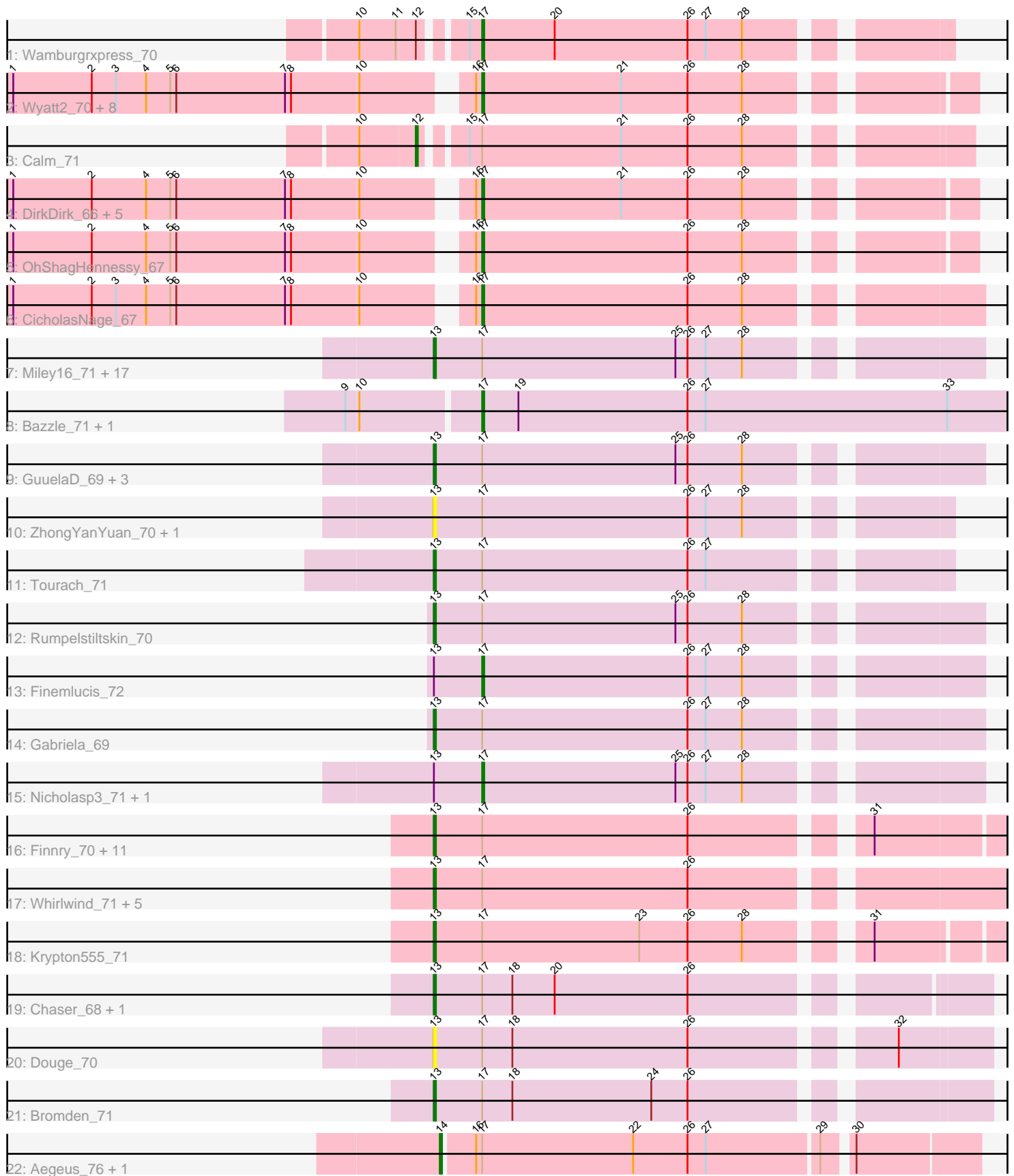


Pham 85437



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 85437 Report

This analysis was run 04/28/24 on database version 559.

