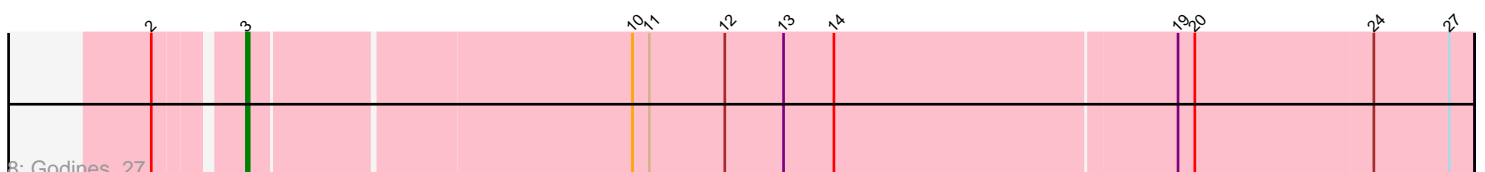
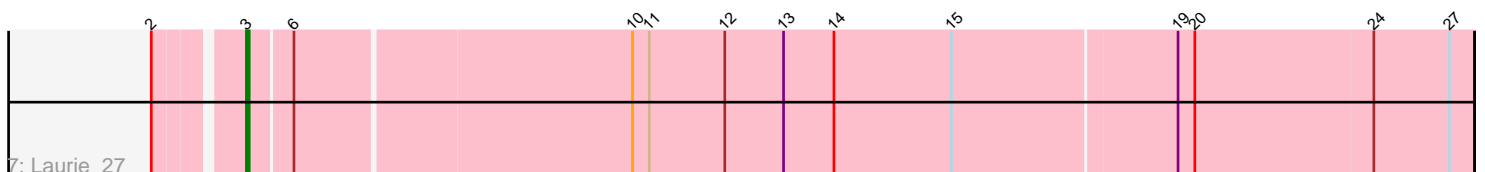
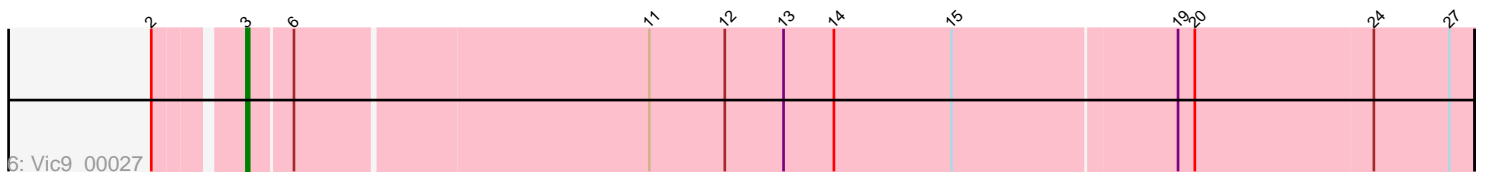
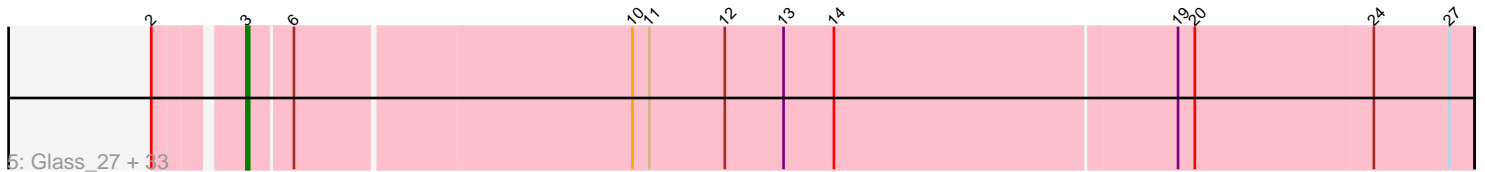
