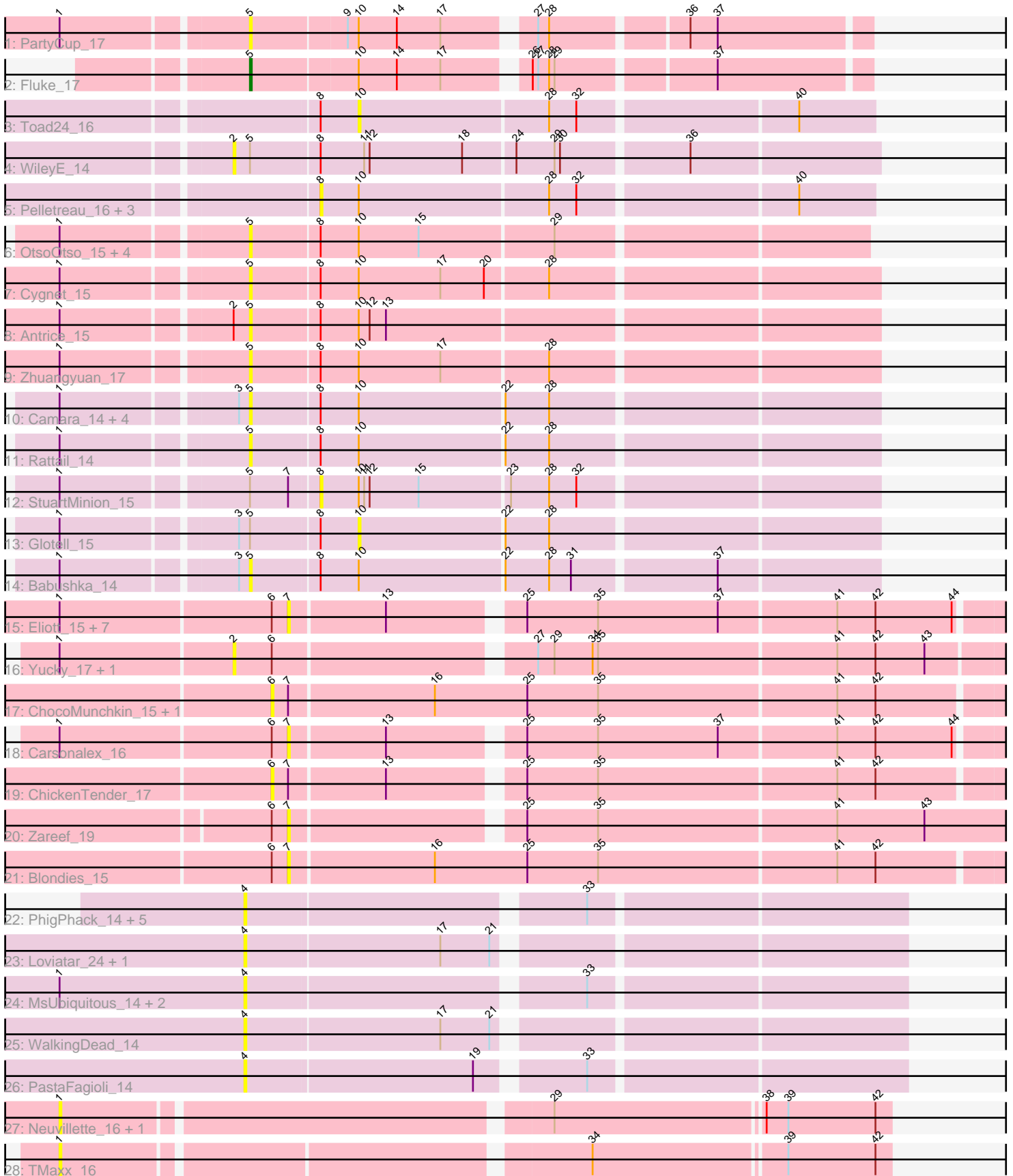


Pham 221465



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 221465 Report

This analysis was run 03/28/25 on database version 593.

Pham number 221465 has 57 members, 56 are drafts.