Pham number 85437 has 76 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Wamburgxpress_70
- Track 2 : Wyatt2_70, Tyson_70, AvadaKedavra_69, Acquire49_69, JoeDirt_69, Halena_67, MAckerman_66, Silverleaf_69, Rose5_69
- Track 3 : Calm_71
- Track 4 : DirkDirk_66, LeBron_68, Zaria_70, Appletree2_68, Enceladus_66, UPIE_68
- Track 5 : OhShagHennessy_67
- Track 6 : CicholasNage_67
- Track 7 : Miley16_71, BigCheese_71, Faith1_71, Itos_70, DrSeegs_71, Winky_71, Wilder_72, Lewan_72, Crossroads_71, Vetrix_71, BobsGarage_71, Claus_73, Netyap_72, Kahlid_71, Breezona_71, Gardann_72, Zakai_72, Loadrie_70
- Track 8 : Bazzle_71, Archie_70
- Track 9 : GuuelaD_69, Hafay_73, LilDestine_71, MkaliMitinis3_72
- Track 10 : ZhongYanYuan_70, Baoshan_70
- Track 11 : Tourach_71
- Track 12 : Rumpelstiltskin_70
- Track 13 : Finemlucis_72
- Track 14 : Gabriela_69
- Track 15 : Nicholasp3_71, Wigglewiggles_71
- Track 16 : Finnry_70, Jobypre_71, Clautastrophe_69, MsGreen_70, Samty_70, Jubie_69, Nicholas_68, Moostard_68, Snenia_69, Bellis_68, Kingsolomon_68, Lumos_71
- Track 17 : Whirlwind_71, DuncansLeg_70, MiniLon_74, Ellson_69, MiniMac_74, Lolly9_70
- Track 18 : Krypton555_71
- Track 19 : Chaser_68, DyoEdafos_74
- Track 20 : Douge_70
- Track 21 : Bromden_71
- Track 22 : Aegeus_76, Baudelaire_76

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

The start number called the most often in the published annotations is 13, it was called in 42 of the 67 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Baoshan_70, Bellis_68, BigCheese_71, BobsGarage_71, Breezona_71, Bromden_71, Chaser_68, Claus_73, Clautastrophe_69, Crossroads_71, Douge_70, DrSeegs_71, DuncansLeg_70, DyoEdafos_74, Ellson_69, Faith1_71, Finnry_70, Gabriela_69, Gardann_72, GuuelaD_69, Hafay_73, Itos_70, Jobypre_71, Jubie_69, Kahlid_71, Kingsolomon_68, Krypton555_71, Lewan_72, LilDestine_71, Loadrie_70, Lolly9_70, Lumos_71, Miley16_71, MiniLon_74, MiniMac_74, MkaliMitinis3_72, Moostard_68, MsGreen_70, Netyap_72, Nicholas_68, Rumpelstiltskin_70, Samty_70, Snenia_69, Tourach_71, Vetrix_71, Whirlwind_71, Wilder_72, Winky_71, Zakai_72, ZhongYanYuan_70,

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

- Finemlucis_72, Nicholasp3_71, Wigglewiggles_71,

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

- Acquire49_69, Aegeus_76, Appletree2_68, Archie_70, AvadaKedavra_69, Baudelaire_76, Bazzle_71, Calm_71, CicholasNage_67, DirkDirk_66, Enceladus_66, Halena_67, JoeDirt_69, LeBron_68, MAckerman_66, OhShagHennessy_67, Rose5_69, Silverleaf_69, Tyson_70, UPIE_68, Wamburgxpress_70, Wyatt2_70, Zaria_70,

Summary by start number:

Start 12:

- Found in 2 of 76 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 67
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Calm_71 (L1),

Start 13:

- Found in 53 of 76 (69.7%) of genes in pham
- Manual Annotations of this start: 42 of 67
- Called 94.3% of time when present
- Phage (with cluster) where this start called: Baoshan_70 (L2), Bellis_68 (L3), BigCheese_71 (L2), BobsGarage_71 (L2), Breezona_71 (L2), Bromden_71 (L4), Chaser_68 (L4), Claus_73 (L2), Clautastrophe_69 (L3), Crossroads_71 (L2), Douge_70 (L4), DrSeegs_71 (L2), DuncansLeg_70 (L3), DyoEdafos_74 (L4), Ellson_69 (L3), Faith1_71 (L2), Finnry_70 (L3), Gabriela_69 (L2), Gardann_72 (L2), GuuelaD_69 (L2), Hafay_73 (L2), Itos_70 (L2), Jobypre_71 (L3), Jubie_69 (L3), Kahlid_71 (L2), Kingsolomon_68 (L3), Krypton555_71 (L3), Lewan_72 (L2), LilDestine_71 (L2), Loadrie_70 (L2), Lolly9_70 (L3), Lumos_71 (L3), Miley16_71 (L2), MiniLon_74 (L3), MiniMac_74 (L3), MkaliMitinis3_72 (L2), Moostard_68 (L3), MsGreen_70 (L3), Netyap_72 (L2), Nicholas_68 (L3), Rumpelstiltskin_70 (L2), Samty_70 (L3), Snenia_69 (L3), Tourach_71 (L2), Vetrix_71 (L2), Whirlwind_71 (L3), Wilder_72 (L2), Winky_71 (L2), Zakai_72 (L2), ZhongYanYuan_70 (L2),

