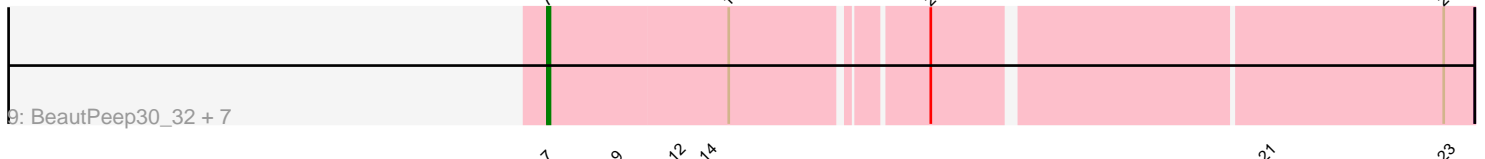
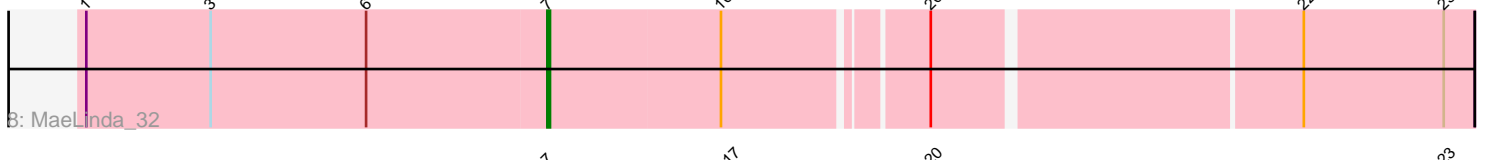
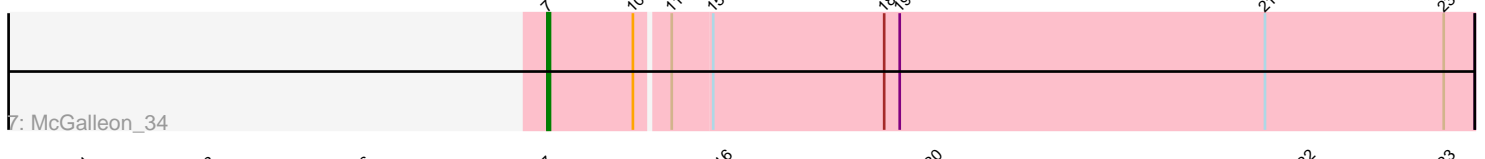
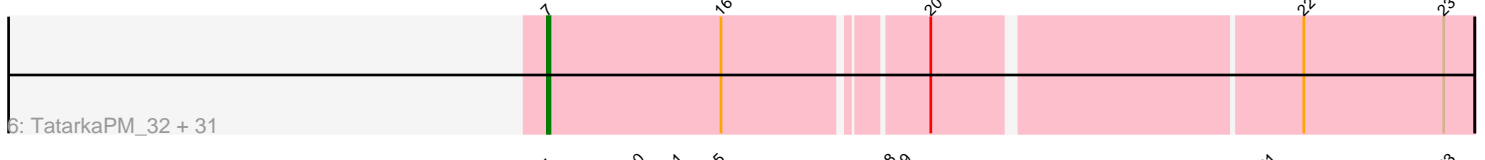
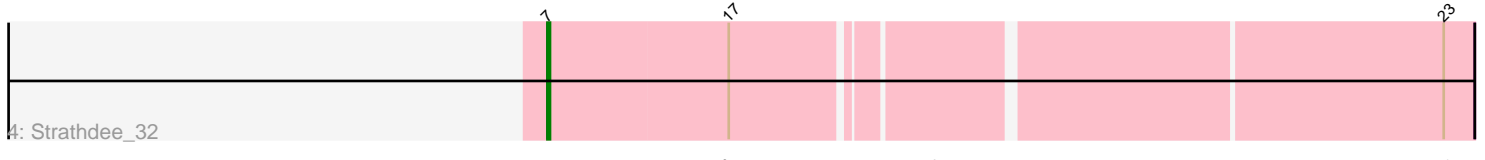
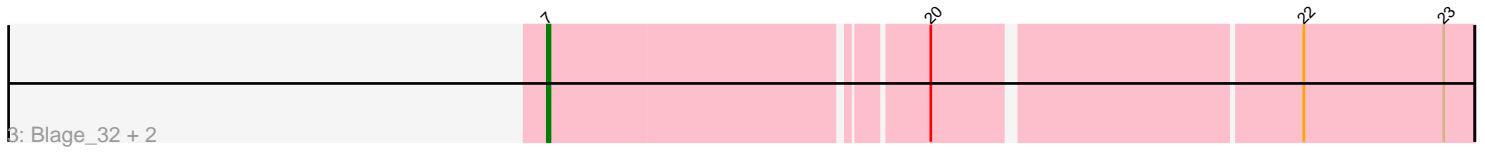
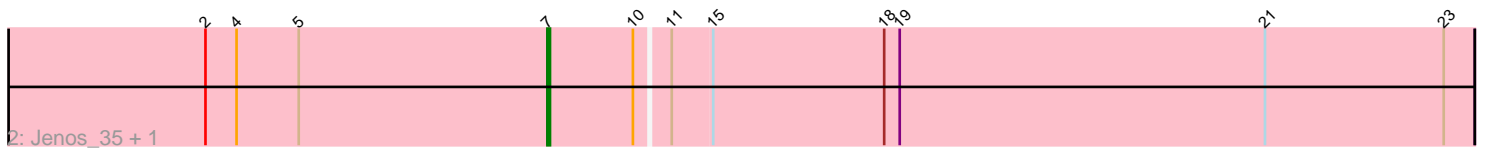
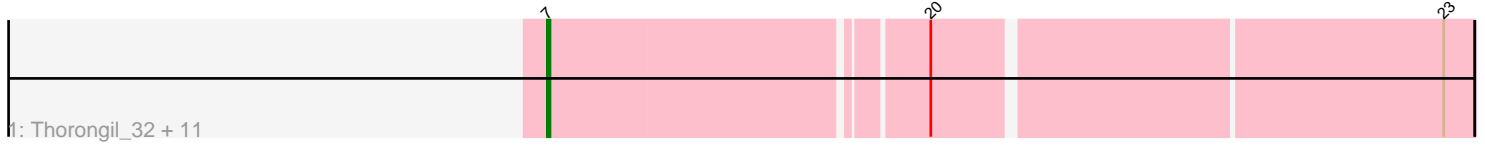


