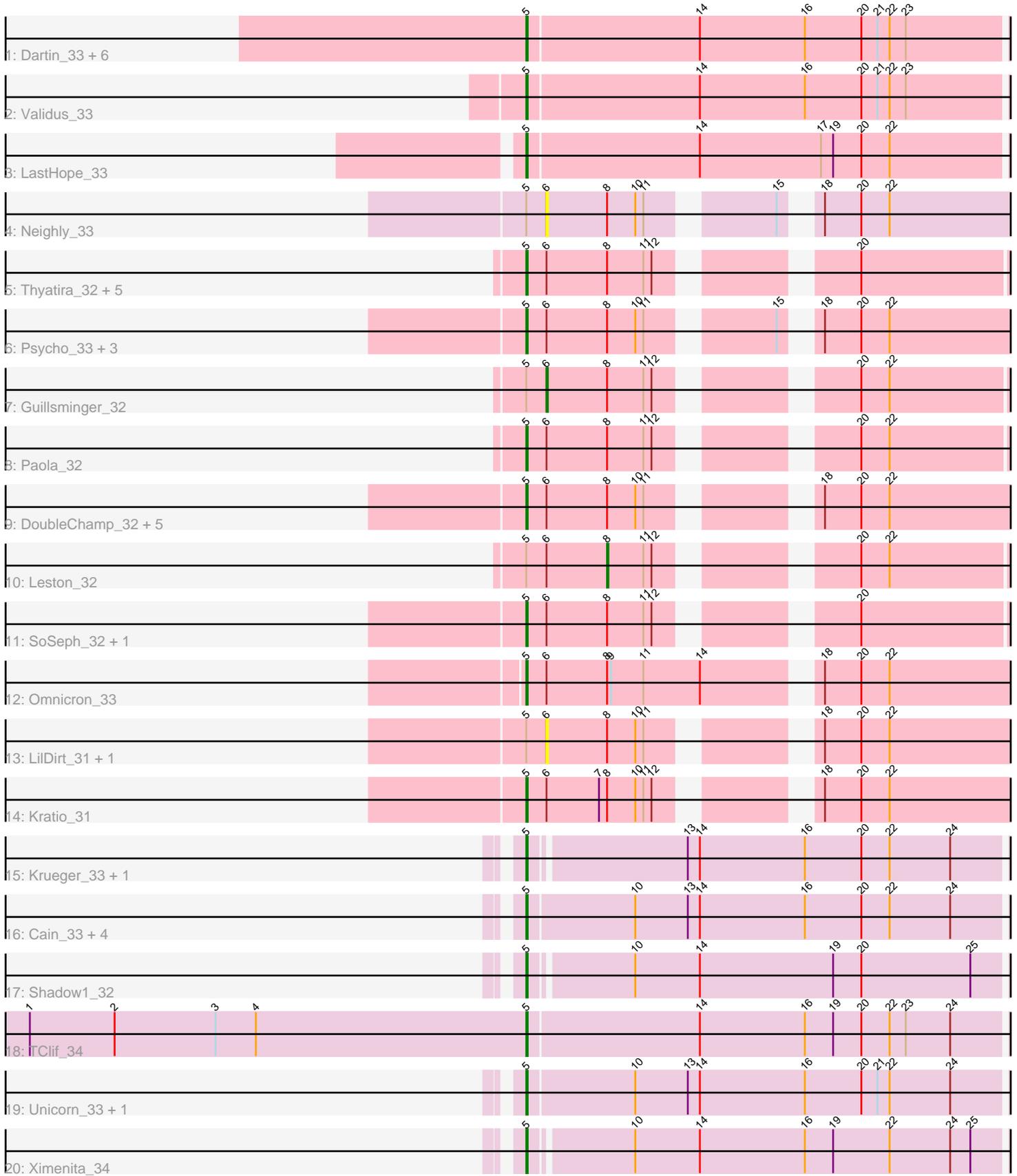


Pham 291274



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 291274 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291274 has 47 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Dartin\_33, Shaobing\_33, Peanam\_33, McMater\_33, Niklas\_33, Richo\_33, Chavito\_33
- Track 2 : Validus\_33
- Track 3 : LastHope\_33
- Track 4 : Neighly\_33
- Track 5 : Thyatira\_32, Gengar\_32, OkiRoe\_32, Waterfoul\_32, Feyre\_32, Miryou\_32
- Track 6 : Psycho\_33, AlleyCat\_33, Larva\_33, Dadosky\_33
- Track 7 : Guillsminger\_32
- Track 8 : Paola\_32
- Track 9 : DoubleChamp\_32, InvictusManeo\_32, Edugator\_32, Agent47\_32, ViviJ\_31, Collard\_32
- Track 10 : Leston\_32
- Track 11 : SoSeph\_32, Heftyboy\_32
- Track 12 : Omnicron\_33
- Track 13 : LilDirt\_31, BananenDer11\_32
- Track 14 : Kratio\_31
- Track 15 : Krueger\_33, Tigress9\_34
- Track 16 : Cain\_33, Bryler\_33, Phrank\_33, Tierra\_33, Sunflower1121\_32
- Track 17 : Shadow1\_32
- Track 18 : TClif\_34
- Track 19 : Unicorn\_33, PhelpsODU\_33
- Track 20 : Ximenita\_34

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

The start number called the most often in the published annotations is 5, it was called in 36 of the 38 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agent47\_32, AlleyCat\_33, Bryler\_33, Cain\_33, Chavito\_33, Collard\_32, Dadosky\_33, Dartin\_33, DoubleChamp\_32, Edugator\_32, Feyre\_32, Gengar\_32, Heftyboy\_32, InvictusManeo\_32, Kratio\_31, Krueger\_33, Larva\_33, LastHope\_33, McMater\_33, Miryou\_32, Niklas\_33, OkiRoe\_32, Omnicron\_33, Paola\_32, Peanam\_33, PhelpsODU\_33, Phrank\_33, Psycho\_33, Richo\_33, Shadow1\_32,

Shaobing\_33, SoSeph\_32, Sunflower1121\_32, TClif\_34, Thyatira\_32, Tierra\_33, Tigress9\_34, Unicorn\_33, Validus\_33, ViviJ\_31, Waterfoul\_32, Ximenita\_34,

