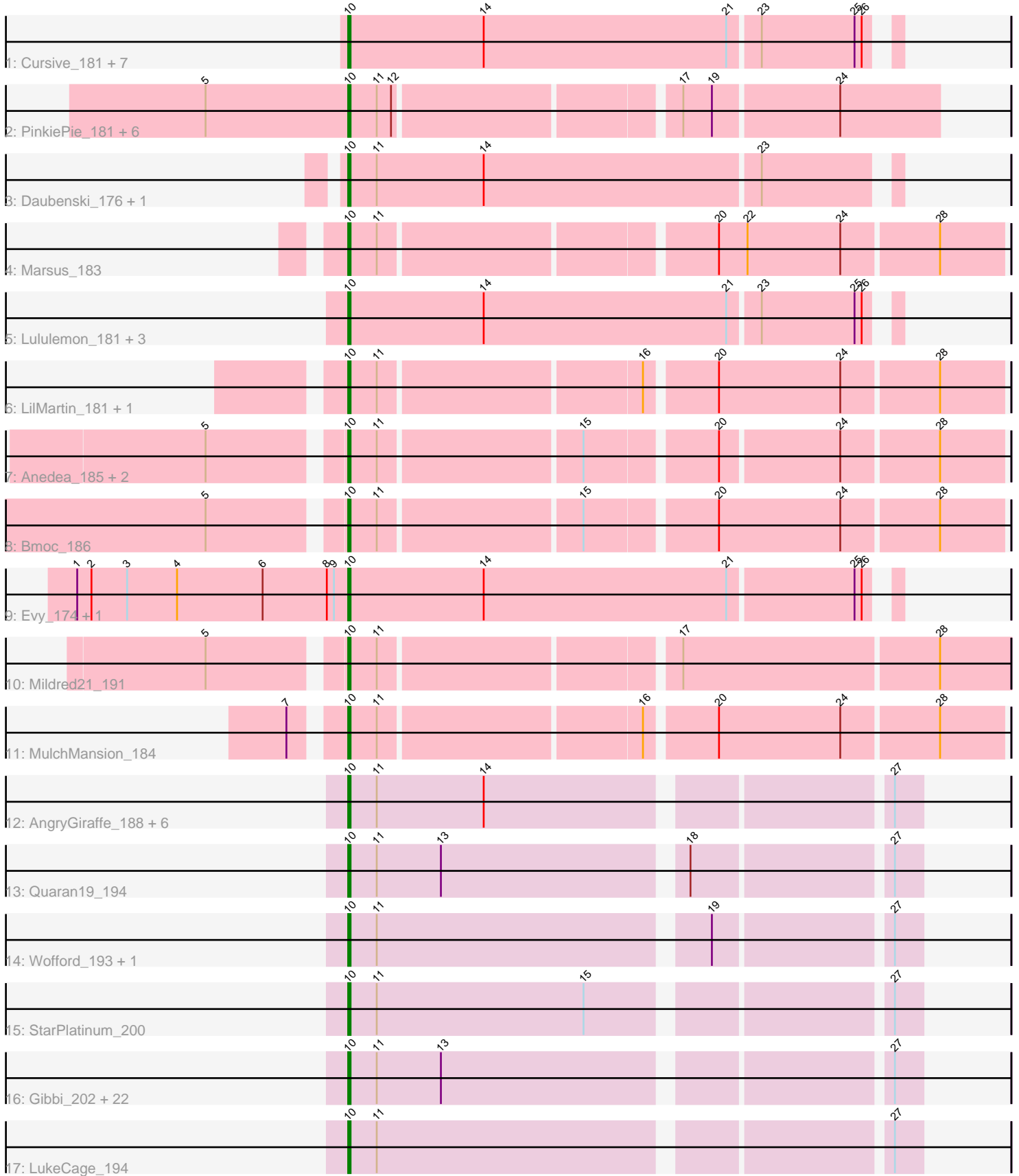


Pham 296551



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 296551 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296551 has 67 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Cursive\_181, Samisti12\_185, Pepperwood\_182, Leo04\_184, Tribute\_180, Scheme\_186, Sushi23\_183, Peebs\_180
- Track 2 : PinkiePie\_181, FreddyDRoo\_184, Liandry\_181, Bartholomune\_181, Eliot67\_182, Squillium\_184, Shuckle\_180
- Track 3 : Daubenski\_176, Cadmus\_177
- Track 4 : Marsus\_183
- Track 5 : Lululemon\_181, PacManQ\_181, Cross\_182, Coogler\_181
- Track 6 : LilMartin\_181, Angela\_183
- Track 7 : Anedea\_185, LilSaint\_178, Riptide\_178
- Track 8 : Bmoc\_186
- Track 9 : Evy\_174, Targaryen\_182
- Track 10 : Mildred21\_191
- Track 11 : MulchMansion\_184
- Track 12 : AngryGiraffe\_188, Enygma\_199, Genie2\_189, Sollertia\_190, Yaboi\_193, BoomerJR\_189, Stanimal\_189
- Track 13 : Quarant19\_194
- Track 14 : Wofford\_193, Elmer\_200
- Track 15 : StarPlatinum\_200
- Track 16 : Gibbi\_202, Battuta\_192, JimJam\_201, Spelly\_197, Amabiko\_198, PumpkinSpice\_196, Mugiwara\_196, IchabodCrane\_190, Karimac\_194, CeilingFan\_198, Rikishi\_194, AcciDwight\_202, TomSawyer\_199, Wipeout\_186, Jollison\_191, Bordeaux\_193, Brizzy\_194, SaltySpittoon\_193, Birchlyn\_193, Spilled\_200, MindFlayer\_187, KentuckyRacer\_200, Starbow\_192
