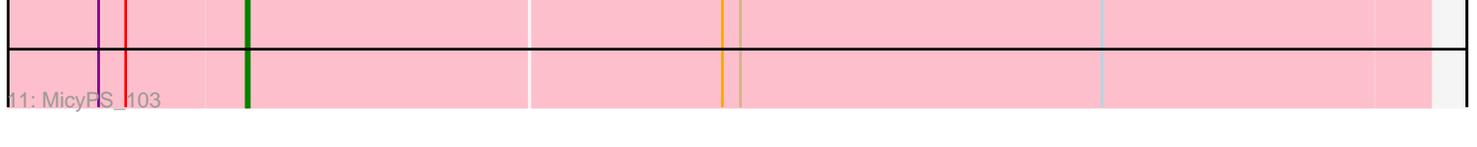
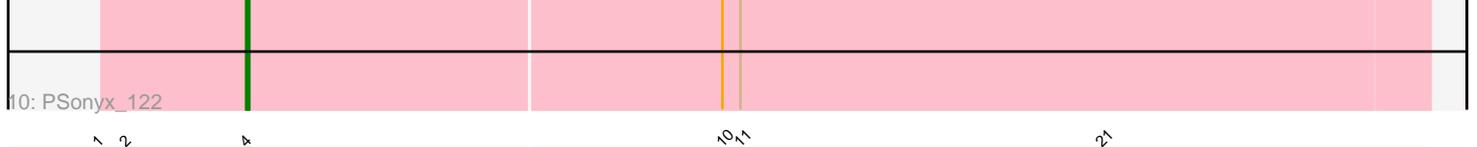
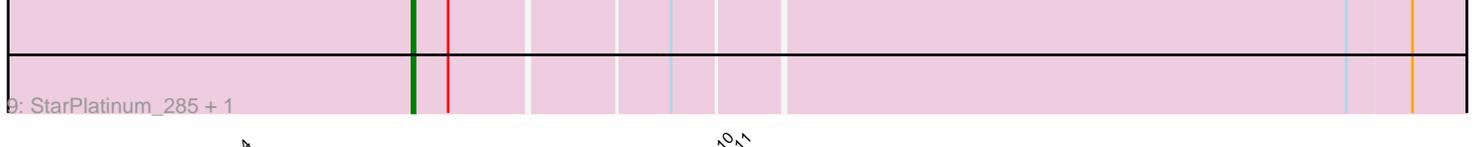
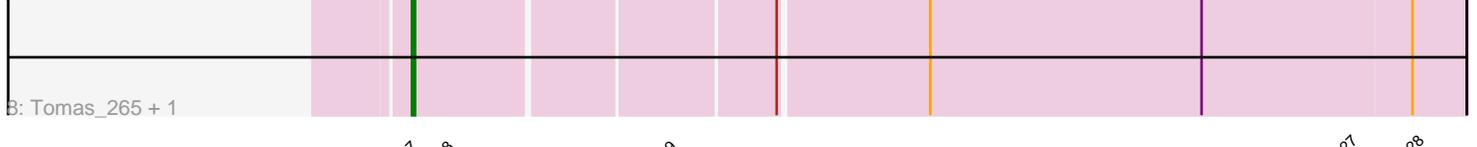
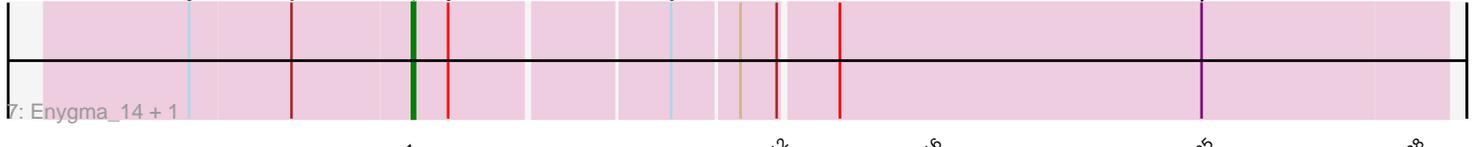
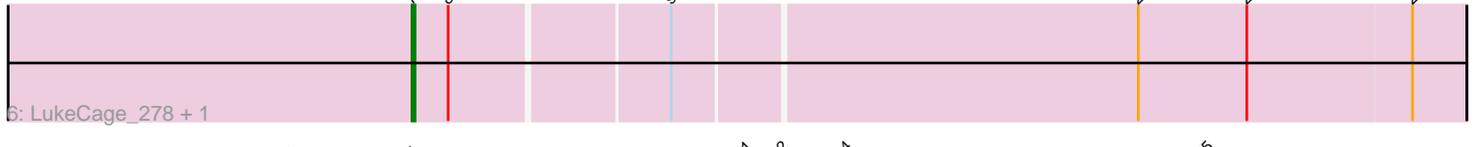
