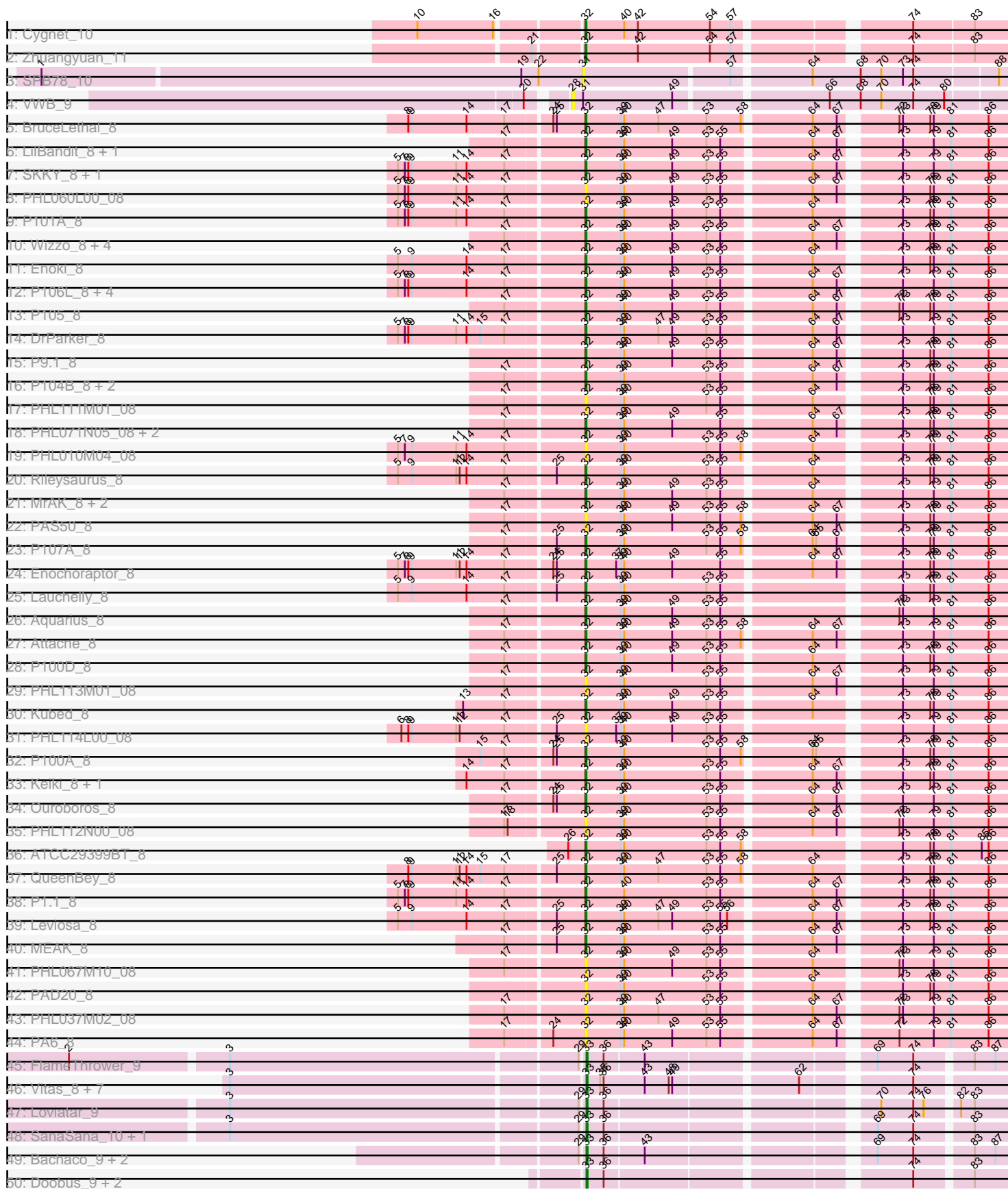
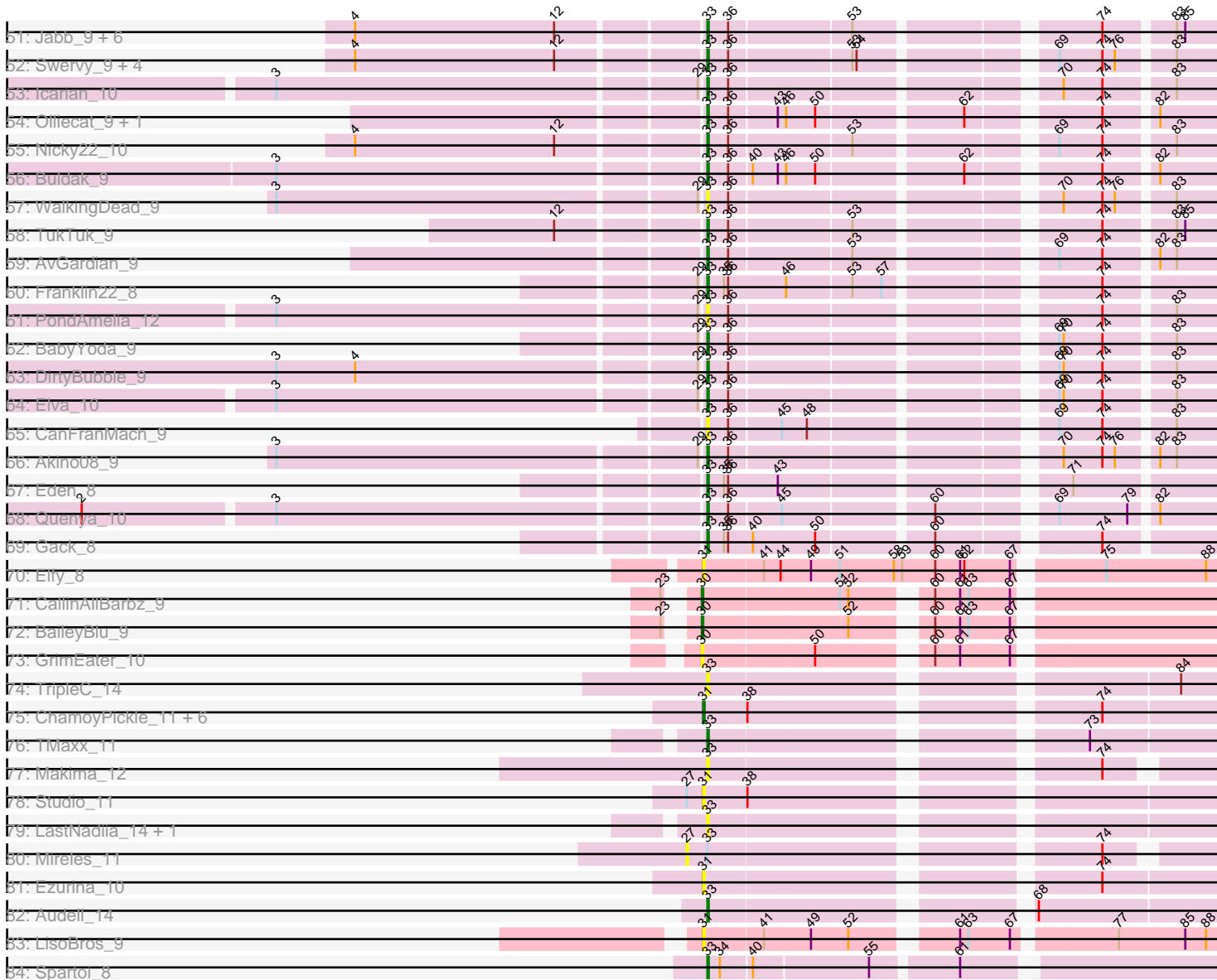


Pham 294527



Pham 294527



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 294527 Report

This analysis was run 04/18/26 on database version 643.

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 294527 has 131 members, 36 are drafts.

