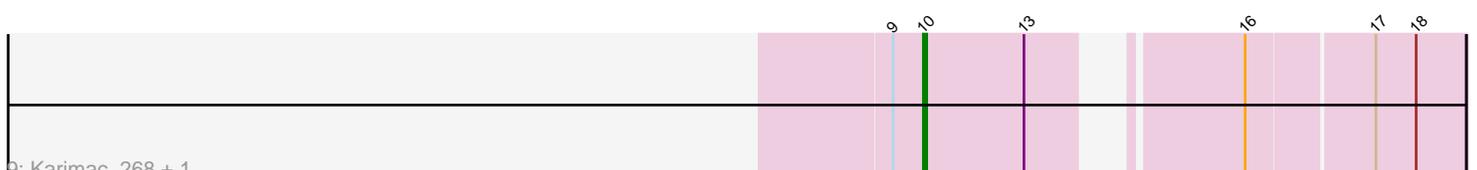
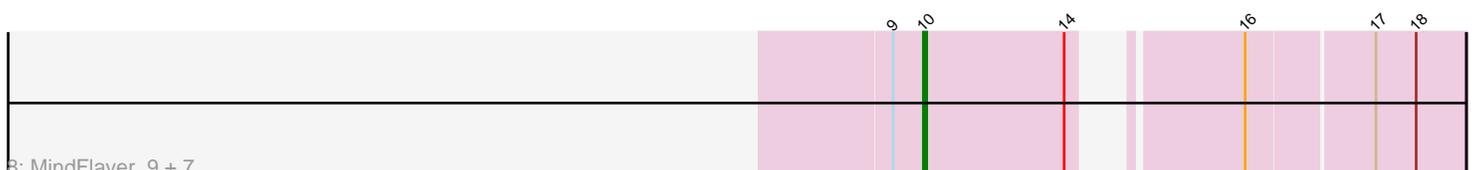
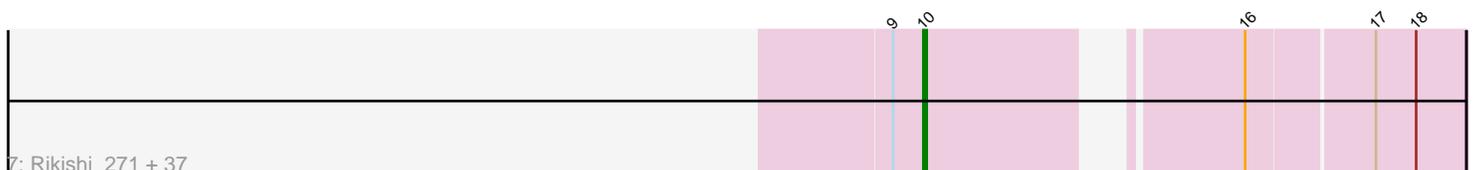
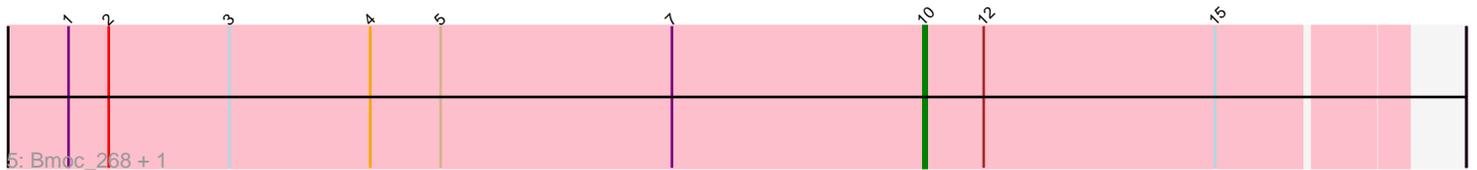
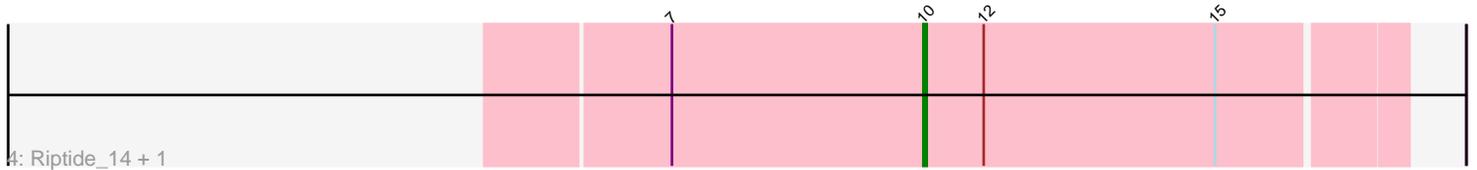
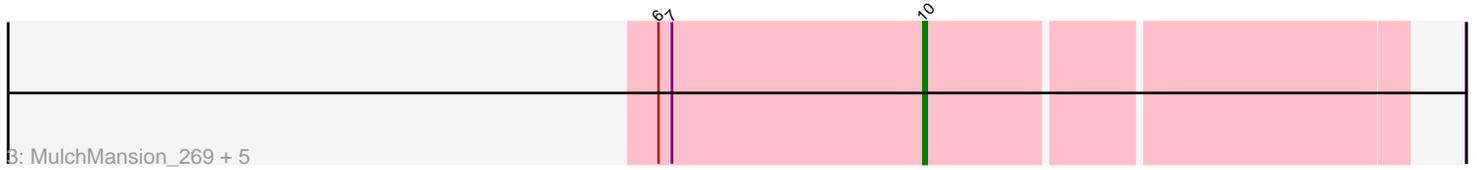
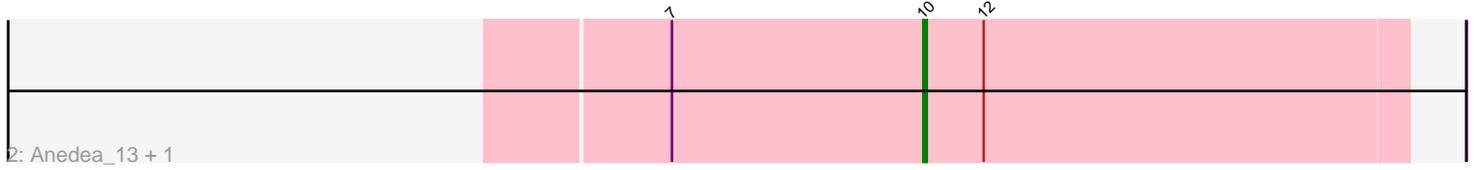
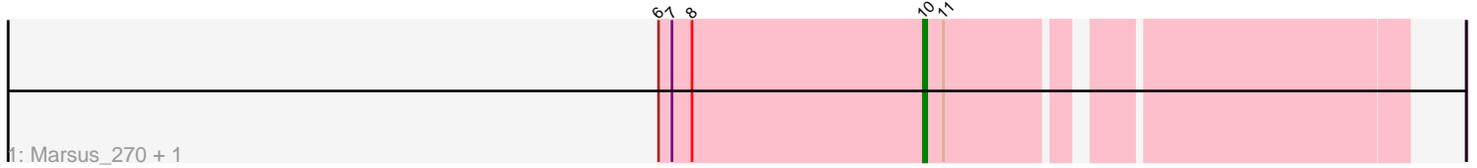


