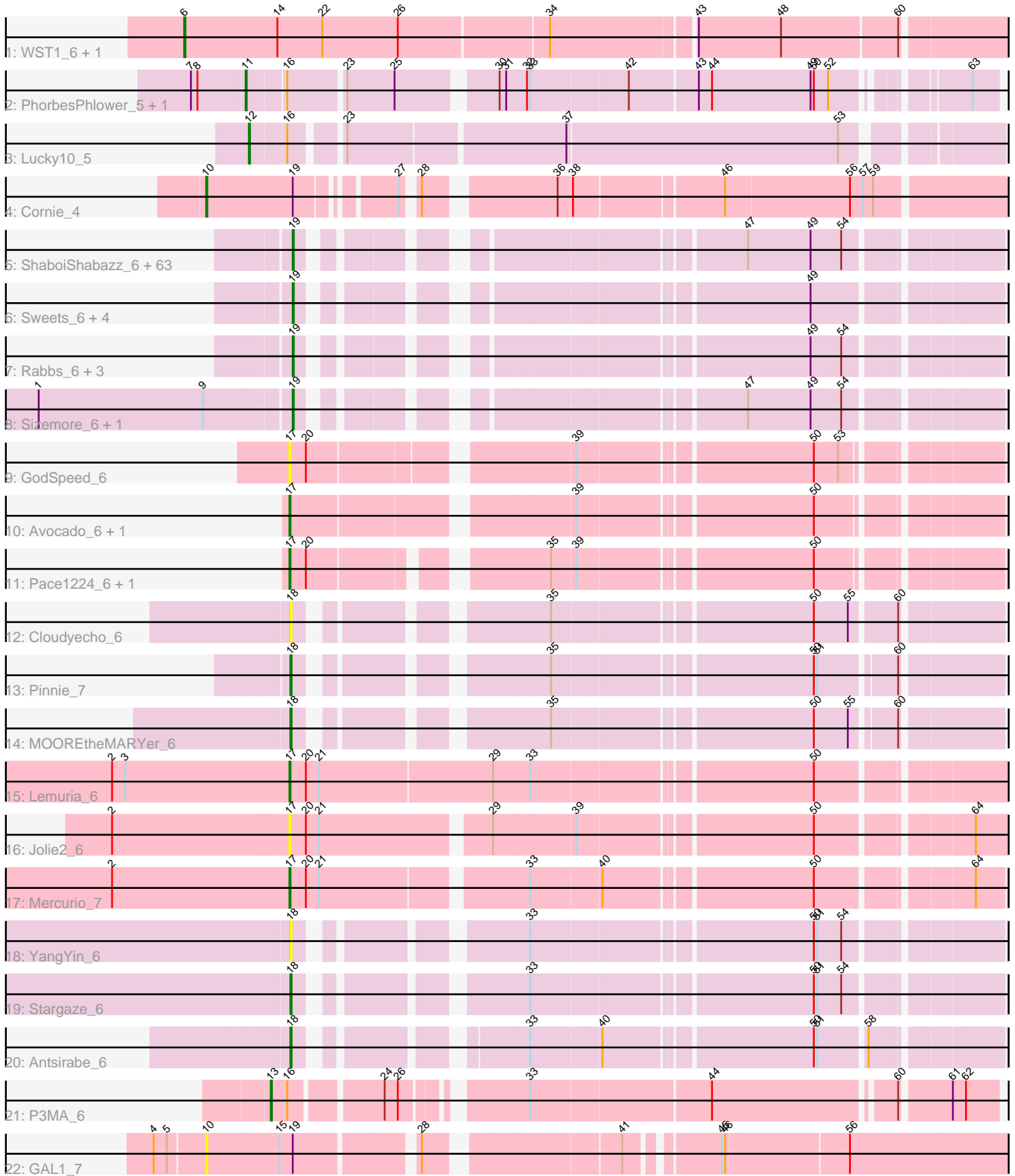


Pham 311443



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 311443 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311443 has 97 members, 14 are drafts.

