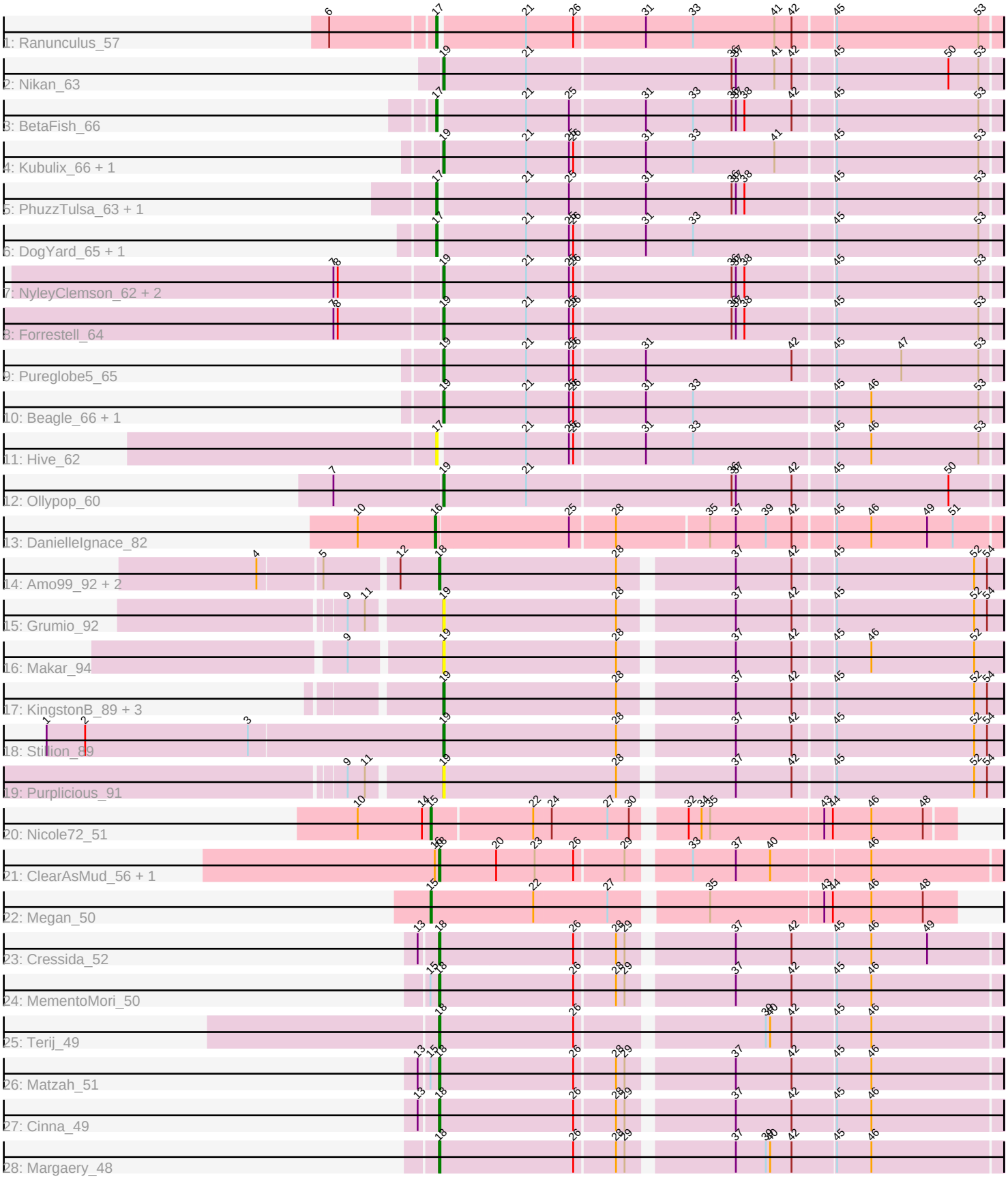
Pham 335019


1: Ranunculus_57
2: Nikan_63
3: BetaFish_66
4: Kubulix_66 + 1
5: PhuzzTulsa_63 + 1
6: DogYard_65 + 1
7: NyleyClemson_62 + 2
8: Forrestell_64
9: Pureglobe5_65
10: Beagle_66 + 1
11: Hive_62
12: Ollypop_60
13: DanielleIgnace_82
14: Amo99_92 + 2
15: Grumio_92
16: Makar_94
17: KingstonB_89 + 3
18: Stillion_89
19: Purplicious_91
20: Nicole72_51
21: ClearAsMud_56 + 1
22: Megan_50
23: Cressida_52
24: MementoMori_50
25: Terij_49
26: Matzah_51
27: Cinna_49
28: Margaery_48

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 335019 Report

This analysis was run 11/14/26 on database version 672.

Pham number 335019 has 40 members, 8 are drafts.

Phages represented in each track:
- Track 1 : Ranunculus_57
- Track 2 : Nikan_63
- Track 3 : BetaFish_66
- Track 4 : Kubulix_66, Odyssey395_66
- Track 5 : PhuzzTulsa_63, RIPWilbur_65
- Track 6 : DogYard_65, Popstraw_61
- Track 7 : NyleyClemson_62, MellowYellow_64, RazzB_63
- Track 8 : Forrestell_64
- Track 9 : Pureglobe5_65
- Track 10 : Beagle_66, Pointis_63
- Track 11 : Hive_62
- Track 12 : Ollypop_60
- Track 13 : DanielleIgnace_82
- Track 14 : Amo99_92, Jollymon_89, ColdSoup_92
- Track 15 : Grumio_92
- Track 16 : Makar_94
- Track 17 : KingstonB_89, DonTron_90, Soos_86, Sting_89
- Track 18 : Stillion_89
- Track 19 : Purplicious_91
- Track 20 : Nicole72_51
- Track 21 : ClearAsMud_56, NoodlelyBoi_54
- Track 22 : Megan_50
- Track 23 : Cressida_52
- Track 24 : MementoMori_50
- Track 25 : Terij_49
- Track 26 : Matzah_51
- Track 27 : Cinna_49
