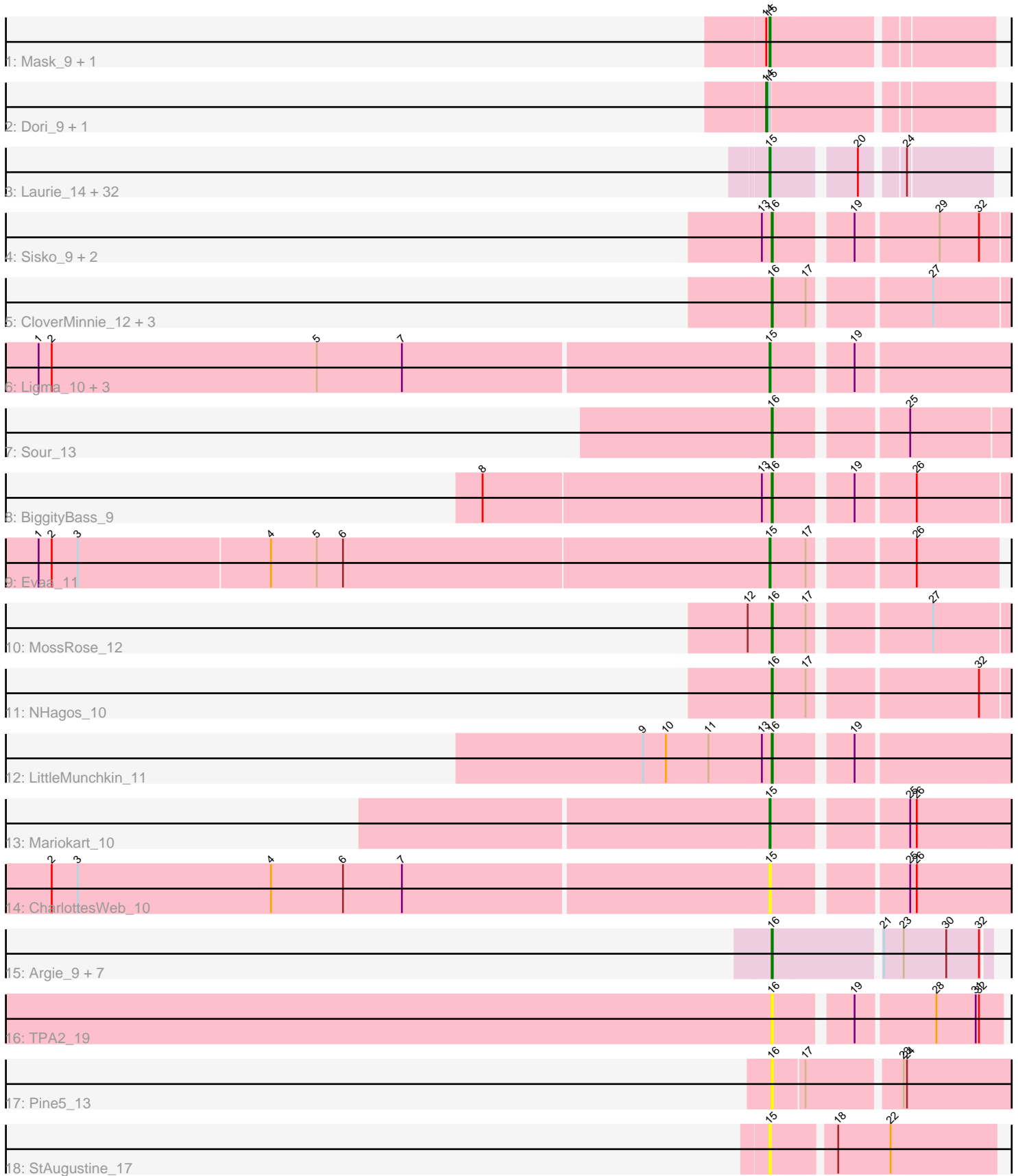


Pham 163596



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 163596 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163596 has 67 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Mask\_9, Sejanus\_9
- Track 2 : Dori\_9, Mao1\_8
- Track 3 : Laurie\_14, Tinciduntolum\_15, Blocker23\_14, Lars\_14, Opia\_14, Tres\_14, Faze9\_14, Rhinoforte\_14, Ares\_14, Godines\_14, Lephleur\_14, Rosebush\_14, MasterPo\_14, Holeinone\_14, FrenchFry\_14, Bananafish\_14, Hedgerow\_14, Brownie5\_14, Glass\_14, TA17A\_14, Kaleb\_14, Phantasmagoria\_14, Calamitous\_14, West99\_14, ItsyBitsy1\_14, Eaglehorse\_14, Boyle\_14, LizLemon\_14, Coffee\_14, Allegro\_14, Kheth\_14, Arbiter\_14, Sabella\_14
- Track 4 : Sisko\_9, Yago84\_9, AnClar\_9
- Track 5 : CloverMinnie\_12, Wooper\_12, CaiB\_12, AnarQue\_12
- Track 6 : Ligma\_10, Fresco\_10, Axumite\_10, Shatter\_10
- Track 7 : Sour\_13
- Track 8 : BiggityBass\_9
- Track 9 : Evaa\_11
- Track 10 : MossRose\_12
- Track 11 : NHagos\_10
- Track 12 : LittleMunchkin\_11
- Track 13 : Mariokart\_10
- Track 14 : CharlottesWeb\_10
- Track 15 : Argie\_9, Taptic\_8, D12\_08, PR\_08, Cepens\_8, Jeon\_8, Megabear\_8, GodPhather\_9
- Track 16 : TPA2\_19
- Track 17 : Pine5\_13
- Track 18 : StAugustine\_17

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

The start number called the most often in the published annotations is 15, it was called in 37 of the 58 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Allegro\_14, Arbiter\_14, Ares\_14, Axumite\_10, Bananafish\_14, Blocker23\_14, Boyle\_14, Brownie5\_14, Calamitous\_14, CharlottesWeb\_10, Coffee\_14, Eaglehorse\_14, Evaa\_11, Faze9\_14, FrenchFry\_14, Fresco\_10, Glass\_14,