Pham 296542



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 296542 Report

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

Pham number 296542 has 69 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Thorongil\_32, Den3\_32, Oxtober96\_32, ShaiHulud\_32, WildNOOut\_32, Lovelyunicorn\_32, PuppyEggo\_32, Velene\_32, Vispistious\_32, AxiPup\_32, Greys\_32, Zada\_32
- Track 2 : Jenos\_35, CarisSwetlik\_34
- Track 3 : Blage\_32, BigRedClifford\_32, GoingMerry\_32
- Track 4 : Strathdee\_32
- Track 5 : Antoinette\_32, Renzie\_32, Superfresh\_32, Gargoyle\_32, Alyxandracam\_32, Dave\_32, Peep\_32
- Track 6 : TatarkaPM\_32, PhredFlintston\_32, Rapheph\_32, Kurt1\_32, ParleG\_32, TinSulphur\_32, Nagem\_32, Phiderman\_32, Inventa\_32, Stanktossa\_32, Riyhil\_32, NickSell\_32, Dothraki\_32, Teagan\_32, Martin\_33, OldNelly\_32, MillyPhilly\_32, MrWorldwide\_32, SolidSnake\_33, AlexAdler\_32, Merida02\_33, Bandik\_32, Phriends\_32, SJay\_32, Figueroism\_32, Delphidian\_32, Shee\_32, Ludgate\_32, Robinson\_32, Byron23\_32, SoilGremlin\_32, Pherferi\_32
- Track 7 : McGalleon\_34
- Track 8 : MaeLinda\_32
- Track 9 : BeautPeep30\_32, Ioannes\_32, Thompsone\_32, BonesMcCoy\_32, Raptor\_32, Phireproof\_32, Knox\_32, Convict\_32
- Track 10 : MonChoix\_30
- Track 11 : JasonD\_34

### ***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 65 of the 66 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AlexAdler\_32, Alyxandracam\_32, Antoinette\_32, AxiPup\_32, Bandik\_32, BeautPeep30\_32, BigRedClifford\_32, Blage\_32, BonesMcCoy\_32, Byron23\_32, CarisSwetlik\_34, Convict\_32, Dave\_32, Delphidian\_32, Den3\_32, Dothraki\_32, Figueroism\_32, Gargoyle\_32, GoingMerry\_32, Greys\_32, Inventa\_32, Ioannes\_32, Jenos\_35, Knox\_32, Kurt1\_32, Lovelyunicorn\_32, Ludgate\_32, MaeLinda\_32, Martin\_33, McGalleon\_34, Merida02\_33, MillyPhilly\_32, MonChoix\_30, MrWorldwide\_32, Nagem\_32, NickSell\_32, OldNelly\_32, Oxtober96\_32, ParleG\_32,