Phages represented in each track:

- Track 1 : PartyCup_17
- Track 2 : Fluke_17
- Track 3 : Toad24_16
- Track 4 : WileyE_14
- Track 5 : Pelletreau_16, Westrich_16, Gravel_16, KendraB23_16
- Track 6 : OtsoOtso_15, Bibble12_16, Jerole_16, Bedetta_16, Colusalem_15
- Track 7 : Cygnet_15
- Track 8 : Antrice_15
- Track 9 : Zhuangyuan_17
- Track 10 : Camara_14, AmiCi24_14, DanHam62_14, Atlantica_14, HamCheese_14
- Track 11 : Rattail_14
- Track 12 : StuartMinion_15
- Track 13 : Glotell_15
- Track 14 : Babushka_14
- Track 15 : Elliott_15, Starburst_16, GoldHunter_16, Socotra_16, PsychoKiller_15, Typhonomachy_16, Sopespian_15, RedBaron_16
- Track 16 : Yucky_17, Bavailard_15
- Track 17 : ChocoMunchkin_15, CanesSauce_15
- Track 18 : Carsonalex_16
- Track 19 : ChickenTender_17
- Track 20 : Zareef_19
- Track 21 : Blondies_15
- Track 22 : PhigPhack_14, Cashington_14, Bengal_14, Milomuff_15, Kate33_14, Solea_15
- Track 23 : Loviatar_24, Akino08_24
- Track 24 : MsUbiquitous_14, Jabb_14, CupcakePrincess_14
- Track 25 : WalkingDead_14
- Track 26 : PastaFagioli_14
- Track 27 : Neuville_16, AnnabelLee_16
- Track 28 : 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, WileyE_14,

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, Neuville_16, PastaFagioli_14, Pelletreau_16, PhigPhack_14, PsychoKiller_15, RedBaron_16, Socotra_16, 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 35 of 57 (61.4%) of genes in pham
- No Manual Annotations of this start.
- Called 8.6% of time when present
- Phage (with cluster) where this start called: AnnabelLee_16 (FR), Neuville_16 (FR), TMaxx_16 (FR),

Start 2:

- Found in 4 of 57 (7.0%) of genes in pham
- No Manual Annotations of this start.
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Bavailard_15 (CT), WileyE_14 (AS1), Yucky_17 (CT),

Start 4:

- Found in 13 of 57 (22.8%) 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), Solea_15 (EB), WalkingDead_14 (EB),

Start 5:

- Found in 20 of 57 (35.1%) of genes in pham
- Manual Annotations of this start: 1 of 1
- Called 85.0% 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 57 (28.1%) 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 57 (26.3%) 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 23 of 57 (40.4%) of genes in pham
- No Manual Annotations of this start.
- Called 21.7% 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 57 (42.1%) 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), (21, 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), (22, 9585), (28, 9609),

Gene: AnnabelLee_16 Start: 9135, Stop: 9566, Start Num: 1
Candidate Starts for AnnabelLee_16:
(1, 9135), (29, 9387), (38, 9498), (39, 9510), (42, 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), (22, 9587), (28, 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), (22, 9635), (28, 9659), (31, 9671), (37, 9746),

Gene: Bavilard_15 Start: 9749, Stop: 10165, Start Num: 2
Candidate Starts for Bavilard_15:
(1, 9656), (2, 9749), (6, 9770), (27, 9902), (29, 9911), (34, 9932), (35, 9935), (41, 10064), (42, 10085), (43, 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), (29, 10198),

Gene: Bengal_14 Start: 9593, Stop: 9934, Start Num: 4
Candidate Starts for Bengal_14:
(4, 9593), (33, 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), (29, 10201),

Gene: Blondies_15 Start: 9220, Stop: 9612, Start Num: 7
Candidate Starts for Blondies_15:
(6, 9211), (7, 9220), (16, 9298), (25, 9349), (35, 9388), (41, 9517), (42, 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), (22, 9588), (28, 9612),

Gene: CanesSauce_15 Start: 9255, Stop: 9656, Start Num: 6
Candidate Starts for CanesSauce_15:
(6, 9255), (7, 9264), (16, 9342), (25, 9393), (35, 9432), (41, 9561), (42, 9582),