Godines\_14, Hedgerow\_14, Holeinone\_14, ItsyBitsy1\_14, Kaleb\_14, Kheth\_14, Lars\_14, Laurie\_14, Lephleur\_14, Ligma\_10, LizLemon\_14, Mariokart\_10, Mask\_9, MasterPo\_14, Opia\_14, Phantasmagoria\_14, Rhinoforte\_14, Rosebush\_14, Sabella\_14, Sejanus\_9, Shatter\_10, StAugustine\_17, TA17A\_14, Tinciduntolum\_15, Tres\_14, West99\_14,

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

- Dori\_9, Mao1\_8,

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

- AnClar\_9, AnarQue\_12, Argie\_9, BiggityBass\_9, CaiB\_12, Cepens\_8, CloverMinnie\_12, D12\_08, GodPhather\_9, Jeon\_8, LittleMunchkin\_11, Megabear\_8, MossRose\_12, NHagos\_10, PR\_08, Pine5\_13, Sisko\_9, Sour\_13, TPA2\_19, Taptic\_8, Wooper\_12, Yago84\_9,

### Summary by start number:

Start 14:

- Found in 4 of 67 ( 6.0% ) of genes in pham
- Manual Annotations of this start: 1 of 58
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Dori\_9 (AD), Mao1\_8 (AD),

Start 15:

- Found in 45 of 67 ( 67.2% ) of genes in pham
- Manual Annotations of this start: 37 of 58
- Called 95.6% of time when present
- Phage (with cluster) where this start called: Allegro\_14 (B2), Arbitrator\_14 (B2), Ares\_14 (B2), Axumite\_10 (DR), Bananafish\_14 (B2), Blocker23\_14 (B2), Boyle\_14 (B2), Brownie5\_14 (B2), Calamitous\_14 (B2), CharlottesWeb\_10 (DR), Coffee\_14 (B2), Eaglehorse\_14 (B2), Evaa\_11 (DR), Faze9\_14 (B2), FrenchFry\_14 (B2), Fresco\_10 (DR), Glass\_14 (B2), Godines\_14 (B2), Hedgerow\_14 (B2), Holeinone\_14 (B2), ItsyBitsy1\_14 (B2), Kaleb\_14 (B2), Kheth\_14 (B2), Lars\_14 (B2), Laurie\_14 (B2), Lephleur\_14 (B2), Ligma\_10 (DR), LizLemon\_14 (B2), Mariokart\_10 (DR), Mask\_9 (AD), MasterPo\_14 (B2), Opia\_14 (B2), Phantasmagoria\_14 (B2), Rhinoforte\_14 (B2), Rosebush\_14 (B2), Sabella\_14 (B2), Sejanus\_9 (AD), Shatter\_10 (DR), StAugustine\_17 (singleton), TA17A\_14 (B2), Tinciduntolum\_15 (B2), Tres\_14 (B2), West99\_14 (B2),