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

- BananenDer11\_32, Guillsminger\_32, Leston\_32, LilDirt\_31, Neighly\_33,

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

- 

### Summary by start number:

Start 5:

- Found in 47 of 47 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 36 of 38
- Called 89.4% of time when present
- Phage (with cluster) where this start called: Agent47\_32 (K5), AlleyCat\_33 (K5), Bryler\_33 (K6), Cain\_33 (K6), Chavito\_33 (K1), Collard\_32 (K5), Dadosky\_33 (K5), Dartin\_33 (K1), DoubleChamp\_32 (K5), Edugator\_32 (K5), Feyre\_32 (K5), Gengar\_32 (K5), Heftyboy\_32 (K5), InvictusManeo\_32 (K5), Kratio\_31 (K5), Krueger\_33 (K6), Larva\_33 (K5), LastHope\_33 (K1), McMater\_33 (K1), Miryou\_32 (K5), Niklas\_33 (K1), OkiRoe\_32 (K5), Omnicron\_33 (K5), Paola\_32 (K5), Peanam\_33 (K1), PhelpsODU\_33 (K6), Phrank\_33 (K6), Psycho\_33 (K5), Richo\_33 (K1), Shadow1\_32 (K6), Shaobing\_33 (K1), SoSeph\_32 (K5), Sunflower1121\_32 (K6), TClif\_34 (K6), Thyatira\_32 (K5), Tierra\_33 (K6), Tigress9\_34 (K6), Unicorn\_33 (K6), Validus\_33 (K1), ViviJ\_31 (K5), Waterfoul\_32 (K5), Ximenita\_34 (K6),

Start 6:

- Found in 26 of 47 ( 55.3% ) of genes in pham
- Manual Annotations of this start: 1 of 38
- Called 15.4% of time when present
- Phage (with cluster) where this start called: BananenDer11\_32 (K5), Guillsminger\_32 (K5), LilDirt\_31 (K5), Neighly\_33 (K3),

Start 8:

- Found in 26 of 47 ( 55.3% ) of genes in pham
- Manual Annotations of this start: 1 of 38
- Called 3.8% of time when present
- Phage (with cluster) where this start called: Leston\_32 (K5),

### Summary by clusters:

There are 4 clusters represented in this pham: K3, K1, K6, K5,

Info for manual annotations of cluster K1:

- Start number 5 was manually annotated 5 times for cluster K1.

