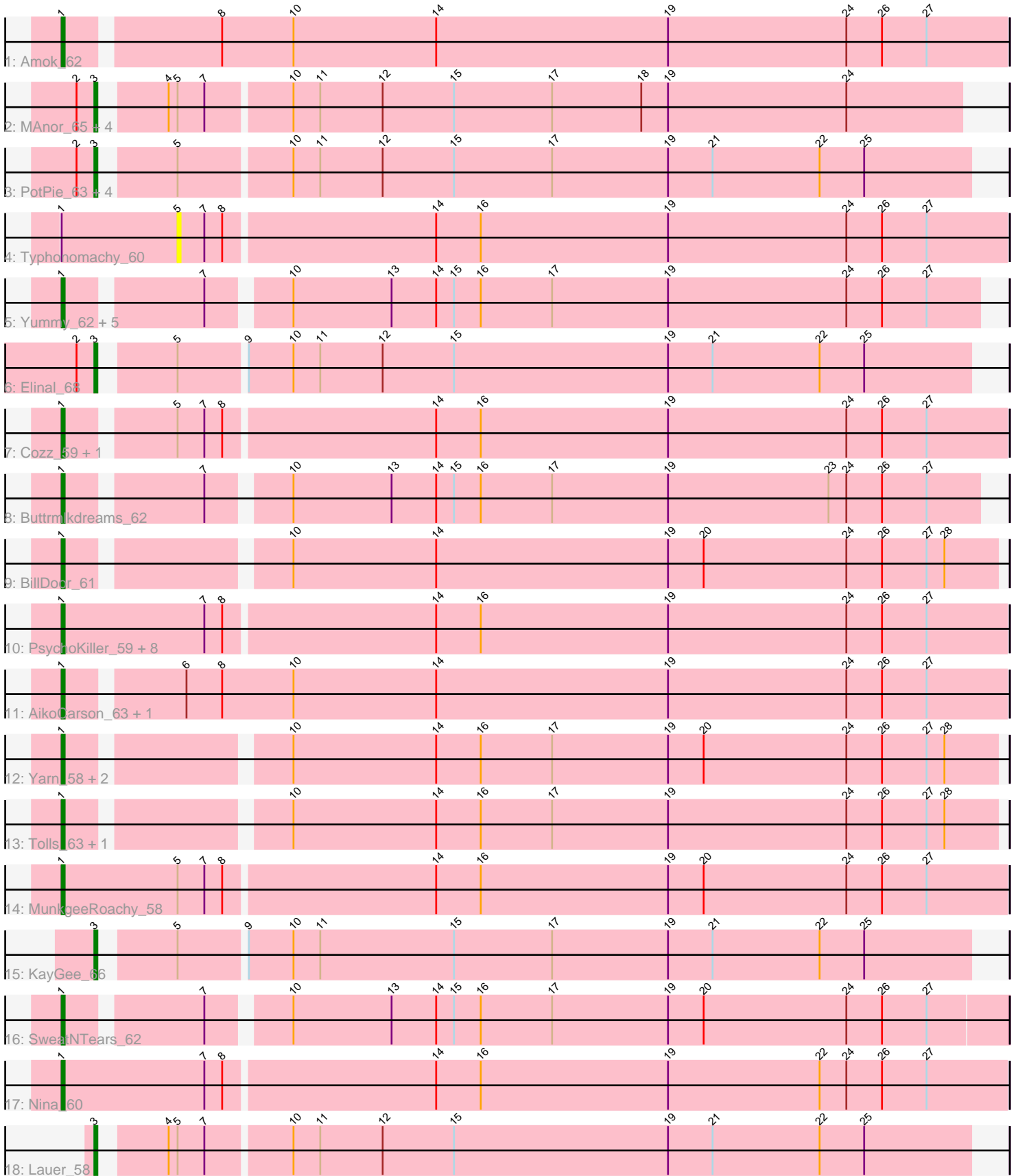


Pham 179218



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 179218 Report

This analysis was run 11/02/24 on database version 579.