- Track 28 : Margaery_48

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

The start number called the most often in the published annotations is 19, it was called in 16 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Beagle_66, DonTron_90, Forrestell_64, Grumio_92, KingstonB_89, Kubulix_66, Makar_94, MellowYellow_64, Nikan_63, NyleyClemson_62, Odyssey395_66, Ollypop_60, Pointis_63, Pureglobe5_65, Purplicious_91, RazzB_63, Soos_86, Stillion_89, Sting_89,

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

Genes that do not have the "Most Annotated" start:
• Amo99_92, BetaFish_66, Cinna_49, ClearAsMud_56, ColdSoup_92, Cressida_52, DanielleIgnace_82, DogYard_65, Hive_62, Jollymon_89, Margaery_48, Matzah_51, Megan_50, MementoMori_50, Nicole72_51, NoodlelyBoi_54, PhuzzTulsa_63, Popstraw_61, RIPWilbur_65, Ranunculus_57, Terij_49,

Summary by start number:

Start 15:
• Found in 4 of 40 (10.0%) of genes in pham
• Manual Annotations of this start: 2 of 32
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Megan_50 (EC), Nicole72_51 (EC),

Start 16:
• Found in 3 of 40 (7.5%) of genes in pham
• Manual Annotations of this start: 1 of 32
• Called 33.3% of time when present
• Phage (with cluster) where this start called: DanielleIgnace_82 (AT),

Start 17:
• Found in 7 of 40 (17.5%) of genes in pham
• Manual Annotations of this start: 4 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BetaFish_66 (AP2), DogYard_65 (AP2), Hive_62 (AP2), PhuzzTulsa_63 (AP2), Popstraw_61 (AP2), RIPWilbur_65 (AP2), Ranunculus_57 (AP),