Phages represented in each track:

- Track 1 : WST1\_6, IdentityCrisis\_6
- Track 2 : PhorbesPhlower\_5, Morkie\_5
- Track 3 : Lucky10\_5
- Track 4 : Cornie\_4
- Track 5 : ShaboiShabazz\_6, Peeb\_6, Maliketh\_6, Gomashi\_6, Primanti\_6, Liefie\_6, Phloodle\_6, Cherrybomb426\_6, Barkley26\_6, AzulaCat\_6, Marmie\_6, Aroostook\_6, Darionha\_6, Crespo\_6, Ruriko\_6, Mowgli\_6, JorRay\_6, LouisV14\_6, Phreak\_6, BruceB\_6, Hope\_6, ECartman\_6, GoldenAsh\_6, Schiebel\_6, Jeilious\_6, Jolene\_6, Frosty24\_6, Phish\_6, Jane\_6, Avrafan\_6, TomBrady\_6, Zombie\_6, ZoMa\_6, Grizzly\_6, AizenPogi\_6, BPs\_6, DingDing\_6, CLED96\_6, Jonghyun\_6, OctaviousRex\_6, Camri\_6, Gideon\_6, Rattrick\_6, Annihilator\_6, DNAll\_006, Renaissance\_6, Neoh\_6, PinkYoshi\_6, MZKinsey\_6, Plagueis\_6, Cedasite\_6, Kareem\_6, Wendigo\_6, Remy19\_6, CassieYates\_6, Periodt\_6, Angel\_6, Hotshotbaby7\_6, DMoney\_6, Olga\_6, Richarlison\_6, Chance64\_6, Coleslaw\_6, BQuat\_6
- Track 6 : Sweets\_6, Halo\_6, TinaBug\_6, ForeverHowLong\_6, Paito\_6
- Track 7 : Rabbs\_6, Taheera\_6, Terror\_6, Sneeze\_6
- Track 8 : Sizemore\_6, Kasen3\_6
- Track 9 : GodSpeed\_6
- Track 10 : Avocado\_6, Cambiare\_7
- Track 11 : Pace1224\_6, FlagStaff\_6
- Track 12 : Cloudyecho\_6
- Track 13 : Pinnie\_7
- Track 14 : MOOREtheMARYer\_6
- Track 15 : Lemuria\_6
- Track 16 : Jolie2\_6
- Track 17 : Mercurio\_7
- Track 18 : YangYin\_6
- Track 19 : Stargaze\_6
- Track 20 : Antsirabe\_6
- Track 21 : P3MA\_6
- Track 22 : GAL1\_7

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

The start number called the most often in the published annotations is 19, it was called in 68 of the 83 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AizenPogi\_6, Angel\_6, Annihilator\_6, Aroostook\_6, Avrafan\_6, AzulaCat\_6, BPs\_6, BQuat\_6, Barkley26\_6, BruceB\_6, CLED96\_6, Camri\_6, CassieYates\_6, Cedasite\_6, Chance64\_6, Cherrybomb426\_6, Coleslaw\_6, Crespo\_6, DMoney\_6, DNAIII\_006, Darionha\_6, DingDing\_6, ECartman\_6, ForeverHowLong\_6, Frosty24\_6, Gideon\_6, GoldenAsh\_6, Gomashi\_6, Grizzly\_6, Halo\_6, Hope\_6, Hotshotbaby7\_6, Jane\_6, Jeilious\_6, Jolene\_6, Jonghyun\_6, JorRay\_6, Kareem\_6, Kasen3\_6, Liefie\_6, LouisV14\_6, MZKinsey\_6, Maliketh\_6, Marmie\_6, Mowgli\_6, Neoh\_6, OctaviousRex\_6, Olga\_6, Paito\_6, Peeb\_6, Periodt\_6, Phish\_6, Phloodle\_6, Phreak\_6, PinkYoshi\_6, Plagueis\_6, Primanti\_6, Rabbs\_6, Rattrick\_6, Remy19\_6, Renaissance\_6, Richarlison\_6, Ruriko\_6, Schiebel\_6, ShaboiShabazz\_6, Sizemore\_6, Sneeze\_6, Sweets\_6, Taheera\_6, Terror\_6, TinaBug\_6, TomBrady\_6, Wendigo\_6, ZoMa\_6, Zombie\_6,

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

- Cornie\_4, GAL1\_7,

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

- Antsirabe\_6, Avocado\_6, Cambiare\_7, Cloudyecho\_6, FlagStaff\_6, GodSpeed\_6, IdentityCrisis\_6, Jolie2\_6, Lemuria\_6, Lucky10\_5, MOOREtheMARYer\_6, Mercurio\_7, Morkie\_5, P3MA\_6, Pace1224\_6, PhorbesPhlower\_5, Pinnie\_7, Stargaze\_6, WST1\_6, YangYin\_6,

### Summary by start number:

Start 6:

- Found in 2 of 97 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 83
- Called 100.0% of time when present
- Phage (with cluster) where this start called: IdentityCrisis\_6 (AJ), WST1\_6 (AJ),

Start 10:

- Found in 2 of 97 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 83
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cornie\_4 (F5), GAL1\_7 (singleton),

Start 11:

- Found in 2 of 97 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 2 of 83
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Morkie\_5 (DH), PhorbesPhlower\_5 (DH),

Start 12:

- Found in 1 of 97 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 1 of 83
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lucky10\_5 (DH),

Start 13:

- Found in 1 of 97 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 1 of 83
- Called 100.0% of time when present
- Phage (with cluster) where this start called: P3MA\_6 (singleton),

Start 17:

- Found in 8 of 97 ( 8.2% ) of genes in pham
- Manual Annotations of this start: 5 of 83
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Avocado\_6 (G2), Cambiare\_7 (G2), FlagStaff\_6 (G2), GodSpeed\_6 (G2), Jolie2\_6 (G4), Lemuria\_6 (G4), Mercurio\_7 (G4), Pace1224\_6 (G2),

Start 18:

- Found in 6 of 97 ( 6.2% ) of genes in pham
- Manual Annotations of this start: 4 of 83
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antsirabe\_6 (G5), Cloudyecho\_6 (G3), MOOREtheMARYer\_6 (G3), Pinnie\_7 (G3), Stargaze\_6 (G5), YangYin\_6 (G5),

Start 19:

- Found in 77 of 97 ( 79.4% ) of genes in pham
- Manual Annotations of this start: 68 of 83
- Called 97.4% of time when present
- Phage (with cluster) where this start called: AizenPogi\_6 (G1), Angel\_6 (G1), Annihilator\_6 (G1), Aroostook\_6 (G1), Avrafan\_6 (G1), AzulaCat\_6 (G1), BPs\_6 (G1), BQuat\_6 (G1), Barkley26\_6 (G1), BruceB\_6 (G1), CLED96\_6 (G1), Camri\_6 (G1), CassieYates\_6 (G1), Cedasite\_6 (G1), Chance64\_6 (G1), Cherrybomb426\_6 (G1), Coleslaw\_6 (G1), Crespo\_6 (G1), DMoney\_6 (G1), DNAIII\_006 (G1), Darionha\_6 (G1), DingDing\_6 (G1), ECartman\_6 (G1), ForeverHowLong\_6 (G1), Frosty24\_6 (G1), Gideon\_6 (G1), GoldenAsh\_6 (G1), Gomashi\_6 (G1), Grizzly\_6 (G1), Halo\_6 (G1), Hope\_6 (G1), Hotshotbaby7\_6 (G1), Jane\_6 (G1), Jeilious\_6 (G1), Jolene\_6 (G1), Jonghyun\_6 (G1), JorRay\_6 (G1), Kareem\_6 (G1), Kasen3\_6 (G1), Liefie\_6 (G1), LouisV14\_6 (G1), MZKinsey\_6 (G1), Maliketh\_6 (G1), Marmie\_6 (G1), Mowgli\_6 (G1), Neoh\_6 (G1), OctaviousRex\_6 (G1), Olga\_6 (G1), Paito\_6 (G1), Peeb\_6 (G1), Periodt\_6 (G1), Phish\_6 (G1), Phloodle\_6 (G1), Phreak\_6 (G1), PinkYoshi\_6 (G1), Plagueis\_6 (G1), Primanti\_6 (G1), Rabbs\_6 (G1), Rattrick\_6 (G1), Remy19\_6 (G1), Renaissance\_6 (G1), Richarlison\_6 (G1), Ruriko\_6 (G1), Schiebel\_6 (G1), ShaboiShabazz\_6 (G1), Sizemore\_6 (G1), Sneeze\_6 (G1), Sweets\_6 (G1), Taheera\_6 (G1), Terror\_6 (G1), TinaBug\_6 (G1), TomBrady\_6 (G1), Wendigo\_6 (G1), ZoMa\_6 (G1), Zombie\_6 (G1),

**Summary by clusters:**

There are 10 clusters represented in this pham: G5, G4, G3, DH, G, F5, AJ, singleton, G1, G2,

Info for manual annotations of cluster AJ:

- Start number 6 was manually annotated 1 time for cluster AJ.

Info for manual annotations of cluster DH:

- Start number 11 was manually annotated 2 times for cluster DH.