Info for manual annotations of cluster K5:

- Start number 5 was manually annotated 20 times for cluster K5.
- Start number 6 was manually annotated 1 time for cluster K5.
- Start number 8 was manually annotated 1 time for cluster K5.

Info for manual annotations of cluster K6:

- Start number 5 was manually annotated 11 times for cluster K6.

### **Gene Information:**

Gene: Agent47\_32 Start: 28434, Stop: 28763, Start Num: 5

Candidate Starts for Agent47\_32:

(Start: 5 @28434 has 36 MA's), (Start: 6 @28449 has 1 MA's), (Start: 8 @28494 has 1 MA's), (10, 28515), (11, 28521), (18, 28614), (20, 28641), (22, 28662),

Gene: AlleyCat\_33 Start: 28365, Stop: 28694, Start Num: 5

Candidate Starts for AlleyCat\_33:

(Start: 5 @28365 has 36 MA's), (Start: 6 @28380 has 1 MA's), (Start: 8 @28425 has 1 MA's), (10, 28446), (11, 28452), (15, 28530), (18, 28545), (20, 28572), (22, 28593),

Gene: BananenDer11\_32 Start: 28410, Stop: 28724, Start Num: 6

Candidate Starts for BananenDer11\_32:

(Start: 5 @28395 has 36 MA's), (Start: 6 @28410 has 1 MA's), (Start: 8 @28455 has 1 MA's), (10, 28476), (11, 28482), (18, 28575), (20, 28602), (22, 28623),

Gene: Bryler\_33 Start: 27088, Stop: 27450, Start Num: 5

Candidate Starts for Bryler\_33:

(Start: 5 @27088 has 36 MA's), (10, 27166), (13, 27205), (14, 27214), (16, 27292), (20, 27334), (22, 27355), (24, 27400),

Gene: Cain\_33 Start: 27076, Stop: 27438, Start Num: 5

Candidate Starts for Cain\_33:

(Start: 5 @27076 has 36 MA's), (10, 27154), (13, 27193), (14, 27202), (16, 27280), (20, 27322), (22, 27343), (24, 27388),

Gene: Chavito\_33 Start: 27395, Stop: 27757, Start Num: 5

Candidate Starts for Chavito\_33:

(Start: 5 @27395 has 36 MA's), (14, 27521), (16, 27599), (20, 27641), (21, 27653), (22, 27662), (23, 27674),

Gene: Collard\_32 Start: 28395, Stop: 28724, Start Num: 5

Candidate Starts for Collard\_32:

(Start: 5 @28395 has 36 MA's), (Start: 6 @28410 has 1 MA's), (Start: 8 @28455 has 1 MA's), (10, 28476), (11, 28482), (18, 28575), (20, 28602), (22, 28623),

Gene: Dadosky\_33 Start: 28366, Stop: 28695, Start Num: 5

Candidate Starts for Dadosky\_33:

(Start: 5 @28366 has 36 MA's), (Start: 6 @28381 has 1 MA's), (Start: 8 @28426 has 1 MA's), (10, 28447), (11, 28453), (15, 28531), (18, 28546), (20, 28573), (22, 28594),

Gene: Dartin\_33 Start: 27083, Stop: 27445, Start Num: 5

Candidate Starts for Dartin\_33:

(Start: 5 @27083 has 36 MA's), (14, 27209), (16, 27287), (20, 27329), (21, 27341), (22, 27350), (23, 27362),

Gene: DoubleChamp\_32 Start: 28395, Stop: 28724, Start Num: 5

Candidate Starts for DoubleChamp\_32:

(Start: 5 @28395 has 36 MA's), (Start: 6 @28410 has 1 MA's), (Start: 8 @28455 has 1 MA's), (10, 28476), (11, 28482), (18, 28575), (20, 28602), (22, 28623),

Gene: Edugator\_32 Start: 28365, Stop: 28694, Start Num: 5

Candidate Starts for Edugator\_32:

(Start: 5 @28365 has 36 MA's), (Start: 6 @28380 has 1 MA's), (Start: 8 @28425 has 1 MA's), (10, 28446), (11, 28452), (18, 28545), (20, 28572), (22, 28593),

Gene: Feyre\_32 Start: 28282, Stop: 28608, Start Num: 5

Candidate Starts for Feyre\_32:

(Start: 5 @28282 has 36 MA's), (Start: 6 @28297 has 1 MA's), (Start: 8 @28342 has 1 MA's), (11, 28369), (12, 28375), (20, 28489),

Gene: Gengar\_32 Start: 28392, Stop: 28718, Start Num: 5

Candidate Starts for Gengar\_32:

(Start: 5 @28392 has 36 MA's), (Start: 6 @28407 has 1 MA's), (Start: 8 @28452 has 1 MA's), (11, 28479), (12, 28485), (20, 28599),

Gene: Guillsminger\_32 Start: 28379, Stop: 28699, Start Num: 6

Candidate Starts for Guillsminger\_32:

(Start: 5 @28364 has 36 MA's), (Start: 6 @28379 has 1 MA's), (Start: 8 @28424 has 1 MA's), (11, 28451), (12, 28457), (20, 28571), (22, 28592),

Gene: Heftyboy\_32 Start: 28510, Stop: 28845, Start Num: 5

Candidate Starts for Heftyboy\_32:

(Start: 5 @28510 has 36 MA's), (Start: 6 @28525 has 1 MA's), (Start: 8 @28570 has 1 MA's), (11, 28597), (12, 28603), (20, 28717),

Gene: InvictusManeo\_32 Start: 28438, Stop: 28767, Start Num: 5

Candidate Starts for InvictusManeo\_32:

(Start: 5 @28438 has 36 MA's), (Start: 6 @28453 has 1 MA's), (Start: 8 @28498 has 1 MA's), (10, 28519), (11, 28525), (18, 28618), (20, 28645), (22, 28666),

Gene: Kratio\_31 Start: 28069, Stop: 28398, Start Num: 5

Candidate Starts for Kratio\_31:

(Start: 5 @28069 has 36 MA's), (Start: 6 @28084 has 1 MA's), (7, 28123), (Start: 8 @28129 has 1 MA's), (10, 28150), (11, 28156), (12, 28162), (18, 28249), (20, 28276), (22, 28297),

Gene: Krueger\_33 Start: 26955, Stop: 27311, Start Num: 5

Candidate Starts for Krueger\_33:

(Start: 5 @26955 has 36 MA's), (13, 27066), (14, 27075), (16, 27153), (20, 27195), (22, 27216), (24, 27261),

Gene: Larva\_33 Start: 28233, Stop: 28562, Start Num: 5

Candidate Starts for Larva\_33:

(Start: 5 @28233 has 36 MA's), (Start: 6 @28248 has 1 MA's), (Start: 8 @28293 has 1 MA's), (10, 28314), (11, 28320), (15, 28398), (18, 28413), (20, 28440), (22, 28461),

Gene: LastHope\_33 Start: 26912, Stop: 27274, Start Num: 5

Candidate Starts for LastHope\_33:

(Start: 5 @26912 has 36 MA's), (14, 27038), (17, 27128), (19, 27137), (20, 27158), (22, 27179),

Gene: Leston\_32 Start: 28554, Stop: 28829, Start Num: 8

Candidate Starts for Leston\_32:

(Start: 5 @28494 has 36 MA's), (Start: 6 @28509 has 1 MA's), (Start: 8 @28554 has 1 MA's), (11, 28581), (12, 28587), (20, 28701), (22, 28722),

Gene: LilDirt\_31 Start: 28210, Stop: 28524, Start Num: 6

Candidate Starts for LilDirt\_31:

(Start: 5 @28195 has 36 MA's), (Start: 6 @28210 has 1 MA's), (Start: 8 @28255 has 1 MA's), (10, 28276), (11, 28282), (18, 28375), (20, 28402), (22, 28423),

Gene: McMater\_33 Start: 27083, Stop: 27445, Start Num: 5

Candidate Starts for McMater\_33:

(Start: 5 @27083 has 36 MA's), (14, 27209), (16, 27287), (20, 27329), (21, 27341), (22, 27350), (23, 27362),

Gene: Miryou\_32 Start: 28349, Stop: 28684, Start Num: 5

Candidate Starts for Miryou\_32:

(Start: 5 @28349 has 36 MA's), (Start: 6 @28364 has 1 MA's), (Start: 8 @28409 has 1 MA's), (11, 28436), (12, 28442), (20, 28556),

Gene: Neighly\_33 Start: 28247, Stop: 28561, Start Num: 6

Candidate Starts for Neighly\_33:

(Start: 5 @28232 has 36 MA's), (Start: 6 @28247 has 1 MA's), (Start: 8 @28292 has 1 MA's), (10, 28313), (11, 28319), (15, 28397), (18, 28412), (20, 28439), (22, 28460),

Gene: Niklas\_33 Start: 27086, Stop: 27448, Start Num: 5

Candidate Starts for Niklas\_33:

(Start: 5 @27086 has 36 MA's), (14, 27212), (16, 27290), (20, 27332), (21, 27344), (22, 27353), (23, 27365),

Gene: OkiRoe\_32 Start: 28365, Stop: 28691, Start Num: 5

Candidate Starts for OkiRoe\_32:

(Start: 5 @28365 has 36 MA's), (Start: 6 @28380 has 1 MA's), (Start: 8 @28425 has 1 MA's), (11, 28452), (12, 28458), (20, 28572),

Gene: Omnicron\_33 Start: 27250, Stop: 27609, Start Num: 5

Candidate Starts for Omnicron\_33:

(Start: 5 @27250 has 36 MA's), (Start: 6 @27265 has 1 MA's), (Start: 8 @27310 has 1 MA's), (9, 27313), (11, 27337), (14, 27379), (18, 27451), (20, 27478), (22, 27499),

Gene: Paola\_32 Start: 28364, Stop: 28699, Start Num: 5

Candidate Starts for Paola\_32:

(Start: 5 @28364 has 36 MA's), (Start: 6 @28379 has 1 MA's), (Start: 8 @28424 has 1 MA's), (11, 28451), (12, 28457), (20, 28571), (22, 28592),

Gene: Peanam\_33 Start: 27083, Stop: 27445, Start Num: 5

Candidate Starts for Peanam\_33:

(Start: 5 @27083 has 36 MA's), (14, 27209), (16, 27287), (20, 27329), (21, 27341), (22, 27350), (23, 27362),

Gene: PhelpsODU\_33 Start: 27114, Stop: 27476, Start Num: 5

Candidate Starts for PhelpsODU\_33:

(Start: 5 @27114 has 36 MA's), (10, 27192), (13, 27231), (14, 27240), (16, 27318), (20, 27360), (21, 27372), (22, 27381), (24, 27426),

Gene: Phrank\_33 Start: 27064, Stop: 27426, Start Num: 5

Candidate Starts for Phrank\_33:

(Start: 5 @27064 has 36 MA's), (10, 27142), (13, 27181), (14, 27190), (16, 27268), (20, 27310), (22, 27331), (24, 27376),

Gene: Psycho\_33 Start: 28363, Stop: 28692, Start Num: 5

Candidate Starts for Psycho\_33:

(Start: 5 @28363 has 36 MA's), (Start: 6 @28378 has 1 MA's), (Start: 8 @28423 has 1 MA's), (10, 28444), (11, 28450), (15, 28528), (18, 28543), (20, 28570), (22, 28591),

Gene: Richo\_33 Start: 27083, Stop: 27445, Start Num: 5

Candidate Starts for Richo\_33:

(Start: 5 @27083 has 36 MA's), (14, 27209), (16, 27287), (20, 27329), (21, 27341), (22, 27350), (23, 27362),