Start 16:

- Found in 22 of 67 ( 32.8% ) of genes in pham
- Manual Annotations of this start: 20 of 58
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AnClar\_9 (DR), AnarQue\_12 (DR), Argie\_9 (W), BiggityBass\_9 (DR), CaiB\_12 (DR), Cepens\_8 (W), CloverMinnie\_12 (DR), D12\_08 (W), GodPhather\_9 (W), Jeon\_8 (W), LittleMunchkin\_11 (DR), Megabear\_8 (W), MossRose\_12 (DR), NHagos\_10 (DR), PR\_08 (W), Pine5\_13 (singleton), Sisko\_9 (DR), Sour\_13 (DR), TPA2\_19 (singleton), Taptic\_8 (W), Wooper\_12 (DR), Yago84\_9 (DR),

### Summary by clusters:

There are 5 clusters represented in this pham: singleton, DR, W, B2, AD,

Info for manual annotations of cluster AD:

- Start number 14 was manually annotated 1 time for cluster AD.
- Start number 15 was manually annotated 2 times for cluster AD.

Info for manual annotations of cluster B2:

- Start number 15 was manually annotated 31 times for cluster B2.

Info for manual annotations of cluster DR:

- Start number 15 was manually annotated 4 times for cluster DR.
- Start number 16 was manually annotated 12 times for cluster DR.

Info for manual annotations of cluster W:

- Start number 16 was manually annotated 8 times for cluster W.

**Gene Information:**

Gene: Allegro\_14 Start: 12064, Stop: 12237, Start Num: 15

Candidate Starts for Allegro\_14:

(Start: 15 @12064 has 37 MA's), (20, 12130), (24, 12163),

Gene: AnClar\_9 Start: 9843, Stop: 10046, Start Num: 16

Candidate Starts for AnClar\_9:

(13, 9834), (Start: 16 @9843 has 20 MA's), (19, 9906), (29, 9978), (32, 10014),

Gene: AnarQue\_12 Start: 11030, Stop: 11233, Start Num: 16

Candidate Starts for AnarQue\_12:

(Start: 16 @11030 has 20 MA's), (17, 11060), (27, 11159),

Gene: Arbiter\_14 Start: 12154, Stop: 12327, Start Num: 15

Candidate Starts for Arbiter\_14:

(Start: 15 @12154 has 37 MA's), (20, 12220), (24, 12253),

Gene: Ares\_14 Start: 12064, Stop: 12237, Start Num: 15

Candidate Starts for Ares\_14:

(Start: 15 @12064 has 37 MA's), (20, 12130), (24, 12163),

Gene: Argie\_9 Start: 10545, Stop: 10733, Start Num: 16

Candidate Starts for Argie\_9:

(Start: 16 @10545 has 20 MA's), (21, 10638), (23, 10656), (30, 10695), (32, 10725),

Gene: Axumite\_10 Start: 9533, Stop: 9739, Start Num: 15

Candidate Starts for Axumite\_10:

(1, 8870), (2, 8882), (5, 9125), (7, 9203), (Start: 15 @9533 has 37 MA's), (19, 9596),

Gene: Bananafish\_14 Start: 12064, Stop: 12237, Start Num: 15

Candidate Starts for Bananafish\_14:

(Start: 15 @12064 has 37 MA's), (20, 12130), (24, 12163),

Gene: BiggityBass\_9 Start: 9351, Stop: 9554, Start Num: 16

Candidate Starts for BiggityBass\_9:

(8, 9090), (13, 9342), (Start: 16 @9351 has 20 MA's), (19, 9414), (26, 9465),

Gene: Blocker23\_14 Start: 12181, Stop: 12354, Start Num: 15

Candidate Starts for Blocker23\_14:

(Start: 15 @12181 has 37 MA's), (20, 12247), (24, 12280),

Gene: Boyle\_14 Start: 12181, Stop: 12354, Start Num: 15

Candidate Starts for Boyle\_14:

(Start: 15 @12181 has 37 MA's), (20, 12247), (24, 12280),

Gene: Brownie5\_14 Start: 12181, Stop: 12354, Start Num: 15

Candidate Starts for Brownie5\_14:

(Start: 15 @12181 has 37 MA's), (20, 12247), (24, 12280),

Gene: CaiB\_12 Start: 11030, Stop: 11233, Start Num: 16

Candidate Starts for CaiB\_12:

(Start: 16 @11030 has 20 MA's), (17, 11060), (27, 11159),

Gene: Calamitous\_14 Start: 12064, Stop: 12237, Start Num: 15

Candidate Starts for Calamitous\_14:

(Start: 15 @12064 has 37 MA's), (20, 12130), (24, 12163),

Gene: Cepens\_8 Start: 10284, Stop: 10472, Start Num: 16

Candidate Starts for Cepens\_8:

(Start: 16 @10284 has 20 MA's), (21, 10377), (23, 10395), (30, 10434), (32, 10464),

Gene: CharlottesWeb\_10 Start: 9585, Stop: 9791, Start Num: 15

Candidate Starts for CharlottesWeb\_10:

(2, 8934), (3, 8958), (4, 9135), (6, 9201), (7, 9255), (Start: 15 @9585 has 37 MA's), (25, 9693), (26, 9699),

Gene: CloverMinnie\_12 Start: 11030, Stop: 11233, Start Num: 16

Candidate Starts for CloverMinnie\_12:

(Start: 16 @11030 has 20 MA's), (17, 11060), (27, 11159),

Gene: Coffee\_14 Start: 12181, Stop: 12354, Start Num: 15

Candidate Starts for Coffee\_14:

(Start: 15 @12181 has 37 MA's), (20, 12247), (24, 12280),

Gene: D12\_08 Start: 10239, Stop: 10427, Start Num: 16

Candidate Starts for D12\_08:

(Start: 16 @10239 has 20 MA's), (21, 10332), (23, 10350), (30, 10389), (32, 10419),

Gene: Dori\_9 Start: 8150, Stop: 8341, Start Num: 14

Candidate Starts for Dori\_9:

(Start: 14 @8150 has 1 MA's), (Start: 15 @8153 has 37 MA's),

Gene: Eaglehorse\_14 Start: 12082, Stop: 12255, Start Num: 15

Candidate Starts for Eaglehorse\_14:

(Start: 15 @12082 has 37 MA's), (20, 12148), (24, 12181),

Gene: Evaa\_11 Start: 10856, Stop: 11044, Start Num: 15

Candidate Starts for Evaa\_11:

(1, 10193), (2, 10205), (3, 10229), (4, 10403), (5, 10445), (6, 10469), (Start: 15 @10856 has 37 MA's), (17, 10886), (26, 10970),

Gene: Faze9\_14 Start: 12181, Stop: 12354, Start Num: 15  
Candidate Starts for Faze9\_14:  
(Start: 15 @12181 has 37 MA's), (20, 12247), (24, 12280),

Gene: FrenchFry\_14 Start: 12181, Stop: 12354, Start Num: 15  
Candidate Starts for FrenchFry\_14:  
(Start: 15 @12181 has 37 MA's), (20, 12247), (24, 12280),

Gene: Fresco\_10 Start: 9533, Stop: 9739, Start Num: 15  
Candidate Starts for Fresco\_10:  
(1, 8870), (2, 8882), (5, 9125), (7, 9203), (Start: 15 @9533 has 37 MA's), (19, 9596),

Gene: Glass\_14 Start: 12181, Stop: 12354, Start Num: 15  
Candidate Starts for Glass\_14:  
(Start: 15 @12181 has 37 MA's), (20, 12247), (24, 12280),

Gene: GodPhather\_9 Start: 10542, Stop: 10730, Start Num: 16  
Candidate Starts for GodPhather\_9:  
(Start: 16 @10542 has 20 MA's), (21, 10635), (23, 10653), (30, 10692), (32, 10722),

Gene: Godines\_14 Start: 12064, Stop: 12237, Start Num: 15  
Candidate Starts for Godines\_14:  
(Start: 15 @12064 has 37 MA's), (20, 12130), (24, 12163),

Gene: Hedgerow\_14 Start: 12163, Stop: 12336, Start Num: 15  
Candidate Starts for Hedgerow\_14:  
(Start: 15 @12163 has 37 MA's), (20, 12229), (24, 12262),

Gene: Holeinone\_14 Start: 12063, Stop: 12236, Start Num: 15  
Candidate Starts for Holeinone\_14:  
(Start: 15 @12063 has 37 MA's), (20, 12129), (24, 12162),

