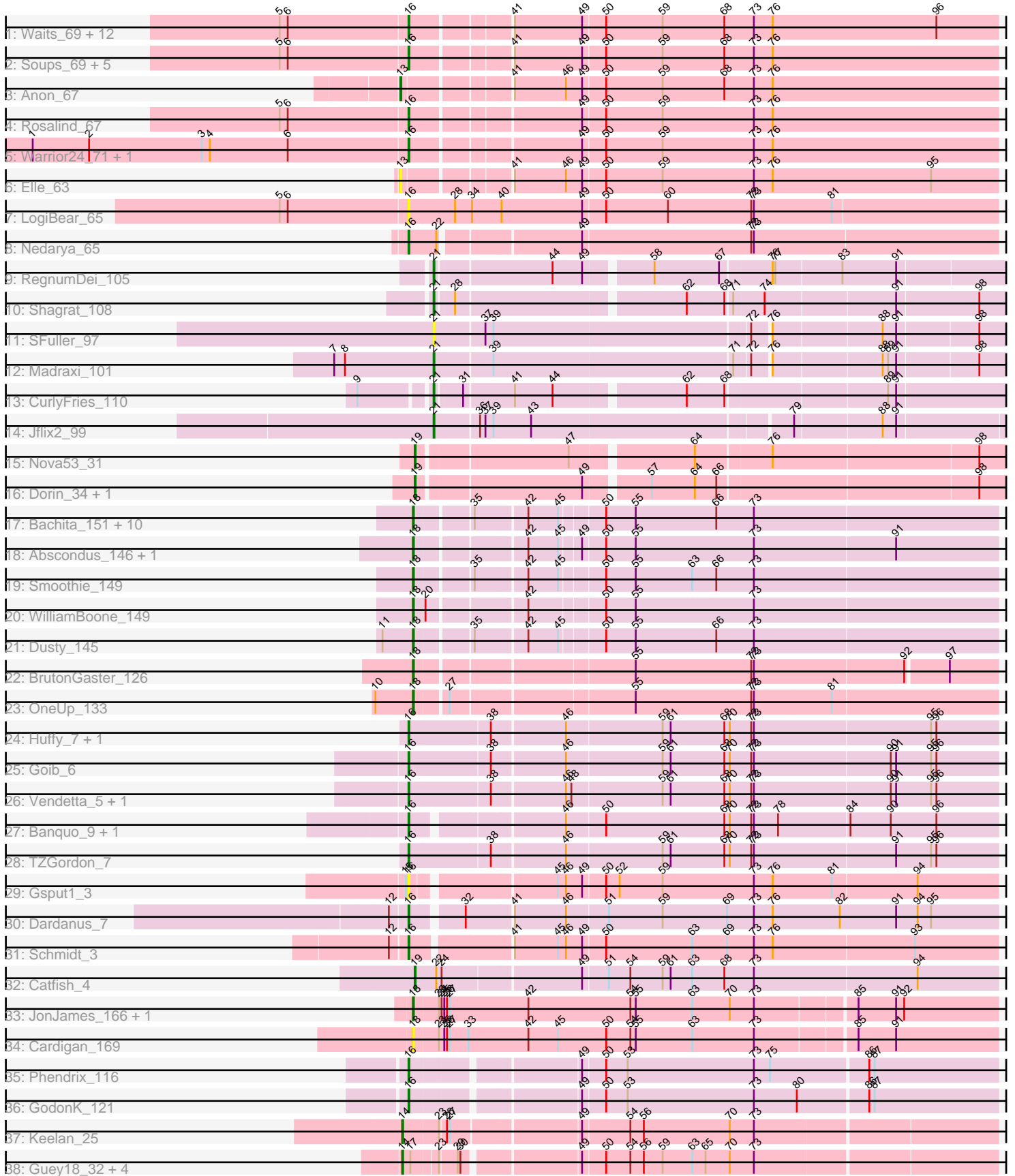


Pham 308507



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 308507 Report

This analysis was run 06/27/26 on database version 652.