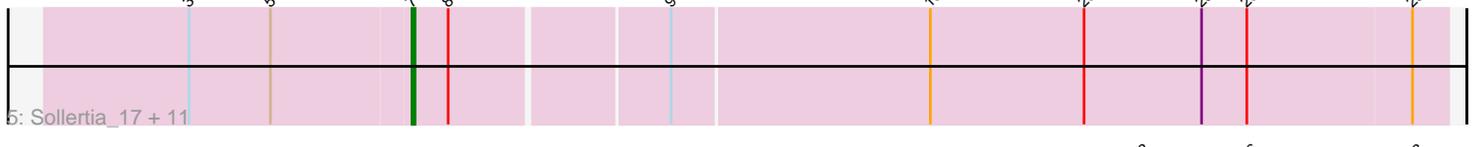
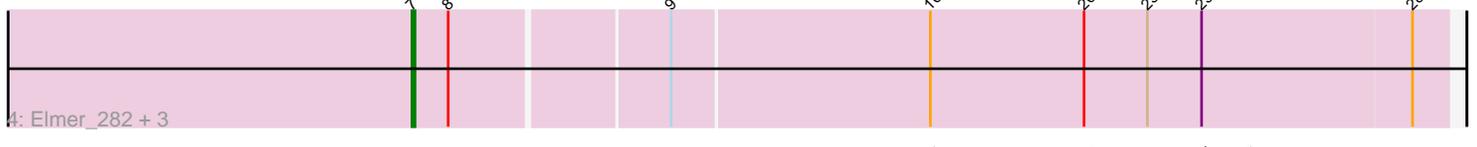
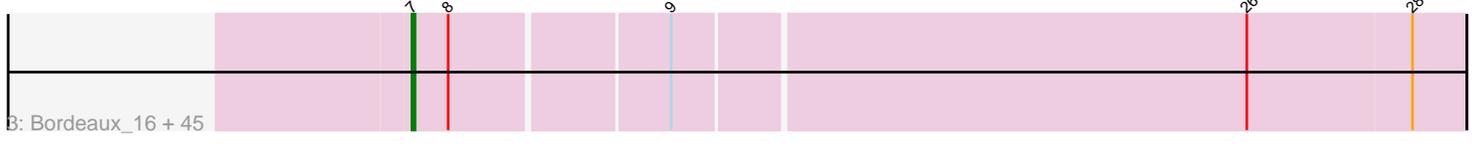
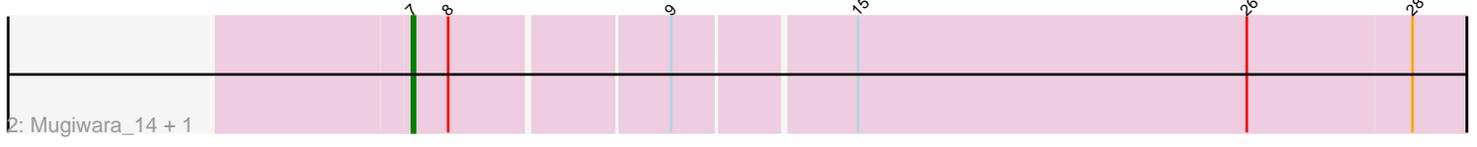
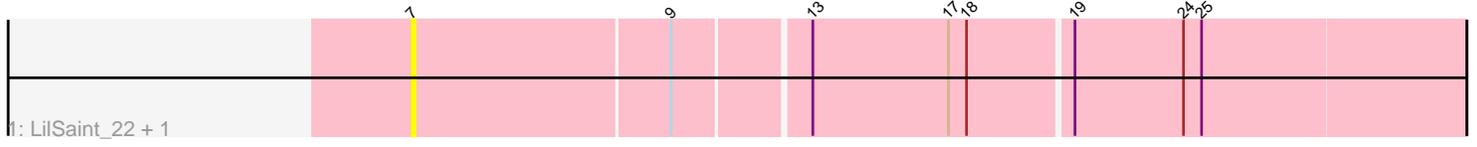