Phages represented in each track:

- Track 1 : Cygnet_10
- Track 2 : Zhuangyuan_11
- Track 3 : SPB78_10
- Track 4 : VWB_9
- Track 5 : BruceLethal_8
- Track 6 : LilBandit_8, P14.4_8
- Track 7 : SKKY_8, Moyashi_8
- Track 8 : PHL060L00_08
- Track 9 : P101A_8
- Track 10 : Wizzo_8, Supernova_8, Solid_8, P107C_8, ATCC29399BC_8
- Track 11 : Enoki_8
- Track 12 : P106L_8, P106I_8, P106M_8, P106C_8, P106A_8
- Track 13 : P105_8
- Track 14 : DrParker_8
- Track 15 : P9.1_8
- Track 16 : P104B_8, Procrass1_8, Stormborn_8
- Track 17 : PHL111M01_08
- Track 18 : PHL071N05_08, P108C_8, Pirate_8
- Track 19 : PHL010M04_08
- Track 20 : Rileysaurus_8
- Track 21 : MrAK_8, P100.1_8, P104A_8
- Track 22 : PAS50_8
- Track 23 : P107A_8
- Track 24 : Enochoraptor_8
- Track 25 : Lauchelly_8
- Track 26 : Aquarius_8
- Track 27 : Attacne_8
- Track 28 : P100D_8
- Track 29 : PHL113M01_08
- Track 30 : Kubed_8
- Track 31 : PHL114L00_08
- Track 32 : P100A_8
- Track 33 : Keiki_8, Cota_8

- Track 34 : Ouroboros_8
- Track 35 : PHL112N00_08
- Track 36 : ATCC29399BT_8
- Track 37 : QueenBey_8
- Track 38 : P1.1_8
- Track 39 : Leviosa_8
- Track 40 : MEAK_8
- Track 41 : PHL067M10_08
- Track 42 : PAD20_8
- Track 43 : PHL037M02_08
- Track 44 : PA6_8
- Track 45 : FlameThrower_9
- Track 46 : Vitas_8, Bernstein_8, Clayda5_8, Brahms_8, Rollins_8, Coltrane_8, Armstrong_8, Skylord_8
- Track 47 : Loviatar_9
- Track 48 : SanaSana_10, Stoor_9
- Track 49 : Bachaco_9, Katzastrophic_9, Celaena_9
- Track 50 : Doobus_9, SansAfet_9, Cashington_9
- Track 51 : Jabb_9, CupcakePrincess_9, MsUbiquitous_9, Pecas_9, QMacho_10, Jovita_9, Eula_9
- Track 52 : Swervy_9, AylexOG_10, SarBear_9, Slay_9, Finalfrontier_10
- Track 53 : Icarian_10
- Track 54 : Olliecat_9, Squircle_9
- Track 55 : Nicky22_10
- Track 56 : Buldak_9
- Track 57 : WalkingDead_9
- Track 58 : TukTuk_9
- Track 59 : AvGardian_9
- Track 60 : Franklin22_8
- Track 61 : PondAmelia_12
- Track 62 : BabyYoda_9
- Track 63 : DirtyBubble_9
- Track 64 : Elva_10
- Track 65 : CanFranMach_9
- Track 66 : Akino08_9
- Track 67 : Eden_8
- Track 68 : Quenya_10
- Track 69 : Gack_8
- Track 70 : Elfy_8
- Track 71 : CallinAllBarbz_9
- Track 72 : BaileyBlu_9
- Track 73 : GrimEater_10
- Track 74 : TripleC_14
- Track 75 : ChamoyPickle_11, AnnabelLee_11, Roberts_11, Neuville_11, CardboardBox_11, ChipsNGuac_11, Gerri43_11
- Track 76 : TMaxx_11
- Track 77 : Makima_12
- Track 78 : Studio_11
- Track 79 : LastNadiia_14, Agamoto_13
- Track 80 : Mireles_11
- Track 81 : Ezurina_10
- Track 82 : Audell_14
- Track 83 : LisoBros_9

- Track 84 : Spartoi_8

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

The start number called the most often in the published annotations is 32, it was called in 47 of the 95 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ATCC29399BC_8, ATCC29399BT_8, Aquarius_8, Attacne_8, BruceLethal_8, Cota_8, Cygnet_10, DrParker_8, Enochoraptor_8, Enoki_8, Keiki_8, Kubed_8, Lauchelly_8, Leviosa_8, LilBandit_8, MEAK_8, Moyashi_8, MrAK_8, Ouroboros_8, P1.1_8, P100.1_8, P100A_8, P100D_8, P101A_8, P104A_8, P104B_8, P105_8, P106A_8, P106C_8, P106I_8, P106L_8, P106M_8, P107A_8, P107C_8, P108C_8, P14.4_8, P9.1_8, PA6_8, PAD20_8, PAS50_8, PHL010M04_08, PHL037M02_08, PHL060L00_08, PHL067M10_08, PHL071N05_08, PHL111M01_08, PHL112N00_08, PHL113M01_08, PHL114L00_08, Pirate_8, Procrass1_8, QueenBey_8, Rileysaurus_8, SKKY_8, Solid_8, Stormborn_8, Supernova_8, Wizzo_8, Zhuangyuan_11,

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

-

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

- Agamotto_13, Akino08_9, AnnabelLee_11, Armstrong_8, Audell_14, AvGardian_9, AylexOG_10, BabyYoda_9, Bachaco_9, BaileyBlu_9, Bernstein_8, Brahms_8, Buldak_9, CallinAllBarbz_9, CanFranMach_9, CardboardBox_11, Cashington_9, Celaena_9, ChamoyPickle_11, ChipsNGuac_11, Clayda5_8, Coltrane_8, CupcakePrincess_9, DirtyBubble_9, Doobus_9, Eden_8, Elfy_8, Elva_10, Eula_9, Ezurina_10, Finalfrontier_10, FlameThrower_9, Franklin22_8, Gack_8, Gerri43_11, GrimEater_10, Icarian_10, Jabb_9, Jovita_9, Katzastrophic_9, LastNadiia_14, LisoBros_9, Loviatar_9, Makima_12, Mireles_11, MsUbiquitous_9, Neuville_11, Nicky22_10, Olliecat_9, Pecas_9, PondAmelia_12, QMacho_10, Quenya_10, Roberts_11, Rollins_8, SPB78_10, SanaSana_10, SansAfet_9, SarBear_9, Skylord_8, Slay_9, Spartoi_8, Squircle_9, Stoor_9, Studio_11, Swervy_9, TMaxx_11, TripleC_14, TukTuk_9, VWB_9, Vitas_8, WalkingDead_9,

Summary by start number:

Start 27:

- Found in 2 of 131 (1.5%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Mireles_11 (FR),

Start 28:

- Found in 1 of 131 (0.8%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: VWB_9 (BA),

Start 30:

- Found in 3 of 131 (2.3%) of genes in pham
- Manual Annotations of this start: 2 of 95
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BaileyBlu_9 (FP), CallinAllBarbz_9 (FP), GrimEater_10 (FP),

Start 31:

- Found in 13 of 131 (9.9%) of genes in pham
- Manual Annotations of this start: 1 of 95
- Called 92.3% of time when present
- Phage (with cluster) where this start called: AnnabelLee_11 (FR), CardboardBox_11 (FR), ChamoyPickle_11 (FR), ChipsNGuac_11 (FR), Elfy_8 (FP), Ezurina_10 (FR), Gerri43_11 (FR), LisoBros_9 (UNK), Neuville_11 (FR), Roberts_11 (FR), SPB78_10 (BA), Studio_11 (FR),

Start 32:

- Found in 59 of 131 (45.0%) of genes in pham
- Manual Annotations of this start: 47 of 95
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ATCC29399BC_8 (BU), ATCC29399BT_8 (BU), Aquarius_8 (BU), Attacne_8 (BU), BruceLethal_8 (BU), Cota_8 (BU), Cygnet_10 (AS2), DrParker_8 (BU), Enochoraptor_8 (BU), Enoki_8 (BU), Keiki_8 (BU), Kubed_8 (BU), Lauchelly_8 (BU), Leviosa_8 (BU), LilBandit_8 (BU), MEAK_8 (BU), Moyashi_8 (BU), MrAK_8 (BU), Ouroboros_8 (BU), P1.1_8 (BU), P100.1_8 (BU), P100A_8 (BU), P100D_8 (BU), P101A_8 (BU), P104A_8 (BU), P104B_8 (BU), P105_8 (BU), P106A_8 (BU), P106C_8 (BU), P106I_8 (BU), P106L_8 (BU), P106M_8 (BU), P107A_8 (BU), P107C_8 (BU), P108C_8 (BU), P14.4_8 (BU), P9.1_8 (BU), PA6_8 (BU), PAD20_8 (BU), PAS50_8 (BU), PHL010M04_08 (BU), PHL037M02_08 (BU), PHL060L00_08 (BU), PHL067M10_08 (BU), PHL071N05_08 (BU), PHL111M01_08 (BU), PHL112N00_08 (BU), PHL113M01_08 (BU), PHL114L00_08 (BU), Pirate_8 (BU), Procrass1_8 (BU), QueenBey_8 (BU), Rileysaurus_8 (BU), SKKY_8 (BU), Solid_8 (BU), Stormborn_8 (BU), Supernova_8 (BU), Wizzo_8 (BU), Zhuangyuan_11 (AS2),

Start 33:

- Found in 56 of 131 (42.7%) of genes in pham
- Manual Annotations of this start: 45 of 95
- Called 98.2% of time when present
- Phage (with cluster) where this start called: Agamoto_13 (FR), Akino08_9 (EB), Armstrong_8 (EB), Audell_14 (FR), AvGardian_9 (EB), AylexOG_10 (EB), BabyYoda_9 (EB), Bachaco_9 (EB), Bernstein_8 (EB), Brahms_8 (EB), Buldak_9 (EB), CanFranMach_9 (EB), Cashington_9 (EB), Celaena_9 (EB), Clayda5_8 (EB), Coltrane_8 (EB), CupcakePrincess_9 (EB), DirtyBubble_9 (EB), Doobus_9 (EB), Eden_8 (EB), Elva_10 (EB), Eula_9 (EB), Finalfrontier_10 (EB), FlameThrower_9 (EB), Franklin22_8 (EB), Gack_8 (EB), Icarian_10 (EB), Jabb_9 (EB), Jovita_9 (EB), Katzastrophic_9 (EB), LastNadiia_14 (FR), Loviatar_9 (EB), Makima_12 (FR), MsUbiquitous_9 (EB), Nicky22_10 (EB), Olliecat_9 (EB), Pecas_9 (EB), PondAmelia_12 (EB), QMacho_10 (EB), Quenya_10 (EB), Rollins_8 (EB), SanaSana_10 (EB), SansAfet_9 (EB), SarBear_9 (EB), Skylord_8 (EB), Slay_9 (EB), Spartoi_8 (singleton), Squirrel_9 (EB), Stoor_9 (EB), Swervy_9 (EB), TMaxx_11 (FR), TripleC_14 (FR), TukTuk_9 (EB), Vitas_8 (EB), WalkingDead_9 (EB),

Summary by clusters:

There are 8 clusters represented in this pham: FP, AS2, FR, BA, singleton, EB, BU, UNK,

Info for manual annotations of cluster AS2:

- Start number 32 was manually annotated 2 times for cluster AS2.

Info for manual annotations of cluster BU:

- Start number 32 was manually annotated 45 times for cluster BU.

Info for manual annotations of cluster EB:

- Start number 33 was manually annotated 42 times for cluster EB.

Info for manual annotations of cluster FP:

- Start number 30 was manually annotated 2 times for cluster FP.

Info for manual annotations of cluster FR:

- Start number 31 was manually annotated 1 time for cluster FR.
- Start number 33 was manually annotated 2 times for cluster FR.

Gene Information:

Gene: ATCC29399BC_8 Start: 6098, Stop: 6445, Start Num: 32

Candidate Starts for ATCC29399BC_8:

(17, 6035), (Start: 32 @6098 has 47 MA's), (39, 6128), (40, 6131), (49, 6173), (53, 6203), (55, 6215), (64, 6287), (67, 6308), (73, 6350), (78, 6374), (79, 6377), (81, 6392), (86, 6425),

Gene: ATCC29399BT_8 Start: 6095, Stop: 6442, Start Num: 32

Candidate Starts for ATCC29399BT_8:

(26, 6080), (Start: 32 @6095 has 47 MA's), (39, 6125), (40, 6128), (53, 6200), (55, 6212), (58, 6230), (73, 6347), (78, 6371), (79, 6374), (81, 6389), (85, 6416), (86, 6422),

Gene: Agamoto_13 Start: 10199, Stop: 10531, Start Num: 33

Candidate Starts for Agamoto_13:

(Start: 33 @10199 has 45 MA's),

Gene: Akino08_9 Start: 7563, Stop: 7892, Start Num: 33

Candidate Starts for Akino08_9:

(3, 7266), (29, 7560), (Start: 33 @7563 has 45 MA's), (36, 7578), (70, 7788), (74, 7815), (76, 7824), (82, 7848), (83, 7860),

Gene: AnnabelLee_11 Start: 7129, Stop: 7464, Start Num: 31

Candidate Starts for AnnabelLee_11:

(Start: 31 @7129 has 1 MA's), (38, 7159), (74, 7381),

Gene: Aquarius_8 Start: 6088, Stop: 6435, Start Num: 32

Candidate Starts for Aquarius_8:

(17, 6025), (Start: 32 @6088 has 47 MA's), (39, 6118), (40, 6121), (49, 6163), (53, 6193), (55, 6205), (72, 6337), (73, 6340), (79, 6367), (81, 6382), (86, 6415),

Gene: Armstrong_8 Start: 7093, Stop: 7425, Start Num: 33

Candidate Starts for Armstrong_8:

(3, 6796), (Start: 33 @7093 has 45 MA's), (35, 7105), (36, 7108), (43, 7144), (48, 7165), (49, 7168), (62, 7267), (74, 7348),

Gene: Attacne_8 Start: 6099, Stop: 6446, Start Num: 32

Candidate Starts for Attacne_8:

(17, 6036), (Start: 32 @6099 has 47 MA's), (39, 6129), (40, 6132), (49, 6174), (53, 6204), (55, 6216), (58, 6234), (64, 6288), (67, 6309), (73, 6351), (79, 6378), (81, 6393), (86, 6426),

Gene: Audell_14 Start: 10469, Stop: 10801, Start Num: 33

Candidate Starts for Audell_14:

(Start: 33 @10469 has 45 MA's), (68, 10673),

Gene: AvGardian_9 Start: 7373, Stop: 7702, Start Num: 33

Candidate Starts for AvGardian_9:

(Start: 33 @7373 has 45 MA's), (36, 7388), (53, 7472), (69, 7595), (74, 7625), (82, 7658), (83, 7670),

Gene: AylexOG_10 Start: 7667, Stop: 7996, Start Num: 33

Candidate Starts for AylexOG_10:

(4, 7427), (12, 7571), (Start: 33 @7667 has 45 MA's), (36, 7682), (53, 7766), (54, 7769), (69, 7889), (74, 7919), (76, 7928), (83, 7964),

Gene: BabyYoda_9 Start: 7566, Stop: 7895, Start Num: 33

Candidate Starts for BabyYoda_9:

(29, 7563), (Start: 33 @7566 has 45 MA's), (36, 7581), (69, 7788), (70, 7791), (74, 7818), (83, 7863),

Gene: Bachaco_9 Start: 7457, Stop: 7786, Start Num: 33

Candidate Starts for Bachaco_9:

(29, 7454), (Start: 33 @7457 has 45 MA's), (36, 7472), (43, 7505), (69, 7679), (74, 7709), (83, 7754), (87, 7772),

Gene: BaileyBlu_9 Start: 6175, Stop: 6513, Start Num: 30

Candidate Starts for BaileyBlu_9:

(23, 6163), (Start: 30 @6175 has 2 MA's), (52, 6277), (60, 6322), (61, 6340), (63, 6346), (67, 6376),

Gene: Bernstein_8 Start: 7153, Stop: 7485, Start Num: 33

Candidate Starts for Bernstein_8:

(3, 6856), (Start: 33 @7153 has 45 MA's), (35, 7165), (36, 7168), (43, 7204), (48, 7225), (49, 7228), (62, 7327), (74, 7408),

Gene: Brahms_8 Start: 7093, Stop: 7425, Start Num: 33

Candidate Starts for Brahms_8:

(3, 6796), (Start: 33 @7093 has 45 MA's), (35, 7105), (36, 7108), (43, 7144), (48, 7165), (49, 7168), (62, 7267), (74, 7348),

Gene: BruceLethal_8 Start: 6088, Stop: 6435, Start Num: 32

Candidate Starts for BruceLethal_8:

(8, 5941), (9, 5944), (14, 5992), (17, 6025), (24, 6061), (25, 6064), (Start: 32 @6088 has 47 MA's), (39, 6118), (40, 6121), (47, 6151), (53, 6193), (58, 6223), (64, 6277), (67, 6298), (72, 6337), (73, 6340), (78,

6364), (79, 6367), (81, 6382), (86, 6415),

Gene: Buldak_9 Start: 7601, Stop: 7930, Start Num: 33

Candidate Starts for Buldak_9:

(3, 7304), (Start: 33 @7601 has 45 MA's), (36, 7616), (40, 7631), (43, 7649), (46, 7655), (50, 7676), (62, 7772), (74, 7853), (82, 7886),

Gene: CallinAllBarbz_9 Start: 6185, Stop: 6523, Start Num: 30

Candidate Starts for CallinAllBarbz_9:

(23, 6173), (Start: 30 @6185 has 2 MA's), (51, 6281), (52, 6287), (60, 6332), (61, 6350), (63, 6356), (67, 6386),

Gene: CanFranMach_9 Start: 7340, Stop: 7669, Start Num: 33

Candidate Starts for CanFranMach_9:

(Start: 33 @7340 has 45 MA's), (36, 7355), (45, 7391), (48, 7409), (69, 7562), (74, 7592), (83, 7637),

Gene: CardboardBox_11 Start: 7129, Stop: 7464, Start Num: 31

Candidate Starts for CardboardBox_11:

(Start: 31 @7129 has 1 MA's), (38, 7159), (74, 7381),

Gene: Cashington_9 Start: 7342, Stop: 7671, Start Num: 33

Candidate Starts for Cashington_9:

(Start: 33 @7342 has 45 MA's), (36, 7357), (74, 7594), (83, 7639),

Gene: Celaena_9 Start: 7394, Stop: 7723, Start Num: 33

Candidate Starts for Celaena_9:

(29, 7391), (Start: 33 @7394 has 45 MA's), (36, 7409), (43, 7442), (69, 7616), (74, 7646), (83, 7691), (87, 7709),

Gene: ChamoyPickle_11 Start: 7129, Stop: 7464, Start Num: 31

Candidate Starts for ChamoyPickle_11:

(Start: 31 @7129 has 1 MA's), (38, 7159), (74, 7381),

Gene: ChipsNGuac_11 Start: 7129, Stop: 7464, Start Num: 31

Candidate Starts for ChipsNGuac_11:

(Start: 31 @7129 has 1 MA's), (38, 7159), (74, 7381),

Gene: Clayda5_8 Start: 7093, Stop: 7425, Start Num: 33

Candidate Starts for Clayda5_8:

(3, 6796), (Start: 33 @7093 has 45 MA's), (35, 7105), (36, 7108), (43, 7144), (48, 7165), (49, 7168), (62, 7267), (74, 7348),

Gene: Coltrane_8 Start: 7093, Stop: 7425, Start Num: 33

Candidate Starts for Coltrane_8:

(3, 6796), (Start: 33 @7093 has 45 MA's), (35, 7105), (36, 7108), (43, 7144), (48, 7165), (49, 7168), (62, 7267), (74, 7348),

Gene: Cota_8 Start: 6106, Stop: 6453, Start Num: 32

Candidate Starts for Cota_8:

(14, 6010), (17, 6043), (Start: 32 @6106 has 47 MA's), (39, 6136), (40, 6139), (53, 6211), (55, 6223), (64, 6295), (67, 6316), (73, 6358), (78, 6382), (79, 6385), (81, 6400), (86, 6433),

Gene: CupcakePrincess_9 Start: 7302, Stop: 7631, Start Num: 33

Candidate Starts for CupcakePrincess_9:

(4, 7062), (12, 7206), (Start: 33 @7302 has 45 MA's), (36, 7317), (53, 7401), (74, 7554), (83, 7599), (85, 7605),

Gene: Cygnet_10 Start: 7689, Stop: 8027, Start Num: 32

Candidate Starts for Cygnet_10:

(10, 7557), (16, 7623), (Start: 32 @7689 has 47 MA's), (40, 7722), (42, 7734), (54, 7797), (57, 7815), (74, 7947), (83, 7998),

Gene: DirtyBubble_9 Start: 7574, Stop: 7903, Start Num: 33

Candidate Starts for DirtyBubble_9:

(3, 7277), (4, 7334), (29, 7571), (Start: 33 @7574 has 45 MA's), (36, 7589), (69, 7796), (70, 7799), (74, 7826), (83, 7871),

Gene: Doobus_9 Start: 7556, Stop: 7885, Start Num: 33

Candidate Starts for Doobus_9:

(Start: 33 @7556 has 45 MA's), (36, 7571), (74, 7808), (83, 7853),

Gene: DrParker_8 Start: 6113, Stop: 6460, Start Num: 32

Candidate Starts for DrParker_8:

(5, 5957), (7, 5963), (8, 5966), (9, 5969), (11, 6008), (14, 6017), (15, 6029), (17, 6050), (Start: 32 @6113 has 47 MA's), (39, 6143), (40, 6146), (47, 6176), (49, 6188), (53, 6218), (55, 6230), (64, 6302), (67, 6323), (73, 6365), (79, 6392), (81, 6407), (86, 6440),

Gene: Eden_8 Start: 7182, Stop: 7514, Start Num: 33

Candidate Starts for Eden_8:

(Start: 33 @7182 has 45 MA's), (35, 7194), (36, 7197), (43, 7233), (71, 7416),

Gene: Elfy_8 Start: 6109, Stop: 6465, Start Num: 31

Candidate Starts for Elfy_8:

(Start: 31 @6109 has 1 MA's), (41, 6151), (44, 6163), (49, 6184), (51, 6205), (58, 6244), (59, 6250), (60, 6274), (61, 6292), (62, 6295), (67, 6328), (75, 6382), (88, 6454),

Gene: Elva_10 Start: 7631, Stop: 7960, Start Num: 33

Candidate Starts for Elva_10:

(3, 7334), (29, 7628), (Start: 33 @7631 has 45 MA's), (36, 7646), (69, 7853), (70, 7856), (74, 7883), (83, 7928),

Gene: Enochoraptor_8 Start: 6109, Stop: 6456, Start Num: 32

Candidate Starts for Enochoraptor_8:

(5, 5953), (7, 5959), (8, 5962), (9, 5965), (11, 6004), (12, 6007), (14, 6013), (17, 6046), (24, 6082), (25, 6085), (Start: 32 @6109 has 47 MA's), (37, 6136), (39, 6139), (40, 6142), (49, 6184), (55, 6226), (64, 6298), (67, 6319), (73, 6361), (78, 6385), (79, 6388), (81, 6403), (86, 6436),

Gene: Enoki_8 Start: 6094, Stop: 6441, Start Num: 32

Candidate Starts for Enoki_8:

(5, 5938), (9, 5950), (14, 5998), (17, 6031), (Start: 32 @6094 has 47 MA's), (39, 6124), (40, 6127), (49, 6169), (53, 6199), (55, 6211), (64, 6283), (73, 6346), (78, 6370), (79, 6373), (81, 6388), (86, 6421),

Gene: Eula_9 Start: 7323, Stop: 7652, Start Num: 33

Candidate Starts for Eula_9:

(4, 7083), (12, 7227), (Start: 33 @7323 has 45 MA's), (36, 7338), (53, 7422), (74, 7575), (83, 7620), (85, 7626),

