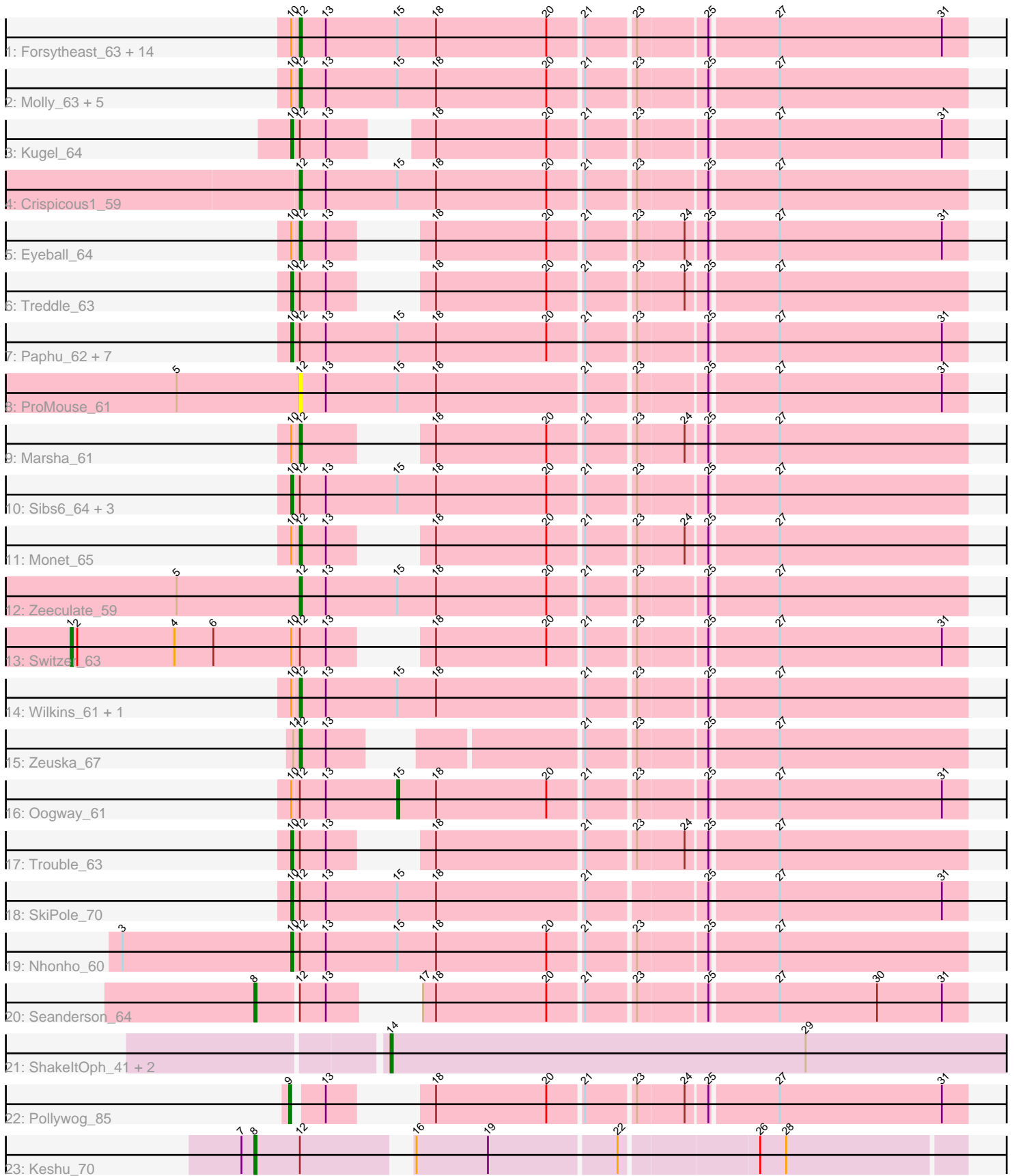


Pham 216226



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 216226 Report

This analysis was run 02/22/25 on database version 588.