# Pham 283743



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 283743 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283743 has 76 members, 6 are drafts.

Phages represented in each track:

- Track 1 : LilSaint\_22, LilSaint\_284
- Track 2 : Mugiwara\_14, Mugiwara\_281
- Track 3 : Bordeaux\_16, Wipeout\_15, PumpkinSpice\_16, Spelly\_16, Amabiko\_281, MindFlayer\_15, Jollison\_17, IchabodCrane\_15, Starbow\_16, Gibbi\_288, Brizzy\_273, Gibbi\_17, Birchlyn\_13, Battuta\_16, Rikishi\_16, MindFlayer\_267, CeilingFan\_15, Karimac\_274, Quaran19\_16, Battuta\_273, PumpkinSpice\_280, CeilingFan\_281, IchabodCrane\_268, Quaran19\_277, KentuckyRacer\_15, Spilled\_15, Birchlyn\_273, TomSawyer\_281, Starbow\_273, Spelly\_282, AcciDwight\_18, Rikishi\_278, JimJam\_284, Bordeaux\_273, Karimac\_16, Amabiko\_17, Jollison\_274, KentuckyRacer\_283, TomSawyer\_16, Wipeout\_269, Spilled\_283, SaltySpittoon\_276, JimJam\_16, Brizzy\_15, SaltySpittoon\_16, AcciDwight\_288
- Track 4 : Elmer\_282, Wofford\_273, Wofford\_15, Elmer\_15
- Track 5 : Sollertia\_17, Stanimal\_17, Stanimal\_272, BoomerJR\_17, AngryGiraffe\_17, Yaboi\_278, BoomerJR\_272, Genie2\_17, Yaboi\_17, AngryGiraffe\_273, Sollertia\_273, Genie2\_272
- Track 6 : LukeCage\_278, LukeCage\_15
- Track 7 : Enygma\_14, Enygma\_282
- Track 8 : Tomas\_265, Tomas\_9
- Track 9 : StarPlatinum\_285, StarPlatinum\_15
- Track 10 : PSonyx\_122
- Track 11 : MicyPS\_103

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

The start number called the most often in the published annotations is 7, it was called in 68 of the 70 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AcciDwight\_18, AcciDwight\_288, Amabiko\_17, Amabiko\_281, AngryGiraffe\_17, AngryGiraffe\_273, Battuta\_16, Battuta\_273, Birchlyn\_13, Birchlyn\_273, BoomerJR\_17, BoomerJR\_272, Bordeaux\_16, Bordeaux\_273, Brizzy\_15, Brizzy\_273, CeilingFan\_15, CeilingFan\_281, Elmer\_15, Elmer\_282, Enygma\_14, Enygma\_282, Genie2\_17, Genie2\_272, Gibbi\_17, Gibbi\_288, IchabodCrane\_15, IchabodCrane\_268, JimJam\_16, JimJam\_284, Jollison\_17, Jollison\_274,

Karimac\_16, Karimac\_274, KentuckyRacer\_15, KentuckyRacer\_283, LilSaint\_22, LilSaint\_284, LukeCage\_15, LukeCage\_278, MindFlayer\_15, MindFlayer\_267, Mugiwara\_14, Mugiwara\_281, PumpkinSpice\_16, PumpkinSpice\_280, Quaran19\_16, Quaran19\_277, Rikishi\_16, Rikishi\_278, SaltySpittoon\_16, SaltySpittoon\_276, Sollertia\_17, Sollertia\_273, Spelly\_16, Spelly\_282, Spilled\_15, Spilled\_283, Stanimal\_17, Stanimal\_272, StarPlatinum\_15, StarPlatinum\_285, Starbow\_16, Starbow\_273, TomSawyer\_16, TomSawyer\_281, Tomas\_265, Tomas\_9, Wipeout\_15, Wipeout\_269, Wofford\_15, Wofford\_273, Yaboi\_17, Yaboi\_278,

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

- 

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

- MicyPS\_103, PSonyx\_122,

### Summary by start number:

Start 4:

- Found in 2 of 76 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 2 of 70
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MicyPS\_103 (EQ), PSonyx\_122 (EQ),

Start 7:

- Found in 74 of 76 ( 97.4% ) of genes in pham
- Manual Annotations of this start: 68 of 70
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AcciDwight\_18 (BE2), AcciDwight\_288 (BE2), Amabiko\_17 (BE2), Amabiko\_281 (BE2), AngryGiraffe\_17 (BE2), AngryGiraffe\_273 (BE2), Battuta\_16 (BE2), Battuta\_273 (BE2), Birchlyn\_13 (BE2), Birchlyn\_273 (BE2), BoomerJR\_17 (BE2), BoomerJR\_272 (BE2), Bordeaux\_16 (BE2), Bordeaux\_273 (BE2), Brizzy\_15 (BE2), Brizzy\_273 (BE2), CeilingFan\_15 (BE2), CeilingFan\_281 (BE2), Elmer\_15 (BE2), Elmer\_282 (BE2), Enygma\_14 (BE2), Enygma\_282 (BE2), Genie2\_17 (BE2), Genie2\_272 (BE2), Gibbi\_17 (BE2), Gibbi\_288 (BE2), IchabodCrane\_15 (BE2), IchabodCrane\_268 (BE2), JimJam\_16 (BE2), JimJam\_284 (BE2), Jollison\_17 (BE2), Jollison\_274 (BE2), Karimac\_16 (BE2), Karimac\_274 (BE2), KentuckyRacer\_15 (BE2), KentuckyRacer\_283 (BE2), LilSaint\_22 (BE1), LilSaint\_284 (BE1), LukeCage\_15 (BE2), LukeCage\_278 (BE2), MindFlayer\_15 (BE2), MindFlayer\_267 (BE2), Mugiwara\_14 (BE2), Mugiwara\_281 (BE2), PumpkinSpice\_16 (BE2), PumpkinSpice\_280 (BE2), Quaran19\_16 (BE2), Quaran19\_277 (BE2), Rikishi\_16 (BE2), Rikishi\_278 (BE2), SaltySpittoon\_16 (BE2), SaltySpittoon\_276 (BE2), Sollertia\_17 (BE2), Sollertia\_273 (BE2), Spelly\_16 (BE2), Spelly\_282 (BE2), Spilled\_15 (BE2), Spilled\_283 (BE2), Stanimal\_17 (BE2), Stanimal\_272 (BE2), StarPlatinum\_15 (BE2), StarPlatinum\_285 (BE2), Starbow\_16 (BE2), Starbow\_273 (BE2), TomSawyer\_16 (BE2), TomSawyer\_281 (BE2), Tomas\_265 (BE2), Tomas\_9 (BE2), Wipeout\_15 (BE2), Wipeout\_269 (BE2), Wofford\_15 (BE2), Wofford\_273 (BE2), Yaboi\_17 (BE2), Yaboi\_278 (BE2),

### Summary by clusters:

There are 3 clusters represented in this pham: BE2, BE1, EQ,

Info for manual annotations of cluster BE2:

•Start number 7 was manually annotated 68 times for cluster BE2.

Info for manual annotations of cluster EQ:

•Start number 4 was manually annotated 2 times for cluster EQ.

**Gene Information:**

Gene: AcciDwight\_18 Start: 8143, Stop: 7805, Start Num: 7

Candidate Starts for AcciDwight\_18:

(Start: 7 @8143 has 68 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: AcciDwight\_288 Start: 128239, Stop: 127901, Start Num: 7

Candidate Starts for AcciDwight\_288:

(Start: 7 @128239 has 68 MA's), (8, 128227), (9, 128158), (26, 127972), (28, 127918),

Gene: Amabiko\_281 Start: 126969, Stop: 126631, Start Num: 7

Candidate Starts for Amabiko\_281:

(Start: 7 @126969 has 68 MA's), (8, 126957), (9, 126888), (26, 126702), (28, 126648),

Gene: Amabiko\_17 Start: 8143, Stop: 7805, Start Num: 7

Candidate Starts for Amabiko\_17:

(Start: 7 @8143 has 68 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: AngryGiraffe\_17 Start: 8112, Stop: 7777, Start Num: 7

Candidate Starts for AngryGiraffe\_17:

(3, 8184), (5, 8157), (Start: 7 @8112 has 68 MA's), (8, 8100), (9, 8031), (16, 7947), (20, 7896), (25, 7857), (26, 7842), (28, 7788),

Gene: AngryGiraffe\_273 Start: 126455, Stop: 126120, Start Num: 7

Candidate Starts for AngryGiraffe\_273:

(3, 126527), (5, 126500), (Start: 7 @126455 has 68 MA's), (8, 126443), (9, 126374), (16, 126290), (20, 126239), (25, 126200), (26, 126185), (28, 126131),

Gene: Battuta\_16 Start: 8143, Stop: 7805, Start Num: 7

Candidate Starts for Battuta\_16:

(Start: 7 @8143 has 68 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: Battuta\_273 Start: 126298, Stop: 125960, Start Num: 7

Candidate Starts for Battuta\_273:

(Start: 7 @126298 has 68 MA's), (8, 126286), (9, 126217), (26, 126031), (28, 125977),

Gene: Birchlyn\_13 Start: 5996, Stop: 5658, Start Num: 7

Candidate Starts for Birchlyn\_13:

(Start: 7 @5996 has 68 MA's), (8, 5984), (9, 5915), (26, 5729), (28, 5675),

Gene: Birchlyn\_273 Start: 122087, Stop: 121749, Start Num: 7

Candidate Starts for Birchlyn\_273:

(Start: 7 @122087 has 68 MA's), (8, 122075), (9, 122006), (26, 121820), (28, 121766),

Gene: BoomerJR\_17 Start: 8112, Stop: 7777, Start Num: 7

Candidate Starts for BoomerJR\_17:

(3, 8184), (5, 8157), (Start: 7 @8112 has 68 MA's), (8, 8100), (9, 8031), (16, 7947), (20, 7896), (25, 7857), (26, 7842), (28, 7788),

Gene: BoomerJR\_272 Start: 126900, Stop: 126565, Start Num: 7

Candidate Starts for BoomerJR\_272:

(3, 126972), (5, 126945), (Start: 7 @126900 has 68 MA's), (8, 126888), (9, 126819), (16, 126735), (20, 126684), (25, 126645), (26, 126630), (28, 126576),

Gene: Bordeaux\_16 Start: 8143, Stop: 7805, Start Num: 7

Candidate Starts for Bordeaux\_16:

(Start: 7 @8143 has 68 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: Bordeaux\_273 Start: 126881, Stop: 126543, Start Num: 7

Candidate Starts for Bordeaux\_273:

(Start: 7 @126881 has 68 MA's), (8, 126869), (9, 126800), (26, 126614), (28, 126560),

Gene: Brizzy\_273 Start: 127000, Stop: 126662, Start Num: 7

Candidate Starts for Brizzy\_273:

(Start: 7 @127000 has 68 MA's), (8, 126988), (9, 126919), (26, 126733), (28, 126679),

Gene: Brizzy\_15 Start: 7732, Stop: 7394, Start Num: 7

Candidate Starts for Brizzy\_15:

(Start: 7 @7732 has 68 MA's), (8, 7720), (9, 7651), (26, 7465), (28, 7411),

Gene: CeilingFan\_15 Start: 7754, Stop: 7416, Start Num: 7

Candidate Starts for CeilingFan\_15:

(Start: 7 @7754 has 68 MA's), (8, 7742), (9, 7673), (26, 7487), (28, 7433),

Gene: CeilingFan\_281 Start: 128361, Stop: 128023, Start Num: 7

Candidate Starts for CeilingFan\_281:

(Start: 7 @128361 has 68 MA's), (8, 128349), (9, 128280), (26, 128094), (28, 128040),

Gene: Elmer\_282 Start: 129612, Stop: 129277, Start Num: 7

Candidate Starts for Elmer\_282:

(Start: 7 @129612 has 68 MA's), (8, 129600), (9, 129531), (16, 129447), (20, 129396), (23, 129375), (25, 129357), (28, 129288),

Gene: Elmer\_15 Start: 7244, Stop: 6909, Start Num: 7

Candidate Starts for Elmer\_15:

(Start: 7 @7244 has 68 MA's), (8, 7232), (9, 7163), (16, 7079), (20, 7028), (23, 7007), (25, 6989), (28, 6920),

Gene: Enygma\_14 Start: 7394, Stop: 7062, Start Num: 7

Candidate Starts for Enygma\_14:

(3, 7466), (6, 7433), (Start: 7 @7394 has 68 MA's), (8, 7382), (9, 7313), (11, 7292), (12, 7280), (14, 7262), (25, 7142),

Gene: Enygma\_282 Start: 129818, Stop: 129486, Start Num: 7

Candidate Starts for Enygma\_282:

(3, 129890), (6, 129857), (Start: 7 @129818 has 68 MA's), (8, 129806), (9, 129737), (11, 129716), (12, 129704), (14, 129686), (25, 129566),

Gene: Genie2\_17 Start: 8112, Stop: 7777, Start Num: 7

Candidate Starts for Genie2\_17:

(3, 8184), (5, 8157), (Start: 7 @8112 has 68 MA's), (8, 8100), (9, 8031), (16, 7947), (20, 7896), (25, 7857), (26, 7842), (28, 7788),

Gene: Genie2\_272 Start: 127013, Stop: 126678, Start Num: 7

Candidate Starts for Genie2\_272:

(3, 127085), (5, 127058), (Start: 7 @127013 has 68 MA's), (8, 127001), (9, 126932), (16, 126848), (20, 126797), (25, 126758), (26, 126743), (28, 126689),

Gene: Gibbi\_288 Start: 127854, Stop: 127516, Start Num: 7

Candidate Starts for Gibbi\_288:

(Start: 7 @127854 has 68 MA's), (8, 127842), (9, 127773), (26, 127587), (28, 127533),

Gene: Gibbi\_17 Start: 7754, Stop: 7416, Start Num: 7

Candidate Starts for Gibbi\_17:

(Start: 7 @7754 has 68 MA's), (8, 7742), (9, 7673), (26, 7487), (28, 7433),

Gene: IchabodCrane\_15 Start: 7751, Stop: 7413, Start Num: 7

Candidate Starts for IchabodCrane\_15:

(Start: 7 @7751 has 68 MA's), (8, 7739), (9, 7670), (26, 7484), (28, 7430),

Gene: IchabodCrane\_268 Start: 126294, Stop: 125956, Start Num: 7

Candidate Starts for IchabodCrane\_268:

(Start: 7 @126294 has 68 MA's), (8, 126282), (9, 126213), (26, 126027), (28, 125973),

Gene: JimJam\_284 Start: 129678, Stop: 129340, Start Num: 7

Candidate Starts for JimJam\_284:

(Start: 7 @129678 has 68 MA's), (8, 129666), (9, 129597), (26, 129411), (28, 129357),

Gene: JimJam\_16 Start: 8142, Stop: 7804, Start Num: 7

Candidate Starts for JimJam\_16:

(Start: 7 @8142 has 68 MA's), (8, 8130), (9, 8061), (26, 7875), (28, 7821),

Gene: Jollison\_17 Start: 8143, Stop: 7805, Start Num: 7

Candidate Starts for Jollison\_17:

(Start: 7 @8143 has 68 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: Jollison\_274 Start: 126818, Stop: 126480, Start Num: 7

Candidate Starts for Jollison\_274:

(Start: 7 @126818 has 68 MA's), (8, 126806), (9, 126737), (26, 126551), (28, 126497),

Gene: Karimac\_274 Start: 127464, Stop: 127126, Start Num: 7

Candidate Starts for Karimac\_274:

(Start: 7 @127464 has 68 MA's), (8, 127452), (9, 127383), (26, 127197), (28, 127143),

Gene: Karimac\_16 Start: 8145, Stop: 7807, Start Num: 7

Candidate Starts for Karimac\_16:

(Start: 7 @8145 has 68 MA's), (8, 8133), (9, 8064), (26, 7878), (28, 7824),

Gene: KentuckyRacer\_15 Start: 7755, Stop: 7417, Start Num: 7

Candidate Starts for KentuckyRacer\_15:

(Start: 7 @7755 has 68 MA's), (8, 7743), (9, 7674), (26, 7488), (28, 7434),

Gene: KentuckyRacer\_283 Start: 129206, Stop: 128868, Start Num: 7  
Candidate Starts for KentuckyRacer\_283:  
(Start: 7 @129206 has 68 MA's), (8, 129194), (9, 129125), (26, 128939), (28, 128885),

Gene: LilSaint\_22 Start: 8572, Stop: 8234, Start Num: 7  
Candidate Starts for LilSaint\_22:  
(Start: 7 @8572 has 68 MA's), (9, 8488), (13, 8446), (17, 8401), (18, 8395), (19, 8362), (24, 8326), (25, 8320),

Gene: LilSaint\_284 Start: 130422, Stop: 130084, Start Num: 7  
Candidate Starts for LilSaint\_284:  
(Start: 7 @130422 has 68 MA's), (9, 130338), (13, 130296), (17, 130251), (18, 130245), (19, 130212), (24, 130176), (25, 130170),

Gene: LukeCage\_278 Start: 128580, Stop: 128242, Start Num: 7  
Candidate Starts for LukeCage\_278:  
(Start: 7 @128580 has 68 MA's), (8, 128568), (9, 128499), (22, 128349), (26, 128313), (28, 128259),

Gene: LukeCage\_15 Start: 7676, Stop: 7338, Start Num: 7  
Candidate Starts for LukeCage\_15:  
(Start: 7 @7676 has 68 MA's), (8, 7664), (9, 7595), (22, 7445), (26, 7409), (28, 7355),

Gene: MicyPS\_103 Start: 60929, Stop: 60540, Start Num: 4  
Candidate Starts for MicyPS\_103:  
(1, 60977), (2, 60968), (Start: 4 @60929 has 2 MA's), (10, 60773), (11, 60767), (21, 60647),

Gene: MindFlayer\_15 Start: 7753, Stop: 7415, Start Num: 7  
Candidate Starts for MindFlayer\_15:  
(Start: 7 @7753 has 68 MA's), (8, 7741), (9, 7672), (26, 7486), (28, 7432),