Start 14:

- Found in 2 of 76 (2.6%) of genes in pham
- Manual Annotations of this start: 2 of 67
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aegeus_76 (L5), Baudelaire_76 (L5),

Start 17:

- Found in 76 of 76 (100.0%) of genes in pham
- Manual Annotations of this start: 22 of 67
- Called 30.3% of time when present
- Phage (with cluster) where this start called: Acquire49_69 (L1), Appletree2_68 (L1), Archie_70 (L2), AvadaKedavra_69 (L1), Bazzle_71 (L2), CicholasNage_67 (L1), DirkDirk_66 (L1), Enceladus_66 (L1), Finemlucis_72 (L2), Halena_67 (L1), JoeDirt_69 (L1), LeBron_68 (L1), MAckerman_66 (L1), Nicholasp3_71 (L2), OhShagHennessy_67 (L1), Rose5_69 (L1), Silverleaf_69 (L1), Tyson_70 (L1), UPIE_68 (L1), Wamburgxpress_70 (L1), Wigglewiggles_71 (L2), Wyatt2_70 (L1), Zaria_70 (L1),

Summary by clusters:

There are 5 clusters represented in this pham: L4, L5, L2, L3, L1,

Info for manual annotations of cluster L1:

- Start number 12 was manually annotated 1 time for cluster L1.
- Start number 17 was manually annotated 17 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 13 was manually annotated 23 times for cluster L2.
- Start number 17 was manually annotated 5 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 13 was manually annotated 16 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 13 was manually annotated 3 times for cluster L4.

Info for manual annotations of cluster L5:

- Start number 14 was manually annotated 2 times for cluster L5.

Gene Information:

Gene: Acquire49_69 Start: 47331, Stop: 47555, Start Num: 17

Candidate Starts for Acquire49_69:

(1, 47112), (2, 47151), (3, 47163), (4, 47178), (5, 47190), (6, 47193), (7, 47247), (8, 47250), (10, 47283), (16, 47328), (Start: 17 @47331 has 22 MA's), (21, 47400), (26, 47433), (28, 47460),

Gene: Aegeus_76 Start: 49391, Stop: 49645, Start Num: 14

Candidate Starts for Aegeus_76:

(Start: 14 @49391 has 2 MA's), (16, 49406), (Start: 17 @49409 has 22 MA's), (22, 49484), (26, 49511), (27, 49520), (29, 49574), (30, 49586),

Gene: Appletree2_68 Start: 46946, Stop: 47170, Start Num: 17

Candidate Starts for Appletree2_68:

(1, 46727), (2, 46766), (4, 46793), (5, 46805), (6, 46808), (7, 46862), (8, 46865), (10, 46898), (16, 46943), (Start: 17 @46946 has 22 MA's), (21, 47015), (26, 47048), (28, 47075),

Gene: Archie_70 Start: 48823, Stop: 49083, Start Num: 17

Candidate Starts for Archie_70:

(9, 48760), (10, 48766), (Start: 17 @48823 has 22 MA's), (19, 48841), (26, 48925), (27, 48934), (33, 49054),

Gene: AvadaKedavra_69 Start: 47404, Stop: 47628, Start Num: 17

Candidate Starts for AvadaKedavra_69:

(1, 47185), (2, 47224), (3, 47236), (4, 47251), (5, 47263), (6, 47266), (7, 47320), (8, 47323), (10, 47356), (16, 47401), (Start: 17 @47404 has 22 MA's), (21, 47473), (26, 47506), (28, 47533),

Gene: Baoshan_70 Start: 49075, Stop: 49329, Start Num: 13

Candidate Starts for Baoshan_70:

(Start: 13 @49075 has 42 MA's), (Start: 17 @49099 has 22 MA's), (26, 49201), (27, 49210), (28, 49228),

Gene: Baudelaire_76 Start: 49391, Stop: 49645, Start Num: 14

Candidate Starts for Baudelaire_76:

(Start: 14 @49391 has 2 MA's), (16, 49406), (Start: 17 @49409 has 22 MA's), (22, 49484), (26, 49511), (27, 49520), (29, 49574), (30, 49586),

Gene: Bazzle_71 Start: 49203, Stop: 49463, Start Num: 17

Candidate Starts for Bazzle_71:

(9, 49140), (10, 49146), (Start: 17 @49203 has 22 MA's), (19, 49221), (26, 49305), (27, 49314), (33, 49434),

Gene: Bellis_68 Start: 49176, Stop: 49457, Start Num: 13

Candidate Starts for Bellis_68:

(Start: 13 @49176 has 42 MA's), (Start: 17 @49200 has 22 MA's), (26, 49302), (31, 49377),

Gene: BigCheese_71 Start: 48842, Stop: 49096, Start Num: 13

Candidate Starts for BigCheese_71:

(Start: 13 @48842 has 42 MA's), (Start: 17 @48866 has 22 MA's), (25, 48962), (26, 48968), (27, 48977), (28, 48995),

Gene: BobsGarage_71 Start: 48842, Stop: 49096, Start Num: 13

Candidate Starts for BobsGarage_71:

(Start: 13 @48842 has 42 MA's), (Start: 17 @48866 has 22 MA's), (25, 48962), (26, 48968), (27, 48977), (28, 48995),

Gene: Breezona_71 Start: 48842, Stop: 49096, Start Num: 13

Candidate Starts for Breezona_71:

(Start: 13 @48842 has 42 MA's), (Start: 17 @48866 has 22 MA's), (25, 48962), (26, 48968), (27, 48977), (28, 48995),

Gene: Bromden_71 Start: 48810, Stop: 49067, Start Num: 13

Candidate Starts for Bromden_71:

(Start: 13 @48810 has 42 MA's), (Start: 17 @48834 has 22 MA's), (18, 48849), (24, 48918), (26, 48936),

Gene: Calm_71 Start: 47633, Stop: 47881, Start Num: 12

Candidate Starts for Calm_71:

(10, 47606), (Start: 12 @47633 has 1 MA's), (15, 47651), (Start: 17 @47657 has 22 MA's), (21, 47726), (26, 47759), (28, 47786),

Gene: Chaser_68 Start: 47833, Stop: 48087, Start Num: 13

Candidate Starts for Chaser_68:

(Start: 13 @47833 has 42 MA's), (Start: 17 @47857 has 22 MA's), (18, 47872), (20, 47893), (26, 47959),

Gene: CicholasNage_67 Start: 47161, Stop: 47391, Start Num: 17

Candidate Starts for CicholasNage_67:

(1, 46942), (2, 46981), (3, 46993), (4, 47008), (5, 47020), (6, 47023), (7, 47077), (8, 47080), (10, 47113), (16, 47158), (Start: 17 @47161 has 22 MA's), (26, 47263), (28, 47290),

Gene: Claus_73 Start: 49213, Stop: 49452, Start Num: 13

Candidate Starts for Claus_73:

(Start: 13 @49213 has 42 MA's), (Start: 17 @49237 has 22 MA's), (25, 49333), (26, 49339), (27, 49348), (28, 49366),

Gene: Clautastrophe_69 Start: 49173, Stop: 49454, Start Num: 13

Candidate Starts for Clautastrophe_69:

(Start: 13 @49173 has 42 MA's), (Start: 17 @49197 has 22 MA's), (26, 49299), (31, 49374),

Gene: Crossroads_71 Start: 48917, Stop: 49171, Start Num: 13

Candidate Starts for Crossroads_71:

(Start: 13 @48917 has 42 MA's), (Start: 17 @48941 has 22 MA's), (25, 49037), (26, 49043), (27, 49052), (28, 49070),

Gene: DirkDirk_66 Start: 46532, Stop: 46756, Start Num: 17

Candidate Starts for DirkDirk_66:

(1, 46313), (2, 46352), (4, 46379), (5, 46391), (6, 46394), (7, 46448), (8, 46451), (10, 46484), (16, 46529), (Start: 17 @46532 has 22 MA's), (21, 46601), (26, 46634), (28, 46661),

Gene: Douge_70 Start: 47833, Stop: 48090, Start Num: 13

Candidate Starts for Douge_70:

(Start: 13 @47833 has 42 MA's), (Start: 17 @47857 has 22 MA's), (18, 47872), (26, 47959), (32, 48046),

Gene: DrSeegs_71 Start: 48842, Stop: 49096, Start Num: 13

Candidate Starts for DrSeegs_71:

(Start: 13 @48842 has 42 MA's), (Start: 17 @48866 has 22 MA's), (25, 48962), (26, 48968), (27, 48977), (28, 48995),

Gene: DuncansLeg_70 Start: 49209, Stop: 49490, Start Num: 13

Candidate Starts for DuncansLeg_70:

(Start: 13 @49209 has 42 MA's), (Start: 17 @49233 has 22 MA's), (26, 49335),

Gene: DyoEdafos_74 Start: 48328, Stop: 48582, Start Num: 13

Candidate Starts for DyoEdafos_74:

(Start: 13 @48328 has 42 MA's), (Start: 17 @48352 has 22 MA's), (18, 48367), (20, 48388), (26, 48454),

Gene: Ellson_69 Start: 49524, Stop: 49805, Start Num: 13

Candidate Starts for Ellson_69:

(Start: 13 @49524 has 42 MA's), (Start: 17 @49548 has 22 MA's), (26, 49650),

Gene: Enceladus_66 Start: 47289, Stop: 47513, Start Num: 17

Candidate Starts for Enceladus_66:

(1, 47070), (2, 47109), (4, 47136), (5, 47148), (6, 47151), (7, 47205), (8, 47208), (10, 47241), (16, 47286), (Start: 17 @47289 has 22 MA's), (21, 47358), (26, 47391), (28, 47418),

Gene: Faith1_71 Start: 48842, Stop: 49096, Start Num: 13

Candidate Starts for Faith1_71:

(Start: 13 @48842 has 42 MA's), (Start: 17 @48866 has 22 MA's), (25, 48962), (26, 48968), (27, 48977), (28, 48995),

Gene: Finemlucis_72 Start: 49587, Stop: 49817, Start Num: 17

Candidate Starts for Finemlucis_72:

(Start: 13 @49563 has 42 MA's), (Start: 17 @49587 has 22 MA's), (26, 49689), (27, 49698), (28, 49716),

Gene: Finnry_70 Start: 49437, Stop: 49718, Start Num: 13

Candidate Starts for Finnry_70:

(Start: 13 @49437 has 42 MA's), (Start: 17 @49461 has 22 MA's), (26, 49563), (31, 49638),

Gene: Gabriela_69 Start: 47689, Stop: 47943, Start Num: 13

Candidate Starts for Gabriela_69:

(Start: 13 @47689 has 42 MA's), (Start: 17 @47713 has 22 MA's), (26, 47815), (27, 47824), (28, 47842),

Gene: Gardann_72 Start: 48875, Stop: 49129, Start Num: 13

Candidate Starts for Gardann_72:

(Start: 13 @48875 has 42 MA's), (Start: 17 @48899 has 22 MA's), (25, 48995), (26, 49001), (27, 49010), (28, 49028),

Gene: GuuelaD_69 Start: 48957, Stop: 49211, Start Num: 13

Candidate Starts for GuuelaD_69:

(Start: 13 @48957 has 42 MA's), (Start: 17 @48981 has 22 MA's), (25, 49077), (26, 49083), (28, 49110),

Gene: Hafay_73 Start: 48946, Stop: 49200, Start Num: 13

Candidate Starts for Hafay_73:

(Start: 13 @48946 has 42 MA's), (Start: 17 @48970 has 22 MA's), (25, 49066), (26, 49072), (28, 49099),

Gene: Halena_67 Start: 46569, Stop: 46793, Start Num: 17

Candidate Starts for Halena_67:

(1, 46350), (2, 46389), (3, 46401), (4, 46416), (5, 46428), (6, 46431), (7, 46485), (8, 46488), (10, 46521), (16, 46566), (Start: 17 @46569 has 22 MA's), (21, 46638), (26, 46671), (28, 46698),