Pham number 216226 has 55 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Forsytheast_63, Adahisdi_62, HermioneGrange_64, Moose_63, Bones_61, Cueyllyss_62, U2_60, IgnatiusPatJac_62, BigMau_64, Parliament_64, Bruns_63, Bob3_63, SwissCheese_65, Kykar_63, Arlo_60
- Track 2 : Molly_63, GMonster_57, Killigrew_61, Briton15_66, McGuire_63, Zephyr_63
- Track 3 : Kugel_64
- Track 4 : Crispicous1_59
- Track 5 : Eyeball_64
- Track 6 : Treddle_63
- Track 7 : Paphu_62, Rohr_64, Petp2012_65, Museum_64, DreamCatcher_65, Tasp14_66, BluSpix_60, MPlant7149_62
- Track 8 : ProMouse_61
- Track 9 : Marsha_61
- Track 10 : Sibs6_64, Seabiscuit_65, HanShotFirst_63, Watermelon_62
- Track 11 : Monet_65
- Track 12 : Zeeculate_59
- Track 13 : Switzer_63
- Track 14 : Wilkins_61, Topgun_60
- Track 15 : Zeuska_67
- Track 16 : Oogway_61
- Track 17 : Trouble_63
- Track 18 : SkiPole_70
- Track 19 : Nhonho_60
- Track 20 : Seanderson_64
- Track 21 : ShakeltOph_41, MiniMommy_41, JasmineDragon_39
- Track 22 : Pollywog_85
- Track 23 : Keshu_70

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

The start number called the most often in the published annotations is 12, it was called in 28 of the 51 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adahisdi_62, Arlo_60, BigMau_64, Bob3_63, Bones_61, Briton15_66, Bruns_63, Crispicous1_59, Cueylyss_62, Eyeball_64, Forsytheast_63, GMonster_57, HermioneGrange_64, IgnatiusPatJac_62, Killigrew_61, Kykar_63, Marsha_61, McGuire_63, Molly_63, Monet_65, Moose_63, Parliament_64, ProMouse_61, SwissCheese_65, Topgun_60, U2_60, Wilkins_61, Zeeculate_59, Zephyr_63, Zeuska_67,

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

- BluSpix_60, DreamCatcher_65, HanShotFirst_63, Keshu_70, Kugel_64, MPlant7149_62, Museum_64, Nhonho_60, Oogway_61, Paphu_62, Petp2012_65, Rohr_64, Seabiscuit_65, Seanderson_64, Sibs6_64, SkiPole_70, Switzer_63, Tasp14_66, Treddle_63, Trouble_63, Watermelon_62,

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

- JasmineDragon_39, MiniMommy_41, Pollywog_85, ShakeltOph_41,

Summary by start number:

Start 1:

- Found in 1 of 55 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Switzer_63 (A1),

Start 8:

- Found in 2 of 55 (3.6%) of genes in pham
- Manual Annotations of this start: 2 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Keshu_70 (K3), Seanderson_64 (A1),

Start 9:

- Found in 1 of 55 (1.8%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pollywog_85 (F1),

Start 10:

- Found in 45 of 55 (81.8%) of genes in pham
- Manual Annotations of this start: 17 of 51
- Called 37.8% of time when present
- Phage (with cluster) where this start called: BluSpix_60 (A1), DreamCatcher_65 (A1), HanShotFirst_63 (A1), Kugel_64 (A1), MPlant7149_62 (A1), Museum_64 (A1), Nhonho_60 (A1), Paphu_62 (A1), Petp2012_65 (A1), Rohr_64 (A1), Seabiscuit_65 (A1), Sibs6_64 (A1), SkiPole_70 (A1), Tasp14_66 (A1), Treddle_63 (A1), Trouble_63 (A1), Watermelon_62 (A1),

Start 12:

- Found in 51 of 55 (92.7%) of genes in pham
- Manual Annotations of this start: 28 of 51
- Called 58.8% of time when present
- Phage (with cluster) where this start called: Adahisdi_62 (A1), Arlo_60 (A1), BigMau_64 (A1), Bob3_63 (A1), Bones_61 (A1), Briton15_66 (A1), Bruns_63 (A1), Crispicous1_59 (A1), Cueylyss_62 (A1), Eyeball_64 (A1), Forsytheast_63 (A1),

GMonster_57 (A1), HermioneGrange_64 (A1), IgnatiusPatJac_62 (A1), Killigrew_61 (A1), Kykar_63 (A1), Marsha_61 (A1), McGuire_63 (A1), Molly_63 (A1), Monet_65 (A1), Moose_63 (A1), Parliament_64 (A1), ProMouse_61 (A1), SwissCheese_65 (A1), Topgun_60 (A1), U2_60 (A1), Wilkins_61 (A1), Zeeculate_59 (A1), Zephyr_63 (A1), Zeuska_67 (A1),

Start 14:

- Found in 3 of 55 (5.5%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JasmineDragon_39 (AZ4), MiniMommy_41 (AZ4), ShakeltOph_41 (AZ4),

Start 15:

- Found in 41 of 55 (74.5%) of genes in pham
- Manual Annotations of this start: 1 of 51
- Called 2.4% of time when present
- Phage (with cluster) where this start called: Oogway_61 (A1),

Summary by clusters:

There are 4 clusters represented in this pham: A1, F1, AZ4, K3,

Info for manual annotations of cluster A1:

- Start number 1 was manually annotated 1 time for cluster A1.
- Start number 8 was manually annotated 1 time for cluster A1.
- Start number 10 was manually annotated 17 times for cluster A1.
- Start number 12 was manually annotated 28 times for cluster A1.
- Start number 15 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster AZ4:

- Start number 14 was manually annotated 1 time for cluster AZ4.

Info for manual annotations of cluster F1:

- Start number 9 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster K3:

- Start number 8 was manually annotated 1 time for cluster K3.

Gene Information:

Gene: Adahisdi_62 Start: 42536, Stop: 42240, Start Num: 12

Candidate Starts for Adahisdi_62:

(Start: 10 @42539 has 17 MA's), (Start: 12 @42536 has 28 MA's), (13, 42524), (Start: 15 @42491 has 1 MA's), (18, 42473), (20, 42422), (21, 42407), (23, 42386), (25, 42356), (27, 42326), (31, 42251),

Gene: Arlo_60 Start: 40881, Stop: 40585, Start Num: 12

Candidate Starts for Arlo_60:

(Start: 10 @40884 has 17 MA's), (Start: 12 @40881 has 28 MA's), (13, 40869), (Start: 15 @40836 has 1 MA's), (18, 40818), (20, 40767), (21, 40752), (23, 40731), (25, 40701), (27, 40671), (31, 40596),

Gene: BigMau_64 Start: 41801, Stop: 41505, Start Num: 12

Candidate Starts for BigMau_64:

(Start: 10 @41804 has 17 MA's), (Start: 12 @41801 has 28 MA's), (13, 41789), (Start: 15 @41756 has 1 MA's), (18, 41738), (20, 41687), (21, 41672), (23, 41651), (25, 41621), (27, 41591), (31, 41516),

Gene: BluSpix_60 Start: 37016, Stop: 36717, Start Num: 10

Candidate Starts for BluSpix_60:

(Start: 10 @37016 has 17 MA's), (Start: 12 @37013 has 28 MA's), (13, 37001), (Start: 15 @36968 has 1 MA's), (18, 36950), (20, 36899), (21, 36884), (23, 36863), (25, 36833), (27, 36803), (31, 36728),

Gene: Bob3_63 Start: 41074, Stop: 40778, Start Num: 12

Candidate Starts for Bob3_63:

(Start: 10 @41077 has 17 MA's), (Start: 12 @41074 has 28 MA's), (13, 41062), (Start: 15 @41029 has 1 MA's), (18, 41011), (20, 40960), (21, 40945), (23, 40924), (25, 40894), (27, 40864), (31, 40789),

Gene: Bones_61 Start: 42258, Stop: 41962, Start Num: 12

Candidate Starts for Bones_61:

(Start: 10 @42261 has 17 MA's), (Start: 12 @42258 has 28 MA's), (13, 42246), (Start: 15 @42213 has 1 MA's), (18, 42195), (20, 42144), (21, 42129), (23, 42108), (25, 42078), (27, 42048), (31, 41973),

Gene: Briton15_66 Start: 42878, Stop: 42582, Start Num: 12

Candidate Starts for Briton15_66:

(Start: 10 @42881 has 17 MA's), (Start: 12 @42878 has 28 MA's), (13, 42866), (Start: 15 @42833 has 1 MA's), (18, 42815), (20, 42764), (21, 42749), (23, 42728), (25, 42698), (27, 42668),

Gene: Bruns_63 Start: 40455, Stop: 40159, Start Num: 12

Candidate Starts for Bruns_63:

(Start: 10 @40458 has 17 MA's), (Start: 12 @40455 has 28 MA's), (13, 40443), (Start: 15 @40410 has 1 MA's), (18, 40392), (20, 40341), (21, 40326), (23, 40305), (25, 40275), (27, 40245), (31, 40170),

Gene: Crispicous1_59 Start: 39995, Stop: 39699, Start Num: 12

Candidate Starts for Crispicous1_59:

(Start: 12 @39995 has 28 MA's), (13, 39983), (Start: 15 @39950 has 1 MA's), (18, 39932), (20, 39881), (21, 39866), (23, 39845), (25, 39815), (27, 39785),

Gene: Cueyllyss_62 Start: 42458, Stop: 42162, Start Num: 12

Candidate Starts for Cueyllyss_62:

(Start: 10 @42461 has 17 MA's), (Start: 12 @42458 has 28 MA's), (13, 42446), (Start: 15 @42413 has 1 MA's), (18, 42395), (20, 42344), (21, 42329), (23, 42308), (25, 42278), (27, 42248), (31, 42173),

Gene: DreamCatcher_65 Start: 41754, Stop: 41455, Start Num: 10

Candidate Starts for DreamCatcher_65:

(Start: 10 @41754 has 17 MA's), (Start: 12 @41751 has 28 MA's), (13, 41739), (Start: 15 @41706 has 1 MA's), (18, 41688), (20, 41637), (21, 41622), (23, 41601), (25, 41571), (27, 41541), (31, 41466),

Gene: Eyeball_64 Start: 42166, Stop: 41900, Start Num: 12

Candidate Starts for Eyeball_64:

(Start: 10 @42169 has 17 MA's), (Start: 12 @42166 has 28 MA's), (13, 42154), (18, 42133), (20, 42082), (21, 42067), (23, 42046), (24, 42025), (25, 42016), (27, 41986), (31, 41911),

Gene: Forsytheast_63 Start: 40623, Stop: 40327, Start Num: 12

Candidate Starts for Forsytheast_63:

(Start: 10 @40626 has 17 MA's), (Start: 12 @40623 has 28 MA's), (13, 40611), (Start: 15 @40578 has 1 MA's), (18, 40560), (20, 40509), (21, 40494), (23, 40473), (25, 40443), (27, 40413), (31, 40338),

Gene: GMonster_57 Start: 40681, Stop: 40385, Start Num: 12

Candidate Starts for GMonster_57:

(Start: 10 @40684 has 17 MA's), (Start: 12 @40681 has 28 MA's), (13, 40669), (Start: 15 @40636 has 1 MA's), (18, 40618), (20, 40567), (21, 40552), (23, 40531), (25, 40501), (27, 40471),

