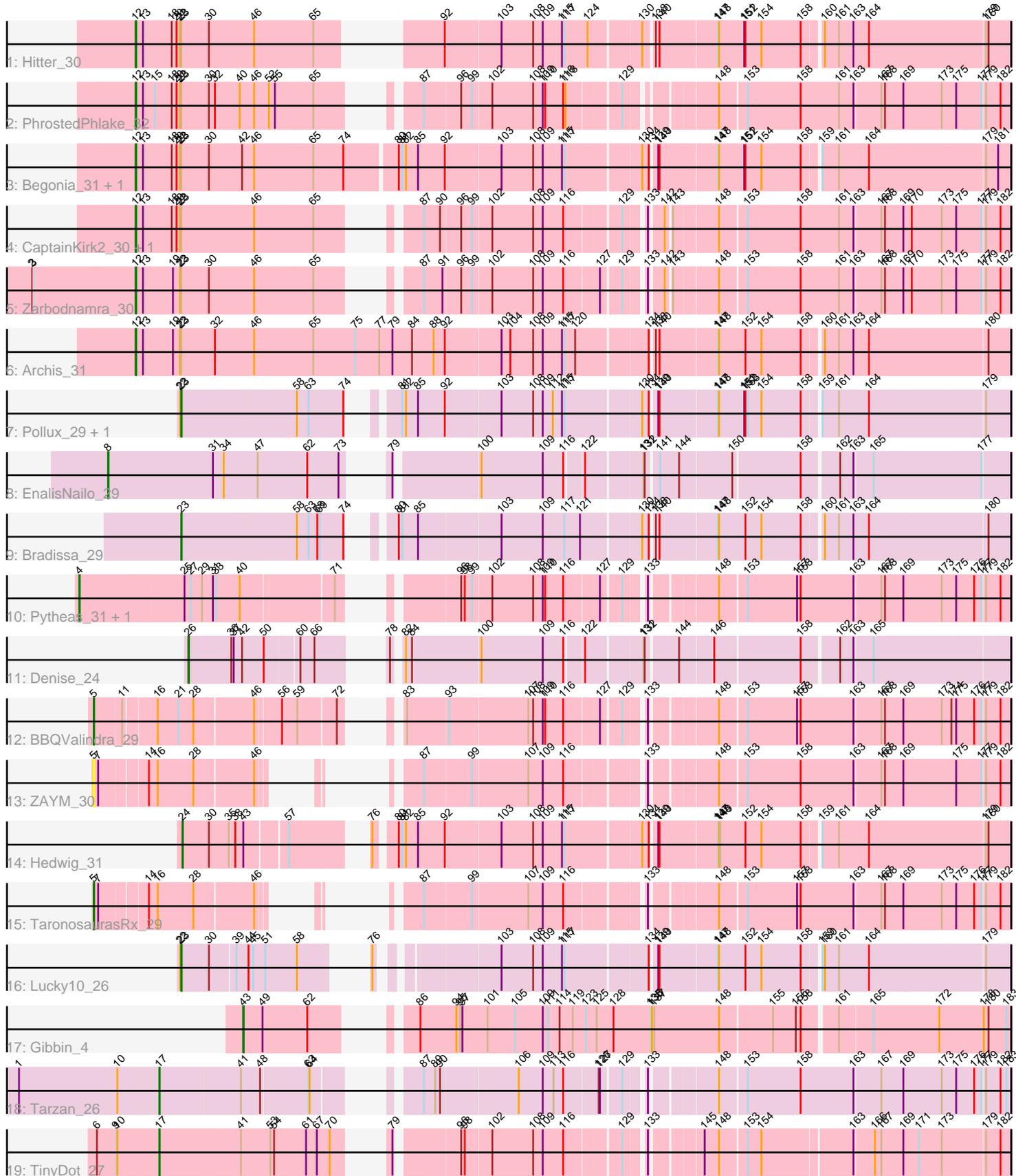


Pham 287111



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 287111 Report

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

Pham number 287111 has 23 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Hitter_30
- Track 2 : PhrostedPhlake_32
- Track 3 : Begonia_31, Malachai_31
- Track 4 : CaptainKirk2_30, Delian_31
- Track 5 : Zarbodnamra_30
- Track 6 : Archis_31
- Track 7 : Pollux_29, Floral_29
- Track 8 : EnalisNailo_29
- Track 9 : Bradissa_29
- Track 10 : Pytheas_31, Jablanski_31
- Track 11 : Denise_24
- Track 12 : BBQValindra_29
- Track 13 : ZAYM_30
- Track 14 : Hedwig_31
- Track 15 : TaronosaurusRx_29
- Track 16 : Lucky10_26
- Track 17 : Gibbin_4
- Track 18 : Tarzan_26
- Track 19 : TinyDot_27

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

The start number called the most often in the published annotations is 12, it was called in 8 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Archis_31, Begonia_31, CaptainKirk2_30, Delian_31, Hitter_30, Malachai_31, PhrostedPhlake_32, Zarbodnamra_30,

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

-

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

- BBQValindra_29, Bradissa_29, Denise_24, EnalisNailo_29, Floral_29, Gibbin_4, Hedwig_31, Jablanski_31, Lucky10_26, Pollux_29, Pytheas_31, TaronosaurusRx_29, Tarzan_26, TinyDot_27, ZAYM_30,

Summary by start number:

Start 4:

- Found in 2 of 23 (8.7%) of genes in pham
- Manual Annotations of this start: 2 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jablanski_31 (CY3), Pytheas_31 (CY3),

Start 5:

- Found in 3 of 23 (13.0%) of genes in pham
- Manual Annotations of this start: 2 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BBQValindra_29 (DB), TaronosaurusRx_29 (DB), ZAYM_30 (DB),

Start 8:

- Found in 1 of 23 (4.3%) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EnalisNailo_29 (CY1),

Start 12:

- Found in 8 of 23 (34.8%) of genes in pham
