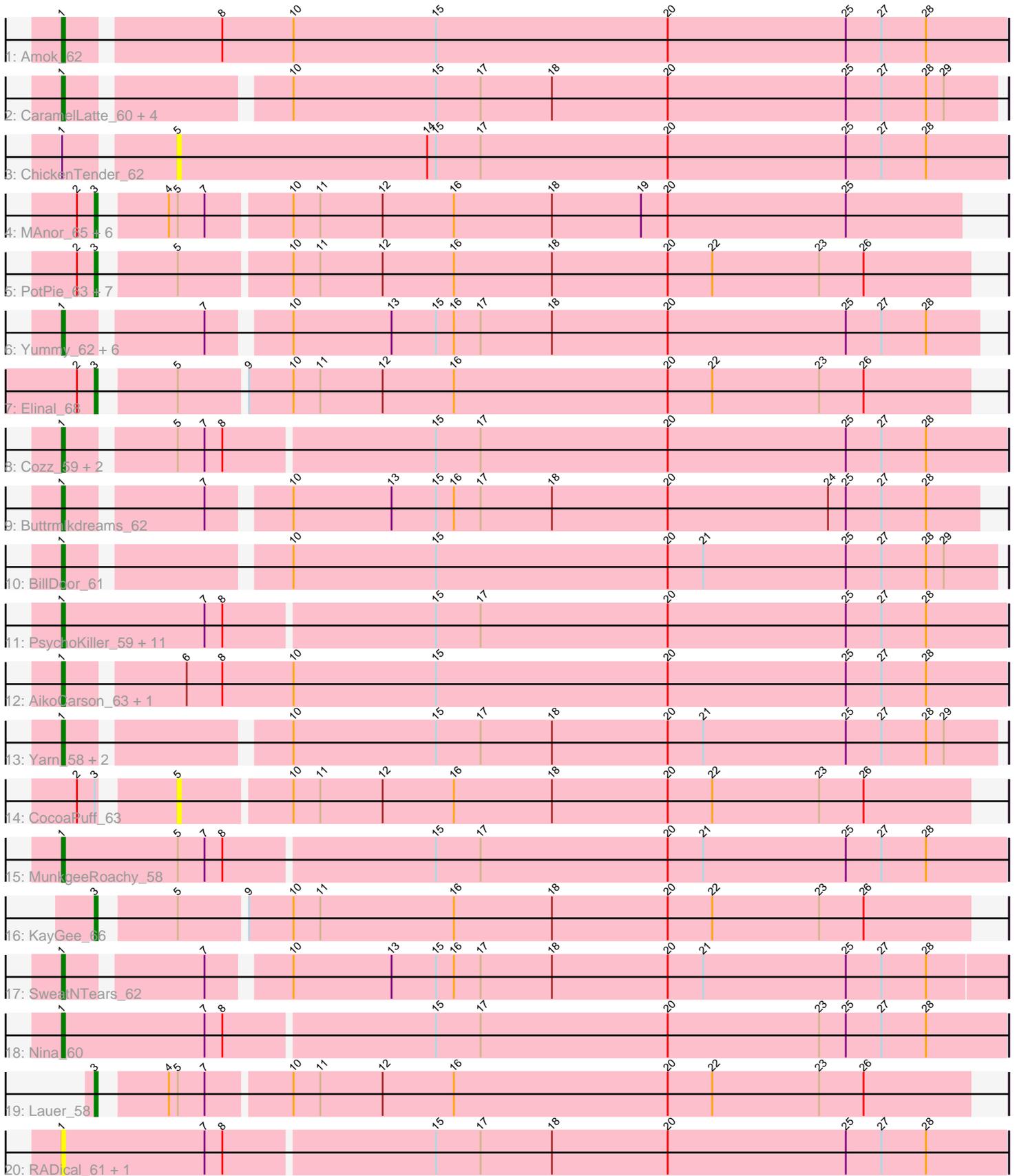


Pham 283823



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 283823 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283823 has 60 members, 20 are drafts.