Pham number 179218 has 44 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Amok\_62
- Track 2 : MAnor\_65, SheckWes\_67, Pons\_65, Mayweather\_67, CherryonLim\_64
- Track 3 : PotPie\_63, Feastonyeet\_63, Vine\_66, SummitAcademy\_63, BigChungus\_63
- Track 4 : Typhonmarchy\_60
- Track 5 : Yummy\_62, MScarn\_64, Troje\_62, Horseradish\_62, SketchMex\_60, Biskit\_62
- Track 6 : Elinal\_68
- Track 7 : Cozz\_59, Carsonalex\_64
- Track 8 : Buttrmlkdreams\_62
- Track 9 : BillDoor\_61
- Track 10 : PsychoKiller\_59, Burnsey\_60, RedBaron\_66, Elliott\_60, Axym\_59, GoldHunter\_61, Quasar\_60, Agatha\_60, Sopespian\_57
- Track 11 : AikoCarson\_63, Emalyn\_61
- Track 12 : Yarn\_58, AndPeggy\_57, GTE2\_50
- Track 13 : Tolls\_63, SteamedHams\_62
- Track 14 : MunkgeeRoachy\_58
- Track 15 : KayGee\_66
- Track 16 : SweatNTears\_62
- Track 17 : Nina\_60
- Track 18 : Lauer\_58

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

The start number called the most often in the published annotations is 1, it was called in 23 of the 36 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Agatha\_60, AikoCarson\_63, Amok\_62, AndPeggy\_57, Axym\_59, BillDoor\_61, Biskit\_62, Burnsey\_60, Buttrmlkdreams\_62, Carsonalex\_64, Cozz\_59, Elliott\_60, Emalyn\_61, GTE2\_50, GoldHunter\_61, Horseradish\_62, MScarn\_64, MunkgeeRoachy\_58, Nina\_60, PsychoKiller\_59, Quasar\_60, RedBaron\_66, SketchMex\_60, Sopespian\_57, SteamedHams\_62, SweatNTears\_62, Tolls\_63, Troje\_62, Yarn\_58, Yummy\_62,

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

- Typhonmacy\_60,

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

- BigChungus\_63, CherryonLim\_64, Elinal\_68, Feastonyeet\_63, KayGee\_66, Lauer\_58, MAnor\_65, Mayweather\_67, Pons\_65, PotPie\_63, SheckWes\_67, SummitAcademy\_63, Vine\_66,

### Summary by start number:

Start 1:

- Found in 31 of 44 ( 70.5% ) of genes in pham
- Manual Annotations of this start: 23 of 36
- Called 96.8% of time when present
- Phage (with cluster) where this start called: Agatha\_60 (CT), AikoCarson\_63 (CT), Amok\_62 (CT), AndPeggy\_57 (CT), Axym\_59 (CT), BillDoor\_61 (CT), Biskit\_62 (CT), Burnsey\_60 (CT), Buttrmlkdreams\_62 (CT), Carsonalex\_64 (CT), Cozz\_59 (CT), Elliott\_60 (CT), Emalyn\_61 (CT), GTE2\_50 (CT), GoldHunter\_61 (CT), Horseradish\_62 (CT), MScarn\_64 (CT), MunkgeeRoachy\_58 (CT), Nina\_60 (CT), PsychoKiller\_59 (CT), Quasar\_60 (CT), RedBaron\_66 (CT), SketchMex\_60 (CT), Sopespian\_57 (CT), SteamedHams\_62 (CT), SweatNTears\_62 (CT), Tolls\_63 (CT), Troje\_62 (CT), Yarn\_58 (CT), Yummy\_62 (CT),

Start 3:

- Found in 13 of 44 ( 29.5% ) of genes in pham
- Manual Annotations of this start: 13 of 36
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BigChungus\_63 (CT), CherryonLim\_64 (CT), Elinal\_68 (CT), Feastonyeet\_63 (CT), KayGee\_66 (CT), Lauer\_58 (CT), MAnor\_65 (CT), Mayweather\_67 (CT), Pons\_65 (CT), PotPie\_63 (CT), SheckWes\_67 (CT), SummitAcademy\_63 (CT), Vine\_66 (CT),

Start 5:

- Found in 17 of 44 ( 38.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 5.9% of time when present
- Phage (with cluster) where this start called: Typhonmacy\_60 (CT),

### Summary by clusters:

There is one cluster represented in this pham: CT

Info for manual annotations of cluster CT:

- Start number 1 was manually annotated 23 times for cluster CT.
- Start number 3 was manually annotated 13 times for cluster CT.