Gene: Ezurina_10 Start: 6694, Stop: 7029, Start Num: 31

Candidate Starts for Ezurina_10:

(Start: 31 @6694 has 1 MA's), (74, 6946),

Gene: Finalfrontier_10 Start: 7834, Stop: 8163, Start Num: 33

Candidate Starts for Finalfrontier_10:

(4, 7594), (12, 7738), (Start: 33 @7834 has 45 MA's), (36, 7849), (53, 7933), (54, 7936), (69, 8056), (74, 8086), (76, 8095), (83, 8131),

Gene: FlameThrower_9 Start: 7282, Stop: 7611, Start Num: 33

Candidate Starts for FlameThrower_9:

(2, 6853), (3, 6985), (29, 7279), (Start: 33 @7282 has 45 MA's), (36, 7297), (43, 7330), (69, 7504), (74, 7534), (83, 7579), (87, 7597),

Gene: Franklin22_8 Start: 7163, Stop: 7495, Start Num: 33

Candidate Starts for Franklin22_8:

(29, 7160), (Start: 33 @7163 has 45 MA's), (35, 7175), (36, 7178), (46, 7220), (53, 7265), (57, 7286), (74, 7418),

Gene: Gack_8 Start: 7233, Stop: 7565, Start Num: 33

Candidate Starts for Gack_8:

(Start: 33 @7233 has 45 MA's), (35, 7245), (36, 7248), (40, 7266), (50, 7311), (60, 7386), (74, 7488),

Gene: Gerri43_11 Start: 7129, Stop: 7464, Start Num: 31

Candidate Starts for Gerri43_11:

(Start: 31 @7129 has 1 MA's), (38, 7159), (74, 7381),

Gene: GrimEater_10 Start: 6187, Stop: 6525, Start Num: 30

Candidate Starts for GrimEater_10:

(Start: 30 @6187 has 2 MA's), (50, 6265), (60, 6334), (61, 6352), (67, 6388),

Gene: Icarian_10 Start: 7557, Stop: 7886, Start Num: 33

Candidate Starts for Icarian_10:

(3, 7260), (29, 7554), (Start: 33 @7557 has 45 MA's), (36, 7572), (70, 7782), (74, 7809), (83, 7854),

Gene: Jabb_9 Start: 7302, Stop: 7631, Start Num: 33

Candidate Starts for Jabb_9:

(4, 7062), (12, 7206), (Start: 33 @7302 has 45 MA's), (36, 7317), (53, 7401), (74, 7554), (83, 7599), (85, 7605),

Gene: Jovita_9 Start: 7424, Stop: 7753, Start Num: 33

Candidate Starts for Jovita_9:

(4, 7184), (12, 7328), (Start: 33 @7424 has 45 MA's), (36, 7439), (53, 7523), (74, 7676), (83, 7721), (85, 7727),

Gene: Katzastrophic_9 Start: 7457, Stop: 7786, Start Num: 33

Candidate Starts for Katzastrophic_9:

(29, 7454), (Start: 33 @7457 has 45 MA's), (36, 7472), (43, 7505), (69, 7679), (74, 7709), (83, 7754), (87, 7772),

Gene: Keiki_8 Start: 6106, Stop: 6453, Start Num: 32

Candidate Starts for Keiki_8:

(14, 6010), (17, 6043), (Start: 32 @6106 has 47 MA's), (39, 6136), (40, 6139), (53, 6211), (55, 6223), (64, 6295), (67, 6316), (73, 6358), (78, 6382), (79, 6385), (81, 6400), (86, 6433),

Gene: Kubed_8 Start: 6096, Stop: 6443, Start Num: 32

Candidate Starts for Kubed_8:

(13, 5997), (17, 6033), (Start: 32 @6096 has 47 MA's), (39, 6126), (40, 6129), (49, 6171), (53, 6201), (55, 6213), (64, 6285), (73, 6348), (78, 6372), (79, 6375), (81, 6390), (86, 6423),

Gene: LastNadiia_14 Start: 9421, Stop: 9753, Start Num: 33

Candidate Starts for LastNadiia_14:

(Start: 33 @9421 has 45 MA's),

Gene: Lauchelly_8 Start: 6091, Stop: 6438, Start Num: 32

Candidate Starts for Lauchelly_8:

(5, 5935), (9, 5947), (14, 5995), (17, 6028), (25, 6067), (Start: 32 @6091 has 47 MA's), (39, 6121), (40, 6124), (53, 6196), (55, 6208), (73, 6343), (78, 6367), (79, 6370), (81, 6385), (86, 6418),

Gene: Leviosa_8 Start: 6112, Stop: 6459, Start Num: 32

Candidate Starts for Leviosa_8:

(5, 5956), (9, 5968), (14, 6016), (17, 6049), (25, 6088), (Start: 32 @6112 has 47 MA's), (39, 6142), (40, 6145), (47, 6175), (49, 6187), (53, 6217), (55, 6229), (56, 6235), (64, 6301), (67, 6322), (73, 6364), (78, 6388), (79, 6391), (81, 6406), (86, 6439),

Gene: LilBandit_8 Start: 6096, Stop: 6443, Start Num: 32

Candidate Starts for LilBandit_8:

(17, 6033), (Start: 32 @6096 has 47 MA's), (39, 6126), (40, 6129), (49, 6171), (53, 6201), (55, 6213), (64, 6285), (67, 6306), (73, 6348), (79, 6375), (81, 6390), (86, 6423),

Gene: LisoBros_9 Start: 6471, Stop: 6812, Start Num: 31

Candidate Starts for LisoBros_9:

(Start: 31 @6471 has 1 MA's), (41, 6513), (49, 6546), (52, 6573), (61, 6636), (63, 6642), (67, 6672), (77, 6738), (85, 6786), (88, 6801),

Gene: Loviatar_9 Start: 7578, Stop: 7907, Start Num: 33

Candidate Starts for Loviatar_9:

(3, 7281), (29, 7575), (Start: 33 @7578 has 45 MA's), (36, 7593), (70, 7803), (74, 7830), (76, 7839), (82, 7863), (83, 7875),

Gene: MEAK_8 Start: 6098, Stop: 6445, Start Num: 32

Candidate Starts for MEAK_8:

(17, 6035), (25, 6074), (Start: 32 @6098 has 47 MA's), (39, 6128), (40, 6131), (53, 6203), (55, 6215), (64, 6287), (67, 6308), (73, 6350), (79, 6377), (81, 6392), (86, 6425),

Gene: Makima_12 Start: 8520, Stop: 8837, Start Num: 33

Candidate Starts for Makima_12:

(Start: 33 @8520 has 45 MA's), (74, 8769),

Gene: Mireles_11 Start: 6901, Stop: 7233, Start Num: 27

Candidate Starts for Mireles_11:

(27, 6901), (Start: 33 @6916 has 45 MA's), (74, 7165),

Gene: Moyashi_8 Start: 6116, Stop: 6463, Start Num: 32

Candidate Starts for Moyashi_8:

(5, 5960), (7, 5966), (8, 5969), (9, 5972), (11, 6011), (14, 6020), (17, 6053), (Start: 32 @6116 has 47 MA's), (39, 6146), (40, 6149), (49, 6191), (53, 6221), (55, 6233), (64, 6305), (67, 6326), (73, 6368), (79, 6395), (81, 6410), (86, 6443),

Gene: MrAK_8 Start: 6125, Stop: 6472, Start Num: 32

Candidate Starts for MrAK_8:

(17, 6062), (Start: 32 @6125 has 47 MA's), (39, 6155), (40, 6158), (49, 6200), (53, 6230), (55, 6242), (64, 6314), (73, 6377), (79, 6404), (81, 6419), (86, 6452),

Gene: MsUbiquitous_9 Start: 7302, Stop: 7631, Start Num: 33

Candidate Starts for MsUbiquitous_9:

(4, 7062), (12, 7206), (Start: 33 @7302 has 45 MA's), (36, 7317), (53, 7401), (74, 7554), (83, 7599), (85, 7605),

Gene: Neuville_11 Start: 7129, Stop: 7464, Start Num: 31

Candidate Starts for Neuville_11:

(Start: 31 @7129 has 1 MA's), (38, 7159), (74, 7381),

Gene: Nicky22_10 Start: 7773, Stop: 8102, Start Num: 33

Candidate Starts for Nicky22_10:

(4, 7533), (12, 7677), (Start: 33 @7773 has 45 MA's), (36, 7788), (53, 7872), (69, 7995), (74, 8025), (83, 8070),

Gene: Olliecat_9 Start: 7556, Stop: 7885, Start Num: 33

Candidate Starts for Olliecat_9:

(Start: 33 @7556 has 45 MA's), (36, 7571), (43, 7604), (46, 7610), (50, 7631), (62, 7727), (74, 7808), (82, 7841),

Gene: Ouroboros_8 Start: 6099, Stop: 6446, Start Num: 32

Candidate Starts for Ouroboros_8:

(17, 6036), (24, 6072), (25, 6075), (Start: 32 @6099 has 47 MA's), (39, 6129), (40, 6132), (53, 6204), (55, 6216), (64, 6288), (67, 6309), (73, 6351), (79, 6378), (81, 6393), (86, 6426),

Gene: P1.1_8 Start: 6099, Stop: 6446, Start Num: 32

Candidate Starts for P1.1_8:

(5, 5943), (7, 5949), (8, 5952), (9, 5955), (11, 5994), (14, 6003), (17, 6036), (Start: 32 @6099 has 47 MA's), (40, 6132), (53, 6204), (55, 6216), (64, 6288), (67, 6309), (73, 6351), (78, 6375), (79, 6378), (81, 6393), (86, 6426),

Gene: P100.1_8 Start: 6089, Stop: 6436, Start Num: 32

Candidate Starts for P100.1_8:

(17, 6026), (Start: 32 @6089 has 47 MA's), (39, 6119), (40, 6122), (49, 6164), (53, 6194), (55, 6206), (64, 6278), (73, 6341), (79, 6368), (81, 6383), (86, 6416),

Gene: P100A_8 Start: 6111, Stop: 6458, Start Num: 32

Candidate Starts for P100A_8:

(15, 6027), (17, 6048), (24, 6084), (25, 6087), (Start: 32 @6111 has 47 MA's), (39, 6141), (40, 6144), (53, 6216), (55, 6228), (58, 6246), (64, 6300), (65, 6303), (73, 6363), (78, 6387), (79, 6390), (81, 6405), (86, 6438),

Gene: P100D_8 Start: 6093, Stop: 6440, Start Num: 32

Candidate Starts for P100D_8:

(17, 6030), (Start: 32 @6093 has 47 MA's), (39, 6123), (40, 6126), (49, 6168), (53, 6198), (55, 6210), (64, 6282), (73, 6345), (78, 6369), (79, 6372), (81, 6387), (86, 6420),

Gene: P101A_8 Start: 6092, Stop: 6439, Start Num: 32

Candidate Starts for P101A_8:

(5, 5936), (7, 5942), (8, 5945), (9, 5948), (11, 5987), (14, 5996), (17, 6029), (Start: 32 @6092 has 47 MA's), (39, 6122), (40, 6125), (49, 6167), (53, 6197), (55, 6209), (64, 6281), (73, 6344), (78, 6368), (79, 6371), (81, 6386), (86, 6419),

Gene: P104A_8 Start: 6094, Stop: 6441, Start Num: 32

Candidate Starts for P104A_8:

(17, 6031), (Start: 32 @6094 has 47 MA's), (39, 6124), (40, 6127), (49, 6169), (53, 6199), (55, 6211), (64, 6283), (73, 6346), (79, 6373), (81, 6388), (86, 6421),

Gene: P104B_8 Start: 6098, Stop: 6445, Start Num: 32

Candidate Starts for P104B_8:

(17, 6035), (Start: 32 @6098 has 47 MA's), (39, 6128), (40, 6131), (53, 6203), (55, 6215), (64, 6287), (67, 6308), (73, 6350), (78, 6374), (79, 6377), (81, 6392), (86, 6425),

Gene: P105_8 Start: 6088, Stop: 6435, Start Num: 32

Candidate Starts for P105_8:

(17, 6025), (Start: 32 @6088 has 47 MA's), (39, 6118), (40, 6121), (49, 6163), (53, 6193), (55, 6205), (64, 6277), (67, 6298), (72, 6337), (73, 6340), (78, 6364), (79, 6367), (81, 6382), (86, 6415),

Gene: P106A_8 Start: 6116, Stop: 6463, Start Num: 32

Candidate Starts for P106A_8:

(5, 5960), (7, 5966), (8, 5969), (9, 5972), (14, 6020), (17, 6053), (Start: 32 @6116 has 47 MA's), (39, 6146), (40, 6149), (49, 6191), (53, 6221), (55, 6233), (64, 6305), (67, 6326), (73, 6368), (79, 6395), (81, 6410), (86, 6443),

Gene: P106C_8 Start: 6116, Stop: 6463, Start Num: 32

Candidate Starts for P106C_8:

(5, 5960), (7, 5966), (8, 5969), (9, 5972), (14, 6020), (17, 6053), (Start: 32 @6116 has 47 MA's), (39, 6146), (40, 6149), (49, 6191), (53, 6221), (55, 6233), (64, 6305), (67, 6326), (73, 6368), (79, 6395), (81, 6410), (86, 6443),

Gene: P106I_8 Start: 6116, Stop: 6463, Start Num: 32

Candidate Starts for P106I_8:

(5, 5960), (7, 5966), (8, 5969), (9, 5972), (14, 6020), (17, 6053), (Start: 32 @6116 has 47 MA's), (39, 6146), (40, 6149), (49, 6191), (53, 6221), (55, 6233), (64, 6305), (67, 6326), (73, 6368), (79, 6395), (81, 6410), (86, 6443),

Gene: P106L_8 Start: 6116, Stop: 6463, Start Num: 32

Candidate Starts for P106L_8:

(5, 5960), (7, 5966), (8, 5969), (9, 5972), (14, 6020), (17, 6053), (Start: 32 @6116 has 47 MA's), (39, 6146), (40, 6149), (49, 6191), (53, 6221), (55, 6233), (64, 6305), (67, 6326), (73, 6368), (79, 6395), (81, 6410), (86, 6443),

Gene: P106M_8 Start: 6116, Stop: 6463, Start Num: 32

Candidate Starts for P106M_8:

(5, 5960), (7, 5966), (8, 5969), (9, 5972), (14, 6020), (17, 6053), (Start: 32 @6116 has 47 MA's), (39, 6146), (40, 6149), (49, 6191), (53, 6221), (55, 6233), (64, 6305), (67, 6326), (73, 6368), (79, 6395), (81, 6410), (86, 6443),

Gene: P107A_8 Start: 6102, Stop: 6449, Start Num: 32

Candidate Starts for P107A_8:

(17, 6039), (25, 6078), (Start: 32 @6102 has 47 MA's), (39, 6132), (40, 6135), (53, 6207), (55, 6219), (58, 6237), (64, 6291), (65, 6294), (67, 6312), (73, 6354), (78, 6378), (79, 6381), (81, 6396), (86, 6429),

Gene: P107C_8 Start: 6098, Stop: 6445, Start Num: 32

Candidate Starts for P107C_8:

(17, 6035), (Start: 32 @6098 has 47 MA's), (39, 6128), (40, 6131), (49, 6173), (53, 6203), (55, 6215), (64, 6287), (67, 6308), (73, 6350), (78, 6374), (79, 6377), (81, 6392), (86, 6425),

Gene: P108C_8 Start: 6102, Stop: 6449, Start Num: 32

Candidate Starts for P108C_8:

(17, 6039), (Start: 32 @6102 has 47 MA's), (39, 6132), (40, 6135), (49, 6177), (55, 6219), (64, 6291), (67, 6312), (73, 6354), (78, 6378), (79, 6381), (81, 6396), (86, 6429),

Gene: P14.4_8 Start: 6093, Stop: 6440, Start Num: 32

Candidate Starts for P14.4_8:

(17, 6030), (Start: 32 @6093 has 47 MA's), (39, 6123), (40, 6126), (49, 6168), (53, 6198), (55, 6210), (64, 6282), (67, 6303), (73, 6345), (79, 6372), (81, 6387), (86, 6420),

Gene: P9.1_8 Start: 6091, Stop: 6438, Start Num: 32

Candidate Starts for P9.1_8:

(Start: 32 @6091 has 47 MA's), (39, 6121), (40, 6124), (49, 6166), (53, 6196), (55, 6208), (64, 6280), (67, 6301), (73, 6343), (78, 6367), (79, 6370), (81, 6385), (86, 6418),

Gene: PA6_8 Start: 6101, Stop: 6448, Start Num: 32

Candidate Starts for PA6_8:

(17, 6038), (24, 6074), (Start: 32 @6101 has 47 MA's), (39, 6131), (40, 6134), (49, 6176), (53, 6206), (55, 6218), (64, 6290), (67, 6311), (72, 6350), (79, 6380), (81, 6395), (86, 6428),

Gene: PAD20_8 Start: 6099, Stop: 6446, Start Num: 32

Candidate Starts for PAD20_8:

(Start: 32 @6099 has 47 MA's), (39, 6129), (40, 6132), (53, 6204), (55, 6216), (64, 6288), (73, 6351), (78, 6375), (79, 6378), (81, 6393), (86, 6426),

Gene: PAS50_8 Start: 6096, Stop: 6443, Start Num: 32

Candidate Starts for PAS50_8:

(17, 6033), (Start: 32 @6096 has 47 MA's), (39, 6126), (40, 6129), (49, 6171), (53, 6201), (55, 6213), (58, 6231), (64, 6285), (67, 6306), (73, 6348), (78, 6372), (79, 6375), (81, 6390), (86, 6423),

Gene: PHL010M04_08 Start: 6091, Stop: 6438, Start Num: 32

Candidate Starts for PHL010M04_08:

(5, 5935), (7, 5941), (9, 5947), (11, 5986), (14, 5995), (17, 6028), (Start: 32 @6091 has 47 MA's), (39, 6121), (40, 6124), (53, 6196), (55, 6208), (58, 6226), (64, 6280), (73, 6343), (78, 6367), (79, 6370), (81, 6385), (86, 6418),

Gene: PHL037M02_08 Start: 6097, Stop: 6444, Start Num: 32

Candidate Starts for PHL037M02_08:

(17, 6034), (Start: 32 @6097 has 47 MA's), (39, 6127), (40, 6130), (47, 6160), (53, 6202), (55, 6214), (64, 6286), (67, 6307), (72, 6346), (73, 6349), (79, 6376), (81, 6391), (86, 6424),

Gene: PHL060L00_08 Start: 6089, Stop: 6436, Start Num: 32

Candidate Starts for PHL060L00_08:

(5, 5933), (7, 5939), (8, 5942), (9, 5945), (11, 5984), (14, 5993), (17, 6026), (Start: 32 @6089 has 47 MA's), (39, 6119), (40, 6122), (49, 6164), (53, 6194), (55, 6206), (64, 6278), (67, 6299), (73, 6341), (78, 6365), (79, 6368), (81, 6383), (86, 6416),

Gene: PHL067M10_08 Start: 6093, Stop: 6440, Start Num: 32

Candidate Starts for PHL067M10_08:

(17, 6030), (Start: 32 @6093 has 47 MA's), (39, 6123), (40, 6126), (49, 6168), (53, 6198), (55, 6210), (64, 6282), (72, 6342), (73, 6345), (79, 6372), (81, 6387), (86, 6420),

Gene: PHL071N05_08 Start: 6095, Stop: 6442, Start Num: 32

Candidate Starts for PHL071N05_08:

(17, 6032), (Start: 32 @6095 has 47 MA's), (39, 6125), (40, 6128), (49, 6170), (55, 6212), (64, 6284), (67, 6305), (73, 6347), (78, 6371), (79, 6374), (81, 6389), (86, 6422),

Gene: PHL111M01_08 Start: 6099, Stop: 6446, Start Num: 32

Candidate Starts for PHL111M01_08:

(17, 6036), (Start: 32 @6099 has 47 MA's), (39, 6129), (40, 6132), (53, 6204), (55, 6216), (64, 6288), (73, 6351), (78, 6375), (79, 6378), (81, 6393), (86, 6426),

Gene: PHL112N00_08 Start: 6099, Stop: 6446, Start Num: 32

Candidate Starts for PHL112N00_08:

(17, 6036), (18, 6039), (Start: 32 @6099 has 47 MA's), (39, 6129), (40, 6132), (53, 6204), (55, 6216), (64, 6288), (67, 6309), (72, 6348), (73, 6351), (79, 6378), (81, 6393), (86, 6426),

Gene: PHL113M01_08 Start: 6099, Stop: 6446, Start Num: 32

Candidate Starts for PHL113M01_08:

(17, 6036), (Start: 32 @6099 has 47 MA's), (39, 6129), (40, 6132), (53, 6204), (55, 6216), (64, 6288), (67, 6309), (73, 6351), (79, 6378), (81, 6393), (86, 6426),

Gene: PHL114L00_08 Start: 6098, Stop: 6445, Start Num: 32

Candidate Starts for PHL114L00_08:

(6, 5945), (8, 5951), (9, 5954), (11, 5993), (12, 5996), (17, 6035), (25, 6074), (Start: 32 @6098 has 47 MA's), (37, 6125), (39, 6128), (40, 6131), (49, 6173), (53, 6203), (55, 6215), (73, 6350), (79, 6377), (81, 6392), (86, 6425),

Gene: Pecos_9 Start: 7323, Stop: 7652, Start Num: 33

Candidate Starts for Pecos_9:

(4, 7083), (12, 7227), (Start: 33 @7323 has 45 MA's), (36, 7338), (53, 7422), (74, 7575), (83, 7620), (85, 7626),

Gene: Pirate_8 Start: 6091, Stop: 6438, Start Num: 32

Candidate Starts for Pirate_8:

(17, 6028), (Start: 32 @6091 has 47 MA's), (39, 6121), (40, 6124), (49, 6166), (55, 6208), (64, 6280), (67, 6301), (73, 6343), (78, 6367), (79, 6370), (81, 6385), (86, 6418),

Gene: PondAmelia_12 Start: 7567, Stop: 7896, Start Num: 33

Candidate Starts for PondAmelia_12:

(3, 7270), (29, 7564), (Start: 33 @7567 has 45 MA's), (36, 7582), (74, 7819), (83, 7864),

Gene: Procrass1_8 Start: 6098, Stop: 6445, Start Num: 32

Candidate Starts for Procrass1_8:

(17, 6035), (Start: 32 @6098 has 47 MA's), (39, 6128), (40, 6131), (53, 6203), (55, 6215), (64, 6287), (67, 6308), (73, 6350), (78, 6374), (79, 6377), (81, 6392), (86, 6425),

Gene: QMacho_10 Start: 7806, Stop: 8135, Start Num: 33

Candidate Starts for QMacho_10:

(4, 7566), (12, 7710), (Start: 33 @7806 has 45 MA's), (36, 7821), (53, 7905), (74, 8058), (83, 8103), (85, 8109),

Gene: QueenBey_8 Start: 6092, Stop: 6439, Start Num: 32

Candidate Starts for QueenBey_8:

(8, 5945), (9, 5948), (11, 5987), (12, 5990), (14, 5996), (15, 6008), (17, 6029), (25, 6068), (Start: 32 @6092 has 47 MA's), (39, 6122), (40, 6125), (47, 6155), (53, 6197), (55, 6209), (58, 6227), (64, 6281), (73, 6344), (78, 6368), (79, 6371), (81, 6386), (86, 6419),

Gene: Quenya_10 Start: 7452, Stop: 7781, Start Num: 33

Candidate Starts for Quenya_10:

(2, 7023), (3, 7155), (Start: 33 @7452 has 45 MA's), (36, 7467), (45, 7503), (60, 7602), (69, 7674), (79, 7722), (82, 7737),

Gene: Rileysaurus_8 Start: 6087, Stop: 6434, Start Num: 32

Candidate Starts for Rileysaurus_8:

(5, 5931), (9, 5943), (11, 5982), (12, 5985), (14, 5991), (17, 6024), (25, 6063), (Start: 32 @6087 has 47 MA's), (39, 6117), (40, 6120), (53, 6192), (55, 6204), (64, 6276), (73, 6339), (78, 6363), (79, 6366), (81, 6381), (86, 6414),

Gene: Roberts_11 Start: 7129, Stop: 7464, Start Num: 31

Candidate Starts for Roberts_11:

(Start: 31 @7129 has 1 MA's), (38, 7159), (74, 7381),

Gene: Rollins_8 Start: 7153, Stop: 7485, Start Num: 33

Candidate Starts for Rollins_8:

(3, 6856), (Start: 33 @7153 has 45 MA's), (35, 7165), (36, 7168), (43, 7204), (48, 7225), (49, 7228), (62, 7327), (74, 7408),

Gene: SKKY_8 Start: 6123, Stop: 6470, Start Num: 32

Candidate Starts for SKKY_8:

(5, 5967), (7, 5973), (8, 5976), (9, 5979), (11, 6018), (14, 6027), (17, 6060), (Start: 32 @6123 has 47 MA's), (39, 6153), (40, 6156), (49, 6198), (53, 6228), (55, 6240), (64, 6312), (67, 6333), (73, 6375), (79, 6402), (81, 6417), (86, 6450),

Gene: SPB78_10 Start: 7392, Stop: 7745, Start Num: 31

Candidate Starts for SPB78_10:

(1, 6924), (19, 7338), (22, 7353), (Start: 31 @7392 has 1 MA's), (57, 7515), (64, 7578), (68, 7620), (70, 7638), (73, 7656), (74, 7665), (88, 7734),

Gene: SanaSana_10 Start: 7567, Stop: 7896, Start Num: 33

Candidate Starts for SanaSana_10:

(3, 7270), (29, 7564), (Start: 33 @7567 has 45 MA's), (36, 7582), (69, 7789), (74, 7819), (83, 7864),

Gene: SansAfet_9 Start: 7336, Stop: 7665, Start Num: 33

Candidate Starts for SansAfet_9:

(Start: 33 @7336 has 45 MA's), (36, 7351), (74, 7588), (83, 7633),

Gene: SarBear_9 Start: 7299, Stop: 7628, Start Num: 33

Candidate Starts for SarBear_9:

(4, 7059), (12, 7203), (Start: 33 @7299 has 45 MA's), (36, 7314), (53, 7398), (54, 7401), (69, 7521), (74, 7551), (76, 7560), (83, 7596),

Gene: Skylord_8 Start: 7093, Stop: 7425, Start Num: 33

Candidate Starts for Skylord_8:

(3, 6796), (Start: 33 @7093 has 45 MA's), (35, 7105), (36, 7108), (43, 7144), (48, 7165), (49, 7168), (62, 7267), (74, 7348),

Gene: Slay_9 Start: 7775, Stop: 8104, Start Num: 33

Candidate Starts for Slay_9:

(4, 7535), (12, 7679), (Start: 33 @7775 has 45 MA's), (36, 7790), (53, 7874), (54, 7877), (69, 7997), (74, 8027), (76, 8036), (83, 8072),

Gene: Solid_8 Start: 6099, Stop: 6446, Start Num: 32

Candidate Starts for Solid_8:

(17, 6036), (Start: 32 @6099 has 47 MA's), (39, 6129), (40, 6132), (49, 6174), (53, 6204), (55, 6216), (64, 6288), (67, 6309), (73, 6351), (78, 6375), (79, 6378), (81, 6393), (86, 6426),

Gene: Spartoi_8 Start: 6006, Stop: 6344, Start Num: 33

Candidate Starts for Spartoi_8:

(Start: 33 @6006 has 45 MA's), (34, 6015), (40, 6036), (55, 6117), (61, 6174),

Gene: Squircle_9 Start: 7555, Stop: 7884, Start Num: 33

Candidate Starts for Squircle_9:

(Start: 33 @7555 has 45 MA's), (36, 7570), (43, 7603), (46, 7609), (50, 7630), (62, 7726), (74, 7807), (82, 7840),

Gene: Stoor_9 Start: 7564, Stop: 7893, Start Num: 33

Candidate Starts for Stoor_9:

(3, 7267), (29, 7561), (Start: 33 @7564 has 45 MA's), (36, 7579), (69, 7786), (74, 7816), (83, 7861),

Gene: Stormborn_8 Start: 6095, Stop: 6442, Start Num: 32

Candidate Starts for Stormborn_8:

(17, 6032), (Start: 32 @6095 has 47 MA's), (39, 6125), (40, 6128), (53, 6200), (55, 6212), (64, 6284), (67, 6305), (73, 6347), (78, 6371), (79, 6374), (81, 6389), (86, 6422),

Gene: Studio_11 Start: 6885, Stop: 7220, Start Num: 31

Candidate Starts for Studio_11:

(27, 6873), (Start: 31 @6885 has 1 MA's), (38, 6915),

Gene: Supernova_8 Start: 6091, Stop: 6438, Start Num: 32

Candidate Starts for Supernova_8:

(17, 6028), (Start: 32 @6091 has 47 MA's), (39, 6121), (40, 6124), (49, 6166), (53, 6196), (55, 6208), (64, 6280), (67, 6301), (73, 6343), (78, 6367), (79, 6370), (81, 6385), (86, 6418),

Gene: Swervy_9 Start: 7299, Stop: 7628, Start Num: 33

Candidate Starts for Swervy_9:

(4, 7059), (12, 7203), (Start: 33 @7299 has 45 MA's), (36, 7314), (53, 7398), (54, 7401), (69, 7521), (74, 7551), (76, 7560), (83, 7596),

Gene: TMaxx_11 Start: 7008, Stop: 7340, Start Num: 33

Candidate Starts for TMaxx_11:
(Start: 33 @7008 has 45 MA's), (73, 7248),

Gene: TripleC_14 Start: 10502, Stop: 10834, Start Num: 33
Candidate Starts for TripleC_14:
(Start: 33 @10502 has 45 MA's), (84, 10805),

Gene: TukTuk_9 Start: 7299, Stop: 7628, Start Num: 33
Candidate Starts for TukTuk_9:
(12, 7203), (Start: 33 @7299 has 45 MA's), (36, 7314), (53, 7398), (74, 7551), (83, 7596), (85, 7602),

Gene: VWB_9 Start: 7437, Stop: 7799, Start Num: 28
Candidate Starts for VWB_9:
(20, 7410), (28, 7437), (Start: 31 @7446 has 1 MA's), (49, 7524), (66, 7647), (68, 7674), (70, 7692),
(74, 7719), (80, 7746),

Gene: Vitas_8 Start: 7093, Stop: 7425, Start Num: 33
Candidate Starts for Vitas_8:
(3, 6796), (Start: 33 @7093 has 45 MA's), (35, 7105), (36, 7108), (43, 7144), (48, 7165), (49, 7168),
(62, 7267), (74, 7348),

Gene: WalkingDead_9 Start: 7553, Stop: 7882, Start Num: 33
Candidate Starts for WalkingDead_9:
(3, 7256), (29, 7550), (Start: 33 @7553 has 45 MA's), (36, 7568), (70, 7778), (74, 7805), (76, 7814),
(83, 7850),

Gene: Wizzo_8 Start: 6103, Stop: 6450, Start Num: 32
Candidate Starts for Wizzo_8:
(17, 6040), (Start: 32 @6103 has 47 MA's), (39, 6133), (40, 6136), (49, 6178), (53, 6208), (55, 6220),
(64, 6292), (67, 6313), (73, 6355), (78, 6379), (79, 6382), (81, 6397), (86, 6430),

Gene: Zhuangyuan_11 Start: 8069, Stop: 8407, Start Num: 32
Candidate Starts for Zhuangyuan_11:
(21, 8030), (Start: 32 @8069 has 47 MA's), (42, 8114), (54, 8177), (57, 8195), (74, 8327), (83, 8378),