Gene: ItsyBitsy1\_14 Start: 12055, Stop: 12228, Start Num: 15  
Candidate Starts for ItsyBitsy1\_14:  
(Start: 15 @12055 has 37 MA's), (20, 12121), (24, 12154),

Gene: Jeon\_8 Start: 10272, Stop: 10460, Start Num: 16  
Candidate Starts for Jeon\_8:  
(Start: 16 @10272 has 20 MA's), (21, 10365), (23, 10383), (30, 10422), (32, 10452),

Gene: Kaleb\_14 Start: 12181, Stop: 12354, Start Num: 15  
Candidate Starts for Kaleb\_14:  
(Start: 15 @12181 has 37 MA's), (20, 12247), (24, 12280),

Gene: Kheth\_14 Start: 12064, Stop: 12237, Start Num: 15  
Candidate Starts for Kheth\_14:  
(Start: 15 @12064 has 37 MA's), (20, 12130), (24, 12163),

Gene: Lars\_14 Start: 12181, Stop: 12354, Start Num: 15  
Candidate Starts for Lars\_14:

(Start: 15 @12181 has 37 MA's), (20, 12247), (24, 12280),

Gene: Laurie\_14 Start: 12065, Stop: 12238, Start Num: 15

Candidate Starts for Laurie\_14:

(Start: 15 @12065 has 37 MA's), (20, 12131), (24, 12164),

Gene: Lephleur\_14 Start: 12064, Stop: 12237, Start Num: 15

Candidate Starts for Lephleur\_14:

(Start: 15 @12064 has 37 MA's), (20, 12130), (24, 12163),

Gene: Ligma\_10 Start: 9533, Stop: 9739, Start Num: 15

Candidate Starts for Ligma\_10:

(1, 8870), (2, 8882), (5, 9125), (7, 9203), (Start: 15 @9533 has 37 MA's), (19, 9596),

Gene: LittleMunchkin\_11 Start: 10824, Stop: 11030, Start Num: 16

Candidate Starts for LittleMunchkin\_11:

(9, 10707), (10, 10728), (11, 10767), (13, 10815), (Start: 16 @10824 has 20 MA's), (19, 10887),

Gene: LizLemon\_14 Start: 12181, Stop: 12354, Start Num: 15

Candidate Starts for LizLemon\_14:

(Start: 15 @12181 has 37 MA's), (20, 12247), (24, 12280),

Gene: Mao1\_8 Start: 8546, Stop: 8737, Start Num: 14

Candidate Starts for Mao1\_8:

(Start: 14 @8546 has 1 MA's), (Start: 15 @8549 has 37 MA's),

Gene: Mariokart\_10 Start: 9585, Stop: 9791, Start Num: 15

Candidate Starts for Mariokart\_10:

(Start: 15 @9585 has 37 MA's), (25, 9693), (26, 9699),

Gene: Mask\_9 Start: 8550, Stop: 8738, Start Num: 15

Candidate Starts for Mask\_9:

(Start: 14 @8547 has 1 MA's), (Start: 15 @8550 has 37 MA's),

Gene: MasterPo\_14 Start: 12064, Stop: 12237, Start Num: 15

Candidate Starts for MasterPo\_14:

(Start: 15 @12064 has 37 MA's), (20, 12130), (24, 12163),

Gene: Megabear\_8 Start: 10239, Stop: 10427, Start Num: 16

Candidate Starts for Megabear\_8:

(Start: 16 @10239 has 20 MA's), (21, 10332), (23, 10350), (30, 10389), (32, 10419),

Gene: MossRose\_12 Start: 11030, Stop: 11233, Start Num: 16

Candidate Starts for MossRose\_12:

(12, 11009), (Start: 16 @11030 has 20 MA's), (17, 11060), (27, 11159),

Gene: NHagos\_10 Start: 9514, Stop: 9717, Start Num: 16

Candidate Starts for NHagos\_10:

(Start: 16 @9514 has 20 MA's), (17, 9544), (32, 9685),

Gene: Opia\_14 Start: 12064, Stop: 12237, Start Num: 15

Candidate Starts for Opia\_14:

(Start: 15 @12064 has 37 MA's), (20, 12130), (24, 12163),

Gene: PR\_08 Start: 10239, Stop: 10427, Start Num: 16  
Candidate Starts for PR\_08:  
(Start: 16 @10239 has 20 MA's), (21, 10332), (23, 10350), (30, 10389), (32, 10419),