### Gene Information:

Gene: Agatha\_60 Start: 42650, Stop: 42964, Start Num: 1

Candidate Starts for Agatha\_60:

(Start: 1 @42650 has 23 MA's), (7, 42698), (8, 42704), (14, 42773), (16, 42788), (19, 42851), (24, 42911), (26, 42923), (27, 42938),

Gene: AikoCarson\_63 Start: 42924, Stop: 43235, Start Num: 1

Candidate Starts for AikoCarson\_63:

(Start: 1 @42924 has 23 MA's), (6, 42960), (8, 42972), (10, 42996), (14, 43044), (19, 43122), (24, 43182), (26, 43194), (27, 43209),

Gene: Amok\_62 Start: 42830, Stop: 43141, Start Num: 1

Candidate Starts for Amok\_62:

(Start: 1 @42830 has 23 MA's), (8, 42878), (10, 42902), (14, 42950), (19, 43028), (24, 43088), (26, 43100), (27, 43115),

Gene: AndPeggy\_57 Start: 42101, Stop: 42403, Start Num: 1

Candidate Starts for AndPeggy\_57:

(Start: 1 @42101 has 23 MA's), (10, 42167), (14, 42215), (16, 42230), (17, 42254), (19, 42293), (20, 42305), (24, 42353), (26, 42365), (27, 42380), (28, 42386),

Gene: Axym\_59 Start: 42546, Stop: 42860, Start Num: 1

Candidate Starts for Axym\_59:

(Start: 1 @42546 has 23 MA's), (7, 42594), (8, 42600), (14, 42669), (16, 42684), (19, 42747), (24, 42807), (26, 42819), (27, 42834),

Gene: BigChungus\_63 Start: 44308, Stop: 44592, Start Num: 3

Candidate Starts for BigChungus\_63:

(2, 44302), (Start: 3 @44308 has 13 MA's), (5, 44329), (10, 44365), (11, 44374), (12, 44395), (15, 44419), (17, 44452), (19, 44491), (21, 44506), (22, 44542), (25, 44557),

Gene: BillDoor\_61 Start: 41785, Stop: 42087, Start Num: 1

Candidate Starts for BillDoor\_61:

(Start: 1 @41785 has 23 MA's), (10, 41851), (14, 41899), (19, 41977), (20, 41989), (24, 42037), (26, 42049), (27, 42064), (28, 42070),

Gene: Biskit\_62 Start: 42735, Stop: 43031, Start Num: 1

Candidate Starts for Biskit\_62:

(Start: 1 @42735 has 23 MA's), (7, 42777), (10, 42801), (13, 42834), (14, 42849), (15, 42855), (16, 42864), (17, 42888), (19, 42927), (24, 42987), (26, 42999), (27, 43014),

Gene: Burnsey\_60 Start: 42640, Stop: 42954, Start Num: 1

Candidate Starts for Burnsey\_60:

(Start: 1 @42640 has 23 MA's), (7, 42688), (8, 42694), (14, 42763), (16, 42778), (19, 42841), (24, 42901), (26, 42913), (27, 42928),

Gene: Buttrmlkdreams\_62 Start: 42913, Stop: 43209, Start Num: 1

Candidate Starts for Buttrmlkdreams\_62:

(Start: 1 @42913 has 23 MA's), (7, 42955), (10, 42979), (13, 43012), (14, 43027), (15, 43033), (16, 43042), (17, 43066), (19, 43105), (23, 43159), (24, 43165), (26, 43177), (27, 43192),

Gene: Carsonalex\_64 Start: 43149, Stop: 43463, Start Num: 1

Candidate Starts for Carsonalex\_64:

(Start: 1 @43149 has 23 MA's), (5, 43188), (7, 43197), (8, 43203), (14, 43272), (16, 43287), (19, 43350), (24, 43410), (26, 43422), (27, 43437),

Gene: CherryonLim\_64 Start: 45801, Stop: 46082, Start Num: 3

Candidate Starts for CherryonLim\_64:

(2, 45795), (Start: 3 @45801 has 13 MA's), (4, 45819), (5, 45822), (7, 45831), (10, 45858), (11, 45867), (12, 45888), (15, 45912), (17, 45945), (18, 45975), (19, 45984), (24, 46044),

Gene: Cozz\_59 Start: 42658, Stop: 42966, Start Num: 1

Candidate Starts for Cozz\_59:

(Start: 1 @42658 has 23 MA's), (5, 42691), (7, 42700), (8, 42706), (14, 42775), (16, 42790), (19, 42853), (24, 42913), (26, 42925), (27, 42940),

Gene: Elinal\_68 Start: 45087, Stop: 45371, Start Num: 3

Candidate Starts for Elinal\_68:

(2, 45081), (Start: 3 @45087 has 13 MA's), (5, 45108), (9, 45129), (10, 45144), (11, 45153), (12, 45174), (15, 45198), (19, 45270), (21, 45285), (22, 45321), (25, 45336),

Gene: Elliott\_60 Start: 42533, Stop: 42847, Start Num: 1

Candidate Starts for Elliott\_60:

(Start: 1 @42533 has 23 MA's), (7, 42581), (8, 42587), (14, 42656), (16, 42671), (19, 42734), (24, 42794), (26, 42806), (27, 42821),

Gene: Emalyn\_61 Start: 41662, Stop: 41973, Start Num: 1

Candidate Starts for Emalyn\_61:

(Start: 1 @41662 has 23 MA's), (6, 41698), (8, 41710), (10, 41734), (14, 41782), (19, 41860), (24, 41920), (26, 41932), (27, 41947),

Gene: Feastonyeet\_63 Start: 44308, Stop: 44592, Start Num: 3

Candidate Starts for Feastonyeet\_63:

(2, 44302), (Start: 3 @44308 has 13 MA's), (5, 44329), (10, 44365), (11, 44374), (12, 44395), (15, 44419), (17, 44452), (19, 44491), (21, 44506), (22, 44542), (25, 44557),

Gene: GTE2\_50 Start: 42721, Stop: 43014, Start Num: 1

Candidate Starts for GTE2\_50:

(Start: 1 @42721 has 23 MA's), (10, 42787), (14, 42835), (16, 42850), (17, 42874), (19, 42913), (20, 42925), (24, 42973), (26, 42985), (27, 43000), (28, 43006),

Gene: GoldHunter\_61 Start: 42650, Stop: 42964, Start Num: 1

Candidate Starts for GoldHunter\_61:

(Start: 1 @42650 has 23 MA's), (7, 42698), (8, 42704), (14, 42773), (16, 42788), (19, 42851), (24, 42911), (26, 42923), (27, 42938),

Gene: Horseradish\_62 Start: 42668, Stop: 42964, Start Num: 1

Candidate Starts for Horseradish\_62:

(Start: 1 @42668 has 23 MA's), (7, 42710), (10, 42734), (13, 42767), (14, 42782), (15, 42788), (16, 42797), (17, 42821), (19, 42860), (24, 42920), (26, 42932), (27, 42947),

Gene: KayGee\_66 Start: 45086, Stop: 45370, Start Num: 3

Candidate Starts for KayGee\_66:

(Start: 3 @45086 has 13 MA's), (5, 45107), (9, 45128), (10, 45143), (11, 45152), (15, 45197), (17, 45230), (19, 45269), (21, 45284), (22, 45320), (25, 45335),

Gene: Lauer\_58 Start: 45271, Stop: 45555, Start Num: 3

Candidate Starts for Lauer\_58:

(Start: 3 @45271 has 13 MA's), (4, 45289), (5, 45292), (7, 45301), (10, 45328), (11, 45337), (12, 45358), (15, 45382), (19, 45454), (21, 45469), (22, 45505), (25, 45520),