- Track 17 : LukeCage\_194

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

The start number called the most often in the published annotations is 10, it was called in 63 of the 63 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AcciDwight\_202, Amabiko\_198, Anedea\_185, Angela\_183, AngryGiraffe\_188, Bartholomune\_181, Battuta\_192, Birchlyn\_193, Bmoc\_186, BoomerJR\_189, Bordeaux\_193, Brizzy\_194, Cadmus\_177, CeilingFan\_198, Coogler\_181, Cross\_182,

Cursive\_181, Daubenski\_176, Eliot67\_182, Elmer\_200, Enygma\_199, Evy\_174, FreddyDRoo\_184, Genie2\_189, Gibbi\_202, IchabodCrane\_190, JimJam\_201, Jollison\_191, Karimac\_194, KentuckyRacer\_200, Leo04\_184, Liandry\_181, LilMartin\_181, LilSaint\_178, LukeCage\_194, Lululemon\_181, Marsus\_183, Mildred21\_191, MindFlayer\_187, Mugiwara\_196, MulchMansion\_184, PacManQ\_181, Peebs\_180, Pepperwood\_182, PinkiePie\_181, PumpkinSpice\_196, Quaran19\_194, Rikishi\_194, Riptide\_178, SaltySpittoon\_193, Samisti12\_185, Scheme\_186, Shuckle\_180, Sollertia\_190, Spelly\_197, Spilled\_200, Squillium\_184, Stanimal\_189, StarPlatinum\_200, Starbow\_192, Sushi23\_183, Targaryen\_182, TomSawyer\_199, Tribute\_180, Wipeout\_186, Wofford\_193, Yaboi\_193,

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

- 

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

- 

### Summary by start number:

Start 10:

