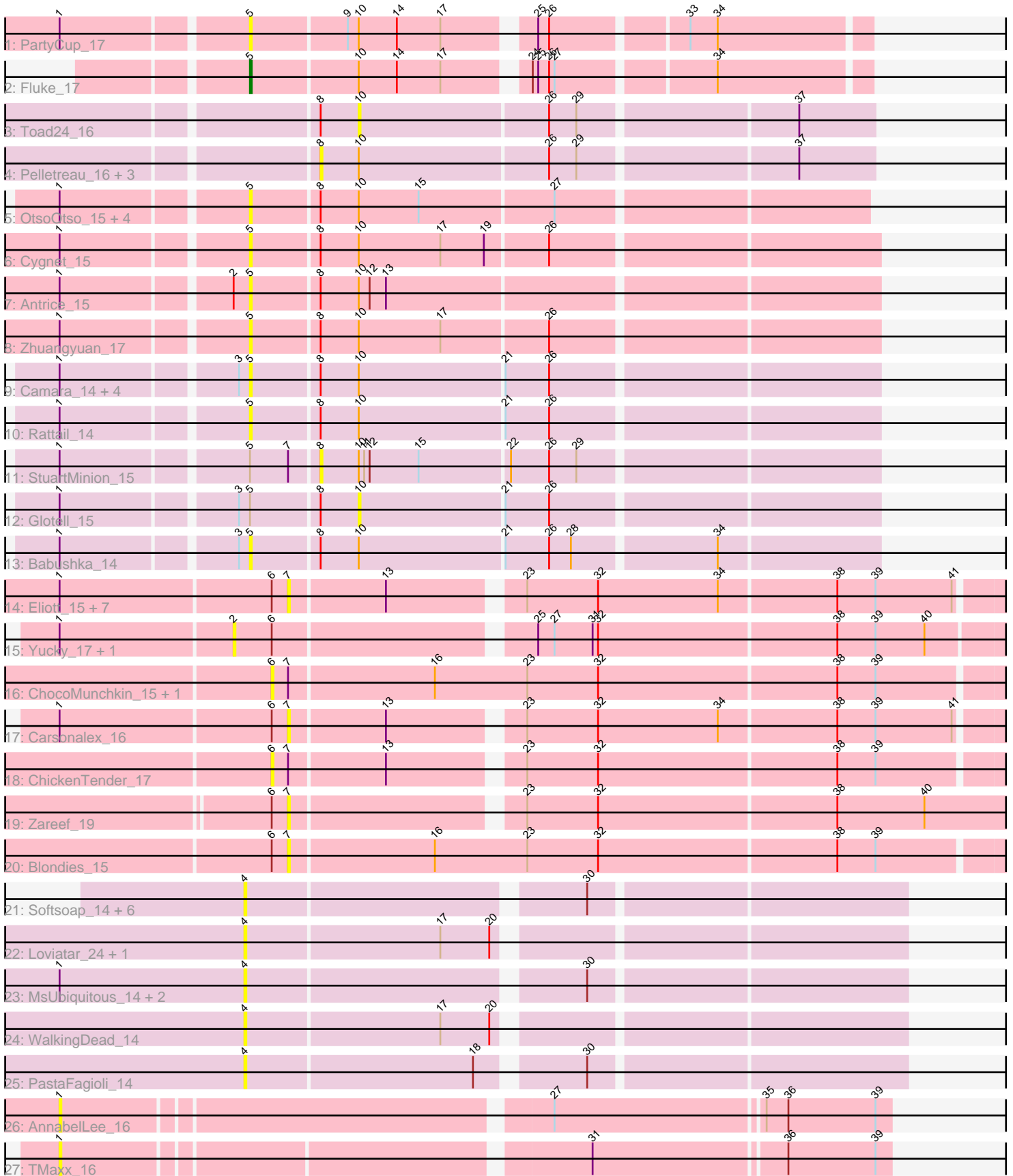


# Pham 205218



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 205218 Report

This analysis was run 02/22/25 on database version 588.

Pham number 205218 has 56 members, 55 are drafts.