Peep\_32, Pherferi\_32, Phiderman\_32, Phireproof\_32, PhredFlintston\_32, Phriends\_32, PuppyEggo\_32, Rapheph\_32, Raptor\_32, Renzie\_32, Riyhil\_32, Robinson\_32, SJay\_32, ShaiHulud\_32, Shee\_32, SoilGremlin\_32, SolidSnake\_33, Stanktossa\_32, Strathdee\_32, Superfresh\_32, TatarkaPM\_32, Teagan\_32, Thompsone\_32, Thorongil\_32, TinSulphur\_32, Velene\_32, Vispistious\_32, WildNOut\_32, Zada\_32,

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

- 

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

- JasonD\_34,

### Summary by start number:

Start 7:

- Found in 68 of 69 ( 98.6% ) of genes in pham
- Manual Annotations of this start: 65 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AlexAdler\_32 (EA1), Alyxandracam\_32 (EA1), Antoinette\_32 (EA1), AxiPup\_32 (EA1), Bandik\_32 (EA1), BeautPeep30\_32 (EA1), BigRedClifford\_32 (EA1), Blage\_32 (EA1), BonesMcCoy\_32 (EA1), Byron23\_32 (EA1), CarisSwetlik\_34 (EA1), Convict\_32 (EA1), Dave\_32 (EA1), Delphidian\_32 (EA1), Den3\_32 (EA1), Dothraki\_32 (EA1), Figueroism\_32 (EA1), Gargoyle\_32 (EA1), GoingMerry\_32 (EA1), Greys\_32 (EA1), Inventa\_32 (EA1), Ioannes\_32 (EA1), Jenos\_35 (EA1), Knox\_32 (EA1), Kurt1\_32 (EA1), Lovelyunicorn\_32 (EA1), Ludgate\_32 (EA1), MaeLinda\_32 (EA1), Martin\_33 (EA1), McGalleon\_34 (EA1), Merida02\_33 (EA1), MillyPhilly\_32 (EA1), MonChoix\_30 (EA1), MrWorldwide\_32 (EA1), Nagem\_32 (EA1), NickSell\_32 (EA1), OldNelly\_32 (EA1), Oxtober96\_32 (EA1), ParleG\_32 (EA1), Peep\_32 (EA1), Pherferi\_32 (EA1), Phiderman\_32 (EA1), Phireproof\_32 (EA1), PhredFlintston\_32 (EA1), Phriends\_32 (EA1), PuppyEggo\_32 (EA1), Rapheph\_32 (EA1), Raptor\_32 (EA1), Renzie\_32 (EA1), Riyhil\_32 (EA1), Robinson\_32 (EA1), SJay\_32 (EA1), ShaiHulud\_32 (EA1), Shee\_32 (EA1), SoilGremlin\_32 (EA1), SolidSnake\_33 (EA1), Stanktossa\_32 (EA1), Strathdee\_32 (EA1), Superfresh\_32 (EA1), TatarkaPM\_32 (EA1), Teagan\_32 (EA1), Thompsone\_32 (EA1), Thorongil\_32 (EA1), TinSulphur\_32 (EA1), Velene\_32 (EA1), Vispistious\_32 (EA1), WildNOut\_32 (EA1), Zada\_32 (EA1),

Start 8:

- Found in 1 of 69 ( 1.4% ) of genes in pham
- Manual Annotations of this start: 1 of 66
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JasonD\_34 (EA1),

### Summary by clusters:

There is one cluster represented in this pham: EA1

Info for manual annotations of cluster EA1:

- Start number 7 was manually annotated 65 times for cluster EA1.
- Start number 8 was manually annotated 1 time for cluster EA1.