Gene: Shadow1\_32 Start: 26937, Stop: 27293, Start Num: 5

Candidate Starts for Shadow1\_32:

(Start: 5 @26937 has 36 MA's), (10, 27009), (14, 27057), (19, 27156), (20, 27177), (25, 27258),

Gene: Shaobing\_33 Start: 27083, Stop: 27445, Start Num: 5

Candidate Starts for Shaobing\_33:

(Start: 5 @27083 has 36 MA's), (14, 27209), (16, 27287), (20, 27329), (21, 27341), (22, 27350), (23, 27362),

Gene: SoSeph\_32 Start: 28510, Stop: 28845, Start Num: 5

Candidate Starts for SoSeph\_32:

(Start: 5 @28510 has 36 MA's), (Start: 6 @28525 has 1 MA's), (Start: 8 @28570 has 1 MA's), (11, 28597), (12, 28603), (20, 28717),

Gene: Sunflower1121\_32 Start: 26949, Stop: 27311, Start Num: 5

Candidate Starts for Sunflower1121\_32:

(Start: 5 @26949 has 36 MA's), (10, 27027), (13, 27066), (14, 27075), (16, 27153), (20, 27195), (22, 27216), (24, 27261),

Gene: TClif\_34 Start: 27522, Stop: 27884, Start Num: 5

Candidate Starts for TClif\_34:

(1, 27153), (2, 27216), (3, 27291), (4, 27321), (Start: 5 @27522 has 36 MA's), (14, 27648), (16, 27726), (19, 27747), (20, 27768), (22, 27789), (23, 27801), (24, 27834),

Gene: Thyatira\_32 Start: 28364, Stop: 28699, Start Num: 5

Candidate Starts for Thyatira\_32:

(Start: 5 @28364 has 36 MA's), (Start: 6 @28379 has 1 MA's), (Start: 8 @28424 has 1 MA's), (11, 28451), (12, 28457), (20, 28571),

Gene: Tierra\_33 Start: 27785, Stop: 28147, Start Num: 5

Candidate Starts for Tierra\_33:

(Start: 5 @27785 has 36 MA's), (10, 27863), (13, 27902), (14, 27911), (16, 27989), (20, 28031), (22, 28052), (24, 28097),

Gene: Tigress9\_34 Start: 26955, Stop: 27311, Start Num: 5

Candidate Starts for Tigress9\_34:

(Start: 5 @26955 has 36 MA's), (13, 27066), (14, 27075), (16, 27153), (20, 27195), (22, 27216), (24, 27261),

Gene: Unicorn\_33 Start: 27114, Stop: 27476, Start Num: 5

Candidate Starts for Unicorn\_33:

(Start: 5 @27114 has 36 MA's), (10, 27192), (13, 27231), (14, 27240), (16, 27318), (20, 27360), (21, 27372), (22, 27381), (24, 27426),

Gene: Validus\_33 Start: 27015, Stop: 27377, Start Num: 5

Candidate Starts for Validus\_33:

(Start: 5 @27015 has 36 MA's), (14, 27141), (16, 27219), (20, 27261), (21, 27273), (22, 27282), (23, 27294),

Gene: ViviJ\_31 Start: 28195, Stop: 28524, Start Num: 5

Candidate Starts for ViviJ\_31:

(Start: 5 @28195 has 36 MA's), (Start: 6 @28210 has 1 MA's), (Start: 8 @28255 has 1 MA's), (10, 28276), (11, 28282), (18, 28375), (20, 28402), (22, 28423),

Gene: Waterfoul\_32 Start: 28388, Stop: 28723, Start Num: 5

Candidate Starts for Waterfoul\_32:

(Start: 5 @28388 has 36 MA's), (Start: 6 @28403 has 1 MA's), (Start: 8 @28448 has 1 MA's), (11, 28475), (12, 28481), (20, 28595),

Gene: Ximenita\_34 Start: 27141, Stop: 27497, Start Num: 5

Candidate Starts for Ximenita\_34:

(Start: 5 @27141 has 36 MA's), (10, 27213), (14, 27261), (16, 27339), (19, 27360), (22, 27402), (24, 27447), (25, 27462),