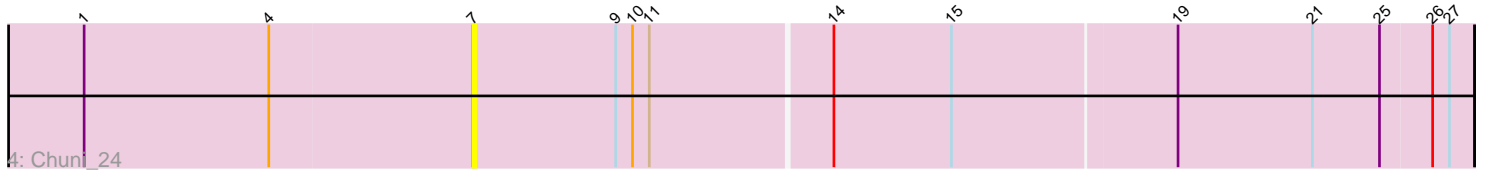
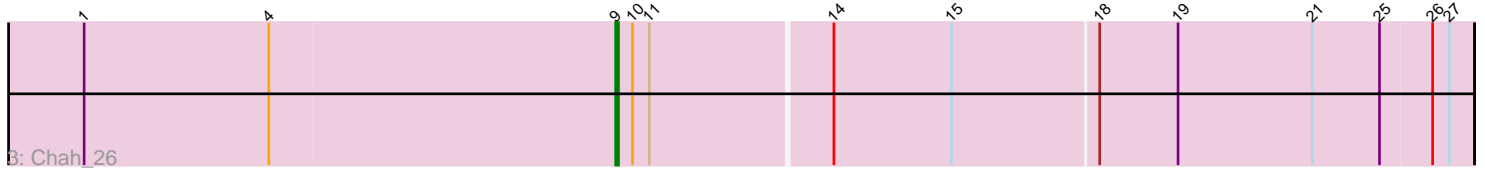
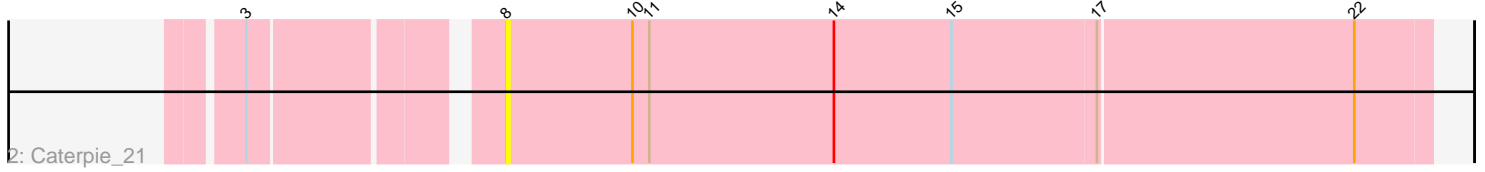
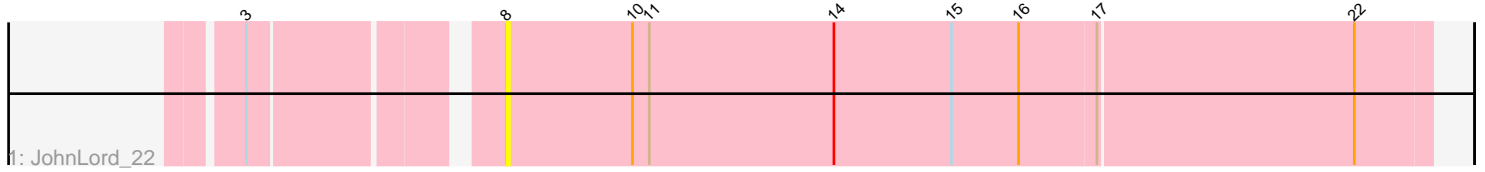