Gene: MAnor\_65 Start: 45226, Stop: 45507, Start Num: 3

Candidate Starts for MAnor\_65:

(2, 45220), (Start: 3 @45226 has 13 MA's), (4, 45244), (5, 45247), (7, 45256), (10, 45283), (11, 45292), (12, 45313), (15, 45337), (17, 45370), (18, 45400), (19, 45409), (24, 45469),

Gene: MScarn\_64 Start: 42580, Stop: 42876, Start Num: 1

Candidate Starts for MScarn\_64:

(Start: 1 @42580 has 23 MA's), (7, 42622), (10, 42646), (13, 42679), (14, 42694), (15, 42700), (16, 42709), (17, 42733), (19, 42772), (24, 42832), (26, 42844), (27, 42859),

Gene: Mayweather\_67 Start: 45460, Stop: 45741, Start Num: 3

Candidate Starts for Mayweather\_67:

(2, 45454), (Start: 3 @45460 has 13 MA's), (4, 45478), (5, 45481), (7, 45490), (10, 45517), (11, 45526), (12, 45547), (15, 45571), (17, 45604), (18, 45634), (19, 45643), (24, 45703),

Gene: MunkgeeRoachy\_58 Start: 41984, Stop: 42298, Start Num: 1

Candidate Starts for MunkgeeRoachy\_58:

(Start: 1 @41984 has 23 MA's), (5, 42023), (7, 42032), (8, 42038), (14, 42107), (16, 42122), (19, 42185), (20, 42197), (24, 42245), (26, 42257), (27, 42272),

Gene: Nina\_60 Start: 43136, Stop: 43450, Start Num: 1

Candidate Starts for Nina\_60:

(Start: 1 @43136 has 23 MA's), (7, 43184), (8, 43190), (14, 43259), (16, 43274), (19, 43337), (22, 43388), (24, 43397), (26, 43409), (27, 43424),

Gene: Pons\_65 Start: 44802, Stop: 45083, Start Num: 3

Candidate Starts for Pons\_65:

(2, 44796), (Start: 3 @44802 has 13 MA's), (4, 44820), (5, 44823), (7, 44832), (10, 44859), (11, 44868), (12, 44889), (15, 44913), (17, 44946), (18, 44976), (19, 44985), (24, 45045),

Gene: PotPie\_63 Start: 45343, Stop: 45627, Start Num: 3

Candidate Starts for PotPie\_63:

(2, 45337), (Start: 3 @45343 has 13 MA's), (5, 45364), (10, 45400), (11, 45409), (12, 45430), (15, 45454), (17, 45487), (19, 45526), (21, 45541), (22, 45577), (25, 45592),

Gene: PsychoKiller\_59 Start: 42534, Stop: 42848, Start Num: 1

Candidate Starts for PsychoKiller\_59:

(Start: 1 @42534 has 23 MA's), (7, 42582), (8, 42588), (14, 42657), (16, 42672), (19, 42735), (24, 42795), (26, 42807), (27, 42822),

Gene: Quasar\_60 Start: 43239, Stop: 43547, Start Num: 1

Candidate Starts for Quasar\_60:

(Start: 1 @43239 has 23 MA's), (7, 43281), (8, 43287), (14, 43356), (16, 43371), (19, 43434), (24, 43494), (26, 43506), (27, 43521),

Gene: RedBaron\_66 Start: 43956, Stop: 44270, Start Num: 1

Candidate Starts for RedBaron\_66:

(Start: 1 @43956 has 23 MA's), (7, 44004), (8, 44010), (14, 44079), (16, 44094), (19, 44157), (24, 44217), (26, 44229), (27, 44244),

Gene: SheckWes\_67 Start: 44362, Stop: 44643, Start Num: 3

Candidate Starts for SheckWes\_67:

(2, 44356), (Start: 3 @44362 has 13 MA's), (4, 44380), (5, 44383), (7, 44392), (10, 44419), (11, 44428), (12, 44449), (15, 44473), (17, 44506), (18, 44536), (19, 44545), (24, 44605),