Phages represented in each track:

- Track 1 : Amok_62
- Track 2 : CaramelLatte_60, ChocoMunchkin_60, Tolls_63, CanesSauce_60, SteamedHams_62
- Track 3 : ChickenTender_62
- Track 4 : MAnor_65, Mayweather_67, SheckWes_67, Pons_65, McDazzle_65, ElJefes_65, CherryonLim_64
- Track 5 : PotPie_63, Feastonyeet_63, Balloona_62, Vine_66, Yucky_66, Bavailard_62, SummitAcademy_63, BigChungus_63
- Track 6 : Yummy_62, MScarn_64, Blondies_65, Troje_62, Horseradish_62, SketchMex_60, Biskit_62
- Track 7 : Elinal_68
- Track 8 : Cozz_59, Typhonmacy_59, Carsonalex_64
- Track 9 : Buttrmlkdreams_62
- Track 10 : BillDoor_61
- Track 11 : PsychoKiller_59, Burnsey_60, RedBaron_66, Elliott_60, Axym_59, GoldHunter_61, Quasar_60, Agatha_60, Sopespian_57, Socotra_61, RSchmailzl_61, Bubble_59
- Track 12 : AikoCarson_63, Emalyn_61
- Track 13 : Yarn_58, AndPeggy_57, GTE2_50
- Track 14 : CocoaPuff_63
- Track 15 : MunkgeeRoachy_58
- Track 16 : KayGee_66
- Track 17 : SweatNTears_62
- Track 18 : Nina_60
- Track 19 : Lauer_58
- Track 20 : RADical_61, Starburst_60

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 26 of the 40 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, Blondies_65, Bubble_59, Burnsey_60, Buttrmlkdreams_62, CanesSauce_60, CaramellLatte_60, Carsonalex_64, ChocoMunchkin_60, Cozz_59, Elliott_60, Emalyn_61, GTE2_50, GoldHunter_61, Horseradish_62, MScarn_64, MunkgeeRoachy_58, Nina_60, PsychoKiller_59, Quasar_60, RADical_61, RSchmailzl_61, RedBaron_66, SketchMex_60, Socotra_61, Sopespian_57, Starburst_60, SteamedHams_62, SweatNTears_62, Tolls_63, Troje_62, Typhonmarchy_59, Yarn_58, Yummy_62,

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

- ChickenTender_62,

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

- Balloona_62, Bavidard_62, BigChungus_63, CherryonLim_64, CocoaPuff_63, ElJefes_65, Elinal_68, Feastonyeet_63, KayGee_66, Lauer_58, MAnor_65, Mayweather_67, McDazzle_65, Pons_65, PotPie_63, SheckWes_67, SummitAcademy_63, Vine_66, Yucky_66,

Summary by start number:

Start 1:

- Found in 41 of 60 (68.3%) of genes in pham
- Manual Annotations of this start: 26 of 40
- Called 97.6% 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), Blondies_65 (CT), Bubble_59 (CT), Burnsey_60 (CT), Buttrmlkdreams_62 (CT), CanesSauce_60 (CT), CaramellLatte_60 (CT), Carsonalex_64 (CT), ChocoMunchkin_60 (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), RADical_61 (CT), RSchmailzl_61 (CT), RedBaron_66 (CT), SketchMex_60 (CT), Socotra_61 (CT), Sopespian_57 (CT), Starburst_60 (CT), SteamedHams_62 (CT), SweatNTears_62 (CT), Tolls_63 (CT), Troje_62 (CT), Typhonmarchy_59 (CT), Yarn_58 (CT), Yummy_62 (CT),

Start 3:

- Found in 19 of 60 (31.7%) of genes in pham
- Manual Annotations of this start: 14 of 40
- Called 94.7% of time when present
- Phage (with cluster) where this start called: Balloona_62 (CT), Bavidard_62 (CT), BigChungus_63 (CT), CherryonLim_64 (CT), ElJefes_65 (CT), Elinal_68 (CT), Feastonyeet_63 (CT), KayGee_66 (CT), Lauer_58 (CT), MAnor_65 (CT), Mayweather_67 (CT), McDazzle_65 (CT), Pons_65 (CT), PotPie_63 (CT), SheckWes_67 (CT), SummitAcademy_63 (CT), Vine_66 (CT), Yucky_66 (CT),

Start 5:

- Found in 24 of 60 (40.0%) of genes in pham
- No Manual Annotations of this start.
- Called 8.3% of time when present
- Phage (with cluster) where this start called: ChickenTender_62 (CT), CocoaPuff_63 (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 26 times for cluster CT.
- Start number 3 was manually annotated 14 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 26 MA's), (7, 42698), (8, 42704), (15, 42773), (17, 42788), (20, 42851), (25, 42911), (27, 42923), (28, 42938),

Gene: AikoCarson_63 Start: 42924, Stop: 43235, Start Num: 1

Candidate Starts for AikoCarson_63:

(Start: 1 @42924 has 26 MA's), (6, 42960), (8, 42972), (10, 42996), (15, 43044), (20, 43122), (25, 43182), (27, 43194), (28, 43209),

Gene: Amok_62 Start: 42830, Stop: 43141, Start Num: 1

Candidate Starts for Amok_62:

(Start: 1 @42830 has 26 MA's), (8, 42878), (10, 42902), (15, 42950), (20, 43028), (25, 43088), (27, 43100), (28, 43115),

Gene: AndPeggy_57 Start: 42101, Stop: 42403, Start Num: 1

Candidate Starts for AndPeggy_57:

(Start: 1 @42101 has 26 MA's), (10, 42167), (15, 42215), (17, 42230), (18, 42254), (20, 42293), (21, 42305), (25, 42353), (27, 42365), (28, 42380), (29, 42386),

Gene: Axym_59 Start: 42546, Stop: 42860, Start Num: 1

Candidate Starts for Axym_59:

(Start: 1 @42546 has 26 MA's), (7, 42594), (8, 42600), (15, 42669), (17, 42684), (20, 42747), (25, 42807), (27, 42819), (28, 42834),

Gene: Balloona_62 Start: 44767, Stop: 45051, Start Num: 3

Candidate Starts for Balloona_62:

(2, 44761), (Start: 3 @44767 has 14 MA's), (5, 44788), (10, 44824), (11, 44833), (12, 44854), (16, 44878), (18, 44911), (20, 44950), (22, 44965), (23, 45001), (26, 45016),

Gene: Bavidard_62 Start: 43777, Stop: 44061, Start Num: 3

Candidate Starts for Bavidard_62:

(2, 43771), (Start: 3 @43777 has 14 MA's), (5, 43798), (10, 43834), (11, 43843), (12, 43864), (16, 43888), (18, 43921), (20, 43960), (22, 43975), (23, 44011), (26, 44026),

Gene: BigChungus_63 Start: 44308, Stop: 44592, Start Num: 3

Candidate Starts for BigChungus_63:

(2, 44302), (Start: 3 @44308 has 14 MA's), (5, 44329), (10, 44365), (11, 44374), (12, 44395), (16, 44419), (18, 44452), (20, 44491), (22, 44506), (23, 44542), (26, 44557),

Gene: BillDoor_61 Start: 41785, Stop: 42087, Start Num: 1

Candidate Starts for BillDoor_61:

(Start: 1 @41785 has 26 MA's), (10, 41851), (15, 41899), (20, 41977), (21, 41989), (25, 42037), (27, 42049), (28, 42064), (29, 42070),

Gene: Biskit_62 Start: 42735, Stop: 43031, Start Num: 1

Candidate Starts for Biskit_62:

(Start: 1 @42735 has 26 MA's), (7, 42777), (10, 42801), (13, 42834), (15, 42849), (16, 42855), (17, 42864), (18, 42888), (20, 42927), (25, 42987), (27, 42999), (28, 43014),

Gene: Blondies_65 Start: 43052, Stop: 43348, Start Num: 1

Candidate Starts for Blondies_65:

(Start: 1 @43052 has 26 MA's), (7, 43094), (10, 43118), (13, 43151), (15, 43166), (16, 43172), (17, 43181), (18, 43205), (20, 43244), (25, 43304), (27, 43316), (28, 43331),

Gene: Bubble_59 Start: 42655, Stop: 42969, Start Num: 1

Candidate Starts for Bubble_59:

(Start: 1 @42655 has 26 MA's), (7, 42703), (8, 42709), (15, 42778), (17, 42793), (20, 42856), (25, 42916), (27, 42928), (28, 42943),

Gene: Burnsey_60 Start: 42640, Stop: 42954, Start Num: 1

Candidate Starts for Burnsey_60:

(Start: 1 @42640 has 26 MA's), (7, 42688), (8, 42694), (15, 42763), (17, 42778), (20, 42841), (25, 42901), (27, 42913), (28, 42928),

Gene: Buttrmlkdreams_62 Start: 42913, Stop: 43209, Start Num: 1

Candidate Starts for Buttrmlkdreams_62:

(Start: 1 @42913 has 26 MA's), (7, 42955), (10, 42979), (13, 43012), (15, 43027), (16, 43033), (17, 43042), (18, 43066), (20, 43105), (24, 43159), (25, 43165), (27, 43177), (28, 43192),

Gene: CanesSauce_60 Start: 42262, Stop: 42564, Start Num: 1

Candidate Starts for CanesSauce_60:

(Start: 1 @42262 has 26 MA's), (10, 42328), (15, 42376), (17, 42391), (18, 42415), (20, 42454), (25, 42514), (27, 42526), (28, 42541), (29, 42547),

Gene: Caramellatte_60 Start: 42262, Stop: 42564, Start Num: 1

Candidate Starts for Caramellatte_60:

(Start: 1 @42262 has 26 MA's), (10, 42328), (15, 42376), (17, 42391), (18, 42415), (20, 42454), (25, 42514), (27, 42526), (28, 42541), (29, 42547),

Gene: Carsonalex_64 Start: 43149, Stop: 43463, Start Num: 1

Candidate Starts for Carsonalex_64:

(Start: 1 @43149 has 26 MA's), (5, 43188), (7, 43197), (8, 43203), (15, 43272), (17, 43287), (20, 43350), (25, 43410), (27, 43422), (28, 43437),

Gene: CherryonLim_64 Start: 45801, Stop: 46082, Start Num: 3

Candidate Starts for CherryonLim_64:

(2, 45795), (Start: 3 @45801 has 14 MA's), (4, 45819), (5, 45822), (7, 45831), (10, 45858), (11, 45867), (12, 45888), (16, 45912), (18, 45945), (19, 45975), (20, 45984), (25, 46044),

Gene: ChickenTender_62 Start: 42295, Stop: 42573, Start Num: 5

Candidate Starts for ChickenTender_62:

(Start: 1 @42262 has 26 MA's), (5, 42295), (14, 42379), (15, 42382), (17, 42397), (20, 42460), (25, 42520), (27, 42532), (28, 42547),

Gene: ChocoMunchkin_60 Start: 42262, Stop: 42564, Start Num: 1

Candidate Starts for ChocoMunchkin_60:

(Start: 1 @42262 has 26 MA's), (10, 42328), (15, 42376), (17, 42391), (18, 42415), (20, 42454), (25, 42514), (27, 42526), (28, 42541), (29, 42547),

Gene: CocoaPuff_63 Start: 44334, Stop: 44597, Start Num: 5

Candidate Starts for CocoaPuff_63:

(2, 44307), (Start: 3 @44313 has 14 MA's), (5, 44334), (10, 44370), (11, 44379), (12, 44400), (16, 44424), (18, 44457), (20, 44496), (22, 44511), (23, 44547), (26, 44562),

Gene: Cozz_59 Start: 42658, Stop: 42966, Start Num: 1

Candidate Starts for Cozz_59:

(Start: 1 @42658 has 26 MA's), (5, 42691), (7, 42700), (8, 42706), (15, 42775), (17, 42790), (20, 42853), (25, 42913), (27, 42925), (28, 42940),

Gene: ElJefes_65 Start: 44793, Stop: 45074, Start Num: 3

Candidate Starts for ElJefes_65:

(2, 44787), (Start: 3 @44793 has 14 MA's), (4, 44811), (5, 44814), (7, 44823), (10, 44850), (11, 44859), (12, 44880), (16, 44904), (18, 44937), (19, 44967), (20, 44976), (25, 45036),

Gene: Elinal_68 Start: 45087, Stop: 45371, Start Num: 3

Candidate Starts for Elinal_68:

(2, 45081), (Start: 3 @45087 has 14 MA's), (5, 45108), (9, 45129), (10, 45144), (11, 45153), (12, 45174), (16, 45198), (20, 45270), (22, 45285), (23, 45321), (26, 45336),

Gene: Elliott_60 Start: 42533, Stop: 42847, Start Num: 1

Candidate Starts for Elliott_60:

(Start: 1 @42533 has 26 MA's), (7, 42581), (8, 42587), (15, 42656), (17, 42671), (20, 42734), (25, 42794), (27, 42806), (28, 42821),

Gene: Emalyn_61 Start: 41662, Stop: 41973, Start Num: 1

Candidate Starts for Emalyn_61:

(Start: 1 @41662 has 26 MA's), (6, 41698), (8, 41710), (10, 41734), (15, 41782), (20, 41860), (25, 41920), (27, 41932), (28, 41947),

Gene: Feastonyeet_63 Start: 44308, Stop: 44592, Start Num: 3

Candidate Starts for Feastonyeet_63:

(2, 44302), (Start: 3 @44308 has 14 MA's), (5, 44329), (10, 44365), (11, 44374), (12, 44395), (16, 44419), (18, 44452), (20, 44491), (22, 44506), (23, 44542), (26, 44557),

Gene: GTE2_50 Start: 42721, Stop: 43014, Start Num: 1

Candidate Starts for GTE2_50:

(Start: 1 @42721 has 26 MA's), (10, 42787), (15, 42835), (17, 42850), (18, 42874), (20, 42913), (21, 42925), (25, 42973), (27, 42985), (28, 43000), (29, 43006),

Gene: GoldHunter_61 Start: 42650, Stop: 42964, Start Num: 1

Candidate Starts for GoldHunter_61:

(Start: 1 @42650 has 26 MA's), (7, 42698), (8, 42704), (15, 42773), (17, 42788), (20, 42851), (25, 42911), (27, 42923), (28, 42938),

Gene: Horseradish_62 Start: 42668, Stop: 42964, Start Num: 1

Candidate Starts for Horseradish_62:

(Start: 1 @42668 has 26 MA's), (7, 42710), (10, 42734), (13, 42767), (15, 42782), (16, 42788), (17, 42797), (18, 42821), (20, 42860), (25, 42920), (27, 42932), (28, 42947),

Gene: KayGee_66 Start: 45086, Stop: 45370, Start Num: 3

Candidate Starts for KayGee_66:

(Start: 3 @45086 has 14 MA's), (5, 45107), (9, 45128), (10, 45143), (11, 45152), (16, 45197), (18, 45230), (20, 45269), (22, 45284), (23, 45320), (26, 45335),

Gene: Lauer_58 Start: 45271, Stop: 45555, Start Num: 3

Candidate Starts for Lauer_58:

(Start: 3 @45271 has 14 MA's), (4, 45289), (5, 45292), (7, 45301), (10, 45328), (11, 45337), (12, 45358), (16, 45382), (20, 45454), (22, 45469), (23, 45505), (26, 45520),

Gene: MAnor_65 Start: 45226, Stop: 45507, Start Num: 3

Candidate Starts for MAnor_65:

(2, 45220), (Start: 3 @45226 has 14 MA's), (4, 45244), (5, 45247), (7, 45256), (10, 45283), (11, 45292), (12, 45313), (16, 45337), (18, 45370), (19, 45400), (20, 45409), (25, 45469),

Gene: MScarn_64 Start: 42580, Stop: 42876, Start Num: 1

Candidate Starts for MScarn_64:

(Start: 1 @42580 has 26 MA's), (7, 42622), (10, 42646), (13, 42679), (15, 42694), (16, 42700), (17, 42709), (18, 42733), (20, 42772), (25, 42832), (27, 42844), (28, 42859),

Gene: Mayweather_67 Start: 45460, Stop: 45741, Start Num: 3

Candidate Starts for Mayweather_67:

(2, 45454), (Start: 3 @45460 has 14 MA's), (4, 45478), (5, 45481), (7, 45490), (10, 45517), (11, 45526), (12, 45547), (16, 45571), (18, 45604), (19, 45634), (20, 45643), (25, 45703),

Gene: McDazzle_65 Start: 44787, Stop: 45068, Start Num: 3

Candidate Starts for McDazzle_65:

(2, 44781), (Start: 3 @44787 has 14 MA's), (4, 44805), (5, 44808), (7, 44817), (10, 44844), (11, 44853), (12, 44874), (16, 44898), (18, 44931), (19, 44961), (20, 44970), (25, 45030),