Start 18:
• Found in 11 of 40 (27.5%) of genes in pham
• Manual Annotations of this start: 9 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Amo99_92 (CP), Cinna_49 (EI), ClearAsMud_56 (EC), ColdSoup_92 (CP), Cressida_52 (EI), Jollymon_89 (CP), Margaery_48 (EI), Matzah_51 (EI), MementoMori_50 (EI), NoodlelyBoi_54 (EC), Terij_49 (EI),

Start 19:
• Found in 19 of 40 (47.5%) of genes in pham
• Manual Annotations of this start: 16 of 32
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Beagle_66 (AP2), DonTron_90 (CP), Forrestell_64 (AP2), Grumio_92 (CP), KingstonB_89 (CP), Kubulix_66 (AP2), Makar_94 (CP), MellowYellow_64 (AP2), Nikan_63 (AP2), NyleyClemson_62 (AP2),

Odyssey395_66 (AP2), Ollypop_60 (AP2), Pointis_63 (AP2), Pureglobe5_65 (AP2), Purplicious_91 (CP), RazzB_63 (AP2), Soos_86 (CP), Stillion_89 (CP), Sting_89 (CP),

Summary by clusters:

There are 6 clusters represented in this pham: EI, AP2, EC, AP, AT, CP,

Info for manual annotations of cluster AP:
•Start number 17 was manually annotated 1 time for cluster AP.

Info for manual annotations of cluster AP2:
•Start number 17 was manually annotated 3 times for cluster AP2.
•Start number 19 was manually annotated 11 times for cluster AP2.

Info for manual annotations of cluster AT:
•Start number 16 was manually annotated 1 time for cluster AT.

Info for manual annotations of cluster CP:
•Start number 18 was manually annotated 1 time for cluster CP.
•Start number 19 was manually annotated 5 times for cluster CP.

Info for manual annotations of cluster EC:
•Start number 15 was manually annotated 2 times for cluster EC.
•Start number 18 was manually annotated 2 times for cluster EC.

Info for manual annotations of cluster EI:
•Start number 18 was manually annotated 6 times for cluster EI.

Gene Information:

Gene: Amo99_92 Start: 57137, Stop: 57514, Start Num: 18
Candidate Starts for Amo99_92:
(4, 57020), (5, 57062), (12, 57110), (Start: 18 @57137 has 9 MA's), (28, 57260), (37, 57332), (42, 57371), (45, 57398), (52, 57494), (54, 57503),

Gene: Beagle_66 Start: 42093, Stop: 41713, Start Num: 19
Candidate Starts for Beagle_66:
(Start: 19 @42093 has 16 MA's), (21, 42036), (25, 42006), (26, 42003), (31, 41955), (33, 41922), (45, 41826), (46, 41802), (53, 41727),

Gene: BetaFish_66 Start: 42852, Stop: 42472, Start Num: 17
Candidate Starts for BetaFish_66:
(Start: 17 @42852 has 4 MA's), (21, 42795), (25, 42765), (31, 42714), (33, 42681), (36, 42654), (37, 42651), (38, 42645), (42, 42612), (45, 42585), (53, 42486),

Gene: Cinna_49 Start: 35821, Stop: 36195, Start Num: 18
Candidate Starts for Cinna_49:
(13, 35809), (Start: 18 @35821 has 9 MA's), (26, 35914), (28, 35941), (29, 35947), (37, 36013), (42, 36052), (45, 36082), (46, 36106),

Gene: ClearAsMud_56 Start: 35804, Stop: 36175, Start Num: 18
Candidate Starts for ClearAsMud_56:
(Start: 16 @35801 has 1 MA's), (Start: 18 @35804 has 9 MA's), (20, 35843), (23, 35870), (26, 35897), (29, 35930), (33, 35966), (37, 35996), (40, 36020), (46, 36086),