Gene: Carsonalex_16 Start: 9317, Stop: 9697, Start Num: 7
Candidate Starts for Carsonalex_16:

(1, 9194), (6, 9308), (7, 9317), (13, 9368), (25, 9434), (35, 9473), (37, 9539), (41, 9602), (42, 9623), (44, 9665),

Gene: Cashington_14 Start: 9610, Stop: 9951, Start Num: 4

Candidate Starts for Cashington_14:

(4, 9610), (33, 9784),

Gene: ChickenTender_17 Start: 9300, Stop: 9689, Start Num: 6

Candidate Starts for ChickenTender_17:

(6, 9300), (7, 9309), (13, 9360), (25, 9426), (35, 9465), (41, 9594), (42, 9615),

Gene: ChocoMunchkin_15 Start: 9255, Stop: 9656, Start Num: 6

Candidate Starts for ChocoMunchkin_15:

(6, 9255), (7, 9264), (16, 9342), (25, 9393), (35, 9432), (41, 9561), (42, 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), (29, 10037),

Gene: CupcakePrincess_14 Start: 9633, Stop: 9974, Start Num: 4

Candidate Starts for CupcakePrincess_14:

(1, 9531), (4, 9633), (33, 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), (20, 9954), (28, 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), (22, 9587), (28, 9611),

Gene: Elliott_15 Start: 9259, Stop: 9639, Start Num: 7

Candidate Starts for Elliott_15:

(1, 9136), (6, 9250), (7, 9259), (13, 9310), (25, 9376), (35, 9415), (37, 9481), (41, 9544), (42, 9565), (44, 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), (26, 12436), (27, 12439), (28, 12445), (29, 12448), (37, 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), (22, 9585), (28, 9609),

Gene: GoldHunter_16 Start: 9260, Stop: 9640, Start Num: 7

Candidate Starts for GoldHunter_16:

(1, 9137), (6, 9251), (7, 9260), (13, 9311), (25, 9377), (35, 9416), (37, 9482), (41, 9545), (42, 9566), (44, 9608),

Gene: Gravel_16 Start: 10083, Stop: 10376, Start Num: 8

Candidate Starts for Gravel_16:

(8, 10083), (10, 10104), (28, 10206), (32, 10221), (40, 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), (22, 9587), (28, 9611),

Gene: Jabb_14 Start: 9633, Stop: 9974, Start Num: 4
Candidate Starts for Jabb_14:
(1, 9531), (4, 9633), (33, 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), (29, 10198),

Gene: Kate33_14 Start: 9637, Stop: 9978, Start Num: 4
Candidate Starts for Kate33_14:
(4, 9637), (33, 9811),

Gene: KendraB23_16 Start: 10084, Stop: 10377, Start Num: 8
Candidate Starts for KendraB23_16:
(8, 10084), (10, 10105), (28, 10207), (32, 10222), (40, 10336),

Gene: Loviatar_24 Start: 9883, Stop: 10224, Start Num: 4
Candidate Starts for Loviatar_24:
(4, 9883), (17, 9988), (21, 10015),

Gene: Milomuff_15 Start: 9979, Stop: 10320, Start Num: 4
Candidate Starts for Milomuff_15:
(4, 9979), (33, 10153),

Gene: MsUbiquitous_14 Start: 9633, Stop: 9974, Start Num: 4
Candidate Starts for MsUbiquitous_14:
(1, 9531), (4, 9633), (33, 9807),

Gene: Neuville_16 Start: 9135, Stop: 9566, Start Num: 1
Candidate Starts for Neuville_16:
(1, 9135), (29, 9387), (38, 9498), (39, 9510), (42, 9558),

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), (29, 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), (27, 12468), (28, 12474), (36, 12543), (37, 12558),

Gene: PastaFagioli_14 Start: 9698, Stop: 10039, Start Num: 4
Candidate Starts for PastaFagioli_14:
(4, 9698), (19, 9821), (33, 9872),

Gene: Pelletreau_16 Start: 10083, Stop: 10376, Start Num: 8
Candidate Starts for Pelletreau_16:
(8, 10083), (10, 10104), (28, 10206), (32, 10221), (40, 10335),