- Start number 12 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster F5:

- Start number 10 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster G:

- Start number 19 was manually annotated 1 time for cluster G.

Info for manual annotations of cluster G1:

- Start number 19 was manually annotated 67 times for cluster G1.

Info for manual annotations of cluster G2:

- Start number 17 was manually annotated 3 times for cluster G2.

Info for manual annotations of cluster G3:

- Start number 18 was manually annotated 2 times for cluster G3.

Info for manual annotations of cluster G4:

- Start number 17 was manually annotated 2 times for cluster G4.

Info for manual annotations of cluster G5:

- Start number 18 was manually annotated 2 times for cluster G5.

### ***Gene Information:***

Gene: AizenPogi\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for AizenPogi\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Angel\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Angel\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Annihilator\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Annihilator\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Antsirabe\_6 Start: 6666, Stop: 7220, Start Num: 18

Candidate Starts for Antsirabe\_6:

(Start: 18 @6666 has 4 MA's), (33, 6828), (40, 6888), (50, 7065), (51, 7068), (58, 7107),

Gene: Aroostook\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Aroostook\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Avocado\_6 Start: 6633, Stop: 7214, Start Num: 17

Candidate Starts for Avocado\_6:

(Start: 17 @6633 has 5 MA's), (39, 6864), (50, 7062),

Gene: Avrafan\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Avrafan\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: AzulaCat\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for AzulaCat\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: BPs\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for BPs\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: BQuat\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for BQuat\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Barkley26\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Barkley26\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: BruceB\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for BruceB\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: CLED96\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for CLED96\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Cambiare\_7 Start: 7095, Stop: 7676, Start Num: 17

Candidate Starts for Cambiare\_7:

(Start: 17 @7095 has 5 MA's), (39, 7326), (50, 7524),

Gene: Camri\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Camri\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: CassieYates\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for CassieYates\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Cedasite\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Cedasite\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Chance64\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Chance64\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Cherrybomb426\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Cherrybomb426\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Cloudyecho\_6 Start: 6620, Stop: 7174, Start Num: 18

Candidate Starts for Cloudyecho\_6:

(Start: 18 @6620 has 4 MA's), (35, 6803), (50, 7022), (55, 7052), (60, 7088),

Gene: Coleslaw\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Coleslaw\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Cornie\_4 Start: 3792, Stop: 4448, Start Num: 10  
Candidate Starts for Cornie\_4:  
(Start: 10 @3792 has 1 MA's), (Start: 19 @3870 has 68 MA's), (27, 3945), (28, 3954), (36, 4056), (38, 4068), (46, 4197), (56, 4308), (57, 4320), (59, 4329),

Gene: Crespo\_6 Start: 6515, Stop: 7057, Start Num: 19  
Candidate Starts for Crespo\_6:  
(Start: 19 @6515 has 68 MA's), (47, 6842), (49, 6899), (54, 6926),

Gene: DMoney\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for DMoney\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: DNAIII\_006 Start: 6523, Stop: 7065, Start Num: 19  
Candidate Starts for DNAIII\_006:  
(Start: 19 @6523 has 68 MA's), (47, 6850), (49, 6907), (54, 6934),

Gene: Darionha\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Darionha\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: DingDing\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for DingDing\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: ECartman\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for ECartman\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: FlagStaff\_6 Start: 6601, Stop: 7170, Start Num: 17  
Candidate Starts for FlagStaff\_6:  
(Start: 17 @6601 has 5 MA's), (20, 6616), (35, 6799), (39, 6820), (50, 7018),

Gene: ForeverHowLong\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for ForeverHowLong\_6:  
(Start: 19 @6514 has 68 MA's), (49, 6898),

Gene: Frosty24\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Frosty24\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: GAL1\_7 Start: 5721, Stop: 6392, Start Num: 10  
Candidate Starts for GAL1\_7:  
(4, 5676), (5, 5688), (Start: 10 @5721 has 1 MA's), (15, 5787), (Start: 19 @5799 has 68 MA's), (28, 5898), (41, 6054), (45, 6126), (46, 6129), (56, 6237),

Gene: Gideon\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Gideon\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: GodSpeed\_6 Start: 6592, Stop: 7170, Start Num: 17

Candidate Starts for GodSpeed\_6:

(Start: 17 @6592 has 5 MA's), (20, 6607), (39, 6820), (50, 7018), (53, 7039),

Gene: GoldenAsh\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for GoldenAsh\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Gomashi\_6 Start: 6515, Stop: 7057, Start Num: 19