# Pham 283804



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 283804 Report

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

Pham number 283804 has 64 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Marsus\_270, Marsus\_13
- Track 2 : Anedeia\_13, Anedeia\_278
- Track 3 : MulchMansion\_269, LilMartin\_265, LilMartin\_13, Mildred21\_13, MulchMansion\_13, Mildred21\_276
- Track 4 : Riptide\_14, Riptide\_269
- Track 5 : Bmoc\_268, Bmoc\_12
- Track 6 : Angela\_270, Angela\_13
- Track 7 : Rikishi\_271, Bordeaux\_10, Rikishi\_9, CeilingFan\_9, AcciDwight\_10, Gibbi\_9, Gibbi\_280, StarPlatinum\_279, CeilingFan\_275, JimJam\_278, Brizzy\_9, Starbow\_10, TomSawyer\_10, Bordeaux\_267, Spilled\_277, Wipeout\_262, Quaran19\_271, JimJam\_10, Battuta\_10, Spelly\_10, Quaran19\_10, AcciDwight\_280, KentuckyRacer\_9, Starbow\_267, Spelly\_276, Birchlyn\_267, TomSawyer\_275, Wipeout\_9, Spilled\_9, Birchlyn\_7, SaltySpitoon\_270, Jollison\_267, Jollison\_10, Brizzy\_267, KentuckyRacer\_277, Battuta\_267, StarPlatinum\_9, SaltySpitoon\_10
- Track 8 : MindFlayer\_9, PumpkinSpice\_274, PumpkinSpice\_10, IchabodCrane\_262, Amabiko\_274, Amabiko\_10, IchabodCrane\_9, MindFlayer\_261
- Track 9 : Karimac\_268, Karimac\_10