Pham number 308507 has 76 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Waits_69, MinecraftSteve_69, Strosahl_69, Battleship_71, Anaysia_69, Remus_69, LastResort_67, Epsocamisio_66, Boohoo_69, Nebulosus_67, Ravana_70, Looper_68, ReMo_67
- Track 2 : Soups_69, DekHockey33_70, ShayRa_69, KatherineG_69, Switzerland_68, JSwag_68
- Track 3 : Anon_67
- Track 4 : Rosalind_67
- Track 5 : Warrior24_71, Oofda_70
- Track 6 : Elle_63
- Track 7 : LogiBear_65
- Track 8 : Nedarya_65
- Track 9 : RegnumDei_105
- Track 10 : Shagrat_108
- Track 11 : SFuller_97
- Track 12 : Madraxi_101
- Track 13 : CurlyFries_110
- Track 14 : Jflix2_99
- Track 15 : Nova53_31
- Track 16 : Dorin_34, Francesca_33
- Track 17 : Bachita_151, Aphelion_147, Norvs_146, Culver_148, Engineer_150, PhinkBoden_146, Lozinak_148, Miskis_141, Toniann_148, ClubL_148, Cucurbita_147
- Track 18 : Abscondus_146, Geeche_148
- Track 19 : Smoothie_149
- Track 20 : WilliamBoone_149
- Track 21 : Dusty_145
- Track 22 : BrutonGaster_126
- Track 23 : OneUp_133
- Track 24 : Huffy_7, DinoDaryn_7
- Track 25 : Goib_6
- Track 26 : Vendetta_5, Splinter_5
- Track 27 : Banquo_9, TinaLin_8
- Track 28 : TZGordon_7
- Track 29 : Gspu1_3
- Track 30 : Dardanus_7
- Track 31 : Schmidt_3
- Track 32 : Catfish_4

- Track 33 : JonJames_166, Yvonnetastic_161
- Track 34 : Cardigan_169
- Track 35 : Phendrix_116
- Track 36 : GodonK_121
- Track 37 : Keelan_25
- Track 38 : Guey18_32, Ziko_31, Fryberger_28, Ronaldo_31, Volt_30

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

The start number called the most often in the published annotations is 16, it was called in 35 of the 70 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Anaysia_69, Banquo_9, Battleship_71, Boohoo_69, Dardanus_7, DekHockey33_70, DinoDaryn_7, Epsocamisio_66, GodonK_121, Goib_6, Gspu1_3, Huffy_7, JSwag_68, KatherineG_69, LastResort_67, LogiBear_65, Looper_68, MinecraftSteve_69, Nebulosus_67, Nedarya_65, Oofda_70, Phendrix_116, Ravana_70, ReMo_67, Remus_69, Rosalind_67, Schmidt_3, ShayRa_69, Soups_69, Splinter_5, Strosahl_69, Switzerland_68, TZGordon_7, TinaLin_8, Vendetta_5, Waits_69, Warrior24_71,

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

-

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

- Abscondus_146, Anon_67, Aphelion_147, Bachita_151, BrutonGaster_126, Cardigan_169, Catfish_4, ClubL_148, Cucurbita_147, Culver_148, CurlyFries_110, Dorin_34, Dusty_145, Elle_63, Engineer_150, Francesca_33, Fryberger_28, Geeche_148, Guey18_32, Jflix2_99, JonJames_166, Keelan_25, Lozinak_148, Madraxi_101, Miskis_141, Norvs_146, Nova53_31, OneUp_133, PhinkBoden_146, RegnumDei_105, Ronaldo_31, SFuller_97, Shagrat_108, Smoothie_149, Toniann_148, Volt_30, WilliamBoone_149, Yvonnetastic_161, Ziko_31,

Summary by start number:

Start 13:

- Found in 2 of 76 (2.6%) of genes in pham
- Manual Annotations of this start: 1 of 70
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anon_67 (A15), Elle_63 (A15),

Start 14:

- Found in 6 of 76 (7.9%) of genes in pham
- Manual Annotations of this start: 6 of 70
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fryberger_28 (DP), Guey18_32 (DP), Keelan_25 (DP), Ronaldo_31 (DP), Volt_30 (DP), Ziko_31 (DP),

Start 16:

- Found in 37 of 76 (48.7%) of genes in pham

- Manual Annotations of this start: 35 of 70
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anaysia_69 (A15), Banquo_9 (CU1), Battleship_71 (A15), Boohoo_69 (A15), Dardanus_7 (CU3), DekHockey33_70 (A15), DinoDaryn_7 (CU1), Epsocamisio_66 (A15), GodonK_121 (DK), Goib_6 (CU1), Gspu1_3 (CU2), Huffy_7 (CU1), JSwag_68 (A15), KatherineG_69 (A15), LastResort_67 (A15), LogiBear_65 (A15), Looper_68 (A15), MinecraftSteve_69 (A15), Nebulosus_67 (A15), Nedarya_65 (A15), Oofda_70 (A15), Phendrix_116 (DK), Ravana_70 (A15), ReMo_67 (A15), Remus_69 (A15), Rosalind_67 (A15), Schmidt_3 (CU4), ShayRa_69 (A15), Soups_69 (A15), Splinter_5 (CU1), Strosahl_69 (A15), Switzerland_68 (A15), TZGordon_7 (CU1), TinaLin_8 (CU1), Vendetta_5 (CU1), Waits_69 (A15), Warrior24_71 (A15),

Start 18:

- Found in 21 of 76 (27.6%) of genes in pham
- Manual Annotations of this start: 19 of 70
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abscondus_146 (CQ1), Aphelion_147 (CQ1), Bachita_151 (CQ1), BrutonGaster_126 (CQ2), Cardigan_169 (DD), ClubL_148 (CQ1), Cucurbita_147 (CQ1), Culver_148 (CQ1), Dusty_145 (CQ1), Engineer_150 (CQ1), Geeche_148 (CQ1), JonJames_166 (DD), Lozinak_148 (CQ1), Miskis_141 (CQ1), Norvs_146 (CQ1), OneUp_133 (CQ2), PhinkBoden_146 (CQ1), Smoothie_149 (CQ1), Toniann_148 (CQ1), WilliamBoone_149 (CQ1), Yvonnestic_161 (DD),

Start 19:

- Found in 4 of 76 (5.3%) of genes in pham
- Manual Annotations of this start: 4 of 70
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Catfish_4 (CU5), Dorin_34 (CG), Francesca_33 (CG), Nova53_31 (CG),

Start 21:

- Found in 6 of 76 (7.9%) of genes in pham
- Manual Annotations of this start: 5 of 70
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CurlyFries_110 (CF), JfliX2_99 (CF), Madraxi_101 (CF), RegnumDei_105 (CF), SFuller_97 (CF), Shagrat_108 (CF),

Summary by clusters:

There are 13 clusters represented in this pham: A15, CU5, CU4, CU3, DK, CU1, DD, CG, CF, CQ2, CQ1, DP, CU2,

Info for manual annotations of cluster A15:

- Start number 13 was manually annotated 1 time for cluster A15.
- Start number 16 was manually annotated 23 times for cluster A15.

Info for manual annotations of cluster CF:

- Start number 21 was manually annotated 5 times for cluster CF.

Info for manual annotations of cluster CG:

- Start number 19 was manually annotated 3 times for cluster CG.

Info for manual annotations of cluster CQ1:

- Start number 18 was manually annotated 15 times for cluster CQ1.

Info for manual annotations of cluster CQ2:

- Start number 18 was manually annotated 2 times for cluster CQ2.

Info for manual annotations of cluster CU1:

- Start number 16 was manually annotated 8 times for cluster CU1.

Info for manual annotations of cluster CU3:

- Start number 16 was manually annotated 1 time for cluster CU3.

Info for manual annotations of cluster CU4:

- Start number 16 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster CU5:

- Start number 19 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster DD:

- Start number 18 was manually annotated 2 times for cluster DD.

Info for manual annotations of cluster DK:

- Start number 16 was manually annotated 2 times for cluster DK.

Info for manual annotations of cluster DP:

- Start number 14 was manually annotated 6 times for cluster DP.

Gene Information:

Gene: Abscondus_146 Start: 79758, Stop: 80381, Start Num: 18

Candidate Starts for Abscondus_146:

(Start: 18 @79758 has 19 MA's), (42, 79869), (45, 79902), (49, 79923), (50, 79947), (55, 79980), (73, 80112), (91, 80268),

Gene: Anaysia_69 Start: 39556, Stop: 38921, Start Num: 16

Candidate Starts for Anaysia_69:

(5, 39694), (6, 39685), (Start: 16 @39556 has 35 MA's), (41, 39457), (49, 39382), (50, 39358), (59, 39295), (68, 39226), (73, 39193), (76, 39172), (96, 38989),

Gene: Anon_67 Start: 39337, Stop: 38696, Start Num: 13

Candidate Starts for Anon_67:

(Start: 13 @39337 has 1 MA's), (41, 39232), (46, 39175), (49, 39157), (50, 39133), (59, 39070), (68, 39001), (73, 38968), (76, 38947),

Gene: Aphelion_147 Start: 80651, Stop: 81274, Start Num: 18

Candidate Starts for Aphelion_147:

(Start: 18 @80651 has 19 MA's), (35, 80708), (42, 80762), (45, 80795), (50, 80840), (55, 80873), (66, 80963), (73, 81005),

Gene: Bachita_151 Start: 80798, Stop: 81421, Start Num: 18

Candidate Starts for Bachita_151:

(Start: 18 @80798 has 19 MA's), (35, 80855), (42, 80909), (45, 80942), (50, 80987), (55, 81020), (66, 81110), (73, 81152),

Gene: Banquo_9 Start: 3541, Stop: 4170, Start Num: 16

Candidate Starts for Banquo_9:

(Start: 16 @3541 has 35 MA's), (46, 3694), (50, 3736), (68, 3868), (70, 3874), (72, 3898), (73, 3901), (78, 3928), (84, 4006), (90, 4051), (96, 4102),

Gene: Battleship_71 Start: 39762, Stop: 39127, Start Num: 16

Candidate Starts for Battleship_71:

(5, 39900), (6, 39891), (Start: 16 @39762 has 35 MA's), (41, 39663), (49, 39588), (50, 39564), (59, 39501), (68, 39432), (73, 39399), (76, 39378), (96, 39195),

Gene: Boohoo_69 Start: 39556, Stop: 38921, Start Num: 16

Candidate Starts for Boohoo_69:

(5, 39694), (6, 39685), (Start: 16 @39556 has 35 MA's), (41, 39457), (49, 39382), (50, 39358), (59, 39295), (68, 39226), (73, 39193), (76, 39172), (96, 38989),

Gene: BrutonGaster_126 Start: 75301, Stop: 75921, Start Num: 18

Candidate Starts for BrutonGaster_126:

(Start: 18 @75301 has 19 MA's), (55, 75526), (72, 75655), (73, 75658), (92, 75823), (97, 75868),

Gene: Cardigan_169 Start: 87456, Stop: 88094, Start Num: 18

Candidate Starts for Cardigan_169:

(Start: 18 @87456 has 19 MA's), (23, 87483), (25, 87489), (26, 87492), (27, 87495), (33, 87516), (42, 87582), (45, 87615), (50, 87669), (54, 87696), (55, 87702), (63, 87765), (73, 87834), (85, 87939), (91, 87981),

Gene: Catfish_4 Start: 1565, Stop: 2200, Start Num: 19

Candidate Starts for Catfish_4:

(Start: 19 @1565 has 4 MA's), (22, 1589), (24, 1595), (49, 1742), (51, 1769), (54, 1793), (59, 1829), (61, 1838), (63, 1862), (68, 1898), (73, 1931), (94, 2111),

Gene: ClubL_148 Start: 79372, Stop: 79995, Start Num: 18

Candidate Starts for ClubL_148:

(Start: 18 @79372 has 19 MA's), (35, 79429), (42, 79483), (45, 79516), (50, 79561), (55, 79594), (66, 79684), (73, 79726),

Gene: Cucurbita_147 Start: 81111, Stop: 81734, Start Num: 18

Candidate Starts for Cucurbita_147:

(Start: 18 @81111 has 19 MA's), (35, 81168), (42, 81222), (45, 81255), (50, 81300), (55, 81333), (66, 81423), (73, 81465),

Gene: Culver_148 Start: 79375, Stop: 79998, Start Num: 18

Candidate Starts for Culver_148:

(Start: 18 @79375 has 19 MA's), (35, 79432), (42, 79486), (45, 79519), (50, 79564), (55, 79597), (66, 79687), (73, 79729),

Gene: CurlyFries_110 Start: 56401, Stop: 57021, Start Num: 21

Candidate Starts for CurlyFries_110:

(9, 56329), (Start: 21 @56401 has 5 MA's), (31, 56428), (41, 56482), (44, 56524), (62, 56659), (68, 56701), (89, 56872), (91, 56881),

Gene: Dardanus_7 Start: 2557, Stop: 3192, Start Num: 16

Candidate Starts for Dardanus_7:

(12, 2539), (Start: 16 @2557 has 35 MA's), (32, 2608), (41, 2656), (46, 2713), (51, 2758), (59, 2818), (69, 2890), (73, 2920), (76, 2941), (82, 3016), (91, 3079), (94, 3103), (95, 3118),

Gene: DekHockey33_70 Start: 39848, Stop: 39213, Start Num: 16

Candidate Starts for DekHockey33_70:

(5, 39986), (6, 39977), (Start: 16 @39848 has 35 MA's), (41, 39749), (49, 39674), (50, 39650), (59, 39587), (68, 39518), (73, 39485), (76, 39464),

Gene: DinoDaryn_7 Start: 2618, Stop: 3259, Start Num: 16

Candidate Starts for DinoDaryn_7:

(Start: 16 @2618 has 35 MA's), (38, 2705), (46, 2783), (59, 2888), (61, 2897), (68, 2957), (70, 2963), (72, 2987), (73, 2990), (95, 3185), (96, 3191),

Gene: Dorin_34 Start: 15081, Stop: 14437, Start Num: 19

Candidate Starts for Dorin_34:

(Start: 19 @15081 has 4 MA's), (49, 14907), (57, 14844), (64, 14796), (66, 14772), (98, 14490),

Gene: Dusty_145 Start: 79586, Stop: 80209, Start Num: 18

Candidate Starts for Dusty_145:

(11, 79553), (Start: 18 @79586 has 19 MA's), (35, 79643), (42, 79697), (45, 79730), (50, 79775), (55, 79808), (66, 79898), (73, 79940),

Gene: Elle_63 Start: 37922, Stop: 37281, Start Num: 13

Candidate Starts for Elle_63:

(Start: 13 @37922 has 1 MA's), (41, 37817), (46, 37760), (49, 37742), (50, 37718), (59, 37655), (73, 37553), (76, 37532), (95, 37355),

Gene: Engineer_150 Start: 80634, Stop: 81257, Start Num: 18

Candidate Starts for Engineer_150:

(Start: 18 @80634 has 19 MA's), (35, 80691), (42, 80745), (45, 80778), (50, 80823), (55, 80856), (66, 80946), (73, 80988),

Gene: Epsocamisio_66 Start: 39091, Stop: 38456, Start Num: 16

Candidate Starts for Epsocamisio_66:

(5, 39229), (6, 39220), (Start: 16 @39091 has 35 MA's), (41, 38992), (49, 38917), (50, 38893), (59, 38830), (68, 38761), (73, 38728), (76, 38707), (96, 38524),

Gene: Francesca_33 Start: 15203, Stop: 14559, Start Num: 19

Candidate Starts for Francesca_33:

(Start: 19 @15203 has 4 MA's), (49, 15029), (57, 14966), (64, 14918), (66, 14894), (98, 14612),

Gene: Fryberger_28 Start: 8416, Stop: 7793, Start Num: 14

Candidate Starts for Fryberger_28:

(Start: 14 @8416 has 6 MA's), (17, 8407), (23, 8380), (29, 8362), (30, 8359), (49, 8242), (50, 8218), (54, 8191), (56, 8176), (59, 8155), (63, 8122), (65, 8107), (70, 8080), (73, 8053),

Gene: Geeche_148 Start: 80011, Stop: 80634, Start Num: 18

Candidate Starts for Geeche_148:

(Start: 18 @80011 has 19 MA's), (42, 80122), (45, 80155), (49, 80176), (50, 80200), (55, 80233), (73, 80365), (91, 80521),

Gene: GodonK_121 Start: 75403, Stop: 74777, Start Num: 16

Candidate Starts for GodonK_121:

(Start: 16 @75403 has 35 MA's), (49, 75232), (50, 75208), (53, 75184), (73, 75043), (80, 74995), (86, 74920), (87, 74914),

Gene: Goib_6 Start: 2388, Stop: 3029, Start Num: 16

Candidate Starts for Goib_6:

(Start: 16 @2388 has 35 MA's), (38, 2475), (46, 2553), (59, 2658), (61, 2667), (68, 2727), (70, 2733), (72, 2757), (73, 2760), (90, 2910), (91, 2916), (95, 2955), (96, 2961),

Gene: Gspu1_3 Start: 1005, Stop: 1634, Start Num: 16

Candidate Starts for Gspu1_3:

(15, 1002), (Start: 16 @1005 has 35 MA's), (45, 1149), (46, 1158), (49, 1176), (50, 1200), (52, 1215), (59, 1263), (73, 1365), (76, 1386), (81, 1452), (94, 1545),

Gene: Guey18_32 Start: 9277, Stop: 8654, Start Num: 14

Candidate Starts for Guey18_32:

(Start: 14 @9277 has 6 MA's), (17, 9268), (23, 9241), (29, 9223), (30, 9220), (49, 9103), (50, 9079), (54, 9052), (56, 9037), (59, 9016), (63, 8983), (65, 8968), (70, 8941), (73, 8914),

Gene: Huffy_7 Start: 2618, Stop: 3259, Start Num: 16

Candidate Starts for Huffy_7:

(Start: 16 @2618 has 35 MA's), (38, 2705), (46, 2783), (59, 2888), (61, 2897), (68, 2957), (70, 2963), (72, 2987), (73, 2990), (95, 3185), (96, 3191),

Gene: JSwag_68 Start: 39280, Stop: 38645, Start Num: 16

Candidate Starts for JSwag_68:

(5, 39418), (6, 39409), (Start: 16 @39280 has 35 MA's), (41, 39181), (49, 39106), (50, 39082), (59, 39019), (68, 38950), (73, 38917), (76, 38896),

Gene: Jflix2_99 Start: 56491, Stop: 57111, Start Num: 21

Candidate Starts for Jflix2_99:

(Start: 21 @56491 has 5 MA's), (36, 56536), (37, 56542), (39, 56551), (43, 56593), (79, 56869), (88, 56962), (91, 56977),

Gene: JonJames_166 Start: 88507, Stop: 89145, Start Num: 18

Candidate Starts for JonJames_166:

(Start: 18 @88507 has 19 MA's), (23, 88534), (24, 88537), (25, 88540), (26, 88543), (27, 88546), (42, 88633), (54, 88747), (55, 88753), (63, 88816), (70, 88858), (73, 88885), (85, 88990), (91, 89032), (92, 89041),