Pham 294871



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 294871 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294871 has 42 members, 4 are drafts.

Phages represented in each track:

- Track 1 : JohnLord\_22
- Track 2 : Caterpie\_21
- Track 3 : Chah\_26
- Track 4 : Chuni\_24
- Track 5 : Glass\_27, Kaleb\_27, Brownie5\_27, Lephleur\_27, Eaglehorse\_27, Phantasmagoria\_27, Calamitous\_27, TA17A\_28, West99\_27, Allegro\_27, Sabella\_27, LizLemon\_27, Arbiter\_27, Coffee\_27, Kheth\_27, Blocker23\_27, Kolhan\_27, MasterPo\_27, Lars\_27, LilSmirk\_27, Opia\_27, Tres\_27, Qyrzula\_25, Rosebush\_27, Ares\_27, ItsyBitsy1\_27, PrinceCharming\_27, Faze9\_27, Tinciduntolum\_28, Hedgerow\_27, Holeinone\_27, FrenchFry\_27, Rhinoforte\_27, Bananafish\_27
- Track 6 : Vic9\_00027
- Track 7 : Laurie\_27
- Track 8 : Godines\_27
- Track 9 : Phaedrus\_24

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

The start number called the most often in the published annotations is 3, it was called in 36 of the 38 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Allegro\_27, Arbiter\_27, Ares\_27, Bananafish\_27, Blocker23\_27, Brownie5\_27, Calamitous\_27, Coffee\_27, Eaglehorse\_27, Faze9\_27, FrenchFry\_27, Glass\_27, Godines\_27, Hedgerow\_27, Holeinone\_27, ItsyBitsy1\_27, Kaleb\_27, Kheth\_27, Kolhan\_27, Lars\_27, Laurie\_27, Lephleur\_27, LilSmirk\_27, LizLemon\_27, MasterPo\_27, Opia\_27, Phantasmagoria\_27, PrinceCharming\_27, Qyrzula\_25, Rhinoforte\_27, Rosebush\_27, Sabella\_27, TA17A\_28, Tinciduntolum\_28, Tres\_27, Vic9\_00027, West99\_27,

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

- Caterpie\_21, JohnLord\_22,

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

- Chah\_26, Chuni\_24, Phaedrus\_24,

### Summary by start number:

#### Start 3:

- Found in 39 of 42 ( 92.9% ) of genes in pham
- Manual Annotations of this start: 36 of 38
- Called 94.9% of time when present
- Phage (with cluster) where this start called: Allegro\_27 (B2), Arbiter\_27 (B2), Ares\_27 (B2), Bananafish\_27 (B2), Blocker23\_27 (B2), Brownie5\_27 (B2), Calamitous\_27 (B2), Coffee\_27 (B2), Eaglehorse\_27 (B2), Faze9\_27 (B2), FrenchFry\_27 (B2), Glass\_27 (B2), Godines\_27 (B2), Hedgerow\_27 (B2), Holeinone\_27 (B2), ItsyBitsy1\_27 (B2), Kaleb\_27 (B2), Kheth\_27 (B2), Kolhan\_27 (B2), Lars\_27 (B2), Laurie\_27 (B2), Lephleur\_27 (B2), LilSmirk\_27 (B2), LizLemon\_27 (B2), MasterPo\_27 (B2), Opia\_27 (B2), Phantasmagoria\_27 (B2), PrinceCharming\_27 (B2), Qyrzula\_25 (B2), Rhinoforte\_27 (B2), Rosebush\_27 (B2), Sabella\_27 (B2), TA17A\_28 (B2), Tinciduntolum\_28 (B2), Tres\_27 (B2), Vic9\_00027 (B2), West99\_27 (B2),

#### Start 7:

- Found in 1 of 42 ( 2.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chuni\_24 (B1),

#### Start 8:

- Found in 3 of 42 ( 7.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Caterpie\_21 (AD), JohnLord\_22 (AD),

#### Start 9:

- Found in 2 of 42 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 1 of 38
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Chah\_26 (B1),

#### Start 10:

- Found in 41 of 42 ( 97.6% ) of genes in pham
- Manual Annotations of this start: 1 of 38
- Called 2.4% of time when present
- Phage (with cluster) where this start called: Phaedrus\_24 (B3),

### Summary by clusters:

There are 4 clusters represented in this pham: B1, AD, B2, B3,

#### Info for manual annotations of cluster B1:

- Start number 9 was manually annotated 1 time for cluster B1.

#### Info for manual annotations of cluster B2:

- Start number 3 was manually annotated 36 times for cluster B2.

Info for manual annotations of cluster B3:

•Start number 10 was manually annotated 1 time for cluster B3.