- Manual Annotations of this start: 8 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archis_31 (CV), Begonia_31 (CV), CaptainKirk2_30 (CV), Delian_31 (CV), Hitter_30 (CV), Malachai_31 (CV), PhrostedPhlake_32 (CV), Zarbodnamra_30 (CV),

Start 17:

- Found in 2 of 23 (8.7%) of genes in pham
- Manual Annotations of this start: 2 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tarzan_26 (DY), TinyDot_27 (singleton),

Start 23:

- Found in 12 of 23 (52.2%) of genes in pham
- Manual Annotations of this start: 4 of 22
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Bradissa_29 (CY1), Floral_29 (CY1), Lucky10_26 (DH), Pollux_29 (CY1),

Start 24:

- Found in 1 of 23 (4.3%) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hedwig_31 (DB),

Start 26:

- Found in 1 of 23 (4.3%) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Denise_24 (CZ5),

Start 43:

- Found in 2 of 23 (8.7%) of genes in pham
- Manual Annotations of this start: 1 of 22
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Gibbin_4 (DV),

Summary by clusters:

There are 9 clusters represented in this pham: CY3, singleton, DH, DB, CY1, CZ5, DY, DV, CV,

Info for manual annotations of cluster CV:

- Start number 12 was manually annotated 8 times for cluster CV.

Info for manual annotations of cluster CY1:

- Start number 8 was manually annotated 1 time for cluster CY1.
- Start number 23 was manually annotated 3 times for cluster CY1.

Info for manual annotations of cluster CY3:

- Start number 4 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CZ5:

- Start number 26 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster DB:

- Start number 5 was manually annotated 2 times for cluster DB.
- Start number 24 was manually annotated 1 time for cluster DB.

Info for manual annotations of cluster DH:

- Start number 23 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster DV:

- Start number 43 was manually annotated 1 time for cluster DV.

Info for manual annotations of cluster DY:

- Start number 17 was manually annotated 1 time for cluster DY.