Candidate Starts for Gomashi\_6:

(Start: 19 @6515 has 68 MA's), (47, 6842), (49, 6899), (54, 6926),

Gene: Grizzly\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Grizzly\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Halo\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Halo\_6:

(Start: 19 @6514 has 68 MA's), (49, 6898),

Gene: Hope\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Hope\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Hotshotbaby7\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Hotshotbaby7\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: IdentityCrisis\_6 Start: 5296, Stop: 6006, Start Num: 6

Candidate Starts for IdentityCrisis\_6:

(Start: 6 @5296 has 1 MA's), (14, 5380), (22, 5419), (26, 5488), (34, 5620), (43, 5743), (48, 5818), (60, 5917),

Gene: Jane\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Jane\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Jeilious\_6 Start: 6513, Stop: 7055, Start Num: 19

Candidate Starts for Jeilious\_6:

(Start: 19 @6513 has 68 MA's), (47, 6840), (49, 6897), (54, 6924),

Gene: Jolene\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Jolene\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Jolie2\_6 Start: 5609, Stop: 6208, Start Num: 17

Candidate Starts for Jolie2\_6:

(2, 5450), (Start: 17 @5609 has 5 MA's), (20, 5624), (21, 5636), (29, 5780), (39, 5852), (50, 6050), (64, 6173),

Gene: Jonghyun\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Jonghyun\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: JorRay\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for JorRay\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Kareem\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Kareem\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Kasen3\_6 Start: 6515, Stop: 7057, Start Num: 19

Candidate Starts for Kasen3\_6:

(1, 6290), (9, 6440), (Start: 19 @6515 has 68 MA's), (47, 6842), (49, 6899), (54, 6926),

Gene: Lemuria\_6 Start: 5637, Stop: 6248, Start Num: 17

Candidate Starts for Lemuria\_6:

(2, 5478), (3, 5490), (Start: 17 @5637 has 5 MA's), (20, 5652), (21, 5664), (29, 5820), (33, 5853), (50, 6090),

Gene: Liefie\_6 Start: 6513, Stop: 7055, Start Num: 19

Candidate Starts for Liefie\_6:

(Start: 19 @6513 has 68 MA's), (47, 6840), (49, 6897), (54, 6924),

Gene: LouisV14\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for LouisV14\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Lucky10\_5 Start: 3847, Stop: 4470, Start Num: 12

Candidate Starts for Lucky10\_5:

(Start: 12 @3847 has 1 MA's), (16, 3877), (23, 3916), (37, 4105), (53, 4348),

Gene: MOOREtheMARYer\_6 Start: 6621, Stop: 7172, Start Num: 18

Candidate Starts for MOOREtheMARYer\_6:

(Start: 18 @6621 has 4 MA's), (35, 6804), (50, 7023), (55, 7053), (60, 7086),

Gene: MZKinsey\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for MZKinsey\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Maliketh\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Maliketh\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Marmie\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Marmie\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Mercurio\_7 Start: 6283, Stop: 6876, Start Num: 17

Candidate Starts for Mercurio\_7:

(2, 6124), (Start: 17 @6283 has 5 MA's), (20, 6298), (21, 6310), (33, 6484), (40, 6544), (50, 6721), (64, 6844),

Gene: Morkie\_5 Start: 3817, Stop: 4428, Start Num: 11

Candidate Starts for Morkie\_5:

(7, 3769), (8, 3775), (Start: 11 @3817 has 2 MA's), (16, 3850), (23, 3898), (25, 3940), (30, 4018), (31, 4024), (32, 4042), (33, 4045), (42, 4129), (43, 4189), (44, 4201), (49, 4291), (50, 4294), (52, 4306), (63, 4405),

Gene: Mowgli\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Mowgli\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Neoh\_6 Start: 6515, Stop: 7057, Start Num: 19

Candidate Starts for Neoh\_6:

(Start: 19 @6515 has 68 MA's), (47, 6842), (49, 6899), (54, 6926),

Gene: OctaviousRex\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for OctaviousRex\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Olga\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Olga\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: P3MA\_6 Start: 4788, Stop: 5372, Start Num: 13

Candidate Starts for P3MA\_6:

(Start: 13 @4788 has 1 MA's), (16, 4803), (24, 4878), (26, 4890), (33, 4980), (44, 5136), (60, 5289), (61, 5331), (62, 5343),

Gene: Pace1224\_6 Start: 6601, Stop: 7170, Start Num: 17

Candidate Starts for Pace1224\_6:

(Start: 17 @6601 has 5 MA's), (20, 6616), (35, 6799), (39, 6820), (50, 7018),

Gene: Paito\_6 Start: 6575, Stop: 7117, Start Num: 19

Candidate Starts for Paito\_6:

(Start: 19 @6575 has 68 MA's), (49, 6959),

Gene: Peeb\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Peeb\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Periodt\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Periodt\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Phish\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Phish\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Phloodle\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Phloodle\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: PhorbesPhlower\_5 Start: 3817, Stop: 4428, Start Num: 11

Candidate Starts for PhorbesPhlower\_5:

(7, 3769), (8, 3775), (Start: 11 @3817 has 2 MA's), (16, 3850), (23, 3898), (25, 3940), (30, 4018), (31, 4024), (32, 4042), (33, 4045), (42, 4129), (43, 4189), (44, 4201), (49, 4291), (50, 4294), (52, 4306), (63, 4405),

Gene: Phreak\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Phreak\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: PinkYoshi\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for PinkYoshi\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Pinnie\_7 Start: 7090, Stop: 7641, Start Num: 18  
Candidate Starts for Pinnie\_7:  
(Start: 18 @7090 has 4 MA's), (35, 7273), (50, 7492), (51, 7495), (60, 7555),

Gene: Plagueis\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Plagueis\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Primanti\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Primanti\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Rabbs\_6 Start: 6515, Stop: 7057, Start Num: 19  
Candidate Starts for Rabbs\_6:  
(Start: 19 @6515 has 68 MA's), (49, 6899), (54, 6926),

Gene: Rattrick\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Rattrick\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Remy19\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Remy19\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Renaissance\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Renaissance\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Richarlison\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Richarlison\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Ruriko\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Ruriko\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Schiebel\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Schiebel\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: ShaboiShabazz\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for ShaboiShabazz\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Sizemore\_6 Start: 6515, Stop: 7057, Start Num: 19  
Candidate Starts for Sizemore\_6:  
(1, 6290), (9, 6440), (Start: 19 @6515 has 68 MA's), (47, 6842), (49, 6899), (54, 6926),

Gene: Sneeze\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Sneeze\_6:  
(Start: 19 @6514 has 68 MA's), (49, 6898), (54, 6925),

Gene: Stargaze\_6 Start: 6660, Stop: 7217, Start Num: 18  
Candidate Starts for Stargaze\_6:  
(Start: 18 @6660 has 4 MA's), (33, 6825), (50, 7062), (51, 7065), (54, 7086),

Gene: Sweets\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Sweets\_6:  
(Start: 19 @6514 has 68 MA's), (49, 6898),

Gene: Taheera\_6 Start: 6524, Stop: 7066, Start Num: 19  
Candidate Starts for Taheera\_6:  
(Start: 19 @6524 has 68 MA's), (49, 6908), (54, 6935),

Gene: Terror\_6 Start: 6524, Stop: 7066, Start Num: 19  
Candidate Starts for Terror\_6:  
(Start: 19 @6524 has 68 MA's), (49, 6908), (54, 6935),

Gene: TinaBug\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for TinaBug\_6:  
(Start: 19 @6514 has 68 MA's), (49, 6898),

Gene: TomBrady\_6 Start: 6515, Stop: 7057, Start Num: 19  
Candidate Starts for TomBrady\_6:  
(Start: 19 @6515 has 68 MA's), (47, 6842), (49, 6899), (54, 6926),

Gene: WST1\_6 Start: 5296, Stop: 6006, Start Num: 6  
Candidate Starts for WST1\_6:  
(Start: 6 @5296 has 1 MA's), (14, 5380), (22, 5419), (26, 5488), (34, 5620), (43, 5743), (48, 5818), (60, 5917),

Gene: Wendigo\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for Wendigo\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: YangYin\_6 Start: 6660, Stop: 7217, Start Num: 18  
Candidate Starts for YangYin\_6:  
(Start: 18 @6660 has 4 MA's), (33, 6825), (50, 7062), (51, 7065), (54, 7086),

Gene: ZoMa\_6 Start: 6514, Stop: 7056, Start Num: 19  
Candidate Starts for ZoMa\_6:  
(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),

Gene: Zombie\_6 Start: 6514, Stop: 7056, Start Num: 19

Candidate Starts for Zombie\_6:

(Start: 19 @6514 has 68 MA's), (47, 6841), (49, 6898), (54, 6925),