### ***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 60 of the 60 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AcciDwight\_10, AcciDwight\_280, Amabiko\_10, Amabiko\_274, Anedeia\_13, Anedeia\_278, Angela\_13, Angela\_270, Battuta\_10, Battuta\_267, Birchlyn\_267, Birchlyn\_7, Bmoc\_12, Bmoc\_268, Bordeaux\_10, Bordeaux\_267, Brizzy\_267, Brizzy\_9, CeilingFan\_275, CeilingFan\_9, Gibbi\_280, Gibbi\_9, IchabodCrane\_262, IchabodCrane\_9, JimJam\_10, JimJam\_278, Jollison\_10, Jollison\_267, Karimac\_10, Karimac\_268, KentuckyRacer\_277, KentuckyRacer\_9, LilMartin\_13, LilMartin\_265, Marsus\_13, Marsus\_270, Mildred21\_13, Mildred21\_276, MindFlayer\_261, MindFlayer\_9, MulchMansion\_13, MulchMansion\_269, PumpkinSpice\_10, PumpkinSpice\_274, Quaran19\_10, Quaran19\_271, Rikishi\_271, Rikishi\_9, Riptide\_14, Riptide\_269, SaltySpitoon\_10, SaltySpitoon\_270, Spelly\_10, Spelly\_276,

Spilled\_277, Spilled\_9, StarPlatinum\_279, StarPlatinum\_9, Starbow\_10, Starbow\_267, TomSawyer\_10, TomSawyer\_275, Wipeout\_262, Wipeout\_9,

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 64 of 64 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 60 of 60
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AcciDwight\_10 (BE2), AcciDwight\_280 (BE2), Amabiko\_10 (BE2), Amabiko\_274 (BE2), Anedeia\_13 (BE1), Anedeia\_278 (BE1), Angela\_13 (BE1), Angela\_270 (BE1), Battuta\_10 (BE2), Battuta\_267 (BE2), Birchlyn\_267 (BE2), Birchlyn\_7 (BE2), Bmoc\_12 (BE1), Bmoc\_268 (BE1), Bordeaux\_10 (BE2), Bordeaux\_267 (BE2), Brizzy\_267 (BE2), Brizzy\_9 (BE2), CeilingFan\_275 (BE2), CeilingFan\_9 (BE2), Gibbi\_280 (BE2), Gibbi\_9 (BE2), IchabodCrane\_262 (BE2), IchabodCrane\_9 (BE2), JimJam\_10 (BE2), JimJam\_278 (BE2), Jollison\_10 (BE2), Jollison\_267 (BE2), Karimac\_10 (BE2), Karimac\_268 (BE2), KentuckyRacer\_277 (BE2), KentuckyRacer\_9 (BE2), LilMartin\_13 (BE1), LilMartin\_265 (BE1), Marsus\_13 (BE1), Marsus\_270 (BE1), Mildred21\_13 (BE1), Mildred21\_276 (BE1), MindFlayer\_261 (BE2), MindFlayer\_9 (BE2), MulchMansion\_13 (BE1), MulchMansion\_269 (BE1), PumpkinSpice\_10 (BE2), PumpkinSpice\_274 (BE2), Quaran19\_10 (BE2), Quaran19\_271 (BE2), Rikishi\_271 (BE2), Rikishi\_9 (BE2), Riptide\_14 (BE1), Riptide\_269 (BE1), SaltySpittoon\_10 (BE2), SaltySpittoon\_270 (BE2), Spelly\_10 (BE2), Spelly\_276 (BE2), Spilled\_277 (BE2), Spilled\_9 (BE2), StarPlatinum\_279 (BE2), StarPlatinum\_9 (BE2), Starbow\_10 (BE2), Starbow\_267 (BE2), TomSawyer\_10 (BE2), TomSawyer\_275 (BE2), Wipeout\_262 (BE2), Wipeout\_9 (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 16 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 10 was manually annotated 44 times for cluster BE2.