Gene Information:

Gene: Archis_31 Start: 25439, Stop: 27490, Start Num: 12

Candidate Starts for Archis_31:

(Start: 12 @25439 has 8 MA's), (13, 25457), (19, 25529), (22, 25547), (Start: 23 @25550 has 4 MA's), (32, 25631), (46, 25727), (65, 25871), (75, 25976), (77, 26036), (79, 26069), (84, 26117), (88, 26171), (92, 26195), (103, 26324), (104, 26342), (108, 26399), (109, 26423), (115, 26465), (117, 26471), (120, 26498), (134, 26657), (138, 26663), (140, 26672), (147, 26798), (148, 26801), (152, 26867), (154, 26906), (158, 27002), (160, 27044), (161, 27077), (163, 27113), (164, 27152), (180, 27437),

Gene: BBQValindra_29 Start: 24300, Stop: 26213, Start Num: 5

Candidate Starts for BBQValindra_29:

(Start: 5 @24300 has 2 MA's), (11, 24360), (16, 24432), (21, 24477), (28, 24513), (46, 24642), (56, 24693), (59, 24729), (72, 24813), (83, 24852), (93, 24951), (107, 25137), (108, 25149), (109, 25173), (110, 25179), (116, 25224), (127, 25302), (129, 25341), (133, 25383), (148, 25518), (153, 25578), (157, 25698), (158, 25707), (163, 25839), (167, 25902), (168, 25911), (169, 25956), (173, 26052), (174, 26073), (175, 26085), (176, 26127), (177, 26145), (179, 26151), (182, 26187),

Gene: Begonia_31 Start: 25691, Stop: 27724, Start Num: 12

Candidate Starts for Begonia_31:

(Start: 12 @25691 has 8 MA's), (13, 25709), (18, 25778), (20, 25790), (22, 25799), (Start: 23 @25802 has 4 MA's), (30, 25868), (42, 25949), (46, 25979), (65, 26123), (74, 26198), (80, 26321), (81, 26330), (82, 26339), (85, 26366), (92, 26429), (103, 26558), (108, 26633), (109, 26657), (115, 26699), (117, 26705), (130, 26879), (134, 26891), (139, 26903), (140, 26906), (147, 27032), (148, 27035), (151, 27098), (152, 27101), (154, 27140), (158, 27236), (159, 27272), (161, 27311), (164, 27386), (179, 27665), (181, 27695),

Gene: Bradissa_29 Start: 24722, Stop: 26545, Start Num: 23

Candidate Starts for Bradissa_29:

(Start: 23 @24722 has 4 MA's), (58, 24983), (63, 25010), (68, 25031), (69, 25037), (74, 25094), (80, 25142), (81, 25151), (85, 25187), (103, 25379), (109, 25478), (117, 25526), (121, 25565), (130, 25700), (134, 25712), (138, 25718), (140, 25727), (147, 25853), (148, 25856), (152, 25922), (154, 25961), (158, 26057), (160, 26099), (161, 26132), (163, 26168), (164, 26207), (180, 26492),

Gene: CaptainKirk2_30 Start: 25252, Stop: 27144, Start Num: 12

Candidate Starts for CaptainKirk2_30:

(Start: 12 @25252 has 8 MA's), (13, 25270), (18, 25339), (20, 25351), (22, 25360), (Start: 23 @25363 has 4 MA's), (46, 25540), (65, 25684), (87, 25825), (90, 25864), (96, 25912), (99, 25939), (102, 25978), (108, 26080), (109, 26104), (116, 26155), (129, 26272), (133, 26314), (142, 26341), (143, 26350), (148, 26449), (153, 26509), (158, 26638), (161, 26734), (163, 26770), (167, 26833), (168, 26842), (169, 26887), (170, 26908), (173, 26983), (175, 27016), (177, 27076), (179, 27082), (182, 27118),

Gene: Delian_31 Start: 25250, Stop: 27142, Start Num: 12

Candidate Starts for Delian_31:

(Start: 12 @25250 has 8 MA's), (13, 25268), (18, 25337), (20, 25349), (22, 25358), (Start: 23 @25361 has 4 MA's), (46, 25538), (65, 25682), (87, 25823), (90, 25862), (96, 25910), (99, 25937), (102, 25976), (108, 26078), (109, 26102), (116, 26153), (129, 26270), (133, 26312), (142, 26339), (143, 26348), (148, 26447), (153, 26507), (158, 26636), (161, 26732), (163, 26768), (167, 26831), (168, 26840), (169, 26885), (170, 26906), (173, 26981), (175, 27014), (177, 27074), (179, 27080), (182, 27116),

