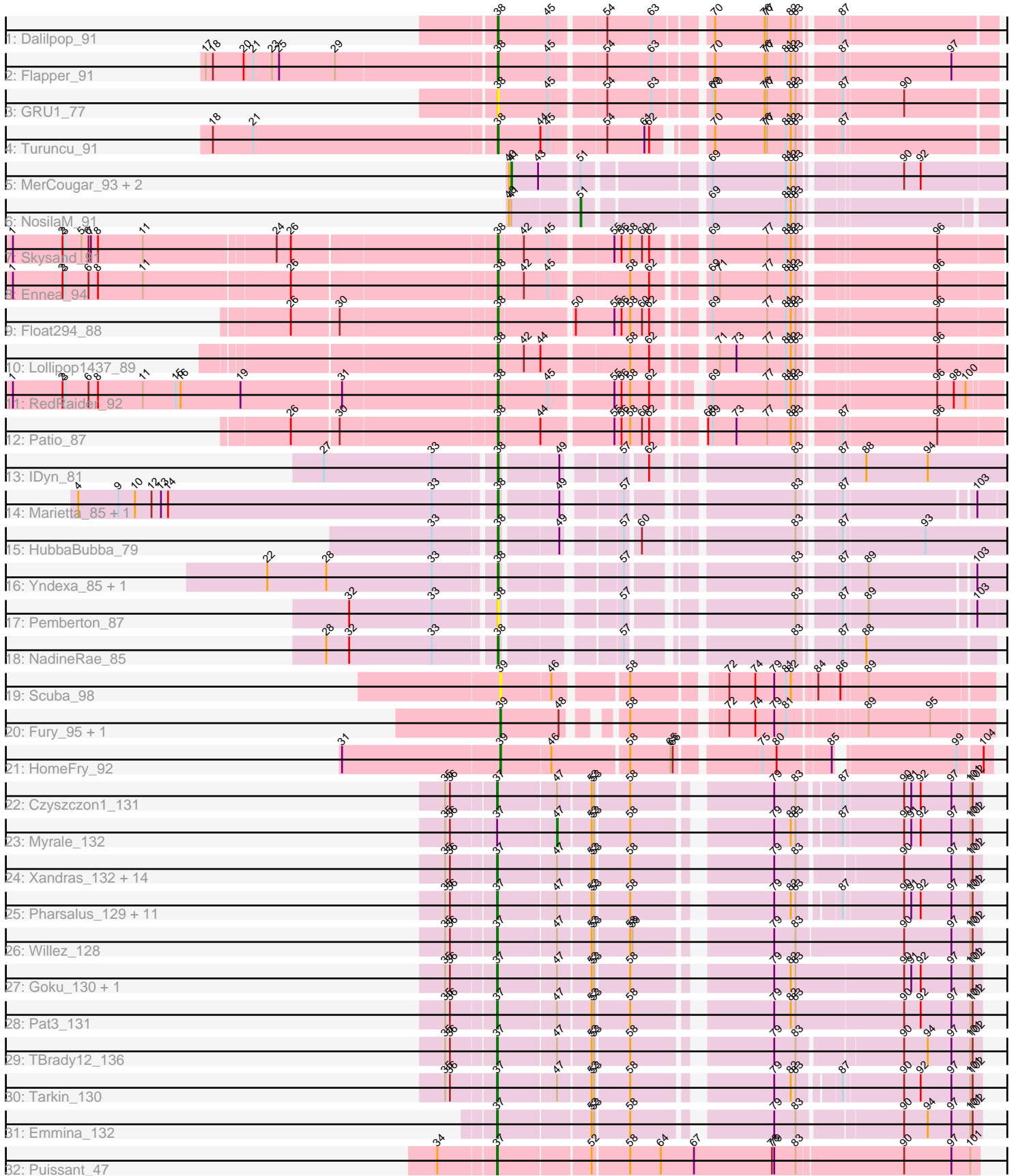


Pham 305017



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 305017 Report

This analysis was run 06/08/26 on database version 649.