- Found in 67 of 67 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 63 of 63
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Accidwight\_202 (BE2), Amabiko\_198 (BE2), Anedea\_185 (BE1), Angela\_183 (BE1), AngryGiraffe\_188 (BE2), Bartholomune\_181 (BE1), Battuta\_192 (BE2), Birchlyn\_193 (BE2), Bmoc\_186 (BE1), BoomerJR\_189 (BE2), Bordeaux\_193 (BE2), Brizzy\_194 (BE2), Cadmus\_177 (BE1), CeilingFan\_198 (BE2), Coogler\_181 (BE1), Cross\_182 (BE1), Cursive\_181 (BE1), Daubenski\_176 (BE1), Eliot67\_182 (BE1), Elmer\_200 (BE2), Enygma\_199 (BE2), Evy\_174 (BE1), FreddyDRoo\_184 (BE1), Genie2\_189 (BE2), Gibbi\_202 (BE2), IchabodCrane\_190 (BE2), JimJam\_201 (BE2), Jollison\_191 (BE2), Karimac\_194 (BE2), KentuckyRacer\_200 (BE2), Leo04\_184 (BE1), Liandry\_181 (BE1), LilMartin\_181 (BE1), LilSaint\_178 (BE1), LukeCage\_194 (BE2), Lululemon\_181 (BE1), Marsus\_183 (BE1), Mildred21\_191 (BE1), MindFlayer\_187 (BE2), Mugiwara\_196 (BE2), MulchMansion\_184 (BE1), PacManQ\_181 (BE1), Peebs\_180 (BE1), Pepperwood\_182 (BE1), PinkiePie\_181 (BE1), PumpkinSpice\_196 (BE2), Quaran19\_194 (BE2), Rikishi\_194 (BE2), Riptide\_178 (BE1), SaltySpittoon\_193 (BE2), Samisti12\_185 (BE1), Scheme\_186 (BE1), Shuckle\_180 (BE1), Sollertia\_190 (BE2), Spelly\_197 (BE2), Spilled\_200 (BE2), Squillium\_184 (BE1), Stanimal\_189 (BE2), StarPlatinum\_200 (BE2), Starbow\_192 (BE2), Sushi23\_183 (BE1), Targaryen\_182 (BE1), TomSawyer\_199 (BE2), Tribute\_180 (BE1), Wipeout\_186 (BE2), Wofford\_193 (BE2), Yaboi\_193 (BE2),

### Summary by clusters:

There are 2 clusters represented in this pham: BE2, BE1,

Info for manual annotations of cluster BE1:

- Start number 10 was manually annotated 30 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 10 was manually annotated 33 times for cluster BE2.

**Gene Information:**

Gene: AcciDwight\_202 Start: 98523, Stop: 98747, Start Num: 10

Candidate Starts for AcciDwight\_202:

(Start: 10 @98523 has 63 MA's), (11, 98535), (13, 98562), (27, 98736),

Gene: Amabiko\_198 Start: 98341, Stop: 98565, Start Num: 10

Candidate Starts for Amabiko\_198:

(Start: 10 @98341 has 63 MA's), (11, 98353), (13, 98380), (27, 98554),

Gene: Anedea\_185 Start: 96500, Stop: 96757, Start Num: 10

Candidate Starts for Anedea\_185:

(5, 96449), (Start: 10 @96500 has 63 MA's), (11, 96512), (15, 96593), (20, 96644), (24, 96692), (28, 96731),

Gene: Angela\_183 Start: 96479, Stop: 96739, Start Num: 10

Candidate Starts for Angela\_183:

(Start: 10 @96479 has 63 MA's), (11, 96491), (16, 96596), (20, 96623), (24, 96674), (28, 96713),

Gene: AngryGiraffe\_188 Start: 97200, Stop: 97424, Start Num: 10

Candidate Starts for AngryGiraffe\_188:

(Start: 10 @97200 has 63 MA's), (11, 97212), (14, 97257), (27, 97413),

Gene: Bartholomune\_181 Start: 96007, Stop: 96240, Start Num: 10

Candidate Starts for Bartholomune\_181:

(5, 95947), (Start: 10 @96007 has 63 MA's), (11, 96019), (12, 96025), (17, 96136), (19, 96148), (24, 96199),

Gene: Battuta\_192 Start: 97657, Stop: 97881, Start Num: 10

Candidate Starts for Battuta\_192:

(Start: 10 @97657 has 63 MA's), (11, 97669), (13, 97696), (27, 97870),

Gene: Birchlyn\_193 Start: 95589, Stop: 95813, Start Num: 10

Candidate Starts for Birchlyn\_193:

(Start: 10 @95589 has 63 MA's), (11, 95601), (13, 95628), (27, 95802),

Gene: Bmoc\_186 Start: 97251, Stop: 97511, Start Num: 10

Candidate Starts for Bmoc\_186:

(5, 97200), (Start: 10 @97251 has 63 MA's), (11, 97263), (15, 97344), (20, 97395), (24, 97446), (28, 97485),

Gene: BoomerJR\_189 Start: 97633, Stop: 97857, Start Num: 10

Candidate Starts for BoomerJR\_189:

(Start: 10 @97633 has 63 MA's), (11, 97645), (14, 97690), (27, 97846),

Gene: Bordeaux\_193 Start: 98240, Stop: 98464, Start Num: 10

Candidate Starts for Bordeaux\_193:

(Start: 10 @98240 has 63 MA's), (11, 98252), (13, 98279), (27, 98453),

Gene: Brizzy\_194 Start: 98785, Stop: 99009, Start Num: 10

Candidate Starts for Brizzy\_194:

(Start: 10 @98785 has 63 MA's), (11, 98797), (13, 98824), (27, 98998),

Gene: Cadmus\_177 Start: 96509, Stop: 96730, Start Num: 10

Candidate Starts for Cadmus\_177:

(Start: 10 @96509 has 63 MA's), (11, 96521), (14, 96566), (23, 96680),

Gene: CeilingFan\_198 Start: 99034, Stop: 99258, Start Num: 10

Candidate Starts for CeilingFan\_198:

(Start: 10 @99034 has 63 MA's), (11, 99046), (13, 99073), (27, 99247),

Gene: Coogler\_181 Start: 97896, Stop: 98117, Start Num: 10

Candidate Starts for Coogler\_181:

(Start: 10 @97896 has 63 MA's), (14, 97953), (21, 98055), (23, 98067), (25, 98106), (26, 98109),

Gene: Cross\_182 Start: 97872, Stop: 98093, Start Num: 10

Candidate Starts for Cross\_182:

(Start: 10 @97872 has 63 MA's), (14, 97929), (21, 98031), (23, 98043), (25, 98082), (26, 98085),

Gene: Cursive\_181 Start: 96082, Stop: 96303, Start Num: 10

Candidate Starts for Cursive\_181:

(Start: 10 @96082 has 63 MA's), (14, 96139), (21, 96241), (23, 96253), (25, 96292), (26, 96295),

Gene: Daubenski\_176 Start: 97746, Stop: 97967, Start Num: 10

Candidate Starts for Daubenski\_176:

(Start: 10 @97746 has 63 MA's), (11, 97758), (14, 97803), (23, 97917),

Gene: Eliot67\_182 Start: 96043, Stop: 96276, Start Num: 10

Candidate Starts for Eliot67\_182:

(5, 95983), (Start: 10 @96043 has 63 MA's), (11, 96055), (12, 96061), (17, 96172), (19, 96184), (24, 96235),

Gene: Elmer\_200 Start: 101140, Stop: 101364, Start Num: 10

Candidate Starts for Elmer\_200:

(Start: 10 @101140 has 63 MA's), (11, 101152), (19, 101284), (27, 101353),

Gene: Enygma\_199 Start: 100871, Stop: 101095, Start Num: 10

Candidate Starts for Enygma\_199:

(Start: 10 @100871 has 63 MA's), (11, 100883), (14, 100928), (27, 101084),

Gene: Evy\_174 Start: 97572, Stop: 97793, Start Num: 10

Candidate Starts for Evy\_174:

(1, 97458), (2, 97464), (3, 97479), (4, 97500), (6, 97536), (8, 97563), (9, 97566), (Start: 10 @97572 has 63 MA's), (14, 97629), (21, 97731), (25, 97782), (26, 97785),