### Gene Information:

Gene: AcciDwight\_10 Start: 5726, Stop: 5586, Start Num: 10

Candidate Starts for AcciDwight\_10:

(9, 5735), (Start: 10 @5726 has 60 MA's), (16, 5648), (17, 5612), (18, 5600),

Gene: AcciDwight\_280 Start: 125822, Stop: 125682, Start Num: 10

Candidate Starts for AcciDwight\_280:

(9, 125831), (Start: 10 @125822 has 60 MA's), (16, 125744), (17, 125708), (18, 125696),

Gene: Amabiko\_274 Start: 124552, Stop: 124412, Start Num: 10

Candidate Starts for Amabiko\_274:

(9, 124561), (Start: 10 @124552 has 60 MA's), (14, 124510), (16, 124474), (17, 124438), (18, 124426),

Gene: Amabiko\_10 Start: 5726, Stop: 5586, Start Num: 10

Candidate Starts for Amabiko\_10:

(9, 5735), (Start: 10 @5726 has 60 MA's), (14, 5684), (16, 5648), (17, 5612), (18, 5600),

Gene: Anedea\_13 Start: 7141, Stop: 6998, Start Num: 10

Candidate Starts for Anedea\_13:

(7, 7216), (Start: 10 @7141 has 60 MA's), (12, 7123),

Gene: Anedea\_278 Start: 130190, Stop: 130047, Start Num: 10

Candidate Starts for Anedea\_278:

(7, 130265), (Start: 10 @130190 has 60 MA's), (12, 130172),

Gene: Angela\_270 Start: 129764, Stop: 129633, Start Num: 10

Candidate Starts for Angela\_270:

(6, 129842), (7, 129839), (8, 129833), (Start: 10 @129764 has 60 MA's), (11, 129758), (16, 129680),

Gene: Angela\_13 Start: 7361, Stop: 7230, Start Num: 10

Candidate Starts for Angela\_13:

(6, 7439), (7, 7436), (8, 7430), (Start: 10 @7361 has 60 MA's), (11, 7355), (16, 7277),

Gene: Battuta\_10 Start: 5726, Stop: 5586, Start Num: 10

Candidate Starts for Battuta\_10:

(9, 5735), (Start: 10 @5726 has 60 MA's), (16, 5648), (17, 5612), (18, 5600),

Gene: Battuta\_267 Start: 123881, Stop: 123741, Start Num: 10

Candidate Starts for Battuta\_267:

(9, 123890), (Start: 10 @123881 has 60 MA's), (16, 123803), (17, 123767), (18, 123755),

Gene: Birchlyn\_267 Start: 119670, Stop: 119530, Start Num: 10

Candidate Starts for Birchlyn\_267:

(9, 119679), (Start: 10 @119670 has 60 MA's), (16, 119592), (17, 119556), (18, 119544),

Gene: Birchlyn\_7 Start: 3579, Stop: 3439, Start Num: 10

Candidate Starts for Birchlyn\_7:

(9, 3588), (Start: 10 @3579 has 60 MA's), (16, 3501), (17, 3465), (18, 3453),

Gene: Bmoc\_268 Start: 129071, Stop: 128931, Start Num: 10

Candidate Starts for Bmoc\_268:

(1, 129326), (2, 129314), (3, 129278), (4, 129236), (5, 129215), (7, 129146), (Start: 10 @129071 has 60 MA's), (12, 129053), (15, 128984),

Gene: Bmoc\_12 Start: 7249, Stop: 7109, Start Num: 10

Candidate Starts for Bmoc\_12:

(1, 7504), (2, 7492), (3, 7456), (4, 7414), (5, 7393), (7, 7324), (Start: 10 @7249 has 60 MA's), (12, 7231), (15, 7162),

Gene: Bordeaux\_10 Start: 5726, Stop: 5586, Start Num: 10  
Candidate Starts for Bordeaux\_10:  
(9, 5735), (Start: 10 @5726 has 60 MA's), (16, 5648), (17, 5612), (18, 5600),