Gene: Denise_24 Start: 21110, Stop: 22873, Start Num: 26

Candidate Starts for Denise_24:

(Start: 26 @21110 has 1 MA's), (36, 21212), (37, 21218), (42, 21239), (50, 21290), (60, 21368), (66, 21398), (78, 21476), (82, 21488), (84, 21503), (100, 21671), (109, 21824), (116, 21866), (122, 21905), (131, 22034), (132, 22037), (144, 22109), (146, 22184), (158, 22388), (162, 22469), (163, 22502), (165, 22547),

Gene: EnalisNailo_29 Start: 24724, Stop: 26721, Start Num: 8

Candidate Starts for EnalisNailo_29:

(Start: 8 @24724 has 1 MA's), (31, 24985), (34, 25012), (47, 25096), (62, 25219), (73, 25297), (79, 25327), (100, 25519), (109, 25672), (116, 25714), (122, 25753), (131, 25882), (132, 25885), (141, 25912), (144, 25957), (150, 26074), (158, 26236), (162, 26317), (163, 26350), (165, 26395), (177,

26656),

Gene: Floral_29 Start: 24575, Stop: 26398, Start Num: 23

Candidate Starts for Floral_29:

(22, 24572), (Start: 23 @24575 has 4 MA's), (58, 24836), (63, 24863), (74, 24947), (81, 25004), (82, 25013), (85, 25040), (92, 25103), (103, 25232), (108, 25307), (109, 25331), (112, 25352), (115, 25373), (117, 25379), (130, 25553), (134, 25565), (139, 25577), (140, 25580), (147, 25706), (148, 25709), (151, 25772), (152, 25775), (153, 25781), (154, 25814), (158, 25910), (159, 25946), (161, 25985), (164, 26060), (179, 26339),

Gene: Gibbin_4 Start: 3409, Stop: 5115, Start Num: 43

Candidate Starts for Gibbin_4:

(Start: 43 @3409 has 1 MA's), (49, 3457), (62, 3565), (86, 3700), (94, 3790), (95, 3799), (97, 3805), (101, 3868), (105, 3937), (109, 4006), (111, 4015), (114, 4039), (119, 4072), (123, 4105), (125, 4132), (128, 4174), (135, 4267), (136, 4270), (137, 4276), (148, 4438), (155, 4561), (156, 4615), (158, 4627), (161, 4702), (165, 4783), (172, 4942), (178, 5047), (180, 5059), (183, 5104),

Gene: Hedwig_31 Start: 25332, Stop: 27116, Start Num: 24

Candidate Starts for Hedwig_31:

(Start: 24 @25332 has 1 MA's), (30, 25392), (35, 25437), (38, 25446), (Start: 43 @25464 has 1 MA's), (57, 25545), (76, 25674), (80, 25713), (81, 25722), (82, 25731), (85, 25758), (92, 25821), (103, 25950), (108, 26025), (109, 26049), (115, 26091), (117, 26097), (130, 26271), (134, 26283), (139, 26295), (140, 26298), (147, 26424), (148, 26427), (149, 26430), (152, 26493), (154, 26532), (158, 26628), (159, 26664), (161, 26703), (164, 26778), (179, 27057), (180, 27063),

Gene: Hitter_30 Start: 25228, Stop: 27120, Start Num: 12

Candidate Starts for Hitter_30:

(Start: 12 @25228 has 8 MA's), (13, 25246), (18, 25315), (20, 25327), (22, 25336), (Start: 23 @25339 has 4 MA's), (30, 25405), (46, 25516), (65, 25660), (92, 25825), (103, 25954), (108, 26029), (109, 26053), (115, 26095), (117, 26101), (124, 26158), (130, 26275), (138, 26293), (140, 26302), (147, 26428), (148, 26431), (151, 26494), (152, 26497), (154, 26536), (158, 26632), (160, 26674), (161, 26707), (163, 26743), (164, 26782), (179, 27061), (180, 27067),