Gene: Phantasmagoria\_14 Start: 12064, Stop: 12237, Start Num: 15  
Candidate Starts for Phantasmagoria\_14:  
(Start: 15 @12064 has 37 MA's), (20, 12130), (24, 12163),

Gene: Pine5\_13 Start: 10872, Stop: 11096, Start Num: 16  
Candidate Starts for Pine5\_13:  
(Start: 16 @10872 has 20 MA's), (17, 10899), (23, 10980), (24, 10983),

Gene: Rhinoforte\_14 Start: 12181, Stop: 12354, Start Num: 15  
Candidate Starts for Rhinoforte\_14:  
(Start: 15 @12181 has 37 MA's), (20, 12247), (24, 12280),

Gene: Rosebush\_14 Start: 12181, Stop: 12354, Start Num: 15  
Candidate Starts for Rosebush\_14:  
(Start: 15 @12181 has 37 MA's), (20, 12247), (24, 12280),

Gene: Sabella\_14 Start: 12064, Stop: 12237, Start Num: 15  
Candidate Starts for Sabella\_14:  
(Start: 15 @12064 has 37 MA's), (20, 12130), (24, 12163),

Gene: Sejanus\_9 Start: 9366, Stop: 9554, Start Num: 15  
Candidate Starts for Sejanus\_9:  
(Start: 14 @9363 has 1 MA's), (Start: 15 @9366 has 37 MA's),

Gene: Shatter\_10 Start: 9533, Stop: 9739, Start Num: 15  
Candidate Starts for Shatter\_10:  
(1, 8870), (2, 8882), (5, 9125), (7, 9203), (Start: 15 @9533 has 37 MA's), (19, 9596),

Gene: Sisko\_9 Start: 9345, Stop: 9548, Start Num: 16  
Candidate Starts for Sisko\_9:  
(13, 9336), (Start: 16 @9345 has 20 MA's), (19, 9408), (29, 9480), (32, 9516),

Gene: Sour\_13 Start: 11191, Stop: 11394, Start Num: 16  
Candidate Starts for Sour\_13:  
(Start: 16 @11191 has 20 MA's), (25, 11299),

Gene: StAugustine\_17 Start: 12941, Stop: 13135, Start Num: 15  
Candidate Starts for StAugustine\_17:  
(Start: 15 @12941 has 37 MA's), (18, 12992), (22, 13040),

Gene: TA17A\_14 Start: 12064, Stop: 12237, Start Num: 15  
Candidate Starts for TA17A\_14:  
(Start: 15 @12064 has 37 MA's), (20, 12130), (24, 12163),

Gene: TPA2\_19 Start: 12170, Stop: 12361, Start Num: 16  
Candidate Starts for TPA2\_19:  
(Start: 16 @12170 has 20 MA's), (19, 12233), (28, 12302), (31, 12338), (32, 12341),



Gene: Taptic\_8 Start: 10239, Stop: 10427, Start Num: 16  
Candidate Starts for Taptic\_8:  
(Start: 16 @10239 has 20 MA's), (21, 10332), (23, 10350), (30, 10389), (32, 10419),

Gene: Tinciduntsolum\_15 Start: 12180, Stop: 12353, Start Num: 15  
Candidate Starts for Tinciduntsolum\_15:  
(Start: 15 @12180 has 37 MA's), (20, 12246), (24, 12279),

Gene: Tres\_14 Start: 12064, Stop: 12237, Start Num: 15  
Candidate Starts for Tres\_14:  
(Start: 15 @12064 has 37 MA's), (20, 12130), (24, 12163),

Gene: West99\_14 Start: 12181, Stop: 12354, Start Num: 15  
Candidate Starts for West99\_14:  
(Start: 15 @12181 has 37 MA's), (20, 12247), (24, 12280),

Gene: Wooper\_12 Start: 11030, Stop: 11233, Start Num: 16  
Candidate Starts for Wooper\_12:  
(Start: 16 @11030 has 20 MA's), (17, 11060), (27, 11159),

Gene: Yago84\_9 Start: 9354, Stop: 9557, Start Num: 16  
Candidate Starts for Yago84\_9:  
(13, 9345), (Start: 16 @9354 has 20 MA's), (19, 9417), (29, 9489), (32, 9525),