Gene: Itos_70 Start: 47748, Stop: 48002, Start Num: 13

Candidate Starts for Itos_70:

(Start: 13 @47748 has 42 MA's), (Start: 17 @47772 has 22 MA's), (25, 47868), (26, 47874), (27, 47883), (28, 47901),

Gene: Jobypre_71 Start: 49173, Stop: 49454, Start Num: 13

Candidate Starts for Jobypre_71:

(Start: 13 @49173 has 42 MA's), (Start: 17 @49197 has 22 MA's), (26, 49299), (31, 49374),

Gene: JoeDirt_69 Start: 47722, Stop: 47946, Start Num: 17

Candidate Starts for JoeDirt_69:

(1, 47503), (2, 47542), (3, 47554), (4, 47569), (5, 47581), (6, 47584), (7, 47638), (8, 47641), (10, 47674), (16, 47719), (Start: 17 @47722 has 22 MA's), (21, 47791), (26, 47824), (28, 47851),

Gene: Jubie_69 Start: 49308, Stop: 49589, Start Num: 13

Candidate Starts for Jubie_69:

(Start: 13 @49308 has 42 MA's), (Start: 17 @49332 has 22 MA's), (26, 49434), (31, 49509),

Gene: Kahlid_71 Start: 48848, Stop: 49102, Start Num: 13

Candidate Starts for Kahlid_71:

(Start: 13 @48848 has 42 MA's), (Start: 17 @48872 has 22 MA's), (25, 48968), (26, 48974), (27, 48983), (28, 49001),

Gene: Kingsolomon_68 Start: 49180, Stop: 49461, Start Num: 13

Candidate Starts for Kingsolomon_68:

(Start: 13 @49180 has 42 MA's), (Start: 17 @49204 has 22 MA's), (26, 49306), (31, 49381),

Gene: Krypton555_71 Start: 49399, Stop: 49668, Start Num: 13

Candidate Starts for Krypton555_71:

(Start: 13 @49399 has 42 MA's), (Start: 17 @49423 has 22 MA's), (23, 49501), (26, 49525), (28, 49552), (31, 49600),

Gene: LeBron_68 Start: 46573, Stop: 46797, Start Num: 17

Candidate Starts for LeBron_68:

(1, 46354), (2, 46393), (4, 46420), (5, 46432), (6, 46435), (7, 46489), (8, 46492), (10, 46525), (16, 46570), (Start: 17 @46573 has 22 MA's), (21, 46642), (26, 46675), (28, 46702),

Gene: Lewan_72 Start: 48899, Stop: 49153, Start Num: 13

Candidate Starts for Lewan_72:

(Start: 13 @48899 has 42 MA's), (Start: 17 @48923 has 22 MA's), (25, 49019), (26, 49025), (27, 49034), (28, 49052),

Gene: LilDestine_71 Start: 48875, Stop: 49129, Start Num: 13

Candidate Starts for LilDestine_71:

(Start: 13 @48875 has 42 MA's), (Start: 17 @48899 has 22 MA's), (25, 48995), (26, 49001), (28, 49028),

Gene: Loadrie_70 Start: 48927, Stop: 49181, Start Num: 13

Candidate Starts for Loadrie_70:

(Start: 13 @48927 has 42 MA's), (Start: 17 @48951 has 22 MA's), (25, 49047), (26, 49053), (27, 49062), (28, 49080),

Gene: Lolly9_70 Start: 49299, Stop: 49580, Start Num: 13

Candidate Starts for Lolly9_70:

(Start: 13 @49299 has 42 MA's), (Start: 17 @49323 has 22 MA's), (26, 49425),

Gene: Lumos_71 Start: 49170, Stop: 49451, Start Num: 13

Candidate Starts for Lumos_71:

(Start: 13 @49170 has 42 MA's), (Start: 17 @49194 has 22 MA's), (26, 49296), (31, 49371),

Gene: MAckerman_66 Start: 46562, Stop: 46786, Start Num: 17

Candidate Starts for MAckerman_66:

(1, 46343), (2, 46382), (3, 46394), (4, 46409), (5, 46421), (6, 46424), (7, 46478), (8, 46481), (10, 46514), (16, 46559), (Start: 17 @46562 has 22 MA's), (21, 46631), (26, 46664), (28, 46691),

Gene: Miley16_71 Start: 48842, Stop: 49096, Start Num: 13

Candidate Starts for Miley16_71:

(Start: 13 @48842 has 42 MA's), (Start: 17 @48866 has 22 MA's), (25, 48962), (26, 48968), (27, 48977), (28, 48995),

Gene: MiniLon_74 Start: 49300, Stop: 49581, Start Num: 13

Candidate Starts for MiniLon_74:

(Start: 13 @49300 has 42 MA's), (Start: 17 @49324 has 22 MA's), (26, 49426),

Gene: MiniMac_74 Start: 49298, Stop: 49579, Start Num: 13

Candidate Starts for MiniMac_74:

(Start: 13 @49298 has 42 MA's), (Start: 17 @49322 has 22 MA's), (26, 49424),

Gene: MkaliMitinis3_72 Start: 48911, Stop: 49165, Start Num: 13

Candidate Starts for MkaliMitinis3_72:

(Start: 13 @48911 has 42 MA's), (Start: 17 @48935 has 22 MA's), (25, 49031), (26, 49037), (28, 49064),

Gene: Moostard_68 Start: 49176, Stop: 49457, Start Num: 13

Candidate Starts for Moostard_68:

(Start: 13 @49176 has 42 MA's), (Start: 17 @49200 has 22 MA's), (26, 49302), (31, 49377),

Gene: MsGreen_70 Start: 49173, Stop: 49454, Start Num: 13

Candidate Starts for MsGreen_70:

(Start: 13 @49173 has 42 MA's), (Start: 17 @49197 has 22 MA's), (26, 49299), (31, 49374),

Gene: Netyap_72 Start: 48843, Stop: 49097, Start Num: 13

Candidate Starts for Netyap_72:

(Start: 13 @48843 has 42 MA's), (Start: 17 @48867 has 22 MA's), (25, 48963), (26, 48969), (27, 48978), (28, 48996),

Gene: Nicholas_68 Start: 49180, Stop: 49461, Start Num: 13

Candidate Starts for Nicholas_68:

(Start: 13 @49180 has 42 MA's), (Start: 17 @49204 has 22 MA's), (26, 49306), (31, 49381),

Gene: Nicholasp3_71 Start: 48899, Stop: 49129, Start Num: 17

Candidate Starts for Nicholasp3_71:

(Start: 13 @48875 has 42 MA's), (Start: 17 @48899 has 22 MA's), (25, 48995), (26, 49001), (27, 49010), (28, 49028),

Gene: OhShagHennessy_67 Start: 46438, Stop: 46662, Start Num: 17

Candidate Starts for OhShagHennessy_67:

(1, 46219), (2, 46258), (4, 46285), (5, 46297), (6, 46300), (7, 46354), (8, 46357), (10, 46390), (16, 46435), (Start: 17 @46438 has 22 MA's), (26, 46540), (28, 46567),

Gene: Rose5_69 Start: 47742, Stop: 47966, Start Num: 17

Candidate Starts for Rose5_69:

(1, 47523), (2, 47562), (3, 47574), (4, 47589), (5, 47601), (6, 47604), (7, 47658), (8, 47661), (10, 47694), (16, 47739), (Start: 17 @47742 has 22 MA's), (21, 47811), (26, 47844), (28, 47871),

Gene: Rumpelstiltskin_70 Start: 48668, Stop: 48922, Start Num: 13

Candidate Starts for Rumpelstiltskin_70:

(Start: 13 @48668 has 42 MA's), (Start: 17 @48692 has 22 MA's), (25, 48788), (26, 48794), (28, 48821),

Gene: Samty_70 Start: 49181, Stop: 49462, Start Num: 13

Candidate Starts for Samty_70:

(Start: 13 @49181 has 42 MA's), (Start: 17 @49205 has 22 MA's), (26, 49307), (31, 49382),

Gene: Silverleaf_69 Start: 47192, Stop: 47416, Start Num: 17

Candidate Starts for Silverleaf_69:

(1, 46973), (2, 47012), (3, 47024), (4, 47039), (5, 47051), (6, 47054), (7, 47108), (8, 47111), (10, 47144), (16, 47189), (Start: 17 @47192 has 22 MA's), (21, 47261), (26, 47294), (28, 47321),

Gene: Snenia_69 Start: 49174, Stop: 49455, Start Num: 13

Candidate Starts for Snenia_69:

(Start: 13 @49174 has 42 MA's), (Start: 17 @49198 has 22 MA's), (26, 49300), (31, 49375),

Gene: Tourach_71 Start: 49214, Stop: 49453, Start Num: 13

Candidate Starts for Tourach_71:

(Start: 13 @49214 has 42 MA's), (Start: 17 @49238 has 22 MA's), (26, 49340), (27, 49349),

Gene: Tyson_70 Start: 47668, Stop: 47892, Start Num: 17

Candidate Starts for Tyson_70:

(1, 47449), (2, 47488), (3, 47500), (4, 47515), (5, 47527), (6, 47530), (7, 47584), (8, 47587), (10, 47620), (16, 47665), (Start: 17 @47668 has 22 MA's), (21, 47737), (26, 47770), (28, 47797),

Gene: UPIE_68 Start: 47268, Stop: 47492, Start Num: 17

Candidate Starts for UPIE_68:

(1, 47049), (2, 47088), (4, 47115), (5, 47127), (6, 47130), (7, 47184), (8, 47187), (10, 47220), (16, 47265), (Start: 17 @47268 has 22 MA's), (21, 47337), (26, 47370), (28, 47397),

Gene: Vetrix_71 Start: 48882, Stop: 49136, Start Num: 13

Candidate Starts for Vetrix_71:

(Start: 13 @48882 has 42 MA's), (Start: 17 @48906 has 22 MA's), (25, 49002), (26, 49008), (27, 49017), (28, 49035),

Gene: Wamburgexpress_70 Start: 47833, Stop: 48048, Start Num: 17

Candidate Starts for Wamburgexpress_70:

(10, 47782), (11, 47800), (Start: 12 @47809 has 1 MA's), (15, 47827), (Start: 17 @47833 has 22 MA's), (20, 47869), (26, 47935), (27, 47944), (28, 47962),

Gene: Whirlwind_71 Start: 49276, Stop: 49557, Start Num: 13

Candidate Starts for Whirlwind_71:

(Start: 13 @49276 has 42 MA's), (Start: 17 @49300 has 22 MA's), (26, 49402),

Gene: Wigglewobble_71 Start: 48923, Stop: 49153, Start Num: 17

Candidate Starts for Wigglewobble_71:

(Start: 13 @48899 has 42 MA's), (Start: 17 @48923 has 22 MA's), (25, 49019), (26, 49025), (27, 49034), (28, 49052),

Gene: Wilder_72 Start: 48848, Stop: 49102, Start Num: 13

Candidate Starts for Wilder_72:

(Start: 13 @48848 has 42 MA's), (Start: 17 @48872 has 22 MA's), (25, 48968), (26, 48974), (27, 48983), (28, 49001),

Gene: Winky_71 Start: 48842, Stop: 49096, Start Num: 13

Candidate Starts for Winky_71:

(Start: 13 @48842 has 42 MA's), (Start: 17 @48866 has 22 MA's), (25, 48962), (26, 48968), (27, 48977), (28, 48995),

Gene: Wyatt2_70 Start: 47666, Stop: 47890, Start Num: 17

Candidate Starts for Wyatt2_70:

(1, 47447), (2, 47486), (3, 47498), (4, 47513), (5, 47525), (6, 47528), (7, 47582), (8, 47585), (10, 47618), (16, 47663), (Start: 17 @47666 has 22 MA's), (21, 47735), (26, 47768), (28, 47795),

Gene: Zakai_72 Start: 49168, Stop: 49422, Start Num: 13

Candidate Starts for Zakai_72:

(Start: 13 @49168 has 42 MA's), (Start: 17 @49192 has 22 MA's), (25, 49288), (26, 49294), (27, 49303), (28, 49321),

Gene: Zaria_70 Start: 47122, Stop: 47346, Start Num: 17

Candidate Starts for Zaria_70:

(1, 46903), (2, 46942), (4, 46969), (5, 46981), (6, 46984), (7, 47038), (8, 47041), (10, 47074), (16, 47119), (Start: 17 @47122 has 22 MA's), (21, 47191), (26, 47224), (28, 47251),

Gene: ZhongYanYuan_70 Start: 48737, Stop: 48976, Start Num: 13

Candidate Starts for ZhongYanYuan_70:

(Start: 13 @48737 has 42 MA's), (Start: 17 @48761 has 22 MA's), (26, 48863), (27, 48872), (28, 48890),