Gene: FreddyDRoo\_184 Start: 96043, Stop: 96276, Start Num: 10

Candidate Starts for FreddyDRoo\_184:

(5, 95983), (Start: 10 @96043 has 63 MA's), (11, 96055), (12, 96061), (17, 96172), (19, 96184), (24, 96235),

Gene: Genie2\_189 Start: 97747, Stop: 97971, Start Num: 10

Candidate Starts for Genie2\_189:

(Start: 10 @97747 has 63 MA's), (11, 97759), (14, 97804), (27, 97960),

Gene: Gibbi\_202 Start: 98527, Stop: 98751, Start Num: 10  
Candidate Starts for Gibbi\_202:  
(Start: 10 @98527 has 63 MA's), (11, 98539), (13, 98566), (27, 98740),

Gene: IchabodCrane\_190 Start: 98042, Stop: 98266, Start Num: 10  
Candidate Starts for IchabodCrane\_190:  
(Start: 10 @98042 has 63 MA's), (11, 98054), (13, 98081), (27, 98255),

Gene: JimJam\_201 Start: 99963, Stop: 100187, Start Num: 10  
Candidate Starts for JimJam\_201:  
(Start: 10 @99963 has 63 MA's), (11, 99975), (13, 100002), (27, 100176),

Gene: Jollison\_191 Start: 98173, Stop: 98400, Start Num: 10  
Candidate Starts for Jollison\_191:  
(Start: 10 @98173 has 63 MA's), (11, 98185), (13, 98212), (27, 98386),

Gene: Karimac\_194 Start: 98367, Stop: 98591, Start Num: 10  
Candidate Starts for Karimac\_194:  
(Start: 10 @98367 has 63 MA's), (11, 98379), (13, 98406), (27, 98580),

Gene: KentuckyRacer\_200 Start: 99878, Stop: 100102, Start Num: 10  
Candidate Starts for KentuckyRacer\_200:  
(Start: 10 @99878 has 63 MA's), (11, 99890), (13, 99917), (27, 100091),

Gene: Leo04\_184 Start: 98238, Stop: 98459, Start Num: 10  
Candidate Starts for Leo04\_184:  
(Start: 10 @98238 has 63 MA's), (14, 98295), (21, 98397), (23, 98409), (25, 98448), (26, 98451),

Gene: Liandry\_181 Start: 96750, Stop: 96983, Start Num: 10  
Candidate Starts for Liandry\_181:  
(5, 96690), (Start: 10 @96750 has 63 MA's), (11, 96762), (12, 96768), (17, 96879), (19, 96891), (24, 96942),

Gene: LilMartin\_181 Start: 96098, Stop: 96358, Start Num: 10  
Candidate Starts for LilMartin\_181:  
(Start: 10 @96098 has 63 MA's), (11, 96110), (16, 96215), (20, 96242), (24, 96293), (28, 96332),

Gene: LilSaint\_178 Start: 95662, Stop: 95919, Start Num: 10  
Candidate Starts for LilSaint\_178:  
(5, 95611), (Start: 10 @95662 has 63 MA's), (11, 95674), (15, 95755), (20, 95806), (24, 95854), (28, 95893),

Gene: LukeCage\_194 Start: 99297, Stop: 99521, Start Num: 10  
Candidate Starts for LukeCage\_194:  
(Start: 10 @99297 has 63 MA's), (11, 99309), (27, 99510),

Gene: Lululemon\_181 Start: 96608, Stop: 96829, Start Num: 10  
Candidate Starts for Lululemon\_181:  
(Start: 10 @96608 has 63 MA's), (14, 96665), (21, 96767), (23, 96779), (25, 96818), (26, 96821),

Gene: Marsus\_183 Start: 97053, Stop: 97313, Start Num: 10  
Candidate Starts for Marsus\_183:  
(Start: 10 @97053 has 63 MA's), (11, 97065), (20, 97197), (22, 97209), (24, 97248), (28, 97287),