**Gene Information:**

Gene: AlexAdler\_32 Start: 22169, Stop: 21831, Start Num: 7

Candidate Starts for AlexAdler\_32:

(Start: 7 @22169 has 65 MA's), (16, 22103), (20, 22031), (22, 21896), (23, 21842),

Gene: Alyxandracam\_32 Start: 22178, Stop: 21840, Start Num: 7

Candidate Starts for Alyxandracam\_32:

(Start: 7 @22178 has 65 MA's), (16, 22112), (20, 22040), (23, 21851),

Gene: Antoinette\_32 Start: 22166, Stop: 21828, Start Num: 7

Candidate Starts for Antoinette\_32:

(Start: 7 @22166 has 65 MA's), (16, 22100), (20, 22028), (23, 21839),

Gene: AxiPup\_32 Start: 22178, Stop: 21840, Start Num: 7

Candidate Starts for AxiPup\_32:

(Start: 7 @22178 has 65 MA's), (20, 22040), (23, 21851),

Gene: Bandik\_32 Start: 22174, Stop: 21836, Start Num: 7

Candidate Starts for Bandik\_32:

(Start: 7 @22174 has 65 MA's), (16, 22108), (20, 22036), (22, 21901), (23, 21847),

Gene: BeautPeep30\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for BeautPeep30\_32:

(Start: 7 @22180 has 65 MA's), (17, 22111), (20, 22042), (23, 21853),

Gene: BigRedClifford\_32 Start: 22178, Stop: 21840, Start Num: 7

Candidate Starts for BigRedClifford\_32:

(Start: 7 @22178 has 65 MA's), (20, 22040), (22, 21905), (23, 21851),

Gene: Blage\_32 Start: 22178, Stop: 21840, Start Num: 7

Candidate Starts for Blage\_32:

(Start: 7 @22178 has 65 MA's), (20, 22040), (22, 21905), (23, 21851),

Gene: BonesMcCoy\_32 Start: 22178, Stop: 21840, Start Num: 7

Candidate Starts for BonesMcCoy\_32:

(Start: 7 @22178 has 65 MA's), (17, 22109), (20, 22040), (23, 21851),

Gene: Byron23\_32 Start: 22183, Stop: 21845, Start Num: 7

Candidate Starts for Byron23\_32:

(Start: 7 @22183 has 65 MA's), (16, 22117), (20, 22045), (22, 21910), (23, 21856),

Gene: CarisSwetlik\_34 Start: 23038, Stop: 22685, Start Num: 7

Candidate Starts for CarisSwetlik\_34:

(2, 23170), (4, 23158), (5, 23134), (Start: 7 @23038 has 65 MA's), (10, 23005), (11, 22993), (15, 22978), (18, 22912), (19, 22906), (21, 22765), (23, 22696),

Gene: Convict\_32 Start: 22178, Stop: 21840, Start Num: 7

Candidate Starts for Convict\_32:

(Start: 7 @22178 has 65 MA's), (17, 22109), (20, 22040), (23, 21851),

Gene: Dave\_32 Start: 22166, Stop: 21828, Start Num: 7

Candidate Starts for Dave\_32:

(Start: 7 @22166 has 65 MA's), (16, 22100), (20, 22028), (23, 21839),

Gene: Delphidian\_32 Start: 22177, Stop: 21839, Start Num: 7

Candidate Starts for Delphidian\_32:

(Start: 7 @22177 has 65 MA's), (16, 22111), (20, 22039), (22, 21904), (23, 21850),

Gene: Den3\_32 Start: 22183, Stop: 21845, Start Num: 7

Candidate Starts for Den3\_32:

(Start: 7 @22183 has 65 MA's), (20, 22045), (23, 21856),

Gene: Dothraki\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for Dothraki\_32:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: Figueroism\_32 Start: 22165, Stop: 21827, Start Num: 7

Candidate Starts for Figueroism\_32:

(Start: 7 @22165 has 65 MA's), (16, 22099), (20, 22027), (22, 21892), (23, 21838),

Gene: Gargoyle\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for Gargoyle\_32:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (23, 21853),

Gene: GoingMerry\_32 Start: 22188, Stop: 21850, Start Num: 7

Candidate Starts for GoingMerry\_32:

(Start: 7 @22188 has 65 MA's), (20, 22050), (22, 21915), (23, 21861),

Gene: Greys\_32 Start: 22176, Stop: 21838, Start Num: 7

Candidate Starts for Greys\_32:

(Start: 7 @22176 has 65 MA's), (20, 22038), (23, 21849),

Gene: Inventa\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for Inventa\_32:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: Ioannes\_32 Start: 22178, Stop: 21840, Start Num: 7

Candidate Starts for Ioannes\_32:

(Start: 7 @22178 has 65 MA's), (17, 22109), (20, 22040), (23, 21851),

Gene: JasonD\_34 Start: 22680, Stop: 22345, Start Num: 8

Candidate Starts for JasonD\_34:

(Start: 8 @22680 has 1 MA's), (13, 22635), (18, 22566), (21, 22425), (23, 22356),

Gene: Jenos\_35 Start: 23335, Stop: 22982, Start Num: 7

Candidate Starts for Jenos\_35:

(2, 23467), (4, 23455), (5, 23431), (Start: 7 @23335 has 65 MA's), (10, 23302), (11, 23290), (15, 23275), (18, 23209), (19, 23203), (21, 23062), (23, 22993),

Gene: Knox\_32 Start: 22178, Stop: 21840, Start Num: 7

Candidate Starts for Knox\_32:

(Start: 7 @22178 has 65 MA's), (17, 22109), (20, 22040), (23, 21851),

Gene: Kurt1\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for Kurt1\_32:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: Lovelyunicorn\_32 Start: 22179, Stop: 21841, Start Num: 7

Candidate Starts for Lovelyunicorn\_32:

(Start: 7 @22179 has 65 MA's), (20, 22041), (23, 21852),

Gene: Ludgate\_32 Start: 22174, Stop: 21836, Start Num: 7

Candidate Starts for Ludgate\_32:

(Start: 7 @22174 has 65 MA's), (16, 22108), (20, 22036), (22, 21901), (23, 21847),

Gene: MaeLinda\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for MaeLinda\_32:

(1, 22357), (3, 22309), (6, 22249), (Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: Martin\_33 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for Martin\_33:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: McGalleon\_34 Start: 23557, Stop: 23204, Start Num: 7

Candidate Starts for McGalleon\_34:

(Start: 7 @23557 has 65 MA's), (10, 23524), (11, 23512), (15, 23497), (18, 23431), (19, 23425), (21, 23284), (23, 23215),

Gene: Merida02\_33 Start: 22177, Stop: 21839, Start Num: 7

Candidate Starts for Merida02\_33:

(Start: 7 @22177 has 65 MA's), (16, 22111), (20, 22039), (22, 21904), (23, 21850),

Gene: MillyPhilly\_32 Start: 22177, Stop: 21839, Start Num: 7

Candidate Starts for MillyPhilly\_32:

(Start: 7 @22177 has 65 MA's), (16, 22111), (20, 22039), (22, 21904), (23, 21850),

Gene: MonChoix\_30 Start: 22172, Stop: 21828, Start Num: 7

Candidate Starts for MonChoix\_30:

(Start: 7 @22172 has 65 MA's), (9, 22148), (12, 22127), (14, 22115), (21, 21908), (23, 21839),

Gene: MrWorldwide\_32 Start: 22181, Stop: 21843, Start Num: 7

Candidate Starts for MrWorldwide\_32:

(Start: 7 @22181 has 65 MA's), (16, 22115), (20, 22043), (22, 21908), (23, 21854),

Gene: Nagem\_32 Start: 22174, Stop: 21836, Start Num: 7

Candidate Starts for Nagem\_32:

(Start: 7 @22174 has 65 MA's), (16, 22108), (20, 22036), (22, 21901), (23, 21847),

Gene: NickSell\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for NickSell\_32:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: OldNelly\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for OldNelly\_32:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: Oxtober96\_32 Start: 22179, Stop: 21841, Start Num: 7

Candidate Starts for Oxtober96\_32:

(Start: 7 @22179 has 65 MA's), (20, 22041), (23, 21852),

Gene: ParleG\_32 Start: 22181, Stop: 21843, Start Num: 7

Candidate Starts for ParleG\_32:

(Start: 7 @22181 has 65 MA's), (16, 22115), (20, 22043), (22, 21908), (23, 21854),

Gene: Peep\_32 Start: 22166, Stop: 21828, Start Num: 7

Candidate Starts for Peep\_32:

(Start: 7 @22166 has 65 MA's), (16, 22100), (20, 22028), (23, 21839),

Gene: Pherferi\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for Pherferi\_32:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: Phiderman\_32 Start: 22177, Stop: 21839, Start Num: 7

Candidate Starts for Phiderman\_32:

(Start: 7 @22177 has 65 MA's), (16, 22111), (20, 22039), (22, 21904), (23, 21850),

Gene: Phireproof\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for Phireproof\_32:

(Start: 7 @22180 has 65 MA's), (17, 22111), (20, 22042), (23, 21853),

Gene: PhredFlintston\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for PhredFlintston\_32:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: Phriends\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for Phriends\_32:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: PuppyEggo\_32 Start: 22178, Stop: 21840, Start Num: 7