Gene: MunkgeeRoachy_58 Start: 41984, Stop: 42298, Start Num: 1

Candidate Starts for MunkgeeRoachy_58:

(Start: 1 @41984 has 26 MA's), (5, 42023), (7, 42032), (8, 42038), (15, 42107), (17, 42122), (20, 42185), (21, 42197), (25, 42245), (27, 42257), (28, 42272),

Gene: Nina_60 Start: 43136, Stop: 43450, Start Num: 1

Candidate Starts for Nina_60:

(Start: 1 @43136 has 26 MA's), (7, 43184), (8, 43190), (15, 43259), (17, 43274), (20, 43337), (23, 43388), (25, 43397), (27, 43409), (28, 43424),

Gene: Pons_65 Start: 44802, Stop: 45083, Start Num: 3

Candidate Starts for Pons_65:

(2, 44796), (Start: 3 @44802 has 14 MA's), (4, 44820), (5, 44823), (7, 44832), (10, 44859), (11, 44868), (12, 44889), (16, 44913), (18, 44946), (19, 44976), (20, 44985), (25, 45045),

Gene: PotPie_63 Start: 45343, Stop: 45627, Start Num: 3

Candidate Starts for PotPie_63:

(2, 45337), (Start: 3 @45343 has 14 MA's), (5, 45364), (10, 45400), (11, 45409), (12, 45430), (16, 45454), (18, 45487), (20, 45526), (22, 45541), (23, 45577), (26, 45592),

Gene: PsychoKiller_59 Start: 42534, Stop: 42848, Start Num: 1

Candidate Starts for PsychoKiller_59:

(Start: 1 @42534 has 26 MA's), (7, 42582), (8, 42588), (15, 42657), (17, 42672), (20, 42735), (25, 42795), (27, 42807), (28, 42822),

Gene: Quasar_60 Start: 43239, Stop: 43547, Start Num: 1

Candidate Starts for Quasar_60:

(Start: 1 @43239 has 26 MA's), (7, 43281), (8, 43287), (15, 43356), (17, 43371), (20, 43434), (25, 43494), (27, 43506), (28, 43521),

Gene: RADical_61 Start: 42528, Stop: 42842, Start Num: 1

Candidate Starts for RADical_61:

(Start: 1 @42528 has 26 MA's), (7, 42576), (8, 42582), (15, 42651), (17, 42666), (18, 42690), (20, 42729), (25, 42789), (27, 42801), (28, 42816),

Gene: RSchmailzl_61 Start: 42962, Stop: 43276, Start Num: 1

Candidate Starts for RSchmailzl_61:

(Start: 1 @42962 has 26 MA's), (7, 43010), (8, 43016), (15, 43085), (17, 43100), (20, 43163), (25, 43223), (27, 43235), (28, 43250),

Gene: RedBaron_66 Start: 43956, Stop: 44270, Start Num: 1

Candidate Starts for RedBaron_66:

(Start: 1 @43956 has 26 MA's), (7, 44004), (8, 44010), (15, 44079), (17, 44094), (20, 44157), (25, 44217), (27, 44229), (28, 44244),

Gene: SheckWes_67 Start: 44362, Stop: 44643, Start Num: 3

Candidate Starts for SheckWes_67:

(2, 44356), (Start: 3 @44362 has 14 MA's), (4, 44380), (5, 44383), (7, 44392), (10, 44419), (11, 44428), (12, 44449), (16, 44473), (18, 44506), (19, 44536), (20, 44545), (25, 44605),

Gene: SketchMex_60 Start: 42735, Stop: 43031, Start Num: 1

Candidate Starts for SketchMex_60:

(Start: 1 @42735 has 26 MA's), (7, 42777), (10, 42801), (13, 42834), (15, 42849), (16, 42855), (17, 42864), (18, 42888), (20, 42927), (25, 42987), (27, 42999), (28, 43014),

Gene: Socotra_61 Start: 42634, Stop: 42948, Start Num: 1

Candidate Starts for Socotra_61:

(Start: 1 @42634 has 26 MA's), (7, 42682), (8, 42688), (15, 42757), (17, 42772), (20, 42835), (25, 42895), (27, 42907), (28, 42922),