Gene: ColdSoup_92 Start: 57218, Stop: 57595, Start Num: 18
Candidate Starts for ColdSoup_92:
(4, 57101), (5, 57143), (12, 57191), (Start: 18 @57218 has 9 MA's), (28, 57341), (37, 57413), (42, 57452), (45, 57479), (52, 57575), (54, 57584),

Gene: Cressida_52 Start: 35406, Stop: 35780, Start Num: 18
Candidate Starts for Cressida_52:
(13, 35394), (Start: 18 @35406 has 9 MA's), (26, 35499), (28, 35526), (29, 35532), (37, 35598), (42, 35637), (45, 35667), (46, 35691), (49, 35730),

Gene: DanielleIgnace_82 Start: 50102, Stop: 50482, Start Num: 16
Candidate Starts for DanielleIgnace_82:
(10, 50048), (Start: 16 @50102 has 1 MA's), (25, 50192), (28, 50222), (35, 50285), (37, 50303), (39, 50324), (42, 50342), (45, 50369), (46, 50393), (49, 50432), (51, 50450),

Gene: DogYard_65 Start: 42291, Stop: 41911, Start Num: 17
Candidate Starts for DogYard_65:
(Start: 17 @42291 has 4 MA's), (21, 42234), (25, 42204), (26, 42201), (31, 42153), (33, 42120), (45, 42024), (53, 41925),

Gene: DonTron_90 Start: 57337, Stop: 57711, Start Num: 19
Candidate Starts for DonTron_90:
(Start: 19 @57337 has 16 MA's), (28, 57457), (37, 57529), (42, 57568), (45, 57595), (52, 57691), (54, 57700),

Gene: Forrestell_64 Start: 41195, Stop: 40815, Start Num: 19
Candidate Starts for Forrestell_64:
(7, 41267), (8, 41264), (Start: 19 @41195 has 16 MA's), (21, 41138), (25, 41108), (26, 41105), (36, 40997), (37, 40994), (38, 40988), (45, 40928), (53, 40829),

Gene: Grumio_92 Start: 56950, Stop: 57324, Start Num: 19
Candidate Starts for Grumio_92:
(9, 56890), (11, 56902), (Start: 19 @56950 has 16 MA's), (28, 57070), (37, 57142), (42, 57181), (45, 57208), (52, 57304), (54, 57313),

Gene: Hive_62 Start: 42316, Stop: 41936, Start Num: 17
Candidate Starts for Hive_62:
(Start: 17 @42316 has 4 MA's), (21, 42259), (25, 42229), (26, 42226), (31, 42178), (33, 42145), (45, 42049), (46, 42025), (53, 41950),

Gene: Jollymon_89 Start: 57218, Stop: 57595, Start Num: 18
Candidate Starts for Jollymon_89:
(4, 57101), (5, 57143), (12, 57191), (Start: 18 @57218 has 9 MA's), (28, 57341), (37, 57413), (42, 57452), (45, 57479), (52, 57575), (54, 57584),

Gene: KingstonB_89 Start: 56754, Stop: 57128, Start Num: 19
Candidate Starts for KingstonB_89:

(Start: 19 @56754 has 16 MA's), (28, 56874), (37, 56946), (42, 56985), (45, 57012), (52, 57108), (54, 57117),

Gene: Kubulix_66 Start: 42206, Stop: 41826, Start Num: 19
Candidate Starts for Kubulix_66:
(Start: 19 @42206 has 16 MA's), (21, 42149), (25, 42119), (26, 42116), (31, 42068), (33, 42035), (41, 41978), (45, 41939), (53, 41840),

Gene: Makar_94 Start: 57054, Stop: 57428, Start Num: 19
Candidate Starts for Makar_94:
(9, 56994), (Start: 19 @57054 has 16 MA's), (28, 57174), (37, 57246), (42, 57285), (45, 57312), (46, 57336), (52, 57408),