**Gene Information:**

Gene: Allegro\_27 Start: 20836, Stop: 21264, Start Num: 3

Candidate Starts for Allegro\_27:

(2, 20809), (Start: 3 @20836 has 36 MA's), (6, 20851), (Start: 10 @20968 has 1 MA's), (11, 20974), (12, 21001), (13, 21022), (14, 21040), (19, 21160), (20, 21166), (24, 21229), (27, 21256),

Gene: Arbiter\_27 Start: 20921, Stop: 21349, Start Num: 3

Candidate Starts for Arbiter\_27:

(2, 20894), (Start: 3 @20921 has 36 MA's), (6, 20936), (Start: 10 @21053 has 1 MA's), (11, 21059), (12, 21086), (13, 21107), (14, 21125), (19, 21245), (20, 21251), (24, 21314), (27, 21341),

Gene: Ares\_27 Start: 20837, Stop: 21265, Start Num: 3

Candidate Starts for Ares\_27:

(2, 20810), (Start: 3 @20837 has 36 MA's), (6, 20852), (Start: 10 @20969 has 1 MA's), (11, 20975), (12, 21002), (13, 21023), (14, 21041), (19, 21161), (20, 21167), (24, 21230), (27, 21257),

Gene: Bananafish\_27 Start: 20833, Stop: 21261, Start Num: 3

Candidate Starts for Bananafish\_27:

(2, 20806), (Start: 3 @20833 has 36 MA's), (6, 20848), (Start: 10 @20965 has 1 MA's), (11, 20971), (12, 20998), (13, 21019), (14, 21037), (19, 21157), (20, 21163), (24, 21226), (27, 21253),

Gene: Blocker23\_27 Start: 20954, Stop: 21382, Start Num: 3

Candidate Starts for Blocker23\_27:

(2, 20927), (Start: 3 @20954 has 36 MA's), (6, 20969), (Start: 10 @21086 has 1 MA's), (11, 21092), (12, 21119), (13, 21140), (14, 21158), (19, 21278), (20, 21284), (24, 21347), (27, 21374),

Gene: Brownie5\_27 Start: 20954, Stop: 21382, Start Num: 3

Candidate Starts for Brownie5\_27:

(2, 20927), (Start: 3 @20954 has 36 MA's), (6, 20969), (Start: 10 @21086 has 1 MA's), (11, 21092), (12, 21119), (13, 21140), (14, 21158), (19, 21278), (20, 21284), (24, 21347), (27, 21374),

Gene: Calamitous\_27 Start: 20834, Stop: 21262, Start Num: 3

Candidate Starts for Calamitous\_27:

(2, 20807), (Start: 3 @20834 has 36 MA's), (6, 20849), (Start: 10 @20966 has 1 MA's), (11, 20972), (12, 20999), (13, 21020), (14, 21038), (19, 21158), (20, 21164), (24, 21227), (27, 21254),

Gene: Caterpie\_21 Start: 16495, Stop: 16821, Start Num: 8

Candidate Starts for Caterpie\_21:

(Start: 3 @16417 has 36 MA's), (8, 16495), (Start: 10 @16540 has 1 MA's), (11, 16546), (14, 16612), (15, 16654), (17, 16705), (22, 16795),

Gene: Chah\_26 Start: 18818, Stop: 19117, Start Num: 9

Candidate Starts for Chah\_26:

(1, 18629), (4, 18695), (Start: 9 @18818 has 1 MA's), (Start: 10 @18824 has 1 MA's), (11, 18830), (14, 18893), (15, 18935), (18, 18986), (19, 19013), (21, 19061), (25, 19085), (26, 19103), (27, 19109),

Gene: Chuni\_24 Start: 18765, Stop: 19115, Start Num: 7

Candidate Starts for Chuni\_24:

(1, 18627), (4, 18693), (7, 18765), (Start: 9 @18816 has 1 MA's), (Start: 10 @18822 has 1 MA's), (11, 18828), (14, 18891), (15, 18933), (19, 19011), (21, 19059), (25, 19083), (26, 19101), (27, 19107),

Gene: Coffee\_27 Start: 20947, Stop: 21375, Start Num: 3

Candidate Starts for Coffee\_27:

(2, 20920), (Start: 3 @20947 has 36 MA's), (6, 20962), (Start: 10 @21079 has 1 MA's), (11, 21085), (12, 21112), (13, 21133), (14, 21151), (19, 21271), (20, 21277), (24, 21340), (27, 21367),