Gene: PhigPhack_14 Start: 9622, Stop: 9963, Start Num: 4

Candidate Starts for PhigPhack_14:

(4, 9622), (33, 9796),

Gene: PsychoKiller_15 Start: 9259, Stop: 9639, Start Num: 7

Candidate Starts for PsychoKiller_15:

(1, 9136), (6, 9250), (7, 9259), (13, 9310), (25, 9376), (35, 9415), (37, 9481), (41, 9544), (42, 9565), (44, 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), (22, 9638), (28, 9662),

Gene: RedBaron_16 Start: 9303, Stop: 9683, Start Num: 7

Candidate Starts for RedBaron_16:

(1, 9180), (6, 9294), (7, 9303), (13, 9354), (25, 9420), (35, 9459), (37, 9525), (41, 9588), (42, 9609), (44, 9651),

Gene: Socotra_16 Start: 9259, Stop: 9639, Start Num: 7

Candidate Starts for Socotra_16:

(1, 9136), (6, 9250), (7, 9259), (13, 9310), (25, 9376), (35, 9415), (37, 9481), (41, 9544), (42, 9565), (44, 9607),

Gene: Solea_15 Start: 9979, Stop: 10320, Start Num: 4

Candidate Starts for Solea_15:

(4, 9979), (33, 10153),

Gene: Sopespian_15 Start: 9260, Stop: 9640, Start Num: 7

Candidate Starts for Sopespian_15:

(1, 9137), (6, 9251), (7, 9260), (13, 9311), (25, 9377), (35, 9416), (37, 9482), (41, 9545), (42, 9566), (44, 9608),

Gene: Starburst_16 Start: 9259, Stop: 9639, Start Num: 7

Candidate Starts for Starburst_16:

(1, 9136), (6, 9250), (7, 9259), (13, 9310), (25, 9376), (35, 9415), (37, 9481), (41, 9544), (42, 9565), (44, 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), (23, 9622), (28, 9643), (32, 9658),

Gene: TMaxx_16 Start: 8992, Stop: 9420, Start Num: 1

Candidate Starts for TMaxx_16:

(1, 8992), (34, 9262), (39, 9364), (42, 9412),

Gene: Toad24_16 Start: 10105, Stop: 10377, Start Num: 10

Candidate Starts for Toad24_16:

(8, 10084), (10, 10105), (28, 10207), (32, 10222), (40, 10336),

Gene: Typhonomachy_16 Start: 9259, Stop: 9639, Start Num: 7

Candidate Starts for Typhonomachy_16:

(1, 9136), (6, 9250), (7, 9259), (13, 9310), (25, 9376), (35, 9415), (37, 9481), (41, 9544), (42, 9565), (44, 9607),

Gene: WalkingDead_14 Start: 9801, Stop: 10142, Start Num: 4

Candidate Starts for WalkingDead_14:

(4, 9801), (17, 9906), (21, 9933),

Gene: Westrich_16 Start: 10072, Stop: 10365, Start Num: 8

Candidate Starts for Westrich_16:

(8, 10072), (10, 10093), (28, 10195), (32, 10210), (40, 10324),

Gene: WileyE_14 Start: 9804, Stop: 10145, Start Num: 2

Candidate Starts for WileyE_14:

(2, 9804), (Start: 5 @9813 has 1 MA's), (8, 9849), (11, 9873), (12, 9876), (18, 9927), (24, 9954), (29, 9975), (30, 9978), (36, 10044),

Gene: Yucky_17 Start: 9832, Stop: 10248, Start Num: 2

Candidate Starts for Yucky_17:

(1, 9739), (2, 9832), (6, 9853), (27, 9985), (29, 9994), (34, 10015), (35, 10018), (41, 10147), (42, 10168), (43, 10195),

Gene: Zareef_19 Start: 10244, Stop: 10630, Start Num: 7

Candidate Starts for Zareef_19:

(6, 10235), (7, 10244), (25, 10361), (35, 10400), (41, 10529), (43, 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), (28, 10373),