Gene: Margaery_48 Start: 35050, Stop: 35424, Start Num: 18
Candidate Starts for Margaery_48:
(Start: 18 @35050 has 9 MA's), (26, 35143), (28, 35170), (29, 35176), (37, 35242), (39, 35263), (40, 35266), (42, 35281), (45, 35311), (46, 35335),

Gene: Matzah_51 Start: 35905, Stop: 36279, Start Num: 18
Candidate Starts for Matzah_51:
(13, 35893), (Start: 15 @35899 has 2 MA's), (Start: 18 @35905 has 9 MA's), (26, 35998), (28, 36025), (29, 36031), (37, 36097), (42, 36136), (45, 36166), (46, 36190),

Gene: Megan_50 Start: 38560, Stop: 38913, Start Num: 15
Candidate Starts for Megan_50:
(Start: 15 @38560 has 2 MA's), (22, 38632), (27, 38683), (35, 38743), (43, 38821), (44, 38827), (46, 38854), (48, 38890),

Gene: MellowYellow_64 Start: 41656, Stop: 41276, Start Num: 19
Candidate Starts for MellowYellow_64:
(7, 41728), (8, 41725), (Start: 19 @41656 has 16 MA's), (21, 41599), (25, 41569), (26, 41566), (36, 41458), (37, 41455), (38, 41449), (45, 41389), (53, 41290),

Gene: MementoMori_50 Start: 35488, Stop: 35862, Start Num: 18
Candidate Starts for MementoMori_50:
(Start: 15 @35482 has 2 MA's), (Start: 18 @35488 has 9 MA's), (26, 35581), (28, 35608), (29, 35614), (37, 35680), (42, 35719), (45, 35749), (46, 35773),

Gene: Nicole72_51 Start: 39193, Stop: 39540, Start Num: 15
Candidate Starts for Nicole72_51:
(10, 39142), (14, 39187), (Start: 15 @39193 has 2 MA's), (22, 39262), (24, 39274), (27, 39313), (30, 39328), (32, 39358), (34, 39367), (35, 39373), (43, 39451), (44, 39457), (46, 39484), (48, 39520),

Gene: Nikan_63 Start: 42209, Stop: 41829, Start Num: 19
Candidate Starts for Nikan_63:
(Start: 19 @42209 has 16 MA's), (21, 42152), (36, 42011), (37, 42008), (41, 41981), (42, 41969), (45, 41942), (50, 41864), (53, 41843),

Gene: NoodlelyBoi_54 Start: 36016, Stop: 36387, Start Num: 18
Candidate Starts for NoodlelyBoi_54:
(Start: 16 @36013 has 1 MA's), (Start: 18 @36016 has 9 MA's), (20, 36055), (23, 36082), (26, 36109), (29, 36142), (33, 36178), (37, 36208), (40, 36232), (46, 36298),

Gene: NyleyClemson_62 Start: 41271, Stop: 40891, Start Num: 19
Candidate Starts for NyleyClemson_62:
(7, 41343), (8, 41340), (Start: 19 @41271 has 16 MA's), (21, 41214), (25, 41184), (26, 41181), (36, 41073), (37, 41070), (38, 41064), (45, 41004), (53, 40905),

Gene: Odyssey395_66 Start: 42330, Stop: 41950, Start Num: 19
Candidate Starts for Odyssey395_66:
(Start: 19 @42330 has 16 MA's), (21, 42273), (25, 42243), (26, 42240), (31, 42192), (33, 42159), (41, 42102), (45, 42063), (53, 41964),

Gene: Ollypop_60 Start: 42209, Stop: 41829, Start Num: 19
Candidate Starts for Ollypop_60:
(7, 42284), (Start: 19 @42209 has 16 MA's), (21, 42152), (36, 42011), (37, 42008), (42, 41969), (45, 41942), (50, 41864),