Gene: KatherineG_69 Start: 39753, Stop: 39118, Start Num: 16

Candidate Starts for KatherineG_69:

(5, 39891), (6, 39882), (Start: 16 @39753 has 35 MA's), (41, 39654), (49, 39579), (50, 39555), (59, 39492), (68, 39423), (73, 39390), (76, 39369),

Gene: Keelan_25 Start: 7836, Stop: 7204, Start Num: 14

Candidate Starts for Keelan_25:

(Start: 14 @7836 has 6 MA's), (23, 7797), (26, 7791), (27, 7788), (49, 7653), (54, 7602), (56, 7587), (70, 7491), (73, 7464),

Gene: LastResort_67 Start: 39332, Stop: 38697, Start Num: 16

Candidate Starts for LastResort_67:

(5, 39470), (6, 39461), (Start: 16 @39332 has 35 MA's), (41, 39233), (49, 39158), (50, 39134), (59, 39071), (68, 39002), (73, 38969), (76, 38948), (96, 38765),

Gene: LogiBear_65 Start: 39348, Stop: 38698, Start Num: 16

Candidate Starts for LogiBear_65:

(5, 39489), (6, 39480), (Start: 16 @39348 has 35 MA's), (28, 39297), (34, 39279), (40, 39246), (49, 39156), (50, 39132), (60, 39063), (72, 38970), (73, 38967), (81, 38880),

Gene: Looper_68 Start: 39244, Stop: 38609, Start Num: 16

Candidate Starts for Looper_68:

(5, 39382), (6, 39373), (Start: 16 @39244 has 35 MA's), (41, 39145), (49, 39070), (50, 39046), (59, 38983), (68, 38914), (73, 38881), (76, 38860), (96, 38677),

Gene: Lozinak_148 Start: 80639, Stop: 81262, Start Num: 18

Candidate Starts for Lozinak_148:

(Start: 18 @80639 has 19 MA's), (35, 80696), (42, 80750), (45, 80783), (50, 80828), (55, 80861), (66, 80951), (73, 80993),

Gene: Madraxi_101 Start: 58653, Stop: 59276, Start Num: 21

Candidate Starts for Madraxi_101:

(7, 58542), (8, 58554), (Start: 21 @58653 has 5 MA's), (39, 58713), (71, 58974), (72, 58989), (76, 59007), (88, 59124), (89, 59130), (91, 59139), (98, 59226),

Gene: MinecraftSteve_69 Start: 39568, Stop: 38933, Start Num: 16

Candidate Starts for MinecraftSteve_69:

(5, 39706), (6, 39697), (Start: 16 @39568 has 35 MA's), (41, 39469), (49, 39394), (50, 39370), (59, 39307), (68, 39238), (73, 39205), (76, 39184), (96, 39001),

Gene: Miskis_141 Start: 79400, Stop: 80023, Start Num: 18

Candidate Starts for Miskis_141:

(Start: 18 @79400 has 19 MA's), (35, 79457), (42, 79511), (45, 79544), (50, 79589), (55, 79622), (66, 79712), (73, 79754),

Gene: Nebulosus_67 Start: 39328, Stop: 38693, Start Num: 16

Candidate Starts for Nebulosus_67:

(5, 39466), (6, 39457), (Start: 16 @39328 has 35 MA's), (41, 39229), (49, 39154), (50, 39130), (59, 39067), (68, 38998), (73, 38965), (76, 38944), (96, 38761),

Gene: Nedarya_65 Start: 39287, Stop: 38655, Start Num: 16

Candidate Starts for Nedarya_65:

(Start: 16 @39287 has 35 MA's), (22, 39257), (49, 39113), (72, 38927), (73, 38924),

Gene: Norvs_146 Start: 79830, Stop: 80453, Start Num: 18

Candidate Starts for Norvs_146:

(Start: 18 @79830 has 19 MA's), (35, 79887), (42, 79941), (45, 79974), (50, 80019), (55, 80052), (66, 80142), (73, 80184),

Gene: Nova53_31 Start: 15259, Stop: 14615, Start Num: 19

Candidate Starts for Nova53_31:

(Start: 19 @15259 has 4 MA's), (47, 15100), (64, 14974), (76, 14893), (98, 14668),

Gene: OneUp_133 Start: 79435, Stop: 80058, Start Num: 18

Candidate Starts for OneUp_133:

(10, 79396), (Start: 18 @79435 has 19 MA's), (27, 79468), (55, 79660), (72, 79789), (73, 79792), (81, 79876),

Gene: Oofda_70 Start: 39531, Stop: 38896, Start Num: 16

Candidate Starts for Oofda_70:

(1, 39945), (2, 39882), (3, 39756), (4, 39747), (6, 39660), (Start: 16 @39531 has 35 MA's), (49, 39357), (50, 39333), (59, 39270), (73, 39168), (76, 39147),