Gene: HanShotFirst_63 Start: 42830, Stop: 42531, Start Num: 10

Candidate Starts for HanShotFirst_63:

(Start: 10 @42830 has 17 MA's), (Start: 12 @42827 has 28 MA's), (13, 42815), (Start: 15 @42782 has 1 MA's), (18, 42764), (20, 42713), (21, 42698), (23, 42677), (25, 42647), (27, 42617),

Gene: HermioneGrange_64 Start: 42295, Stop: 41999, Start Num: 12

Candidate Starts for HermioneGrange_64:

(Start: 10 @42298 has 17 MA's), (Start: 12 @42295 has 28 MA's), (13, 42283), (Start: 15 @42250 has 1 MA's), (18, 42232), (20, 42181), (21, 42166), (23, 42145), (25, 42115), (27, 42085), (31, 42010),

Gene: IgnatiusPatJac_62 Start: 40958, Stop: 40662, Start Num: 12

Candidate Starts for IgnatiusPatJac_62:

(Start: 10 @40961 has 17 MA's), (Start: 12 @40958 has 28 MA's), (13, 40946), (Start: 15 @40913 has 1 MA's), (18, 40895), (20, 40844), (21, 40829), (23, 40808), (25, 40778), (27, 40748), (31, 40673),

Gene: JasmineDragon_39 Start: 26463, Stop: 26750, Start Num: 14

Candidate Starts for JasmineDragon_39:

(Start: 14 @26463 has 1 MA's), (29, 26655),

Gene: Keshu_70 Start: 44135, Stop: 44440, Start Num: 8

Candidate Starts for Keshu_70:

(7, 44129), (Start: 8 @44135 has 2 MA's), (Start: 12 @44156 has 28 MA's), (16, 44198), (19, 44231), (22, 44288), (26, 44348), (28, 44360),

Gene: Killigrew_61 Start: 41393, Stop: 41097, Start Num: 12

Candidate Starts for Killigrew_61:

(Start: 10 @41396 has 17 MA's), (Start: 12 @41393 has 28 MA's), (13, 41381), (Start: 15 @41348 has 1 MA's), (18, 41330), (20, 41279), (21, 41264), (23, 41243), (25, 41213), (27, 41183),

Gene: Kugel_64 Start: 42232, Stop: 41954, Start Num: 10

Candidate Starts for Kugel_64:

(Start: 10 @42232 has 17 MA's), (Start: 12 @42229 has 28 MA's), (13, 42217), (18, 42187), (20, 42136), (21, 42121), (23, 42100), (25, 42070), (27, 42040), (31, 41965),

Gene: Kykar_63 Start: 41758, Stop: 41462, Start Num: 12

Candidate Starts for Kykar_63:

(Start: 10 @41761 has 17 MA's), (Start: 12 @41758 has 28 MA's), (13, 41746), (Start: 15 @41713 has 1 MA's), (18, 41695), (20, 41644), (21, 41629), (23, 41608), (25, 41578), (27, 41548), (31, 41473),

Gene: MPlant7149_62 Start: 40186, Stop: 39887, Start Num: 10

Candidate Starts for MPlant7149_62:

(Start: 10 @40186 has 17 MA's), (Start: 12 @40183 has 28 MA's), (13, 40171), (Start: 15 @40138 has 1 MA's), (18, 40120), (20, 40069), (21, 40054), (23, 40033), (25, 40003), (27, 39973), (31, 39898),

Gene: Marsha_61 Start: 42250, Stop: 41984, Start Num: 12

Candidate Starts for Marsha_61:

(Start: 10 @42253 has 17 MA's), (Start: 12 @42250 has 28 MA's), (18, 42217), (20, 42166), (21, 42151), (23, 42130), (24, 42109), (25, 42100), (27, 42070),

Gene: McGuire_63 Start: 40458, Stop: 40162, Start Num: 12

Candidate Starts for McGuire_63:

(Start: 10 @40461 has 17 MA's), (Start: 12 @40458 has 28 MA's), (13, 40446), (Start: 15 @40413 has 1 MA's), (18, 40395), (20, 40344), (21, 40329), (23, 40308), (25, 40278), (27, 40248),

Gene: MiniMommy_41 Start: 26464, Stop: 26751, Start Num: 14

Candidate Starts for MiniMommy_41:

(Start: 14 @26464 has 1 MA's), (29, 26656),

Gene: Molly_63 Start: 41563, Stop: 41267, Start Num: 12

Candidate Starts for Molly_63:

(Start: 10 @41566 has 17 MA's), (Start: 12 @41563 has 28 MA's), (13, 41551), (Start: 15 @41518 has 1 MA's), (18, 41500), (20, 41449), (21, 41434), (23, 41413), (25, 41383), (27, 41353),

Gene: Monet_65 Start: 43052, Stop: 42786, Start Num: 12

Candidate Starts for Monet_65:

(Start: 10 @43055 has 17 MA's), (Start: 12 @43052 has 28 MA's), (13, 43040), (18, 43019), (20, 42968), (21, 42953), (23, 42932), (24, 42911), (25, 42902), (27, 42872),

Gene: Moose_63 Start: 40623, Stop: 40327, Start Num: 12

Candidate Starts for Moose_63:

(Start: 10 @40626 has 17 MA's), (Start: 12 @40623 has 28 MA's), (13, 40611), (Start: 15 @40578 has 1 MA's), (18, 40560), (20, 40509), (21, 40494), (23, 40473), (25, 40443), (27, 40413), (31, 40338),

Gene: Museum_64 Start: 42785, Stop: 42486, Start Num: 10

Candidate Starts for Museum_64:

(Start: 10 @42785 has 17 MA's), (Start: 12 @42782 has 28 MA's), (13, 42770), (Start: 15 @42737 has 1 MA's), (18, 42719), (20, 42668), (21, 42653), (23, 42632), (25, 42602), (27, 42572), (31, 42497),

Gene: Nhonho_60 Start: 41685, Stop: 41386, Start Num: 10

Candidate Starts for Nhonho_60:

(3, 41763), (Start: 10 @41685 has 17 MA's), (Start: 12 @41682 has 28 MA's), (13, 41670), (Start: 15 @41637 has 1 MA's), (18, 41619), (20, 41568), (21, 41553), (23, 41532), (25, 41502), (27, 41472),

Gene: Oogway_61 Start: 42078, Stop: 41827, Start Num: 15

Candidate Starts for Oogway_61:

(Start: 10 @42126 has 17 MA's), (Start: 12 @42123 has 28 MA's), (13, 42111), (Start: 15 @42078 has 1 MA's), (18, 42060), (20, 42009), (21, 41994), (23, 41973), (25, 41943), (27, 41913), (31, 41838),

Gene: Paphu_62 Start: 41937, Stop: 41638, Start Num: 10

Candidate Starts for Paphu_62:

(Start: 10 @41937 has 17 MA's), (Start: 12 @41934 has 28 MA's), (13, 41922), (Start: 15 @41889 has 1 MA's), (18, 41871), (20, 41820), (21, 41805), (23, 41784), (25, 41754), (27, 41724), (31, 41649),

Gene: Parliament_64 Start: 43726, Stop: 43430, Start Num: 12

Candidate Starts for Parliament_64:

(Start: 10 @43729 has 17 MA's), (Start: 12 @43726 has 28 MA's), (13, 43714), (Start: 15 @43681 has 1 MA's), (18, 43663), (20, 43612), (21, 43597), (23, 43576), (25, 43546), (27, 43516), (31, 43441),

Gene: Petp2012_65 Start: 43269, Stop: 42970, Start Num: 10

Candidate Starts for Petp2012_65:

(Start: 10 @43269 has 17 MA's), (Start: 12 @43266 has 28 MA's), (13, 43254), (Start: 15 @43221 has 1 MA's), (18, 43203), (20, 43152), (21, 43137), (23, 43116), (25, 43086), (27, 43056), (31, 42981),

Gene: Pollywog_85 Start: 50811, Stop: 51077, Start Num: 9

Candidate Starts for Pollywog_85:

(Start: 9 @50811 has 1 MA's), (13, 50823), (18, 50844), (20, 50895), (21, 50910), (23, 50931), (24, 50952), (25, 50961), (27, 50991), (31, 51066),

Gene: ProMouse_61 Start: 41373, Stop: 41077, Start Num: 12

Candidate Starts for ProMouse_61:

(5, 41430), (Start: 12 @41373 has 28 MA's), (13, 41361), (Start: 15 @41328 has 1 MA's), (18, 41310), (21, 41244), (23, 41223), (25, 41193), (27, 41163), (31, 41088),

Gene: Rohr_64 Start: 42615, Stop: 42316, Start Num: 10

Candidate Starts for Rohr_64:

(Start: 10 @42615 has 17 MA's), (Start: 12 @42612 has 28 MA's), (13, 42600), (Start: 15 @42567 has 1 MA's), (18, 42549), (20, 42498), (21, 42483), (23, 42462), (25, 42432), (27, 42402), (31, 42327),

Gene: Seabiscuit_65 Start: 40723, Stop: 40424, Start Num: 10

Candidate Starts for Seabiscuit_65:

(Start: 10 @40723 has 17 MA's), (Start: 12 @40720 has 28 MA's), (13, 40708), (Start: 15 @40675 has 1 MA's), (18, 40657), (20, 40606), (21, 40591), (23, 40570), (25, 40540), (27, 40510),

Gene: Seanderson_64 Start: 43120, Stop: 42836, Start Num: 8

Candidate Starts for Seanderson_64:

(Start: 8 @43120 has 2 MA's), (Start: 12 @43102 has 28 MA's), (13, 43090), (17, 43075), (18, 43069), (20, 43018), (21, 43003), (23, 42982), (25, 42952), (27, 42922), (30, 42877), (31, 42847),

Gene: ShakeltOph_41 Start: 26463, Stop: 26750, Start Num: 14

Candidate Starts for ShakeltOph_41:

(Start: 14 @26463 has 1 MA's), (29, 26655),

Gene: Sibs6_64 Start: 39832, Stop: 39533, Start Num: 10

Candidate Starts for Sibs6_64:

(Start: 10 @39832 has 17 MA's), (Start: 12 @39829 has 28 MA's), (13, 39817), (Start: 15 @39784 has 1 MA's), (18, 39766), (20, 39715), (21, 39700), (23, 39679), (25, 39649), (27, 39619),

Gene: SkiPole_70 Start: 42720, Stop: 42421, Start Num: 10

Candidate Starts for SkiPole_70:

(Start: 10 @42720 has 17 MA's), (Start: 12 @42717 has 28 MA's), (13, 42705), (Start: 15 @42672 has 1 MA's), (18, 42654), (21, 42588), (25, 42537), (27, 42507), (31, 42432),

Gene: SwissCheese_65 Start: 41123, Stop: 40827, Start Num: 12

Candidate Starts for SwissCheese_65:

(Start: 10 @41126 has 17 MA's), (Start: 12 @41123 has 28 MA's), (13, 41111), (Start: 15 @41078 has 1 MA's), (18, 41060), (20, 41009), (21, 40994), (23, 40973), (25, 40943), (27, 40913), (31, 40838),

Gene: Switzer_63 Start: 42783, Stop: 42412, Start Num: 1

Candidate Starts for Switzer_63:

(Start: 1 @42783 has 1 MA's), (2, 42780), (4, 42735), (6, 42717), (Start: 10 @42681 has 17 MA's), (Start: 12 @42678 has 28 MA's), (13, 42666), (18, 42645), (20, 42594), (21, 42579), (23, 42558), (25,