Gene: Mildred21\_191 Start: 96364, Stop: 96627, Start Num: 10

Candidate Starts for Mildred21\_191:

(5, 96313), (Start: 10 @96364 has 63 MA's), (11, 96376), (17, 96493), (28, 96598),

Gene: MindFlayer\_187 Start: 97558, Stop: 97782, Start Num: 10

Candidate Starts for MindFlayer\_187:

(Start: 10 @97558 has 63 MA's), (11, 97570), (13, 97597), (27, 97771),

Gene: Mugiwara\_196 Start: 99700, Stop: 99924, Start Num: 10

Candidate Starts for Mugiwara\_196:

(Start: 10 @99700 has 63 MA's), (11, 99712), (13, 99739), (27, 99913),

Gene: MulchMansion\_184 Start: 97478, Stop: 97738, Start Num: 10

Candidate Starts for MulchMansion\_184:

(7, 97460), (Start: 10 @97478 has 63 MA's), (11, 97490), (16, 97595), (20, 97622), (24, 97673), (28, 97712),

Gene: PacManQ\_181 Start: 96608, Stop: 96829, Start Num: 10

Candidate Starts for PacManQ\_181:

(Start: 10 @96608 has 63 MA's), (14, 96665), (21, 96767), (23, 96779), (25, 96818), (26, 96821),

Gene: Peebs\_180 Start: 97550, Stop: 97771, Start Num: 10

Candidate Starts for Peebs\_180:

(Start: 10 @97550 has 63 MA's), (14, 97607), (21, 97709), (23, 97721), (25, 97760), (26, 97763),

Gene: Pepperwood\_182 Start: 97508, Stop: 97729, Start Num: 10

Candidate Starts for Pepperwood\_182:

(Start: 10 @97508 has 63 MA's), (14, 97565), (21, 97667), (23, 97679), (25, 97718), (26, 97721),

Gene: PinkiePie\_181 Start: 96750, Stop: 96983, Start Num: 10

Candidate Starts for PinkiePie\_181:

(5, 96690), (Start: 10 @96750 has 63 MA's), (11, 96762), (12, 96768), (17, 96879), (19, 96891), (24, 96942),

Gene: PumpkinSpice\_196 Start: 98779, Stop: 99003, Start Num: 10

Candidate Starts for PumpkinSpice\_196:

(Start: 10 @98779 has 63 MA's), (11, 98791), (13, 98818), (27, 98992),

Gene: Quaran19\_194 Start: 98220, Stop: 98444, Start Num: 10

Candidate Starts for Quaran19\_194:

(Start: 10 @98220 has 63 MA's), (11, 98232), (13, 98259), (18, 98355), (27, 98433),

Gene: Rikishi\_194 Start: 98501, Stop: 98725, Start Num: 10

Candidate Starts for Rikishi\_194:

(Start: 10 @98501 has 63 MA's), (11, 98513), (13, 98540), (27, 98714),

Gene: Riptide\_178 Start: 95139, Stop: 95396, Start Num: 10

Candidate Starts for Riptide\_178:

(5, 95088), (Start: 10 @95139 has 63 MA's), (11, 95151), (15, 95232), (20, 95283), (24, 95331), (28, 95370),

Gene: SaltySpittoon\_193 Start: 97762, Stop: 97986, Start Num: 10

Candidate Starts for SaltySpittoon\_193:  
(Start: 10 @97762 has 63 MA's), (11, 97774), (13, 97801), (27, 97975),

Gene: Samisti12\_185 Start: 98934, Stop: 99155, Start Num: 10  
Candidate Starts for Samisti12\_185:  
(Start: 10 @98934 has 63 MA's), (14, 98991), (21, 99093), (23, 99105), (25, 99144), (26, 99147),

Gene: Scheme\_186 Start: 99115, Stop: 99336, Start Num: 10  
Candidate Starts for Scheme\_186:  
(Start: 10 @99115 has 63 MA's), (14, 99172), (21, 99274), (23, 99286), (25, 99325), (26, 99328),