Candidate Starts for PuppyEggo\_32:

(Start: 7 @22178 has 65 MA's), (20, 22040), (23, 21851),

Gene: Rapheph\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for Rapheph\_32:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: Raptor\_32 Start: 22178, Stop: 21840, Start Num: 7

Candidate Starts for Raptor\_32:

(Start: 7 @22178 has 65 MA's), (17, 22109), (20, 22040), (23, 21851),

Gene: Renzie\_32 Start: 22166, Stop: 21828, Start Num: 7

Candidate Starts for Renzie\_32:

(Start: 7 @22166 has 65 MA's), (16, 22100), (20, 22028), (23, 21839),

Gene: Riyhil\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for Riyhil\_32:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: Robinson\_32 Start: 22172, Stop: 21834, Start Num: 7

Candidate Starts for Robinson\_32:

(Start: 7 @22172 has 65 MA's), (16, 22106), (20, 22034), (22, 21899), (23, 21845),

Gene: SJay\_32 Start: 22175, Stop: 21837, Start Num: 7

Candidate Starts for SJay\_32:

(Start: 7 @22175 has 65 MA's), (16, 22109), (20, 22037), (22, 21902), (23, 21848),

Gene: ShaiHulud\_32 Start: 22178, Stop: 21840, Start Num: 7

Candidate Starts for ShaiHulud\_32:

(Start: 7 @22178 has 65 MA's), (20, 22040), (23, 21851),

Gene: Shee\_32 Start: 22177, Stop: 21839, Start Num: 7

Candidate Starts for Shee\_32:

(Start: 7 @22177 has 65 MA's), (16, 22111), (20, 22039), (22, 21904), (23, 21850),

Gene: SoilGremlin\_32 Start: 22177, Stop: 21839, Start Num: 7

Candidate Starts for SoilGremlin\_32:

(Start: 7 @22177 has 65 MA's), (16, 22111), (20, 22039), (22, 21904), (23, 21850),

Gene: SolidSnake\_33 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for SolidSnake\_33:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: Stanktossa\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for Stanktossa\_32:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: Strathdee\_32 Start: 22179, Stop: 21841, Start Num: 7

Candidate Starts for Strathdee\_32:

(Start: 7 @22179 has 65 MA's), (17, 22110), (23, 21852),

Gene: Superfresh\_32 Start: 22166, Stop: 21828, Start Num: 7

Candidate Starts for Superfresh\_32:

(Start: 7 @22166 has 65 MA's), (16, 22100), (20, 22028), (23, 21839),

Gene: TatarkaPM\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for TatarkaPM\_32:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: Teagan\_32 Start: 22174, Stop: 21836, Start Num: 7

Candidate Starts for Teagan\_32:

(Start: 7 @22174 has 65 MA's), (16, 22108), (20, 22036), (22, 21901), (23, 21847),

Gene: Thompsone\_32 Start: 22178, Stop: 21840, Start Num: 7

Candidate Starts for Thompsone\_32:

(Start: 7 @22178 has 65 MA's), (17, 22109), (20, 22040), (23, 21851),

Gene: Thorongil\_32 Start: 22178, Stop: 21840, Start Num: 7

Candidate Starts for Thorongil\_32:

(Start: 7 @22178 has 65 MA's), (20, 22040), (23, 21851),

Gene: TinSulphur\_32 Start: 22180, Stop: 21842, Start Num: 7

Candidate Starts for TinSulphur\_32:

(Start: 7 @22180 has 65 MA's), (16, 22114), (20, 22042), (22, 21907), (23, 21853),

Gene: Velene\_32 Start: 22179, Stop: 21841, Start Num: 7  
Candidate Starts for Velene\_32:  
(Start: 7 @22179 has 65 MA's), (20, 22041), (23, 21852),

Gene: Vispistious\_32 Start: 22178, Stop: 21840, Start Num: 7  
Candidate Starts for Vispistious\_32:  
(Start: 7 @22178 has 65 MA's), (20, 22040), (23, 21851),

Gene: WildNOut\_32 Start: 22178, Stop: 21840, Start Num: 7  
Candidate Starts for WildNOut\_32:  
(Start: 7 @22178 has 65 MA's), (20, 22040), (23, 21851),

Gene: Zada\_32 Start: 22159, Stop: 21821, Start Num: 7  
Candidate Starts for Zada\_32:  
(Start: 7 @22159 has 65 MA's), (20, 22021), (23, 21832),