Gene: Bordeaux\_267 Start: 124464, Stop: 124324, Start Num: 10  
Candidate Starts for Bordeaux\_267:  
(9, 124473), (Start: 10 @124464 has 60 MA's), (16, 124386), (17, 124350), (18, 124338),

Gene: Brizzy\_9 Start: 5315, Stop: 5175, Start Num: 10  
Candidate Starts for Brizzy\_9:  
(9, 5324), (Start: 10 @5315 has 60 MA's), (16, 5237), (17, 5201), (18, 5189),

Gene: Brizzy\_267 Start: 124583, Stop: 124443, Start Num: 10  
Candidate Starts for Brizzy\_267:  
(9, 124592), (Start: 10 @124583 has 60 MA's), (16, 124505), (17, 124469), (18, 124457),

Gene: CeilingFan\_9 Start: 5337, Stop: 5197, Start Num: 10  
Candidate Starts for CeilingFan\_9:  
(9, 5346), (Start: 10 @5337 has 60 MA's), (16, 5259), (17, 5223), (18, 5211),

Gene: CeilingFan\_275 Start: 125944, Stop: 125804, Start Num: 10  
Candidate Starts for CeilingFan\_275:  
(9, 125953), (Start: 10 @125944 has 60 MA's), (16, 125866), (17, 125830), (18, 125818),

Gene: Gibbi\_9 Start: 5337, Stop: 5197, Start Num: 10  
Candidate Starts for Gibbi\_9:  
(9, 5346), (Start: 10 @5337 has 60 MA's), (16, 5259), (17, 5223), (18, 5211),

Gene: Gibbi\_280 Start: 125437, Stop: 125297, Start Num: 10  
Candidate Starts for Gibbi\_280:  
(9, 125446), (Start: 10 @125437 has 60 MA's), (16, 125359), (17, 125323), (18, 125311),

Gene: IchabodCrane\_262 Start: 123877, Stop: 123737, Start Num: 10  
Candidate Starts for IchabodCrane\_262:  
(9, 123886), (Start: 10 @123877 has 60 MA's), (14, 123835), (16, 123799), (17, 123763), (18, 123751),

Gene: IchabodCrane\_9 Start: 5334, Stop: 5194, Start Num: 10  
Candidate Starts for IchabodCrane\_9:  
(9, 5343), (Start: 10 @5334 has 60 MA's), (14, 5292), (16, 5256), (17, 5220), (18, 5208),

Gene: JimJam\_278 Start: 127261, Stop: 127121, Start Num: 10  
Candidate Starts for JimJam\_278:  
(9, 127270), (Start: 10 @127261 has 60 MA's), (16, 127183), (17, 127147), (18, 127135),

Gene: JimJam\_10 Start: 5725, Stop: 5585, Start Num: 10  
Candidate Starts for JimJam\_10:  
(9, 5734), (Start: 10 @5725 has 60 MA's), (16, 5647), (17, 5611), (18, 5599),

Gene: Jollison\_267 Start: 124401, Stop: 124261, Start Num: 10  
Candidate Starts for Jollison\_267:  
(9, 124410), (Start: 10 @124401 has 60 MA's), (16, 124323), (17, 124287), (18, 124275),

Gene: Jollison\_10 Start: 5726, Stop: 5586, Start Num: 10

Candidate Starts for Jollison\_10:

(9, 5735), (Start: 10 @5726 has 60 MA's), (16, 5648), (17, 5612), (18, 5600),

Gene: Karimac\_268 Start: 125047, Stop: 124907, Start Num: 10

Candidate Starts for Karimac\_268:

(9, 125056), (Start: 10 @125047 has 60 MA's), (13, 125017), (16, 124969), (17, 124933), (18, 124921),

Gene: Karimac\_10 Start: 5728, Stop: 5588, Start Num: 10

Candidate Starts for Karimac\_10:

(9, 5737), (Start: 10 @5728 has 60 MA's), (13, 5698), (16, 5650), (17, 5614), (18, 5602),

Gene: KentuckyRacer\_9 Start: 5338, Stop: 5198, Start Num: 10

Candidate Starts for KentuckyRacer\_9:

(9, 5347), (Start: 10 @5338 has 60 MA's), (16, 5260), (17, 5224), (18, 5212),

Gene: KentuckyRacer\_277 Start: 126789, Stop: 126649, Start Num: 10

Candidate Starts for KentuckyRacer\_277:

(9, 126798), (Start: 10 @126789 has 60 MA's), (16, 126711), (17, 126675), (18, 126663),

Gene: LilMartin\_265 Start: 128685, Stop: 128548, Start Num: 10

Candidate Starts for LilMartin\_265:

(6, 128763), (7, 128760), (Start: 10 @128685 has 60 MA's),

Gene: LilMartin\_13 Start: 7341, Stop: 7204, Start Num: 10

Candidate Starts for LilMartin\_13:

(6, 7419), (7, 7416), (Start: 10 @7341 has 60 MA's),

Gene: Marsus\_270 Start: 131042, Stop: 130911, Start Num: 10

Candidate Starts for Marsus\_270:

(6, 131120), (7, 131117), (8, 131111), (Start: 10 @131042 has 60 MA's), (11, 131036),

Gene: Marsus\_13 Start: 7338, Stop: 7207, Start Num: 10

Candidate Starts for Marsus\_13:

(6, 7416), (7, 7413), (8, 7407), (Start: 10 @7338 has 60 MA's), (11, 7332),

Gene: Mildred21\_13 Start: 6927, Stop: 6790, Start Num: 10

Candidate Starts for Mildred21\_13:

(6, 7005), (7, 7002), (Start: 10 @6927 has 60 MA's),

Gene: Mildred21\_276 Start: 128085, Stop: 127948, Start Num: 10

Candidate Starts for Mildred21\_276:

(6, 128163), (7, 128160), (Start: 10 @128085 has 60 MA's),

Gene: MindFlayer\_9 Start: 5336, Stop: 5196, Start Num: 10

Candidate Starts for MindFlayer\_9:

(9, 5345), (Start: 10 @5336 has 60 MA's), (14, 5294), (16, 5258), (17, 5222), (18, 5210),

Gene: MindFlayer\_261 Start: 123396, Stop: 123256, Start Num: 10

Candidate Starts for MindFlayer\_261:

(9, 123405), (Start: 10 @123396 has 60 MA's), (14, 123354), (16, 123318), (17, 123282), (18, 123270),

Gene: MulchMansion\_269 Start: 130319, Stop: 130182, Start Num: 10

Candidate Starts for MulchMansion\_269:

(6, 130397), (7, 130394), (Start: 10 @130319 has 60 MA's),

Gene: MulchMansion\_13 Start: 7341, Stop: 7204, Start Num: 10

Candidate Starts for MulchMansion\_13:

(6, 7419), (7, 7416), (Start: 10 @7341 has 60 MA's),

Gene: PumpkinSpice\_274 Start: 125618, Stop: 125478, Start Num: 10

Candidate Starts for PumpkinSpice\_274:

(9, 125627), (Start: 10 @125618 has 60 MA's), (14, 125576), (16, 125540), (17, 125504), (18, 125492),

Gene: PumpkinSpice\_10 Start: 5726, Stop: 5586, Start Num: 10

Candidate Starts for PumpkinSpice\_10:

(9, 5735), (Start: 10 @5726 has 60 MA's), (14, 5684), (16, 5648), (17, 5612), (18, 5600),

Gene: Quaran19\_271 Start: 124908, Stop: 124768, Start Num: 10

Candidate Starts for Quaran19\_271:

(9, 124917), (Start: 10 @124908 has 60 MA's), (16, 124830), (17, 124794), (18, 124782),

Gene: Quaran19\_10 Start: 5726, Stop: 5586, Start Num: 10

Candidate Starts for Quaran19\_10:

(9, 5735), (Start: 10 @5726 has 60 MA's), (16, 5648), (17, 5612), (18, 5600),

Gene: Rikishi\_271 Start: 125409, Stop: 125269, Start Num: 10

Candidate Starts for Rikishi\_271:

(9, 125418), (Start: 10 @125409 has 60 MA's), (16, 125331), (17, 125295), (18, 125283),

Gene: Rikishi\_9 Start: 5336, Stop: 5196, Start Num: 10

Candidate Starts for Rikishi\_9:

(9, 5345), (Start: 10 @5336 has 60 MA's), (16, 5258), (17, 5222), (18, 5210),

Gene: Riptide\_14 Start: 7421, Stop: 7281, Start Num: 10

Candidate Starts for Riptide\_14:

(7, 7496), (Start: 10 @7421 has 60 MA's), (12, 7403), (15, 7334),

Gene: Riptide\_269 Start: 128873, Stop: 128733, Start Num: 10

Candidate Starts for Riptide\_269:

(7, 128948), (Start: 10 @128873 has 60 MA's), (12, 128855), (15, 128786),

Gene: SaltySpittoon\_270 Start: 123990, Stop: 123850, Start Num: 10

Candidate Starts for SaltySpittoon\_270:

(9, 123999), (Start: 10 @123990 has 60 MA's), (16, 123912), (17, 123876), (18, 123864),

Gene: SaltySpittoon\_10 Start: 5726, Stop: 5586, Start Num: 10

Candidate Starts for SaltySpittoon\_10:

(9, 5735), (Start: 10 @5726 has 60 MA's), (16, 5648), (17, 5612), (18, 5600),

Gene: Spelly\_10 Start: 5726, Stop: 5586, Start Num: 10

Candidate Starts for Spelly\_10:

(9, 5735), (Start: 10 @5726 has 60 MA's), (16, 5648), (17, 5612), (18, 5600),

Gene: Spelly\_276 Start: 124530, Stop: 124390, Start Num: 10

Candidate Starts for Spelly\_276:

(9, 124539), (Start: 10 @124530 has 60 MA's), (16, 124452), (17, 124416), (18, 124404),

Gene: Spilled\_277 Start: 125805, Stop: 125665, Start Num: 10

Candidate Starts for Spilled\_277:

(9, 125814), (Start: 10 @125805 has 60 MA's), (16, 125727), (17, 125691), (18, 125679),

Gene: Spilled\_9 Start: 5336, Stop: 5196, Start Num: 10

Candidate Starts for Spilled\_9:

(9, 5345), (Start: 10 @5336 has 60 MA's), (16, 5258), (17, 5222), (18, 5210),

Gene: StarPlatinum\_279 Start: 127151, Stop: 127011, Start Num: 10

Candidate Starts for StarPlatinum\_279:

(9, 127160), (Start: 10 @127151 has 60 MA's), (16, 127073), (17, 127037), (18, 127025),

Gene: StarPlatinum\_9 Start: 5464, Stop: 5324, Start Num: 10

Candidate Starts for StarPlatinum\_9:

(9, 5473), (Start: 10 @5464 has 60 MA's), (16, 5386), (17, 5350), (18, 5338),

Gene: Starbow\_10 Start: 5726, Stop: 5586, Start Num: 10

Candidate Starts for Starbow\_10:

(9, 5735), (Start: 10 @5726 has 60 MA's), (16, 5648), (17, 5612), (18, 5600),

Gene: Starbow\_267 Start: 124574, Stop: 124434, Start Num: 10

Candidate Starts for Starbow\_267:

(9, 124583), (Start: 10 @124574 has 60 MA's), (16, 124496), (17, 124460), (18, 124448),

Gene: TomSawyer\_10 Start: 5320, Stop: 5180, Start Num: 10

Candidate Starts for TomSawyer\_10:

(9, 5329), (Start: 10 @5320 has 60 MA's), (16, 5242), (17, 5206), (18, 5194),

Gene: TomSawyer\_275 Start: 127099, Stop: 126959, Start Num: 10

Candidate Starts for TomSawyer\_275:

(9, 127108), (Start: 10 @127099 has 60 MA's), (16, 127021), (17, 126985), (18, 126973),

Gene: Wipeout\_262 Start: 126072, Stop: 125932, Start Num: 10

Candidate Starts for Wipeout\_262:

(9, 126081), (Start: 10 @126072 has 60 MA's), (16, 125994), (17, 125958), (18, 125946),

Gene: Wipeout\_9 Start: 5341, Stop: 5201, Start Num: 10

Candidate Starts for Wipeout\_9:

(9, 5350), (Start: 10 @5341 has 60 MA's), (16, 5263), (17, 5227), (18, 5215),