Pham number 305017 has 63 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Dalilpop_91
- Track 2 : Flapper_91
- Track 3 : GRU1_77
- Track 4 : Turuncu_91
- Track 5 : MerCougar_93, Outis_91, StarStruck_91
- Track 6 : NosilaM_91
- Track 7 : Skysand_91
- Track 8 : Ennea_94
- Track 9 : Float294_88
- Track 10 : Lollipop1437_89
- Track 11 : RedRaider_92
- Track 12 : Patio_87
- Track 13 : IDyn_81
- Track 14 : Marietta_85, WhoseManz_85
- Track 15 : HubbaBubba_79
- Track 16 : Yndexa_85, Sukkupi_85
- Track 17 : Pemberton_87
- Track 18 : NadineRae_85
- Track 19 : Scuba_98
- Track 20 : Fury_95, Pleakley_95
- Track 21 : HomeFry_92
- Track 22 : Czyszczonek_131
- Track 23 : Myrale_132
- Track 24 : Xandras_132, GoldenSpark_136, GooberAzure_134, Moldemort_134, Kimchi_137, StolenFromERC_134, Easy2Say_133, Gemini_137, AmericanBeauty_135, Adnama_136, Lilizi_132, Stank_135, Argent26_136, NonchalantPear_132, Goldilocks_137
- Track 25 : Pharsalus_129, xkcd_135, HanKaySha_131, Miniwave_125, Quallification_132, Paperbeatsrock_130, Buck_132, ShereKhan_131, Kanye_128, TeamEdward_131, BigBubba_134, StellaBean_129
- Track 26 : Willez_128
- Track 27 : Goku_130, Eureka_131
- Track 28 : Pat3_131
- Track 29 : TBrady12_136
- Track 30 : Tarkin_130
- Track 31 : Emmina_132
- Track 32 : Puissant_47

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

The start number called the most often in the published annotations is 37, it was called in 35 of the 59 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adnama_136, AmericanBeauty_135, Argent26_136, BigBubba_134, Buck_132, Czyszczone1_131, Easy2Say_133, Emmina_132, Eureka_131, Gemini_137, Goku_130, GoldenSpark_136, Goldilocks_137, GooberAzure_134, HanKaySha_131, Kanye_128, Kimchi_137, Lilizi_132, Miniwave_125, Moldemort_134, NonchalantPear_132, Paperbeatsrock_130, Pat3_131, Pharsalus_129, Puissant_47, Quallification_132, ShereKhan_131, Stank_135, StellaBean_129, StolenFromERC_134, TBrady12_136, Tarkin_130, TeamEdward_131, Willez_128, Xandras_132, xkcd_135,

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

- Myrale_132,

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

- Dalilpop_91, Ennea_94, Flapper_91, Float294_88, Fury_95, GRU1_77, HomeFry_92, HubbaBubba_79, IDyn_81, Lollipop1437_89, Marietta_85, MerCougar_93, NadineRae_85, NosilaM_91, Outis_91, Patio_87, Pemberton_87, Pleakley_95, RedRaider_92, Scuba_98, Skysand_91, StarStruck_91, Sukkupi_85, Turuncu_91, WhoseManz_85, Yndexa_85,

Summary by start number:

Start 37:

- Found in 37 of 63 (58.7%) of genes in pham
- Manual Annotations of this start: 35 of 59
- Called 97.3% of time when present
- Phage (with cluster) where this start called: Adnama_136 (E), AmericanBeauty_135 (E), Argent26_136 (E), BigBubba_134 (E), Buck_132 (E), Czyszczone1_131 (E), Easy2Say_133 (E), Emmina_132 (E), Eureka_131 (E), Gemini_137 (E), Goku_130 (E), GoldenSpark_136 (E), Goldilocks_137 (E), GooberAzure_134 (E), HanKaySha_131 (E), Kanye_128 (E), Kimchi_137 (E), Lilizi_132 (E), Miniwave_125 (E), Moldemort_134 (E), NonchalantPear_132 (E), Paperbeatsrock_130 (E), Pat3_131 (E), Pharsalus_129 (E), Puissant_47 (H1), Quallification_132 (E), ShereKhan_131 (E), Stank_135 (E), StellaBean_129 (E), StolenFromERC_134 (E), TBrady12_136 (E), Tarkin_130 (E), TeamEdward_131 (E), Willez_128 (E), Xandras_132 (E), xkcd_135 (E),

Start 38:

- Found in 18 of 63 (28.6%) of genes in pham
- Manual Annotations of this start: 16 of 59
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dalilpop_91 (CR1), Ennea_94 (CR3), Flapper_91 (CR1), Float294_88 (CR3), GRU1_77 (CR1), HubbaBubba_79 (CR4), IDyn_81 (CR4), Lollipop1437_89 (CR3), Marietta_85 (CR4), NadineRae_85 (CR4),

Patio_87 (CR3), Pemberton_87 (CR4), RedRaider_92 (CR3), Skysand_91 (CR3), Sukkupi_85 (CR4), Turuncu_91 (CR1), WhoseManz_85 (CR4), Yndexa_85 (CR4),

Start 39:

- Found in 4 of 63 (6.3%) of genes in pham
- Manual Annotations of this start: 3 of 59
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fury_95 (CR5), HomeFry_92 (CR5), Pleakley_95 (CR5), Scuba_98 (CR5),