Gene: Eaglehorse\_27 Start: 20855, Stop: 21283, Start Num: 3

Candidate Starts for Eaglehorse\_27:

(2, 20828), (Start: 3 @20855 has 36 MA's), (6, 20870), (Start: 10 @20987 has 1 MA's), (11, 20993), (12, 21020), (13, 21041), (14, 21059), (19, 21179), (20, 21185), (24, 21248), (27, 21275),

Gene: Faze9\_27 Start: 20951, Stop: 21379, Start Num: 3

Candidate Starts for Faze9\_27:

(2, 20924), (Start: 3 @20951 has 36 MA's), (6, 20966), (Start: 10 @21083 has 1 MA's), (11, 21089), (12, 21116), (13, 21137), (14, 21155), (19, 21275), (20, 21281), (24, 21344), (27, 21371),

Gene: FrenchFry\_27 Start: 20954, Stop: 21382, Start Num: 3

Candidate Starts for FrenchFry\_27:

(2, 20927), (Start: 3 @20954 has 36 MA's), (6, 20969), (Start: 10 @21086 has 1 MA's), (11, 21092), (12, 21119), (13, 21140), (14, 21158), (19, 21278), (20, 21284), (24, 21347), (27, 21374),

Gene: Glass\_27 Start: 20954, Stop: 21382, Start Num: 3

Candidate Starts for Glass\_27:

(2, 20927), (Start: 3 @20954 has 36 MA's), (6, 20969), (Start: 10 @21086 has 1 MA's), (11, 21092), (12, 21119), (13, 21140), (14, 21158), (19, 21278), (20, 21284), (24, 21347), (27, 21374),

Gene: Godines\_27 Start: 20847, Stop: 21275, Start Num: 3

Candidate Starts for Godines\_27:

(2, 20820), (Start: 3 @20847 has 36 MA's), (Start: 10 @20979 has 1 MA's), (11, 20985), (12, 21012), (13, 21033), (14, 21051), (19, 21171), (20, 21177), (24, 21240), (27, 21267),

Gene: Hedgerow\_27 Start: 20936, Stop: 21364, Start Num: 3

Candidate Starts for Hedgerow\_27:

(2, 20909), (Start: 3 @20936 has 36 MA's), (6, 20951), (Start: 10 @21068 has 1 MA's), (11, 21074), (12, 21101), (13, 21122), (14, 21140), (19, 21260), (20, 21266), (24, 21329), (27, 21356),

Gene: Holeinone\_27 Start: 20832, Stop: 21260, Start Num: 3

Candidate Starts for Holeinone\_27:

(2, 20805), (Start: 3 @20832 has 36 MA's), (6, 20847), (Start: 10 @20964 has 1 MA's), (11, 20970), (12, 20997), (13, 21018), (14, 21036), (19, 21156), (20, 21162), (24, 21225), (27, 21252),

Gene: ItsyBitsy1\_27 Start: 20825, Stop: 21253, Start Num: 3

Candidate Starts for ItsyBitsy1\_27:

(2, 20798), (Start: 3 @20825 has 36 MA's), (6, 20840), (Start: 10 @20957 has 1 MA's), (11, 20963), (12, 20990), (13, 21011), (14, 21029), (19, 21149), (20, 21155), (24, 21218), (27, 21245),

Gene: JohnLord\_22 Start: 16002, Stop: 16328, Start Num: 8

Candidate Starts for JohnLord\_22:

(Start: 3 @15924 has 36 MA's), (8, 16002), (Start: 10 @16047 has 1 MA's), (11, 16053), (14, 16119), (15, 16161), (16, 16185), (17, 16212), (22, 16302),

Gene: Kaleb\_27 Start: 20951, Stop: 21379, Start Num: 3

Candidate Starts for Kaleb\_27:

(2, 20924), (Start: 3 @20951 has 36 MA's), (6, 20966), (Start: 10 @21083 has 1 MA's), (11, 21089), (12, 21116), (13, 21137), (14, 21155), (19, 21275), (20, 21281), (24, 21344), (27, 21371),

Gene: Kheth\_27 Start: 20837, Stop: 21265, Start Num: 3

Candidate Starts for Kheth\_27:

(2, 20810), (Start: 3 @20837 has 36 MA's), (6, 20852), (Start: 10 @20969 has 1 MA's), (11, 20975), (12, 21002), (13, 21023), (14, 21041), (19, 21161), (20, 21167), (24, 21230), (27, 21257),

Gene: Kolhan\_27 Start: 20834, Stop: 21262, Start Num: 3

Candidate Starts for Kolhan\_27:

(2, 20807), (Start: 3 @20834 has 36 MA's), (6, 20849), (Start: 10 @20966 has 1 MA's), (11, 20972), (12, 20999), (13, 21020), (14, 21038), (19, 21158), (20, 21164), (24, 21227), (27, 21254),

Gene: Lars\_27 Start: 20954, Stop: 21382, Start Num: 3

Candidate Starts for Lars\_27:

(2, 20927), (Start: 3 @20954 has 36 MA's), (6, 20969), (Start: 10 @21086 has 1 MA's), (11, 21092), (12, 21119), (13, 21140), (14, 21158), (19, 21278), (20, 21284), (24, 21347), (27, 21374),

Gene: Laurie\_27 Start: 20832, Stop: 21260, Start Num: 3

Candidate Starts for Laurie\_27:

(2, 20805), (Start: 3 @20832 has 36 MA's), (6, 20847), (Start: 10 @20964 has 1 MA's), (11, 20970), (12, 20997), (13, 21018), (14, 21036), (15, 21078), (19, 21156), (20, 21162), (24, 21225), (27, 21252),

Gene: Lephleur\_27 Start: 20837, Stop: 21265, Start Num: 3

Candidate Starts for Lephleur\_27:

(2, 20810), (Start: 3 @20837 has 36 MA's), (6, 20852), (Start: 10 @20969 has 1 MA's), (11, 20975), (12, 21002), (13, 21023), (14, 21041), (19, 21161), (20, 21167), (24, 21230), (27, 21257),

Gene: LilSmirk\_27 Start: 20834, Stop: 21262, Start Num: 3

Candidate Starts for LilSmirk\_27:

(2, 20807), (Start: 3 @20834 has 36 MA's), (6, 20849), (Start: 10 @20966 has 1 MA's), (11, 20972), (12, 20999), (13, 21020), (14, 21038), (19, 21158), (20, 21164), (24, 21227), (27, 21254),

Gene: LizLemon\_27 Start: 20954, Stop: 21382, Start Num: 3

Candidate Starts for LizLemon\_27:

(2, 20927), (Start: 3 @20954 has 36 MA's), (6, 20969), (Start: 10 @21086 has 1 MA's), (11, 21092), (12, 21119), (13, 21140), (14, 21158), (19, 21278), (20, 21284), (24, 21347), (27, 21374),

Gene: MasterPo\_27 Start: 20834, Stop: 21262, Start Num: 3

Candidate Starts for MasterPo\_27:

(2, 20807), (Start: 3 @20834 has 36 MA's), (6, 20849), (Start: 10 @20966 has 1 MA's), (11, 20972), (12, 20999), (13, 21020), (14, 21038), (19, 21158), (20, 21164), (24, 21227), (27, 21254),

Gene: Opia\_27 Start: 20834, Stop: 21262, Start Num: 3

Candidate Starts for Opia\_27:

(2, 20807), (Start: 3 @20834 has 36 MA's), (6, 20849), (Start: 10 @20966 has 1 MA's), (11, 20972), (12, 20999), (13, 21020), (14, 21038), (19, 21158), (20, 21164), (24, 21227), (27, 21254),

Gene: Phaedrus\_24 Start: 19399, Stop: 19692, Start Num: 10

Candidate Starts for Phaedrus\_24:

(5, 19279), (8, 19354), (Start: 10 @19399 has 1 MA's), (11, 19405), (16, 19537), (23, 19663),

Gene: Phantasmagoria\_27 Start: 20830, Stop: 21258, Start Num: 3

Candidate Starts for Phantasmagoria\_27:

(2, 20803), (Start: 3 @20830 has 36 MA's), (6, 20845), (Start: 10 @20962 has 1 MA's), (11, 20968), (12, 20995), (13, 21016), (14, 21034), (19, 21154), (20, 21160), (24, 21223), (27, 21250),