Gene: Shuckle\_180 Start: 97599, Stop: 97832, Start Num: 10  
Candidate Starts for Shuckle\_180:  
(5, 97539), (Start: 10 @97599 has 63 MA's), (11, 97611), (12, 97617), (17, 97728), (19, 97740), (24, 97791),

Gene: Sollertia\_190 Start: 97747, Stop: 97971, Start Num: 10  
Candidate Starts for Sollertia\_190:  
(Start: 10 @97747 has 63 MA's), (11, 97759), (14, 97804), (27, 97960),

Gene: Spelly\_197 Start: 97691, Stop: 97915, Start Num: 10  
Candidate Starts for Spelly\_197:  
(Start: 10 @97691 has 63 MA's), (11, 97703), (13, 97730), (27, 97904),

Gene: Spilled\_200 Start: 98895, Stop: 99119, Start Num: 10  
Candidate Starts for Spilled\_200:  
(Start: 10 @98895 has 63 MA's), (11, 98907), (13, 98934), (27, 99108),

Gene: Squillium\_184 Start: 96752, Stop: 96985, Start Num: 10  
Candidate Starts for Squillium\_184:  
(5, 96692), (Start: 10 @96752 has 63 MA's), (11, 96764), (12, 96770), (17, 96881), (19, 96893), (24, 96944),

Gene: Stanimal\_189 Start: 98108, Stop: 98332, Start Num: 10  
Candidate Starts for Stanimal\_189:  
(Start: 10 @98108 has 63 MA's), (11, 98120), (14, 98165), (27, 98321),

Gene: StarPlatinum\_200 Start: 100164, Stop: 100388, Start Num: 10  
Candidate Starts for StarPlatinum\_200:  
(Start: 10 @100164 has 63 MA's), (11, 100176), (15, 100263), (27, 100377),

Gene: Starbow\_192 Start: 97735, Stop: 97959, Start Num: 10  
Candidate Starts for Starbow\_192:  
(Start: 10 @97735 has 63 MA's), (11, 97747), (13, 97774), (27, 97948),

Gene: Sushi23\_183 Start: 98614, Stop: 98835, Start Num: 10  
Candidate Starts for Sushi23\_183:  
(Start: 10 @98614 has 63 MA's), (14, 98671), (21, 98773), (23, 98785), (25, 98824), (26, 98827),

Gene: Targaryen\_182 Start: 98781, Stop: 99002, Start Num: 10  
Candidate Starts for Targaryen\_182:  
(1, 98667), (2, 98673), (3, 98688), (4, 98709), (6, 98745), (8, 98772), (9, 98775), (Start: 10 @98781 has 63 MA's), (14, 98838), (21, 98940), (25, 98991), (26, 98994),

Gene: TomSawyer\_199 Start: 100206, Stop: 100430, Start Num: 10  
Candidate Starts for TomSawyer\_199:  
(Start: 10 @100206 has 63 MA's), (11, 100218), (13, 100245), (27, 100419),

Gene: Tribute\_180 Start: 98049, Stop: 98270, Start Num: 10  
Candidate Starts for Tribute\_180:  
(Start: 10 @98049 has 63 MA's), (14, 98106), (21, 98208), (23, 98220), (25, 98259), (26, 98262),

Gene: Wipeout\_186 Start: 99158, Stop: 99382, Start Num: 10  
Candidate Starts for Wipeout\_186:  
(Start: 10 @99158 has 63 MA's), (11, 99170), (13, 99197), (27, 99371),

Gene: Wofford\_193 Start: 101100, Stop: 101324, Start Num: 10  
Candidate Starts for Wofford\_193:  
(Start: 10 @101100 has 63 MA's), (11, 101112), (19, 101244), (27, 101313),

Gene: Yaboi\_193 Start: 97682, Stop: 97906, Start Num: 10  
Candidate Starts for Yaboi\_193:  
(Start: 10 @97682 has 63 MA's), (11, 97694), (14, 97739), (27, 97895),