Gene: MindFlayer\_267 Start: 125813, Stop: 125475, Start Num: 7  
Candidate Starts for MindFlayer\_267:  
(Start: 7 @125813 has 68 MA's), (8, 125801), (9, 125732), (26, 125546), (28, 125492),

Gene: Mugiwara\_14 Start: 7405, Stop: 7067, Start Num: 7  
Candidate Starts for Mugiwara\_14:  
(Start: 7 @7405 has 68 MA's), (8, 7393), (9, 7324), (15, 7267), (26, 7138), (28, 7084),

Gene: Mugiwara\_281 Start: 128790, Stop: 128452, Start Num: 7  
Candidate Starts for Mugiwara\_281:  
(Start: 7 @128790 has 68 MA's), (8, 128778), (9, 128709), (15, 128652), (26, 128523), (28, 128469),

Gene: PSonyx\_122 Start: 64546, Stop: 64157, Start Num: 4  
Candidate Starts for PSonyx\_122:  
(Start: 4 @64546 has 2 MA's), (10, 64390), (11, 64384),

Gene: PumpkinSpice\_16 Start: 8143, Stop: 7805, Start Num: 7  
Candidate Starts for PumpkinSpice\_16:  
(Start: 7 @8143 has 68 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: PumpkinSpice\_280 Start: 128035, Stop: 127697, Start Num: 7  
Candidate Starts for PumpkinSpice\_280:

(Start: 7 @128035 has 68 MA's), (8, 128023), (9, 127954), (26, 127768), (28, 127714),

Gene: Quaran19\_16 Start: 8143, Stop: 7805, Start Num: 7

Candidate Starts for Quaran19\_16:

(Start: 7 @8143 has 68 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: Quaran19\_277 Start: 127325, Stop: 126987, Start Num: 7

Candidate Starts for Quaran19\_277:

(Start: 7 @127325 has 68 MA's), (8, 127313), (9, 127244), (26, 127058), (28, 127004),

Gene: Rikishi\_16 Start: 7754, Stop: 7416, Start Num: 7

Candidate Starts for Rikishi\_16:

(Start: 7 @7754 has 68 MA's), (8, 7742), (9, 7673), (26, 7487), (28, 7433),

Gene: Rikishi\_278 Start: 127827, Stop: 127489, Start Num: 7

Candidate Starts for Rikishi\_278:

(Start: 7 @127827 has 68 MA's), (8, 127815), (9, 127746), (26, 127560), (28, 127506),

Gene: SaltySpitooon\_276 Start: 126407, Stop: 126069, Start Num: 7

Candidate Starts for SaltySpitooon\_276:

(Start: 7 @126407 has 68 MA's), (8, 126395), (9, 126326), (26, 126140), (28, 126086),

Gene: SaltySpitooon\_16 Start: 8143, Stop: 7805, Start Num: 7

Candidate Starts for SaltySpitooon\_16:

(Start: 7 @8143 has 68 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: Sollertia\_17 Start: 8112, Stop: 7777, Start Num: 7

Candidate Starts for Sollertia\_17:

(3, 8184), (5, 8157), (Start: 7 @8112 has 68 MA's), (8, 8100), (9, 8031), (16, 7947), (20, 7896), (25, 7857), (26, 7842), (28, 7788),

Gene: Sollertia\_273 Start: 127002, Stop: 126667, Start Num: 7

Candidate Starts for Sollertia\_273:

(3, 127074), (5, 127047), (Start: 7 @127002 has 68 MA's), (8, 126990), (9, 126921), (16, 126837), (20, 126786), (25, 126747), (26, 126732), (28, 126678),

Gene: Spelly\_16 Start: 8143, Stop: 7805, Start Num: 7

Candidate Starts for Spelly\_16:

(Start: 7 @8143 has 68 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: Spelly\_282 Start: 126947, Stop: 126609, Start Num: 7

Candidate Starts for Spelly\_282:

(Start: 7 @126947 has 68 MA's), (8, 126935), (9, 126866), (26, 126680), (28, 126626),

Gene: Spilled\_15 Start: 7753, Stop: 7415, Start Num: 7

Candidate Starts for Spilled\_15:

(Start: 7 @7753 has 68 MA's), (8, 7741), (9, 7672), (26, 7486), (28, 7432),

Gene: Spilled\_283 Start: 128222, Stop: 127884, Start Num: 7

Candidate Starts for Spilled\_283:

(Start: 7 @128222 has 68 MA's), (8, 128210), (9, 128141), (26, 127955), (28, 127901),