Start 41:

- Found in 4 of 63 (6.3%) of genes in pham
- Manual Annotations of this start: 3 of 59
- Called 75.0% of time when present
- Phage (with cluster) where this start called: MerCougar_93 (CR2), Outis_91 (CR2), StarStruck_91 (CR2),

Start 47:

- Found in 35 of 63 (55.6%) of genes in pham
- Manual Annotations of this start: 1 of 59
- Called 2.9% of time when present
- Phage (with cluster) where this start called: Myrale_132 (E),

Start 51:

- Found in 4 of 63 (6.3%) of genes in pham
- Manual Annotations of this start: 1 of 59
- Called 25.0% of time when present
- Phage (with cluster) where this start called: NosilaM_91 (CR2),

Summary by clusters:

There are 7 clusters represented in this pham: CR2, CR3, CR1, E, CR4, CR5, H1,

Info for manual annotations of cluster CR1:

- Start number 38 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 41 was manually annotated 3 times for cluster CR2.
- Start number 51 was manually annotated 1 time for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 38 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 38 was manually annotated 7 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 39 was manually annotated 3 times for cluster CR5.

Info for manual annotations of cluster E:

- Start number 37 was manually annotated 34 times for cluster E.
- Start number 47 was manually annotated 1 time for cluster E.

Info for manual annotations of cluster H1:

•Start number 37 was manually annotated 1 time for cluster H1.

Gene Information:

Gene: Adnama_136 Start: 70869, Stop: 70321, Start Num: 37

Candidate Starts for Adnama_136:

(35, 70926), (36, 70920), (Start: 37 @70869 has 35 MA's), (Start: 47 @70797 has 1 MA's), (52, 70758), (53, 70755), (58, 70716), (79, 70566), (83, 70539), (90, 70419), (97, 70359), (101, 70335), (102, 70332),

Gene: AmericanBeauty_135 Start: 70911, Stop: 70363, Start Num: 37

Candidate Starts for AmericanBeauty_135:

(35, 70968), (36, 70962), (Start: 37 @70911 has 35 MA's), (Start: 47 @70839 has 1 MA's), (52, 70800), (53, 70797), (58, 70758), (79, 70608), (83, 70581), (90, 70461), (97, 70401), (101, 70377), (102, 70374),

Gene: Argent26_136 Start: 70793, Stop: 70245, Start Num: 37

Candidate Starts for Argent26_136:

(35, 70850), (36, 70844), (Start: 37 @70793 has 35 MA's), (Start: 47 @70721 has 1 MA's), (52, 70682), (53, 70679), (58, 70640), (79, 70490), (83, 70463), (90, 70343), (97, 70283), (101, 70259), (102, 70256),

Gene: BigBubba_134 Start: 70303, Stop: 69761, Start Num: 37

Candidate Starts for BigBubba_134:

(35, 70360), (36, 70354), (Start: 37 @70303 has 35 MA's), (Start: 47 @70231 has 1 MA's), (52, 70192), (53, 70189), (58, 70150), (79, 70000), (82, 69979), (83, 69973), (87, 69931), (90, 69859), (91, 69850), (92, 69838), (97, 69799), (101, 69775), (102, 69772),

Gene: Buck_132 Start: 71751, Stop: 71209, Start Num: 37

Candidate Starts for Buck_132:

(35, 71808), (36, 71802), (Start: 37 @71751 has 35 MA's), (Start: 47 @71679 has 1 MA's), (52, 71640), (53, 71637), (58, 71598), (79, 71448), (82, 71427), (83, 71421), (87, 71379), (90, 71307), (91, 71298), (92, 71286), (97, 71247), (101, 71223), (102, 71220),

Gene: Czyszczone1_131 Start: 70290, Stop: 69748, Start Num: 37

Candidate Starts for Czyszczone1_131:

(35, 70347), (36, 70341), (Start: 37 @70290 has 35 MA's), (Start: 47 @70218 has 1 MA's), (52, 70179), (53, 70176), (58, 70137), (79, 69987), (83, 69960), (87, 69918), (90, 69846), (91, 69837), (92, 69825), (97, 69786), (101, 69762), (102, 69759),

Gene: Dalilpop_91 Start: 64399, Stop: 64968, Start Num: 38

Candidate Starts for Dalilpop_91:

(Start: 38 @64399 has 16 MA's), (45, 64462), (54, 64525), (63, 64579), (70, 64639), (76, 64702), (77, 64705), (82, 64735), (83, 64741), (87, 64783),

Gene: Easy2Say_133 Start: 71259, Stop: 70711, Start Num: 37

Candidate Starts for Easy2Say_133:

(35, 71316), (36, 71310), (Start: 37 @71259 has 35 MA's), (Start: 47 @71187 has 1 MA's), (52, 71148), (53, 71145), (58, 71106), (79, 70956), (83, 70929), (90, 70809), (97, 70749), (101, 70725), (102, 70722),

Gene: Emmina_132 Start: 70211, Stop: 69663, Start Num: 37

Candidate Starts for Emmina_132:

(Start: 37 @70211 has 35 MA's), (52, 70100), (53, 70097), (58, 70058), (79, 69908), (83, 69881), (90, 69761), (94, 69731), (97, 69701), (101, 69677), (102, 69674),

Gene: Ennea_94 Start: 64628, Stop: 65194, Start Num: 38

Candidate Starts for Ennea_94:

(1, 64034), (2, 64097), (3, 64100), (6, 64130), (8, 64142), (11, 64199), (26, 64379), (Start: 38 @64628 has 16 MA's), (42, 64658), (45, 64688), (58, 64778), (62, 64802), (69, 64856), (71, 64865), (77, 64925), (81, 64949), (82, 64955), (83, 64961), (96, 65117),

Gene: Eureka_131 Start: 71139, Stop: 70579, Start Num: 37

Candidate Starts for Eureka_131:

(35, 71196), (36, 71190), (Start: 37 @71139 has 35 MA's), (Start: 47 @71067 has 1 MA's), (52, 71028), (53, 71025), (58, 70986), (79, 70836), (82, 70815), (83, 70809), (90, 70677), (91, 70668), (92, 70656), (97, 70617), (101, 70593), (102, 70590),

Gene: Flapper_91 Start: 64268, Stop: 64843, Start Num: 38

Candidate Starts for Flapper_91:

(17, 63911), (18, 63920), (20, 63959), (21, 63971), (23, 63995), (25, 64004), (29, 64073), (Start: 38 @64268 has 16 MA's), (45, 64331), (54, 64394), (63, 64448), (70, 64508), (76, 64571), (77, 64574), (81, 64598), (82, 64604), (83, 64610), (87, 64652), (97, 64784),

Gene: Float294_88 Start: 64522, Stop: 65091, Start Num: 38

Candidate Starts for Float294_88:

(26, 64273), (30, 64330), (Start: 38 @64522 has 16 MA's), (50, 64609), (55, 64657), (56, 64666), (58, 64675), (60, 64690), (62, 64699), (69, 64753), (77, 64822), (81, 64846), (82, 64852), (83, 64858), (96, 65014),

Gene: Fury_95 Start: 62225, Stop: 62755, Start Num: 39

Candidate Starts for Fury_95:

(Start: 39 @62225 has 3 MA's), (48, 62297), (58, 62345), (72, 62444), (74, 62477), (79, 62501), (81, 62516), (89, 62603), (95, 62681),

Gene: GRU1_77 Start: 55846, Stop: 56415, Start Num: 38

Candidate Starts for GRU1_77:

(Start: 38 @55846 has 16 MA's), (45, 55909), (54, 55972), (63, 56026), (69, 56083), (70, 56086), (76, 56149), (77, 56152), (82, 56182), (83, 56188), (87, 56230), (90, 56302),

Gene: Gemini_137 Start: 71310, Stop: 70762, Start Num: 37

Candidate Starts for Gemini_137:

(35, 71367), (36, 71361), (Start: 37 @71310 has 35 MA's), (Start: 47 @71238 has 1 MA's), (52, 71199), (53, 71196), (58, 71157), (79, 71007), (83, 70980), (90, 70860), (97, 70800), (101, 70776), (102, 70773),

Gene: Goku_130 Start: 71448, Stop: 70888, Start Num: 37

Candidate Starts for Goku_130:

(35, 71505), (36, 71499), (Start: 37 @71448 has 35 MA's), (Start: 47 @71376 has 1 MA's), (52, 71337), (53, 71334), (58, 71295), (79, 71145), (82, 71124), (83, 71118), (90, 70986), (91, 70977), (92, 70965), (97, 70926), (101, 70902), (102, 70899),

Gene: GoldenSpark_136 Start: 70793, Stop: 70245, Start Num: 37

Candidate Starts for GoldenSpark_136:

(35, 70850), (36, 70844), (Start: 37 @70793 has 35 MA's), (Start: 47 @70721 has 1 MA's), (52, 70682), (53, 70679), (58, 70640), (79, 70490), (83, 70463), (90, 70343), (97, 70283), (101, 70259), (102, 70256),

Gene: Goldilocks_137 Start: 71389, Stop: 70841, Start Num: 37

Candidate Starts for Goldilocks_137:

(35, 71446), (36, 71440), (Start: 37 @71389 has 35 MA's), (Start: 47 @71317 has 1 MA's), (52, 71278), (53, 71275), (58, 71236), (79, 71086), (83, 71059), (90, 70939), (97, 70879), (101, 70855), (102, 70852),

Gene: GooberAzure_134 Start: 70793, Stop: 70245, Start Num: 37

Candidate Starts for GooberAzure_134:

(35, 70850), (36, 70844), (Start: 37 @70793 has 35 MA's), (Start: 47 @70721 has 1 MA's), (52, 70682), (53, 70679), (58, 70640), (79, 70490), (83, 70463), (90, 70343), (97, 70283), (101, 70259), (102, 70256),

Gene: HanKaySha_131 Start: 70747, Stop: 70205, Start Num: 37

Candidate Starts for HanKaySha_131:

(35, 70804), (36, 70798), (Start: 37 @70747 has 35 MA's), (Start: 47 @70675 has 1 MA's), (52, 70636), (53, 70633), (58, 70594), (79, 70444), (82, 70423), (83, 70417), (87, 70375), (90, 70303), (91, 70294), (92, 70282), (97, 70243), (101, 70219), (102, 70216),

Gene: HomeFry_92 Start: 61283, Stop: 61840, Start Num: 39

Candidate Starts for HomeFry_92:

(31, 61085), (Start: 39 @61283 has 3 MA's), (46, 61343), (58, 61433), (65, 61484), (66, 61487), (75, 61583), (80, 61601), (85, 61661), (99, 61799), (104, 61829),

Gene: HubbaBubba_79 Start: 58420, Stop: 59040, Start Num: 38

Candidate Starts for HubbaBubba_79:

(33, 58348), (Start: 38 @58420 has 16 MA's), (49, 58486), (57, 58543), (60, 58558), (83, 58720), (87, 58762), (93, 58861),

Gene: IDyn_81 Start: 59074, Stop: 59697, Start Num: 38

Candidate Starts for IDyn_81:

(27, 58867), (33, 59002), (Start: 38 @59074 has 16 MA's), (49, 59140), (57, 59197), (62, 59221), (83, 59377), (87, 59419), (88, 59443), (94, 59521),

Gene: Kanye_128 Start: 70808, Stop: 70266, Start Num: 37

Candidate Starts for Kanye_128:

(35, 70865), (36, 70859), (Start: 37 @70808 has 35 MA's), (Start: 47 @70736 has 1 MA's), (52, 70697), (53, 70694), (58, 70655), (79, 70505), (82, 70484), (83, 70478), (87, 70436), (90, 70364), (91, 70355), (92, 70343), (97, 70304), (101, 70280), (102, 70277),

Gene: Kimchi_137 Start: 71514, Stop: 70966, Start Num: 37

Candidate Starts for Kimchi_137:

(35, 71571), (36, 71565), (Start: 37 @71514 has 35 MA's), (Start: 47 @71442 has 1 MA's), (52, 71403), (53, 71400), (58, 71361), (79, 71211), (83, 71184), (90, 71064), (97, 71004), (101, 70980), (102, 70977),

Gene: Lilizi_132 Start: 71021, Stop: 70473, Start Num: 37

Candidate Starts for Lilizi_132:

(35, 71078), (36, 71072), (Start: 37 @71021 has 35 MA's), (Start: 47 @70949 has 1 MA's), (52, 70910), (53, 70907), (58, 70868), (79, 70718), (83, 70691), (90, 70571), (97, 70511), (101, 70487), (102, 70484),

Gene: Lollipop1437_89 Start: 64307, Stop: 64873, Start Num: 38

Candidate Starts for Lollipop1437_89:

(Start: 38 @64307 has 16 MA's), (42, 64337), (44, 64358), (58, 64457), (62, 64481), (71, 64544), (73, 64565), (77, 64604), (81, 64628), (82, 64634), (83, 64640), (96, 64796),

Gene: Marietta_85 Start: 59747, Stop: 60280, Start Num: 38

Candidate Starts for Marietta_85:

(4, 59228), (9, 59279), (10, 59300), (12, 59321), (13, 59333), (14, 59342), (33, 59675), (Start: 38 @59747 has 16 MA's), (49, 59813), (57, 59873), (83, 60053), (87, 60095), (103, 60245),

Gene: MerCougar_93 Start: 67221, Stop: 67787, Start Num: 41

Candidate Starts for MerCougar_93:

(40, 67218), (Start: 41 @67221 has 3 MA's), (43, 67254), (Start: 51 @67296 has 1 MA's), (69, 67428), (81, 67521), (82, 67527), (83, 67533), (90, 67647), (92, 67668),

Gene: Miniwave_125 Start: 70331, Stop: 69789, Start Num: 37

Candidate Starts for Miniwave_125:

(35, 70388), (36, 70382), (Start: 37 @70331 has 35 MA's), (Start: 47 @70259 has 1 MA's), (52, 70220), (53, 70217), (58, 70178), (79, 70028), (82, 70007), (83, 70001), (87, 69959), (90, 69887), (91, 69878), (92, 69866), (97, 69827), (101, 69803), (102, 69800),

Gene: Moldemort_134 Start: 70901, Stop: 70353, Start Num: 37

Candidate Starts for Moldemort_134:

(35, 70958), (36, 70952), (Start: 37 @70901 has 35 MA's), (Start: 47 @70829 has 1 MA's), (52, 70790), (53, 70787), (58, 70748), (79, 70598), (83, 70571), (90, 70451), (97, 70391), (101, 70367), (102, 70364),

Gene: Myrale_132 Start: 71502, Stop: 71032, Start Num: 47

Candidate Starts for Myrale_132:

(35, 71631), (36, 71625), (Start: 37 @71574 has 35 MA's), (Start: 47 @71502 has 1 MA's), (52, 71463), (53, 71460), (58, 71421), (79, 71271), (82, 71250), (83, 71244), (87, 71202), (90, 71130), (91, 71121), (92, 71109), (97, 71070), (101, 71046), (102, 71043),

Gene: NadineRae_85 Start: 59593, Stop: 60120, Start Num: 38

Candidate Starts for NadineRae_85:

(28, 59389), (32, 59416), (33, 59521), (Start: 38 @59593 has 16 MA's), (57, 59716), (83, 59896), (87, 59938), (88, 59962),

Gene: NonchalantPear_132 Start: 69886, Stop: 69338, Start Num: 37

Candidate Starts for NonchalantPear_132:

(35, 69943), (36, 69937), (Start: 37 @69886 has 35 MA's), (Start: 47 @69814 has 1 MA's), (52, 69775), (53, 69772), (58, 69733), (79, 69583), (83, 69556), (90, 69436), (97, 69376), (101, 69352), (102, 69349),

Gene: NosilaM_91 Start: 66138, Stop: 66605, Start Num: 51

Candidate Starts for NosilaM_91:

(40, 66060), (Start: 41 @66063 has 3 MA's), (Start: 51 @66138 has 1 MA's), (69, 66273), (81, 66366), (82, 66372), (83, 66378),

Gene: Outis_91 Start: 66496, Stop: 67062, Start Num: 41

Candidate Starts for Outis_91:

(40, 66493), (Start: 41 @66496 has 3 MA's), (43, 66529), (Start: 51 @66571 has 1 MA's), (69, 66703), (81, 66796), (82, 66802), (83, 66808), (90, 66922), (92, 66943),

Gene: Paperbeatsrock_130 Start: 71009, Stop: 70467, Start Num: 37

Candidate Starts for Paperbeatsrock_130:

(35, 71066), (36, 71060), (Start: 37 @71009 has 35 MA's), (Start: 47 @70937 has 1 MA's), (52, 70898), (53, 70895), (58, 70856), (79, 70706), (82, 70685), (83, 70679), (87, 70637), (90, 70565), (91, 70556), (92, 70544), (97, 70505), (101, 70481), (102, 70478),

Gene: Pat3_131 Start: 70546, Stop: 69986, Start Num: 37

Candidate Starts for Pat3_131:

(35, 70603), (36, 70597), (Start: 37 @70546 has 35 MA's), (Start: 47 @70474 has 1 MA's), (52, 70435), (53, 70432), (58, 70393), (79, 70243), (82, 70222), (83, 70216), (90, 70084), (92, 70063), (97, 70024), (101, 70000), (102, 69997),

Gene: Patio_87 Start: 63521, Stop: 64090, Start Num: 38

Candidate Starts for Patio_87:

(26, 63272), (30, 63329), (Start: 38 @63521 has 16 MA's), (44, 63572), (55, 63656), (56, 63665), (58, 63674), (60, 63689), (62, 63698), (68, 63746), (69, 63752), (73, 63782), (77, 63821), (82, 63851), (83, 63857), (87, 63899), (96, 64013),

Gene: Pemberton_87 Start: 59994, Stop: 60527, Start Num: 38

Candidate Starts for Pemberton_87:

(32, 59817), (33, 59922), (Start: 38 @59994 has 16 MA's), (57, 60117), (83, 60297), (87, 60339), (89, 60366), (103, 60489),

Gene: Pharsalus_129 Start: 71149, Stop: 70607, Start Num: 37

Candidate Starts for Pharsalus_129:

(35, 71206), (36, 71200), (Start: 37 @71149 has 35 MA's), (Start: 47 @71077 has 1 MA's), (52, 71038), (53, 71035), (58, 70996), (79, 70846), (82, 70825), (83, 70819), (87, 70777), (90, 70705), (91, 70696), (92, 70684), (97, 70645), (101, 70621), (102, 70618),

Gene: Pleakley_95 Start: 62226, Stop: 62756, Start Num: 39

Candidate Starts for Pleakley_95:

(Start: 39 @62226 has 3 MA's), (48, 62298), (58, 62346), (72, 62445), (74, 62478), (79, 62502), (81, 62517), (89, 62604), (95, 62682),

Gene: Puissant_47 Start: 40211, Stop: 40798, Start Num: 37

Candidate Starts for Puissant_47:

(34, 40142), (Start: 37 @40211 has 35 MA's), (52, 40322), (58, 40364), (64, 40403), (67, 40445), (78, 40544), (79, 40547), (83, 40574), (90, 40703), (97, 40763), (101, 40787),

Gene: Quallification_132 Start: 71487, Stop: 70945, Start Num: 37

Candidate Starts for Quallification_132:

(35, 71544), (36, 71538), (Start: 37 @71487 has 35 MA's), (Start: 47 @71415 has 1 MA's), (52, 71376), (53, 71373), (58, 71334), (79, 71184), (82, 71163), (83, 71157), (87, 71115), (90, 71043), (91, 71034), (92, 71022), (97, 70983), (101, 70959), (102, 70956),

Gene: RedRaider_92 Start: 65733, Stop: 66293, Start Num: 38

Candidate Starts for RedRaider_92:

(1, 65133), (2, 65196), (3, 65199), (6, 65229), (8, 65241), (11, 65298), (15, 65340), (16, 65346), (19, 65421), (31, 65544), (Start: 38 @65733 has 16 MA's), (45, 65793), (55, 65868), (56, 65877), (58, 65886), (62, 65910), (69, 65958), (77, 66027), (81, 66051), (82, 66057), (83, 66063), (96, 66219), (98, 66240), (100, 66252),

Gene: Scuba_98 Start: 62555, Stop: 63103, Start Num: 39

Candidate Starts for Scuba_98:

(Start: 39 @62555 has 3 MA's), (46, 62615), (58, 62693), (72, 62792), (74, 62825), (79, 62849), (81, 62864), (82, 62870), (84, 62897), (86, 62921), (89, 62951),

Gene: ShereKhan_131 Start: 71733, Stop: 71191, Start Num: 37

Candidate Starts for ShereKhan_131:

(35, 71790), (36, 71784), (Start: 37 @71733 has 35 MA's), (Start: 47 @71661 has 1 MA's), (52, 71622), (53, 71619), (58, 71580), (79, 71430), (82, 71409), (83, 71403), (87, 71361), (90, 71289), (91, 71280), (92, 71268), (97, 71229), (101, 71205), (102, 71202),

Gene: Skysand_91 Start: 64471, Stop: 65037, Start Num: 38

Candidate Starts for Skysand_91:

(1, 63880), (2, 63943), (3, 63946), (5, 63967), (6, 63976), (7, 63979), (8, 63988), (11, 64045), (24, 64204), (26, 64222), (Start: 38 @64471 has 16 MA's), (42, 64501), (45, 64531), (55, 64603), (56, 64612), (58, 64621), (60, 64636), (62, 64645), (69, 64699), (77, 64768), (81, 64792), (82, 64798), (83, 64804), (96, 64960),

Gene: Stank_135 Start: 71586, Stop: 71038, Start Num: 37

Candidate Starts for Stank_135:

(35, 71643), (36, 71637), (Start: 37 @71586 has 35 MA's), (Start: 47 @71514 has 1 MA's), (52, 71475), (53, 71472), (58, 71433), (79, 71283), (83, 71256), (90, 71136), (97, 71076), (101, 71052), (102, 71049),

Gene: StarStruck_91 Start: 66496, Stop: 67062, Start Num: 41

Candidate Starts for StarStruck_91:

(40, 66493), (Start: 41 @66496 has 3 MA's), (43, 66529), (Start: 51 @66571 has 1 MA's), (69, 66703), (81, 66796), (82, 66802), (83, 66808), (90, 66922), (92, 66943),

Gene: StellaBean_129 Start: 71091, Stop: 70549, Start Num: 37

Candidate Starts for StellaBean_129:

(35, 71148), (36, 71142), (Start: 37 @71091 has 35 MA's), (Start: 47 @71019 has 1 MA's), (52, 70980), (53, 70977), (58, 70938), (79, 70788), (82, 70767), (83, 70761), (87, 70719), (90, 70647), (91, 70638), (92, 70626), (97, 70587), (101, 70563), (102, 70560),