Gene: PhuzzTulsa_63 Start: 42557, Stop: 42177, Start Num: 17
Candidate Starts for PhuzzTulsa_63:
(Start: 17 @42557 has 4 MA's), (21, 42500), (25, 42470), (31, 42419), (36, 42359), (37, 42356), (38, 42350), (45, 42290), (53, 42191),

Gene: Pointis_63 Start: 42133, Stop: 41753, Start Num: 19
Candidate Starts for Pointis_63:
(Start: 19 @42133 has 16 MA's), (21, 42076), (25, 42046), (26, 42043), (31, 41995), (33, 41962), (45, 41866), (46, 41842), (53, 41767),

Gene: Popstraw_61 Start: 42050, Stop: 41670, Start Num: 17
Candidate Starts for Popstraw_61:
(Start: 17 @42050 has 4 MA's), (21, 41993), (25, 41963), (26, 41960), (31, 41912), (33, 41879), (45, 41783), (53, 41684),

Gene: Pureglobe5_65 Start: 42577, Stop: 42197, Start Num: 19
Candidate Starts for Pureglobe5_65:
(Start: 19 @42577 has 16 MA's), (21, 42520), (25, 42490), (26, 42487), (31, 42439), (42, 42337), (45, 42310), (47, 42265), (53, 42211),

Gene: Purplicious_91 Start: 56715, Stop: 57089, Start Num: 19
Candidate Starts for Purplicious_91:
(9, 56655), (11, 56667), (Start: 19 @56715 has 16 MA's), (28, 56835), (37, 56907), (42, 56946), (45, 56973), (52, 57069), (54, 57078),

Gene: RIPWilbur_65 Start: 42174, Stop: 41794, Start Num: 17
Candidate Starts for RIPWilbur_65:
(Start: 17 @42174 has 4 MA's), (21, 42117), (25, 42087), (31, 42036), (36, 41976), (37, 41973), (38, 41967), (45, 41907), (53, 41808),

Gene: Ranunculus_57 Start: 44381, Stop: 44001, Start Num: 17
Candidate Starts for Ranunculus_57:
(6, 44450), (Start: 17 @44381 has 4 MA's), (21, 44324), (26, 44291), (31, 44243), (33, 44210), (41, 44153), (42, 44141), (45, 44114), (53, 44015),

Gene: RazzB_63 Start: 41402, Stop: 41022, Start Num: 19
Candidate Starts for RazzB_63:

(7, 41474), (8, 41471), (Start: 19 @41402 has 16 MA's), (21, 41345), (25, 41315), (26, 41312), (36, 41204), (37, 41201), (38, 41195), (45, 41135), (53, 41036),

Gene: Soos_86 Start: 56663, Stop: 57037, Start Num: 19
Candidate Starts for Soos_86:
(Start: 19 @56663 has 16 MA's), (28, 56783), (37, 56855), (42, 56894), (45, 56921), (52, 57017), (54, 57026),

Gene: Stillion_89 Start: 57321, Stop: 57695, Start Num: 19
Candidate Starts for Stillion_89:
(1, 57045), (2, 57072), (3, 57186), (Start: 19 @57321 has 16 MA's), (28, 57441), (37, 57513), (42, 57552), (45, 57579), (52, 57675), (54, 57684),

Gene: Sting_89 Start: 57102, Stop: 57476, Start Num: 19
Candidate Starts for Sting_89:
(Start: 19 @57102 has 16 MA's), (28, 57222), (37, 57294), (42, 57333), (45, 57360), (52, 57456), (54, 57465),

Gene: Terij_49 Start: 34532, Stop: 34906, Start Num: 18
Candidate Starts for Terij_49:
(Start: 18 @34532 has 9 MA's), (26, 34625), (39, 34745), (40, 34748), (42, 34763), (45, 34793), (46, 34817),