42528), (27, 42498), (31, 42423),

Gene: Tasp14_66 Start: 43218, Stop: 42919, Start Num: 10

Candidate Starts for Tasp14_66:

(Start: 10 @43218 has 17 MA's), (Start: 12 @43215 has 28 MA's), (13, 43203), (Start: 15 @43170 has 1 MA's), (18, 43152), (20, 43101), (21, 43086), (23, 43065), (25, 43035), (27, 43005), (31, 42930),

Gene: Topgun_60 Start: 40325, Stop: 40029, Start Num: 12

Candidate Starts for Topgun_60:

(Start: 10 @40328 has 17 MA's), (Start: 12 @40325 has 28 MA's), (13, 40313), (Start: 15 @40280 has 1 MA's), (18, 40262), (21, 40196), (23, 40175), (25, 40145), (27, 40115),

Gene: Treddle_63 Start: 42567, Stop: 42298, Start Num: 10

Candidate Starts for Treddle_63:

(Start: 10 @42567 has 17 MA's), (Start: 12 @42564 has 28 MA's), (13, 42552), (18, 42531), (20, 42480), (21, 42465), (23, 42444), (24, 42423), (25, 42414), (27, 42384),

Gene: Trouble_63 Start: 41668, Stop: 41399, Start Num: 10

Candidate Starts for Trouble_63:

(Start: 10 @41668 has 17 MA's), (Start: 12 @41665 has 28 MA's), (13, 41653), (18, 41632), (21, 41566), (23, 41545), (24, 41524), (25, 41515), (27, 41485),

Gene: U2_60 Start: 41888, Stop: 41592, Start Num: 12

Candidate Starts for U2_60:

(Start: 10 @41891 has 17 MA's), (Start: 12 @41888 has 28 MA's), (13, 41876), (Start: 15 @41843 has 1 MA's), (18, 41825), (20, 41774), (21, 41759), (23, 41738), (25, 41708), (27, 41678), (31, 41603),

Gene: Watermelon_62 Start: 40661, Stop: 40362, Start Num: 10

Candidate Starts for Watermelon_62:

(Start: 10 @40661 has 17 MA's), (Start: 12 @40658 has 28 MA's), (13, 40646), (Start: 15 @40613 has 1 MA's), (18, 40595), (20, 40544), (21, 40529), (23, 40508), (25, 40478), (27, 40448),

Gene: Wilkins_61 Start: 40255, Stop: 39959, Start Num: 12

Candidate Starts for Wilkins_61:

(Start: 10 @40258 has 17 MA's), (Start: 12 @40255 has 28 MA's), (13, 40243), (Start: 15 @40210 has 1 MA's), (18, 40192), (21, 40126), (23, 40105), (25, 40075), (27, 40045),

Gene: Zeeculate_59 Start: 41408, Stop: 41112, Start Num: 12

Candidate Starts for Zeeculate_59:

(5, 41465), (Start: 12 @41408 has 28 MA's), (13, 41396), (Start: 15 @41363 has 1 MA's), (18, 41345), (20, 41294), (21, 41279), (23, 41258), (25, 41228), (27, 41198),

Gene: Zephyr_63 Start: 40825, Stop: 40529, Start Num: 12

Candidate Starts for Zephyr_63:

(Start: 10 @40828 has 17 MA's), (Start: 12 @40825 has 28 MA's), (13, 40813), (Start: 15 @40780 has 1 MA's), (18, 40762), (20, 40711), (21, 40696), (23, 40675), (25, 40645), (27, 40615),

Gene: Zeuska_67 Start: 44044, Stop: 43775, Start Num: 12

Candidate Starts for Zeuska_67:

(11, 44047), (Start: 12 @44044 has 28 MA's), (13, 44032), (21, 43942), (23, 43921), (25, 43891), (27, 43861),