Gene: Phendrix_116 Start: 75661, Stop: 75035, Start Num: 16

Candidate Starts for Phendrix_116:

(Start: 16 @75661 has 35 MA's), (49, 75490), (50, 75466), (53, 75442), (73, 75301), (75, 75283), (86, 75178), (87, 75172),

Gene: PhinkBoden_146 Start: 80228, Stop: 80851, Start Num: 18

Candidate Starts for PhinkBoden_146:

(Start: 18 @80228 has 19 MA's), (35, 80285), (42, 80339), (45, 80372), (50, 80417), (55, 80450), (66, 80540), (73, 80582),

Gene: Ravana_70 Start: 40641, Stop: 40006, Start Num: 16

Candidate Starts for Ravana_70:

(5, 40779), (6, 40770), (Start: 16 @40641 has 35 MA's), (41, 40542), (49, 40467), (50, 40443), (59, 40380), (68, 40311), (73, 40278), (76, 40257), (96, 40074),

Gene: ReMo_67 Start: 39329, Stop: 38694, Start Num: 16

Candidate Starts for ReMo_67:

(5, 39467), (6, 39458), (Start: 16 @39329 has 35 MA's), (41, 39230), (49, 39155), (50, 39131), (59, 39068), (68, 38999), (73, 38966), (76, 38945), (96, 38762),

Gene: RegnumDei_105 Start: 57655, Stop: 58278, Start Num: 21

Candidate Starts for RegnumDei_105:

(Start: 21 @57655 has 5 MA's), (44, 57778), (49, 57811), (58, 57877), (67, 57949), (76, 58003), (77, 58006), (83, 58078), (91, 58138),

Gene: Remus_69 Start: 39320, Stop: 38685, Start Num: 16

Candidate Starts for Remus_69:

(5, 39458), (6, 39449), (Start: 16 @39320 has 35 MA's), (41, 39221), (49, 39146), (50, 39122), (59, 39059), (68, 38990), (73, 38957), (76, 38936), (96, 38753),

Gene: Ronaldo_31 Start: 9345, Stop: 8722, Start Num: 14

Candidate Starts for Ronaldo_31:

(Start: 14 @9345 has 6 MA's), (17, 9336), (23, 9309), (29, 9291), (30, 9288), (49, 9171), (50, 9147), (54, 9120), (56, 9105), (59, 9084), (63, 9051), (65, 9036), (70, 9009), (73, 8982),

Gene: Rosalind_67 Start: 39487, Stop: 38852, Start Num: 16

Candidate Starts for Rosalind_67:

(5, 39625), (6, 39616), (Start: 16 @39487 has 35 MA's), (49, 39313), (50, 39289), (59, 39226), (73, 39124), (76, 39103),

Gene: SFuller_97 Start: 56549, Stop: 57172, Start Num: 21

Candidate Starts for SFuller_97:

(Start: 21 @56549 has 5 MA's), (37, 56600), (39, 56609), (72, 56885), (76, 56903), (88, 57020), (91, 57035), (98, 57122),

Gene: Schmidt_3 Start: 949, Stop: 1584, Start Num: 16

Candidate Starts for Schmidt_3:

(12, 931), (Start: 16 @949 has 35 MA's), (41, 1051), (45, 1099), (46, 1108), (49, 1126), (50, 1150), (63, 1246), (69, 1285), (73, 1315), (76, 1336), (93, 1492),

Gene: Shagrat_108 Start: 56706, Stop: 57326, Start Num: 21

Candidate Starts for Shagrat_108:

(Start: 21 @56706 has 5 MA's), (28, 56724), (62, 56964), (68, 57006), (71, 57012), (74, 57045), (91, 57186), (98, 57276),

Gene: ShayRa_69 Start: 39516, Stop: 38881, Start Num: 16

Candidate Starts for ShayRa_69:

(5, 39654), (6, 39645), (Start: 16 @39516 has 35 MA's), (41, 39417), (49, 39342), (50, 39318), (59, 39255), (68, 39186), (73, 39153), (76, 39132),

Gene: Smoothie_149 Start: 80215, Stop: 80838, Start Num: 18

Candidate Starts for Smoothie_149:

(Start: 18 @80215 has 19 MA's), (35, 80272), (42, 80326), (45, 80359), (50, 80404), (55, 80437), (63, 80500), (66, 80527), (73, 80569),

Gene: Soups_69 Start: 39779, Stop: 39144, Start Num: 16

Candidate Starts for Soups_69:

(5, 39917), (6, 39908), (Start: 16 @39779 has 35 MA's), (41, 39680), (49, 39605), (50, 39581), (59, 39518), (68, 39449), (73, 39416), (76, 39395),