Gene: PrinceCharming\_27 Start: 20950, Stop: 21378, Start Num: 3

Candidate Starts for PrinceCharming\_27:

(2, 20923), (Start: 3 @20950 has 36 MA's), (6, 20965), (Start: 10 @21082 has 1 MA's), (11, 21088), (12, 21115), (13, 21136), (14, 21154), (19, 21274), (20, 21280), (24, 21343), (27, 21370),

Gene: Qyrzula\_25 Start: 20920, Stop: 21348, Start Num: 3

Candidate Starts for Qyrzula\_25:

(2, 20893), (Start: 3 @20920 has 36 MA's), (6, 20935), (Start: 10 @21052 has 1 MA's), (11, 21058), (12, 21085), (13, 21106), (14, 21124), (19, 21244), (20, 21250), (24, 21313), (27, 21340),

Gene: Rhinoforte\_27 Start: 20951, Stop: 21379, Start Num: 3

Candidate Starts for Rhinoforte\_27:

(2, 20924), (Start: 3 @20951 has 36 MA's), (6, 20966), (Start: 10 @21083 has 1 MA's), (11, 21089), (12, 21116), (13, 21137), (14, 21155), (19, 21275), (20, 21281), (24, 21344), (27, 21371),

Gene: Rosebush\_27 Start: 20951, Stop: 21379, Start Num: 3

Candidate Starts for Rosebush\_27:

(2, 20924), (Start: 3 @20951 has 36 MA's), (6, 20966), (Start: 10 @21083 has 1 MA's), (11, 21089), (12, 21116), (13, 21137), (14, 21155), (19, 21275), (20, 21281), (24, 21344), (27, 21371),

Gene: Sabella\_27 Start: 20837, Stop: 21265, Start Num: 3

Candidate Starts for Sabella\_27:

(2, 20810), (Start: 3 @20837 has 36 MA's), (6, 20852), (Start: 10 @20969 has 1 MA's), (11, 20975), (12, 21002), (13, 21023), (14, 21041), (19, 21161), (20, 21167), (24, 21230), (27, 21257),

Gene: TA17A\_28 Start: 20831, Stop: 21259, Start Num: 3

Candidate Starts for TA17A\_28:

(2, 20804), (Start: 3 @20831 has 36 MA's), (6, 20846), (Start: 10 @20963 has 1 MA's), (11, 20969), (12, 20996), (13, 21017), (14, 21035), (19, 21155), (20, 21161), (24, 21224), (27, 21251),

Gene: Tinciduntolum\_28 Start: 20953, Stop: 21381, Start Num: 3

Candidate Starts for Tinciduntolum\_28:

(2, 20926), (Start: 3 @20953 has 36 MA's), (6, 20968), (Start: 10 @21085 has 1 MA's), (11, 21091), (12, 21118), (13, 21139), (14, 21157), (19, 21277), (20, 21283), (24, 21346), (27, 21373),

Gene: Tres\_27 Start: 20834, Stop: 21262, Start Num: 3

Candidate Starts for Tres\_27:

(2, 20807), (Start: 3 @20834 has 36 MA's), (6, 20849), (Start: 10 @20966 has 1 MA's), (11, 20972), (12, 20999), (13, 21020), (14, 21038), (19, 21158), (20, 21164), (24, 21227), (27, 21254),

Gene: Vic9\_00027 Start: 21282, Stop: 21710, Start Num: 3

Candidate Starts for Vic9\_00027:

(2, 21255), (Start: 3 @21282 has 36 MA's), (6, 21297), (11, 21420), (12, 21447), (13, 21468), (14, 21486), (15, 21528), (19, 21606), (20, 21612), (24, 21675), (27, 21702),

Gene: West99\_27 Start: 20954, Stop: 21382, Start Num: 3

Candidate Starts for West99\_27:

(2, 20927), (Start: 3 @20954 has 36 MA's), (6, 20969), (Start: 10 @21086 has 1 MA's), (11, 21092),  
(12, 21119), (13, 21140), (14, 21158), (19, 21278), (20, 21284), (24, 21347), (27, 21374),