Gene: Stanimal\_17 Start: 8112, Stop: 7777, Start Num: 7

Candidate Starts for Stanimal\_17:

(3, 8184), (5, 8157), (Start: 7 @8112 has 68 MA's), (8, 8100), (9, 8031), (16, 7947), (20, 7896), (25, 7857), (26, 7842), (28, 7788),

Gene: Stanimal\_272 Start: 127386, Stop: 127051, Start Num: 7

Candidate Starts for Stanimal\_272:

(3, 127458), (5, 127431), (Start: 7 @127386 has 68 MA's), (8, 127374), (9, 127305), (16, 127221), (20, 127170), (25, 127131), (26, 127116), (28, 127062),

Gene: StarPlatinum\_285 Start: 129523, Stop: 129185, Start Num: 7

Candidate Starts for StarPlatinum\_285:

(Start: 7 @129523 has 68 MA's), (8, 129511), (9, 129442), (27, 129223), (28, 129202),

Gene: StarPlatinum\_15 Start: 7836, Stop: 7498, Start Num: 7

Candidate Starts for StarPlatinum\_15:

(Start: 7 @7836 has 68 MA's), (8, 7824), (9, 7755), (27, 7536), (28, 7515),

Gene: Starbow\_16 Start: 8143, Stop: 7805, Start Num: 7

Candidate Starts for Starbow\_16:

(Start: 7 @8143 has 68 MA's), (8, 8131), (9, 8062), (26, 7876), (28, 7822),

Gene: Starbow\_273 Start: 126991, Stop: 126653, Start Num: 7

Candidate Starts for Starbow\_273:

(Start: 7 @126991 has 68 MA's), (8, 126979), (9, 126910), (26, 126724), (28, 126670),

Gene: TomSawyer\_281 Start: 129515, Stop: 129177, Start Num: 7

Candidate Starts for TomSawyer\_281:

(Start: 7 @129515 has 68 MA's), (8, 129503), (9, 129434), (26, 129248), (28, 129194),

Gene: TomSawyer\_16 Start: 7736, Stop: 7398, Start Num: 7

Candidate Starts for TomSawyer\_16:

(Start: 7 @7736 has 68 MA's), (8, 7724), (9, 7655), (26, 7469), (28, 7415),

Gene: Tomas\_265 Start: 126967, Stop: 126629, Start Num: 7

Candidate Starts for Tomas\_265:

(Start: 7 @126967 has 68 MA's), (12, 126853), (16, 126805), (25, 126715), (28, 126646),

Gene: Tomas\_9 Start: 5260, Stop: 4922, Start Num: 7

Candidate Starts for Tomas\_9:

(Start: 7 @5260 has 68 MA's), (12, 5146), (16, 5098), (25, 5008), (28, 4939),

Gene: Wipeout\_15 Start: 7758, Stop: 7420, Start Num: 7

Candidate Starts for Wipeout\_15:

(Start: 7 @7758 has 68 MA's), (8, 7746), (9, 7677), (26, 7491), (28, 7437),

Gene: Wipeout\_269 Start: 128489, Stop: 128151, Start Num: 7

Candidate Starts for Wipeout\_269:

(Start: 7 @128489 has 68 MA's), (8, 128477), (9, 128408), (26, 128222), (28, 128168),

Gene: Wofford\_273 Start: 129042, Stop: 128707, Start Num: 7

Candidate Starts for Wofford\_273:

(Start: 7 @129042 has 68 MA's), (8, 129030), (9, 128961), (16, 128877), (20, 128826), (23, 128805), (25, 128787), (28, 128718),

Gene: Wofford\_15 Start: 7249, Stop: 6914, Start Num: 7

Candidate Starts for Wofford\_15:

(Start: 7 @7249 has 68 MA's), (8, 7237), (9, 7168), (16, 7084), (20, 7033), (23, 7012), (25, 6994), (28, 6925),

Gene: Yaboi\_278 Start: 126930, Stop: 126595, Start Num: 7

Candidate Starts for Yaboi\_278:

(3, 127002), (5, 126975), (Start: 7 @126930 has 68 MA's), (8, 126918), (9, 126849), (16, 126765), (20, 126714), (25, 126675), (26, 126660), (28, 126606),

Gene: Yaboi\_17 Start: 8112, Stop: 7777, Start Num: 7

Candidate Starts for Yaboi\_17:

(3, 8184), (5, 8157), (Start: 7 @8112 has 68 MA's), (8, 8100), (9, 8031), (16, 7947), (20, 7896), (25, 7857), (26, 7842), (28, 7788),