Gene: StolenFromERC_134 Start: 70931, Stop: 70383, Start Num: 37

Candidate Starts for StolenFromERC_134:

(35, 70988), (36, 70982), (Start: 37 @70931 has 35 MA's), (Start: 47 @70859 has 1 MA's), (52, 70820), (53, 70817), (58, 70778), (79, 70628), (83, 70601), (90, 70481), (97, 70421), (101, 70397), (102, 70394),

Gene: Sukkupi_85 Start: 61461, Stop: 62021, Start Num: 38

Candidate Starts for Sukkupi_85:

(22, 61182), (28, 61257), (33, 61389), (Start: 38 @61461 has 16 MA's), (57, 61584), (83, 61764), (87, 61806), (89, 61833), (103, 61956),

Gene: TBrady12_136 Start: 71023, Stop: 70475, Start Num: 37

Candidate Starts for TBrady12_136:

(35, 71080), (36, 71074), (Start: 37 @71023 has 35 MA's), (Start: 47 @70951 has 1 MA's), (52, 70912), (53, 70909), (58, 70870), (79, 70720), (83, 70693), (90, 70573), (94, 70543), (97, 70513), (101, 70489), (102, 70486),

Gene: Tarkin_130 Start: 71598, Stop: 71056, Start Num: 37

Candidate Starts for Tarkin_130:

(35, 71655), (36, 71649), (Start: 37 @71598 has 35 MA's), (Start: 47 @71526 has 1 MA's), (52, 71487), (53, 71484), (58, 71445), (79, 71295), (82, 71274), (83, 71268), (87, 71226), (90, 71154), (92, 71133), (97, 71094), (101, 71070), (102, 71067),

Gene: TeamEdward_131 Start: 71174, Stop: 70632, Start Num: 37

Candidate Starts for TeamEdward_131:

(35, 71231), (36, 71225), (Start: 37 @71174 has 35 MA's), (Start: 47 @71102 has 1 MA's), (52, 71063), (53, 71060), (58, 71021), (79, 70871), (82, 70850), (83, 70844), (87, 70802), (90, 70730), (91, 70721), (92, 70709), (97, 70670), (101, 70646), (102, 70643),

Gene: Turuncu_91 Start: 63897, Stop: 64454, Start Num: 38

Candidate Starts for Turuncu_91:

(18, 63546), (21, 63597), (Start: 38 @63897 has 16 MA's), (44, 63951), (45, 63960), (54, 64023), (61, 64068), (62, 64074), (70, 64125), (76, 64188), (77, 64191), (81, 64215), (82, 64221), (83, 64227), (87, 64269),

Gene: WhoseManz_85 Start: 59407, Stop: 59943, Start Num: 38

Candidate Starts for WhoseManz_85:

(4, 58888), (9, 58939), (10, 58960), (12, 58981), (13, 58993), (14, 59002), (33, 59335), (Start: 38 @59407 has 16 MA's), (49, 59473), (57, 59533), (83, 59713), (87, 59755), (103, 59905),

Gene: Willez_128 Start: 69661, Stop: 69101, Start Num: 37

Candidate Starts for Willez_128:

(35, 69718), (36, 69712), (Start: 37 @69661 has 35 MA's), (Start: 47 @69589 has 1 MA's), (52, 69550), (53, 69547), (58, 69508), (59, 69505), (79, 69358), (83, 69331), (90, 69199), (97, 69139), (101, 69115), (102, 69112),

Gene: Xandras_132 Start: 70840, Stop: 70292, Start Num: 37

Candidate Starts for Xandras_132:

(35, 70897), (36, 70891), (Start: 37 @70840 has 35 MA's), (Start: 47 @70768 has 1 MA's), (52, 70729), (53, 70726), (58, 70687), (79, 70537), (83, 70510), (90, 70390), (97, 70330), (101, 70306), (102, 70303),

Gene: Yndexa_85 Start: 61461, Stop: 62021, Start Num: 38

Candidate Starts for Yndexa_85:

(22, 61182), (28, 61257), (33, 61389), (Start: 38 @61461 has 16 MA's), (57, 61584), (83, 61764), (87, 61806), (89, 61833), (103, 61956),

Gene: xkcd_135 Start: 71614, Stop: 71072, Start Num: 37

Candidate Starts for xkcd_135:

(35, 71671), (36, 71665), (Start: 37 @71614 has 35 MA's), (Start: 47 @71542 has 1 MA's), (52, 71503), (53, 71500), (58, 71461), (79, 71311), (82, 71290), (83, 71284), (87, 71242), (90, 71170), (91, 71161), (92, 71149), (97, 71110), (101, 71086), (102, 71083),