Gene: SketchMex\_60 Start: 42735, Stop: 43031, Start Num: 1

Candidate Starts for SketchMex\_60:

(Start: 1 @42735 has 23 MA's), (7, 42777), (10, 42801), (13, 42834), (14, 42849), (15, 42855), (16, 42864), (17, 42888), (19, 42927), (24, 42987), (26, 42999), (27, 43014),

Gene: Sopespian\_57 Start: 42535, Stop: 42849, Start Num: 1

Candidate Starts for Sopespian\_57:

(Start: 1 @42535 has 23 MA's), (7, 42583), (8, 42589), (14, 42658), (16, 42673), (19, 42736), (24, 42796), (26, 42808), (27, 42823),

Gene: SteamedHams\_62 Start: 42078, Stop: 42380, Start Num: 1

Candidate Starts for SteamedHams\_62:

(Start: 1 @42078 has 23 MA's), (10, 42144), (14, 42192), (16, 42207), (17, 42231), (19, 42270), (24, 42330), (26, 42342), (27, 42357), (28, 42363),

Gene: SummitAcademy\_63 Start: 44486, Stop: 44770, Start Num: 3

Candidate Starts for SummitAcademy\_63:

(2, 44480), (Start: 3 @44486 has 13 MA's), (5, 44507), (10, 44543), (11, 44552), (12, 44573), (15, 44597), (17, 44630), (19, 44669), (21, 44684), (22, 44720), (25, 44735),

Gene: SweatNTears\_62 Start: 42809, Stop: 43114, Start Num: 1

Candidate Starts for SweatNTears\_62:

(Start: 1 @42809 has 23 MA's), (7, 42851), (10, 42875), (13, 42908), (14, 42923), (15, 42929), (16, 42938), (17, 42962), (19, 43001), (20, 43013), (24, 43061), (26, 43073), (27, 43088),

Gene: Tolls\_63 Start: 42349, Stop: 42651, Start Num: 1

Candidate Starts for Tolls\_63:

(Start: 1 @42349 has 23 MA's), (10, 42415), (14, 42463), (16, 42478), (17, 42502), (19, 42541), (24, 42601), (26, 42613), (27, 42628), (28, 42634),

Gene: Troje\_62 Start: 42803, Stop: 43099, Start Num: 1

Candidate Starts for Troje\_62:

(Start: 1 @42803 has 23 MA's), (7, 42845), (10, 42869), (13, 42902), (14, 42917), (15, 42923), (16, 42932), (17, 42956), (19, 42995), (24, 43055), (26, 43067), (27, 43082),

Gene: Typhonomachy\_60 Start: 42386, Stop: 42661, Start Num: 5

Candidate Starts for Typhonomachy\_60:

(Start: 1 @42347 has 23 MA's), (5, 42386), (7, 42395), (8, 42401), (14, 42470), (16, 42485), (19, 42548), (24, 42608), (26, 42620), (27, 42635),

Gene: Vine\_66 Start: 45109, Stop: 45393, Start Num: 3

Candidate Starts for Vine\_66:

(2, 45103), (Start: 3 @45109 has 13 MA's), (5, 45130), (10, 45166), (11, 45175), (12, 45196), (15, 45220), (17, 45253), (19, 45292), (21, 45307), (22, 45343), (25, 45358),

Gene: Yarn\_58 Start: 42106, Stop: 42408, Start Num: 1

Candidate Starts for Yarn\_58:

(Start: 1 @42106 has 23 MA's), (10, 42172), (14, 42220), (16, 42235), (17, 42259), (19, 42298), (20, 42310), (24, 42358), (26, 42370), (27, 42385), (28, 42391),

Gene: Yummy\_62 Start: 42782, Stop: 43078, Start Num: 1

Candidate Starts for Yummy\_62:

(Start: 1 @42782 has 23 MA's), (7, 42824), (10, 42848), (13, 42881), (14, 42896), (15, 42902), (16, 42911), (17, 42935), (19, 42974), (24, 43034), (26, 43046), (27, 43061),