Gene: Splinter_5 Start: 2388, Stop: 3029, Start Num: 16

Candidate Starts for Splinter_5:

(Start: 16 @2388 has 35 MA's), (38, 2475), (46, 2553), (48, 2559), (59, 2658), (61, 2667), (68, 2727), (70, 2733), (72, 2757), (73, 2760), (90, 2910), (91, 2916), (95, 2955), (96, 2961),

Gene: Strosahl_69 Start: 39320, Stop: 38685, Start Num: 16

Candidate Starts for Strosahl_69:

(5, 39458), (6, 39449), (Start: 16 @39320 has 35 MA's), (41, 39221), (49, 39146), (50, 39122), (59, 39059), (68, 38990), (73, 38957), (76, 38936), (96, 38753),

Gene: Switzerland_68 Start: 39655, Stop: 39020, Start Num: 16

Candidate Starts for Switzerland_68:

(5, 39793), (6, 39784), (Start: 16 @39655 has 35 MA's), (41, 39556), (49, 39481), (50, 39457), (59, 39394), (68, 39325), (73, 39292), (76, 39271),

Gene: TZGordon_7 Start: 2533, Stop: 3174, Start Num: 16

Candidate Starts for TZGordon_7:

(Start: 16 @2533 has 35 MA's), (38, 2620), (46, 2698), (59, 2803), (61, 2812), (68, 2872), (70, 2878), (72, 2902), (73, 2905), (91, 3061), (95, 3100), (96, 3106),

Gene: TinaLin_8 Start: 3164, Stop: 3793, Start Num: 16

Candidate Starts for TinaLin_8:

(Start: 16 @3164 has 35 MA's), (46, 3317), (50, 3359), (68, 3491), (70, 3497), (72, 3521), (73, 3524), (78, 3551), (84, 3629), (90, 3674), (96, 3725),

Gene: Toniann_148 Start: 79971, Stop: 80594, Start Num: 18

Candidate Starts for Toniann_148:

(Start: 18 @79971 has 19 MA's), (35, 80028), (42, 80082), (45, 80115), (50, 80160), (55, 80193), (66, 80283), (73, 80325),

Gene: Vendetta_5 Start: 2388, Stop: 3029, Start Num: 16

Candidate Starts for Vendetta_5:

(Start: 16 @2388 has 35 MA's), (38, 2475), (46, 2553), (48, 2559), (59, 2658), (61, 2667), (68, 2727), (70, 2733), (72, 2757), (73, 2760), (90, 2910), (91, 2916), (95, 2955), (96, 2961),

Gene: Volt_30 Start: 9345, Stop: 8722, Start Num: 14

Candidate Starts for Volt_30:

(Start: 14 @9345 has 6 MA's), (17, 9336), (23, 9309), (29, 9291), (30, 9288), (49, 9171), (50, 9147), (54, 9120), (56, 9105), (59, 9084), (63, 9051), (65, 9036), (70, 9009), (73, 8982),

Gene: Waits_69 Start: 39552, Stop: 38917, Start Num: 16

Candidate Starts for Waits_69:

(5, 39690), (6, 39681), (Start: 16 @39552 has 35 MA's), (41, 39453), (49, 39378), (50, 39354), (59, 39291), (68, 39222), (73, 39189), (76, 39168), (96, 38985),

Gene: Warrior24_71 Start: 39986, Stop: 39351, Start Num: 16

Candidate Starts for Warrior24_71:

(1, 40400), (2, 40337), (3, 40211), (4, 40202), (6, 40115), (Start: 16 @39986 has 35 MA's), (49, 39812), (50, 39788), (59, 39725), (73, 39623), (76, 39602),

Gene: WilliamBoone_149 Start: 78226, Stop: 78849, Start Num: 18

Candidate Starts for WilliamBoone_149:

(Start: 18 @78226 has 19 MA's), (20, 78238), (42, 78337), (50, 78415), (55, 78448), (73, 78580),

Gene: Yvonnetastic_161 Start: 84594, Stop: 85232, Start Num: 18

Candidate Starts for Yvonnetastic_161:

(Start: 18 @84594 has 19 MA's), (23, 84621), (24, 84624), (25, 84627), (26, 84630), (27, 84633), (42, 84720), (54, 84834), (55, 84840), (63, 84903), (70, 84945), (73, 84972), (85, 85077), (91, 85119), (92, 85128),

Gene: Ziko_31 Start: 9285, Stop: 8662, Start Num: 14

Candidate Starts for Ziko_31:

(Start: 14 @9285 has 6 MA's), (17, 9276), (23, 9249), (29, 9231), (30, 9228), (49, 9111), (50, 9087), (54, 9060), (56, 9045), (59, 9024), (63, 8991), (65, 8976), (70, 8949), (73, 8922),