Gene: Sopespian_57 Start: 42535, Stop: 42849, Start Num: 1

Candidate Starts for Sopespian_57:

(Start: 1 @42535 has 26 MA's), (7, 42583), (8, 42589), (15, 42658), (17, 42673), (20, 42736), (25, 42796), (27, 42808), (28, 42823),

Gene: Starburst_60 Start: 42530, Stop: 42844, Start Num: 1

Candidate Starts for Starburst_60:

(Start: 1 @42530 has 26 MA's), (7, 42578), (8, 42584), (15, 42653), (17, 42668), (18, 42692), (20, 42731), (25, 42791), (27, 42803), (28, 42818),

Gene: SteamedHams_62 Start: 42078, Stop: 42380, Start Num: 1

Candidate Starts for SteamedHams_62:

(Start: 1 @42078 has 26 MA's), (10, 42144), (15, 42192), (17, 42207), (18, 42231), (20, 42270), (25, 42330), (27, 42342), (28, 42357), (29, 42363),

Gene: SummitAcademy_63 Start: 44486, Stop: 44770, Start Num: 3

Candidate Starts for SummitAcademy_63:

(2, 44480), (Start: 3 @44486 has 14 MA's), (5, 44507), (10, 44543), (11, 44552), (12, 44573), (16, 44597), (18, 44630), (20, 44669), (22, 44684), (23, 44720), (26, 44735),

Gene: SweatNTears_62 Start: 42809, Stop: 43114, Start Num: 1

Candidate Starts for SweatNTears_62:

(Start: 1 @42809 has 26 MA's), (7, 42851), (10, 42875), (13, 42908), (15, 42923), (16, 42929), (17, 42938), (18, 42962), (20, 43001), (21, 43013), (25, 43061), (27, 43073), (28, 43088),

Gene: Tolls_63 Start: 42349, Stop: 42651, Start Num: 1

Candidate Starts for Tolls_63:

(Start: 1 @42349 has 26 MA's), (10, 42415), (15, 42463), (17, 42478), (18, 42502), (20, 42541), (25, 42601), (27, 42613), (28, 42628), (29, 42634),

Gene: Troje_62 Start: 42803, Stop: 43099, Start Num: 1

Candidate Starts for Troje_62:

(Start: 1 @42803 has 26 MA's), (7, 42845), (10, 42869), (13, 42902), (15, 42917), (16, 42923), (17, 42932), (18, 42956), (20, 42995), (25, 43055), (27, 43067), (28, 43082),

Gene: Typhonomachy_59 Start: 42347, Stop: 42661, Start Num: 1

Candidate Starts for Typhonomachy_59:

(Start: 1 @42347 has 26 MA's), (5, 42386), (7, 42395), (8, 42401), (15, 42470), (17, 42485), (20, 42548), (25, 42608), (27, 42620), (28, 42635),

Gene: Vine_66 Start: 45109, Stop: 45393, Start Num: 3

Candidate Starts for Vine_66:

(2, 45103), (Start: 3 @45109 has 14 MA's), (5, 45130), (10, 45166), (11, 45175), (12, 45196), (16, 45220), (18, 45253), (20, 45292), (22, 45307), (23, 45343), (26, 45358),

Gene: Yarn_58 Start: 42106, Stop: 42408, Start Num: 1

Candidate Starts for Yarn_58:

(Start: 1 @42106 has 26 MA's), (10, 42172), (15, 42220), (17, 42235), (18, 42259), (20, 42298), (21, 42310), (25, 42358), (27, 42370), (28, 42385), (29, 42391),

Gene: Yucky_66 Start: 44901, Stop: 45185, Start Num: 3

Candidate Starts for Yucky_66:

(2, 44895), (Start: 3 @44901 has 14 MA's), (5, 44922), (10, 44958), (11, 44967), (12, 44988), (16, 45012), (18, 45045), (20, 45084), (22, 45099), (23, 45135), (26, 45150),

Gene: Yummy_62 Start: 42782, Stop: 43078, Start Num: 1

Candidate Starts for Yummy_62:

(Start: 1 @42782 has 26 MA's), (7, 42824), (10, 42848), (13, 42881), (15, 42896), (16, 42902), (17, 42911), (18, 42935), (20, 42974), (25, 43034), (27, 43046), (28, 43061),