Gene: Jablanski_31 Start: 25723, Stop: 27699, Start Num: 4

Candidate Starts for Jablanski_31:

(Start: 4 @25723 has 2 MA's), (25, 25969), (27, 25984), (29, 26011), (31, 26032), (33, 26038), (40, 26095), (71, 26296), (96, 26467), (98, 26476), (99, 26494), (102, 26533), (108, 26635), (109, 26659), (110, 26665), (116, 26710), (127, 26788), (129, 26827), (133, 26869), (148, 27004), (153, 27064), (157, 27184), (158, 27193), (163, 27325), (167, 27388), (168, 27397), (169, 27442), (173, 27538), (175, 27571), (176, 27613), (177, 27631), (179, 27637), (182, 27673),

Gene: Lucky10_26 Start: 22139, Stop: 23872, Start Num: 23

Candidate Starts for Lucky10_26:

(22, 22136), (Start: 23 @22139 has 4 MA's), (30, 22199), (39, 22256), (44, 22283), (45, 22295), (51, 22322), (58, 22397), (76, 22475), (103, 22709), (108, 22784), (109, 22808), (115, 22847), (117, 22853), (134, 23039), (139, 23051), (140, 23054), (147, 23180), (148, 23183), (152, 23249), (154, 23288), (158, 23384), (159, 23420), (160, 23426), (161, 23459), (164, 23534), (179, 23813),

Gene: Malachai_31 Start: 25691, Stop: 27724, Start Num: 12

Candidate Starts for Malachai_31:

(Start: 12 @25691 has 8 MA's), (13, 25709), (18, 25778), (20, 25790), (22, 25799), (Start: 23 @25802 has 4 MA's), (30, 25868), (42, 25949), (46, 25979), (65, 26123), (74, 26198), (80, 26321), (81, 26330), (82, 26339), (85, 26366), (92, 26429), (103, 26558), (108, 26633), (109, 26657), (115, 26699), (117,

26705), (130, 26879), (134, 26891), (139, 26903), (140, 26906), (147, 27032), (148, 27035), (151, 27098), (152, 27101), (154, 27140), (158, 27236), (159, 27272), (161, 27311), (164, 27386), (179, 27665), (181, 27695),

Gene: PhrostedPhlake_32 Start: 25921, Stop: 27813, Start Num: 12

Candidate Starts for PhrostedPhlake_32:

(Start: 12 @25921 has 8 MA's), (13, 25939), (15, 25969), (18, 26008), (20, 26020), (22, 26029), (Start: 23 @26032 has 4 MA's), (30, 26098), (32, 26113), (40, 26173), (46, 26209), (52, 26245), (55, 26260), (65, 26353), (87, 26494), (96, 26581), (99, 26608), (102, 26647), (108, 26749), (109, 26773), (110, 26779), (116, 26824), (118, 26830), (129, 26941), (148, 27118), (153, 27178), (158, 27307), (161, 27403), (163, 27439), (167, 27502), (168, 27511), (169, 27556), (173, 27652), (175, 27685), (177, 27745), (179, 27751), (182, 27787),

Gene: Pollux_29 Start: 24575, Stop: 26398, Start Num: 23

Candidate Starts for Pollux_29:

(22, 24572), (Start: 23 @24575 has 4 MA's), (58, 24836), (63, 24863), (74, 24947), (81, 25004), (82, 25013), (85, 25040), (92, 25103), (103, 25232), (108, 25307), (109, 25331), (112, 25352), (115, 25373), (117, 25379), (130, 25553), (134, 25565), (139, 25577), (140, 25580), (147, 25706), (148, 25709), (151, 25772), (152, 25775), (153, 25781), (154, 25814), (158, 25910), (159, 25946), (161, 25985), (164, 26060), (179, 26339),

Gene: Pytheas_31 Start: 25722, Stop: 27698, Start Num: 4

Candidate Starts for Pytheas_31:

(Start: 4 @25722 has 2 MA's), (25, 25968), (27, 25983), (29, 26010), (31, 26031), (33, 26037), (40, 26094), (71, 26295), (96, 26466), (98, 26475), (99, 26493), (102, 26532), (108, 26634), (109, 26658), (110, 26664), (116, 26709), (127, 26787), (129, 26826), (133, 26868), (148, 27003), (153, 27063), (157, 27183), (158, 27192), (163, 27324), (167, 27387), (168, 27396), (169, 27441), (173, 27537), (175, 27570), (176, 27612), (177, 27630), (179, 27636), (182, 27672),

Gene: TaronosaurusRx_29 Start: 24667, Stop: 26418, Start Num: 5

Candidate Starts for TaronosaurusRx_29:

(Start: 5 @24667 has 2 MA's), (7, 24676), (14, 24781), (16, 24799), (28, 24880), (46, 25009), (87, 25099), (99, 25213), (107, 25342), (109, 25378), (116, 25429), (133, 25588), (148, 25723), (153, 25783), (157, 25903), (158, 25912), (163, 26044), (167, 26107), (168, 26116), (169, 26161), (173, 26257), (175, 26290), (176, 26332), (177, 26350), (179, 26356), (182, 26392),

Gene: Tarzan_26 Start: 21313, Stop: 23103, Start Num: 17

Candidate Starts for Tarzan_26:

(1, 20977), (10, 21220), (Start: 17 @21313 has 2 MA's), (41, 21499), (48, 21538), (63, 21643), (64, 21646), (87, 21784), (89, 21811), (90, 21823), (106, 22003), (109, 22063), (113, 22090), (116, 22114), (126, 22189), (127, 22192), (129, 22231), (133, 22273), (148, 22408), (153, 22468), (158, 22597), (163, 22729), (167, 22792), (169, 22846), (173, 22942), (175, 22975), (176, 23017), (177, 23035), (179, 23041), (182, 23077), (183, 23092),

Gene: TinyDot_27 Start: 21466, Stop: 23274, Start Num: 17

Candidate Starts for TinyDot_27:

(6, 21319), (9, 21364), (10, 21367), (Start: 17 @21466 has 2 MA's), (41, 21661), (53, 21733), (54, 21742), (61, 21817), (67, 21844), (70, 21874), (79, 21922), (96, 22060), (98, 22069), (102, 22126), (108, 22228), (109, 22252), (116, 22303), (129, 22420), (133, 22462), (145, 22561), (148, 22597), (153, 22657), (154, 22690), (163, 22900), (166, 22948), (167, 22963), (169, 23017), (171, 23056), (173, 23113), (179, 23212), (182, 23248),

Gene: ZAYM_30 Start: 25127, Stop: 26878, Start Num: 5

Candidate Starts for ZAYM_30:

(Start: 5 @25127 has 2 MA's), (7, 25136), (14, 25241), (16, 25259), (28, 25340), (46, 25469), (87, 25559), (99, 25673), (107, 25802), (109, 25838), (116, 25889), (133, 26048), (148, 26183), (153, 26243), (158, 26372), (163, 26504), (167, 26567), (168, 26576), (169, 26621), (175, 26750), (177, 26810), (179, 26816), (182, 26852),

Gene: Zarbodnamra_30 Start: 25272, Stop: 27164, Start Num: 12

Candidate Starts for Zarbodnamra_30:

(2, 25014), (3, 25017), (Start: 12 @25272 has 8 MA's), (13, 25290), (19, 25362), (22, 25380), (Start: 23 @25383 has 4 MA's), (30, 25449), (46, 25560), (65, 25704), (87, 25845), (91, 25890), (96, 25932), (99, 25959), (102, 25998), (108, 26100), (109, 26124), (116, 26175), (127, 26253), (129, 26292), (133, 26334), (142, 26361), (143, 26370), (148, 26469), (153, 26529), (158, 26658), (161, 26754), (163, 26790), (167, 26853), (168, 26862), (169, 26907), (170, 26928), (173, 27003), (175, 27036), (177, 27096), (179, 27102), (182, 27138),