Phages represented in each track:

- Track 1 : PartyCup\_17
- Track 2 : Fluke\_17
- Track 3 : Toad24\_16
- Track 4 : Pelletreau\_16, Westrich\_16, Gravel\_16, KendraB23\_16
- Track 5 : OtsoOtso\_15, Bibble12\_16, Jerole\_16, Bedetta\_16, Colusalem\_15
- Track 6 : Cygnet\_15
- Track 7 : Antrice\_15
- Track 8 : Zhuangyuan\_17
- Track 9 : Camara\_14, AmiCi24\_14, DanHam62\_14, Atlantica\_14, HamCheese\_14
- Track 10 : Rattail\_14
- Track 11 : StuartMinion\_15
- Track 12 : Glotell\_15
- Track 13 : Babushka\_14
- Track 14 : Elliott\_15, Starburst\_16, GoldHunter\_16, Socotra\_16, PsychoKiller\_15, Typhonomachy\_16, Sopespian\_15, RedBaron\_16
- Track 15 : Yucky\_17, Bavailard\_15
- Track 16 : ChocoMunchkin\_15, CanesSauce\_15
- Track 17 : Carsonalex\_16
- Track 18 : ChickenTender\_17
- Track 19 : Zareef\_19
- Track 20 : Blondies\_15
- Track 21 : Softsoap\_14, PhigPhack\_14, Cashington\_14, Bengal\_14, Milomuff\_15, Kate33\_14, Solea\_15
- Track 22 : Loviatar\_24, Akino08\_24
- Track 23 : MsUbiquitous\_14, Jabb\_14, CupcakePrincess\_14
- Track 24 : WalkingDead\_14
- Track 25 : PastaFagioli\_14
- Track 26 : AnnabelLee\_16
- Track 27 : TMaxx\_16

### ***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 1 of the 1 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AmiCi24\_14, Antrice\_15, Atlantica\_14, Babushka\_14, Bedetta\_16, Bibble12\_16, Camara\_14, Colusalem\_15, Cygnet\_15, DanHam62\_14, Fluke\_17, HamCheese\_14, Jerole\_16, OtsoOtso\_15, PartyCup\_17, Rattail\_14, Zhuangyuan\_17,

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

- Glotell\_15, StuartMinion\_15,

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

- Akino08\_24, AnnabelLee\_16, Bavailard\_15, Bengal\_14, Blondies\_15, CanesSauce\_15, Carsonalex\_16, Cashington\_14, ChickenTender\_17, ChocoMunchkin\_15, CupcakePrincess\_14, Elliott\_15, GoldHunter\_16, Gravel\_16, Jabb\_14, Kate33\_14, KendraB23\_16, Loviatar\_24, Milomuff\_15, MsUbiquitous\_14, PastaFagioli\_14, Pelletreau\_16, PhigPhack\_14, PsychoKiller\_15, RedBaron\_16, Socotra\_16, Softsoap\_14, Solea\_15, Sopespian\_15, Starburst\_16, TMaxx\_16, Toad24\_16, Typhonmarchy\_16, WalkingDead\_14, Westrich\_16, Yucky\_17, Zareef\_19,

### Summary by start number:

Start 1:

- Found in 34 of 56 ( 60.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 5.9% of time when present
- Phage (with cluster) where this start called: AnnabelLee\_16 (FR), TMaxx\_16 (FR),

Start 2:

- Found in 3 of 56 ( 5.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Bavailard\_15 (CT), Yucky\_17 (CT),

Start 4:

- Found in 14 of 56 ( 25.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Akino08\_24 (EB), Bengal\_14 (EB), Cashington\_14 (EB), CupcakePrincess\_14 (EB), Jabb\_14 (EB), Kate33\_14 (EB), Loviatar\_24 (EB), Milomuff\_15 (EB), MsUbiquitous\_14 (EB), PastaFagioli\_14 (EB), PhigPhack\_14 (EB), Softsoap\_14 (EB), Solea\_15 (EB), WalkingDead\_14 (EB),

Start 5:

- Found in 19 of 56 ( 33.9% ) of genes in pham
- Manual Annotations of this start: 1 of 1
- Called 89.5% of time when present
- Phage (with cluster) where this start called: AmiCi24\_14 (AS3), Antrice\_15 (AS2), Atlantica\_14 (AS3), Babushka\_14 (AS3), Bedetta\_16 (AS2), Bibble12\_16 (AS2), Camara\_14 (AS3), Colusalem\_15 (AS2), Cygnet\_15 (AS2), DanHam62\_14 (AS3), Fluke\_17 (AK), HamCheese\_14 (AS3), Jerole\_16 (AS2), OtsoOtso\_15 (AS2), PartyCup\_17 (AK), Rattail\_14 (AS3), Zhuangyuan\_17 (AS2),

Start 6:

- Found in 16 of 56 ( 28.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 18.8% of time when present
- Phage (with cluster) where this start called: CanesSauce\_15 (CT), ChickenTender\_17 (CT), ChocoMunchkin\_15 (CT),

#### Start 7:

- Found in 15 of 56 ( 26.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 73.3% of time when present
- Phage (with cluster) where this start called: Blondies\_15 (CT), Carsonalex\_16 (CT), Elliott\_15 (CT), GoldHunter\_16 (CT), PsychoKiller\_15 (CT), RedBaron\_16 (CT), Socotra\_16 (CT), Sopespian\_15 (CT), Starburst\_16 (CT), Typhonmarchy\_16 (CT), Zareef\_19 (CT),

#### Start 8:

- Found in 22 of 56 ( 39.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 22.7% of time when present
- Phage (with cluster) where this start called: Gravel\_16 (AS1), KendraB23\_16 (AS1), Pelletreau\_16 (AS1), StuartMinion\_15 (AS3), Westrich\_16 (AS1),

#### Start 10:

- Found in 24 of 56 ( 42.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Glotell\_15 (AS3), Toad24\_16 (AS1),

### **Summary by clusters:**

There are 7 clusters represented in this pham: AS3, AS2, AS1, AK, FR, EB, CT,

Info for manual annotations of cluster AK:

- Start number 5 was manually annotated 1 time for cluster AK.

### **Gene Information:**

Gene: Akino08\_24 Start: 9868, Stop: 10209, Start Num: 4

Candidate Starts for Akino08\_24:

(4, 9868), (17, 9973), (20, 10000),

Gene: AmiCi24\_14 Start: 9450, Stop: 9782, Start Num: 5

Candidate Starts for AmiCi24\_14:

(1, 9354), (3, 9444), (Start: 5 @9450 has 1 MA's), (8, 9486), (10, 9507), (21, 9585), (26, 9609),

Gene: AnnabelLee\_16 Start: 9135, Stop: 9566, Start Num: 1

Candidate Starts for AnnabelLee\_16:

(1, 9135), (27, 9387), (35, 9498), (36, 9510), (39, 9558),

Gene: Antrice\_15 Start: 9791, Stop: 10123, Start Num: 5

Candidate Starts for Antrice\_15:

(1, 9695), (2, 9782), (Start: 5 @9791 has 1 MA's), (8, 9827), (10, 9848), (12, 9854), (13, 9863),

Gene: Atlantica\_14 Start: 9452, Stop: 9784, Start Num: 5

Candidate Starts for Atlantica\_14:

(1, 9356), (3, 9446), (Start: 5 @9452 has 1 MA's), (8, 9488), (10, 9509), (21, 9587), (26, 9611),

Gene: Babushka\_14 Start: 9500, Stop: 9832, Start Num: 5

Candidate Starts for Babushka\_14:

(1, 9404), (3, 9494), (Start: 5 @9500 has 1 MA's), (8, 9536), (10, 9557), (21, 9635), (26, 9659), (28, 9671), (34, 9746),

Gene: Bavilard\_15 Start: 9749, Stop: 10165, Start Num: 2

Candidate Starts for Bavilard\_15:

(1, 9656), (2, 9749), (6, 9770), (25, 9902), (27, 9911), (31, 9932), (32, 9935), (38, 10064), (39, 10085), (40, 10112),

Gene: Bedetta\_16 Start: 10036, Stop: 10362, Start Num: 5

Candidate Starts for Bedetta\_16:

(1, 9940), (Start: 5 @10036 has 1 MA's), (8, 10072), (10, 10093), (15, 10126), (27, 10198),

Gene: Bengal\_14 Start: 9593, Stop: 9934, Start Num: 4

Candidate Starts for Bengal\_14:

(4, 9593), (30, 9767),

Gene: Bible12\_16 Start: 10039, Stop: 10365, Start Num: 5

Candidate Starts for Bible12\_16:

(1, 9943), (Start: 5 @10039 has 1 MA's), (8, 10075), (10, 10096), (15, 10129), (27, 10201),

Gene: Blondies\_15 Start: 9220, Stop: 9612, Start Num: 7

Candidate Starts for Blondies\_15:

(6, 9211), (7, 9220), (16, 9298), (23, 9349), (32, 9388), (38, 9517), (39, 9538),

Gene: Camara\_14 Start: 9453, Stop: 9785, Start Num: 5

Candidate Starts for Camara\_14:

(1, 9357), (3, 9447), (Start: 5 @9453 has 1 MA's), (8, 9489), (10, 9510), (21, 9588), (26, 9612),

Gene: CanesSauce\_15 Start: 9255, Stop: 9656, Start Num: 6

Candidate Starts for CanesSauce\_15:

(6, 9255), (7, 9264), (16, 9342), (23, 9393), (32, 9432), (38, 9561), (39, 9582),

Gene: Carsonalex\_16 Start: 9317, Stop: 9697, Start Num: 7

Candidate Starts for Carsonalex\_16:

(1, 9194), (6, 9308), (7, 9317), (13, 9368), (23, 9434), (32, 9473), (34, 9539), (38, 9602), (39, 9623), (41, 9665),

Gene: Cashington\_14 Start: 9610, Stop: 9951, Start Num: 4

Candidate Starts for Cashington\_14:

(4, 9610), (30, 9784),

Gene: ChickenTender\_17 Start: 9300, Stop: 9689, Start Num: 6

Candidate Starts for ChickenTender\_17:

(6, 9300), (7, 9309), (13, 9360), (23, 9426), (32, 9465), (38, 9594), (39, 9615),

Gene: ChocoMunchkin\_15 Start: 9255, Stop: 9656, Start Num: 6

Candidate Starts for ChocoMunchkin\_15:

(6, 9255), (7, 9264), (16, 9342), (23, 9393), (32, 9432), (38, 9561), (39, 9582),

Gene: Colusalem\_15 Start: 9875, Stop: 10201, Start Num: 5

Candidate Starts for Colusalem\_15:

(1, 9779), (Start: 5 @9875 has 1 MA's), (8, 9911), (10, 9932), (15, 9965), (27, 10037),

Gene: CupcakePrincess\_14 Start: 9633, Stop: 9974, Start Num: 4

Candidate Starts for CupcakePrincess\_14:

(1, 9531), (4, 9633), (30, 9807),

Gene: Cygnet\_15 Start: 9828, Stop: 10160, Start Num: 5

Candidate Starts for Cygnet\_15:

(1, 9732), (Start: 5 @9828 has 1 MA's), (8, 9864), (10, 9885), (17, 9930), (19, 9954), (26, 9987),

Gene: DanHam62\_14 Start: 9452, Stop: 9784, Start Num: 5

Candidate Starts for DanHam62\_14:

(1, 9356), (3, 9446), (Start: 5 @9452 has 1 MA's), (8, 9488), (10, 9509), (21, 9587), (26, 9611),

Gene: Elliott\_15 Start: 9259, Stop: 9639, Start Num: 7

Candidate Starts for Elliott\_15:

(1, 9136), (6, 9250), (7, 9259), (13, 9310), (23, 9376), (32, 9415), (34, 9481), (38, 9544), (39, 9565), (41, 9607),

Gene: Fluke\_17 Start: 12295, Stop: 12609, Start Num: 5

Candidate Starts for Fluke\_17:

(Start: 5 @12295 has 1 MA's), (10, 12352), (14, 12373), (17, 12397), (24, 12436), (25, 12439), (26, 12445), (27, 12448), (34, 12529),

Gene: Glotell\_15 Start: 9507, Stop: 9782, Start Num: 10

Candidate Starts for Glotell\_15:

(1, 9354), (3, 9444), (Start: 5 @9450 has 1 MA's), (8, 9486), (10, 9507), (21, 9585), (26, 9609),

Gene: GoldHunter\_16 Start: 9260, Stop: 9640, Start Num: 7

Candidate Starts for GoldHunter\_16:

(1, 9137), (6, 9251), (7, 9260), (13, 9311), (23, 9377), (32, 9416), (34, 9482), (38, 9545), (39, 9566), (41, 9608),

Gene: Gravel\_16 Start: 10083, Stop: 10376, Start Num: 8

Candidate Starts for Gravel\_16:

(8, 10083), (10, 10104), (26, 10206), (29, 10221), (37, 10335),

Gene: HamCheese\_14 Start: 9452, Stop: 9784, Start Num: 5

Candidate Starts for HamCheese\_14:

(1, 9356), (3, 9446), (Start: 5 @9452 has 1 MA's), (8, 9488), (10, 9509), (21, 9587), (26, 9611),

Gene: Jabb\_14 Start: 9633, Stop: 9974, Start Num: 4

Candidate Starts for Jabb\_14:

(1, 9531), (4, 9633), (30, 9807),

Gene: Jerole\_16 Start: 10036, Stop: 10362, Start Num: 5

Candidate Starts for Jerole\_16:

(1, 9940), (Start: 5 @10036 has 1 MA's), (8, 10072), (10, 10093), (15, 10126), (27, 10198),

Gene: Kate33\_14 Start: 9637, Stop: 9978, Start Num: 4

Candidate Starts for Kate33\_14:

(4, 9637), (30, 9811),

Gene: KendraB23\_16 Start: 10084, Stop: 10377, Start Num: 8

Candidate Starts for KendraB23\_16:

(8, 10084), (10, 10105), (26, 10207), (29, 10222), (37, 10336),

Gene: Loviatar\_24 Start: 9883, Stop: 10224, Start Num: 4

Candidate Starts for Loviatar\_24:

(4, 9883), (17, 9988), (20, 10015),

Gene: Milomuff\_15 Start: 9979, Stop: 10320, Start Num: 4

Candidate Starts for Milomuff\_15:

(4, 9979), (30, 10153),

Gene: MsUbiquitous\_14 Start: 9633, Stop: 9974, Start Num: 4

Candidate Starts for MsUbiquitous\_14:

(1, 9531), (4, 9633), (30, 9807),

Gene: OtsoOtso\_15 Start: 9875, Stop: 10201, Start Num: 5

Candidate Starts for OtsoOtso\_15:

(1, 9779), (Start: 5 @9875 has 1 MA's), (8, 9911), (10, 9932), (15, 9965), (27, 10037),

Gene: PartyCup\_17 Start: 12324, Stop: 12638, Start Num: 5

Candidate Starts for PartyCup\_17:

(1, 12228), (Start: 5 @12324 has 1 MA's), (9, 12375), (10, 12381), (14, 12402), (17, 12426), (25, 12468), (26, 12474), (33, 12543), (34, 12558),

Gene: PastaFagioli\_14 Start: 9698, Stop: 10039, Start Num: 4

Candidate Starts for PastaFagioli\_14:

(4, 9698), (18, 9821), (30, 9872),

Gene: Pelletreau\_16 Start: 10083, Stop: 10376, Start Num: 8

Candidate Starts for Pelletreau\_16:

(8, 10083), (10, 10104), (26, 10206), (29, 10221), (37, 10335),

Gene: PhigPhack\_14 Start: 9622, Stop: 9963, Start Num: 4

Candidate Starts for PhigPhack\_14:

(4, 9622), (30, 9796),

Gene: PsychoKiller\_15 Start: 9259, Stop: 9639, Start Num: 7

Candidate Starts for PsychoKiller\_15:

(1, 9136), (6, 9250), (7, 9259), (13, 9310), (23, 9376), (32, 9415), (34, 9481), (38, 9544), (39, 9565), (41, 9607),

Gene: Rattail\_14 Start: 9503, Stop: 9835, Start Num: 5

Candidate Starts for Rattail\_14:

(1, 9407), (Start: 5 @9503 has 1 MA's), (8, 9539), (10, 9560), (21, 9638), (26, 9662),

Gene: RedBaron\_16 Start: 9303, Stop: 9683, Start Num: 7

Candidate Starts for RedBaron\_16:

(1, 9180), (6, 9294), (7, 9303), (13, 9354), (23, 9420), (32, 9459), (34, 9525), (38, 9588), (39, 9609), (41, 9651),

Gene: Socotra\_16 Start: 9259, Stop: 9639, Start Num: 7

Candidate Starts for Socotra\_16:

(1, 9136), (6, 9250), (7, 9259), (13, 9310), (23, 9376), (32, 9415), (34, 9481), (38, 9544), (39, 9565), (41, 9607),

Gene: Softsoap\_14 Start: 9593, Stop: 9934, Start Num: 4

Candidate Starts for Softsoap\_14:

(4, 9593), (30, 9767),

Gene: Solea\_15 Start: 9979, Stop: 10320, Start Num: 4

Candidate Starts for Solea\_15:

(4, 9979), (30, 10153),

Gene: Sopespian\_15 Start: 9260, Stop: 9640, Start Num: 7

Candidate Starts for Sopespian\_15:

(1, 9137), (6, 9251), (7, 9260), (13, 9311), (23, 9377), (32, 9416), (34, 9482), (38, 9545), (39, 9566), (41, 9608),

Gene: Starburst\_16 Start: 9259, Stop: 9639, Start Num: 7

Candidate Starts for Starburst\_16:

(1, 9136), (6, 9250), (7, 9259), (13, 9310), (23, 9376), (32, 9415), (34, 9481), (38, 9544), (39, 9565), (41, 9607),

Gene: StuartMinion\_15 Start: 9520, Stop: 9816, Start Num: 8

Candidate Starts for StuartMinion\_15:

(1, 9388), (Start: 5 @9484 has 1 MA's), (7, 9505), (8, 9520), (10, 9541), (11, 9544), (12, 9547), (15, 9574), (22, 9622), (26, 9643), (29, 9658),

Gene: TMaxx\_16 Start: 8992, Stop: 9420, Start Num: 1

Candidate Starts for TMaxx\_16:

(1, 8992), (31, 9262), (36, 9364), (39, 9412),

Gene: Toad24\_16 Start: 10105, Stop: 10377, Start Num: 10

Candidate Starts for Toad24\_16:

(8, 10084), (10, 10105), (26, 10207), (29, 10222), (37, 10336),

Gene: Typhonomachy\_16 Start: 9259, Stop: 9639, Start Num: 7

Candidate Starts for Typhonomachy\_16:

(1, 9136), (6, 9250), (7, 9259), (13, 9310), (23, 9376), (32, 9415), (34, 9481), (38, 9544), (39, 9565), (41, 9607),

Gene: WalkingDead\_14 Start: 9801, Stop: 10142, Start Num: 4

Candidate Starts for WalkingDead\_14:



(4, 9801), (17, 9906), (20, 9933),

Gene: Westrich\_16 Start: 10072, Stop: 10365, Start Num: 8

Candidate Starts for Westrich\_16:

(8, 10072), (10, 10093), (26, 10195), (29, 10210), (37, 10324),

Gene: Yucky\_17 Start: 9832, Stop: 10248, Start Num: 2

Candidate Starts for Yucky\_17:

(1, 9739), (2, 9832), (6, 9853), (25, 9985), (27, 9994), (31, 10015), (32, 10018), (38, 10147), (39, 10168), (40, 10195),

Gene: Zareef\_19 Start: 10244, Stop: 10630, Start Num: 7

Candidate Starts for Zareef\_19:

(6, 10235), (7, 10244), (23, 10361), (32, 10400), (38, 10529), (40, 10577),

Gene: Zhuangyuan\_17 Start: 10214, Stop: 10546, Start Num: 5

Candidate Starts for Zhuangyuan\_17:

(1, 10118), (Start: 5 @10214 has 1 MA's), (8, 10250), (10, 10271), (17, 10316), (26, 10373),