candidate Starts for TG1_18:

(Start: 11 @14295 has 3 MA's), (18, 14376), (22, 14400), (26, 14427), (33, 14526), (35, 14553), (47, 14655), (48, 14679), (75, 14898), (81, 14940), (86, 14982), (104, 15012), (116, 15120), (117, 15132), (131, 15255), (155, 15399), (157, 15414), (158, 15417), (165, 15474), (172, 15516), (175, 15549), (180, 15597), (189, 15633),

Gene: Tefunt_22 Start: 17870, Stop: 19501, Start Num: 19

Candidate Starts for Tefunt_22:

(Start: 17 @17858 has 4 MA's), (Start: 19 @17870 has 1 MA's), (29, 17978), (32, 17999), (37, 18053), (45, 18104), (46, 18119), (90, 18470), (93, 18491), (98, 18539), (111, 18584), (119, 18617), (120, 18620), (144, 18761), (147, 18782), (164, 18878), (168, 18920), (170, 18929), (176, 18974), (178, 18995), (194, 19088), (224, 19331), (230, 19406),

Gene: ToastyFinz_20 Start: 16273, Stop: 17871, Start Num: 14

Candidate Starts for ToastyFinz_20:

(Start: 13 @16270 has 3 MA's), (Start: 14 @16273 has 2 MA's), (21, 16372), (25, 16396), (30, 16453), (33, 16480), (38, 16528), (39, 16534), (41, 16552), (43, 16558), (52, 16678), (173, 17287), (174, 17305), (178, 17341), (186, 17380), (188, 17389), (194, 17431), (195, 17434), (196, 17458), (205, 17539), (207, 17563), (209, 17572), (220, 17659), (225, 17695), (229, 17734), (235, 17803), (239, 17851),

Gene: Tubberson_21 Start: 16587, Stop: 18239, Start Num: 13

Candidate Starts for Tubberson_21:

(Start: 13 @16587 has 3 MA's), (15, 16620), (18, 16668), (Start: 19 @16671 has 1 MA's), (25, 16713), (33, 16797), (35, 16824), (39, 16851), (41, 16869), (42, 16872), (49, 16950), (51, 16980), (95, 17220), (110, 17283), (137, 17448), (159, 17556), (169, 17640), (178, 17718), (190, 17772), (194, 17808), (195, 17811), (196, 17835), (197, 17853), (206, 17937), (209, 17949), (216, 18021), (219, 18033), (221, 18039), (225, 18072), (229, 18111), (239, 18222),

Gene: Vash_18 Start: 14304, Stop: 16169, Start Num: 10

Candidate Starts for Vash_18:

(8, 14292), (Start: 10 @14304 has 2 MA's), (33, 14538), (35, 14565), (41, 14610), (42, 14613), (58, 14838), (60, 14856), (62, 14877), (66, 14913), (74, 14979), (76, 15009), (78, 15024), (79, 15027), (84, 15081), (124, 15342), (126, 15351), (137, 15393), (141, 15402), (160, 15507), (166, 15561), (178, 15651), (180, 15666), (187, 15696), (192, 15729), (195, 15744), (197, 15786), (201, 15822), (203, 15837), (205, 15849), (209, 15882), (212, 15906), (229, 16044), (233, 16095), (235, 16107), (239, 16155),

Gene: phiBT1_49 Start: 14512, Stop: 16590, Start Num: 11

Candidate Starts for phiBT1_49:

(8, 14500), (Start: 11 @14512 has 3 MA's), (29, 14716), (33, 14746), (41, 14818), (42, 14821), (61, 15070), (65, 15103), (66, 15109), (72, 15142), (76, 15205), (78, 15220), (82, 15247), (84, 15277), (96, 15385), (105, 15454), (113, 15517), (122, 15616), (134, 15724), (140, 15769), (173, 16003), (178, 16057), (182, 16087), (187, 16105), (198, 16231), (199, 16234), (213, 16333), (219, 16390), (230, 16498), (235, 16528), (236, 16546), (239, 16570),