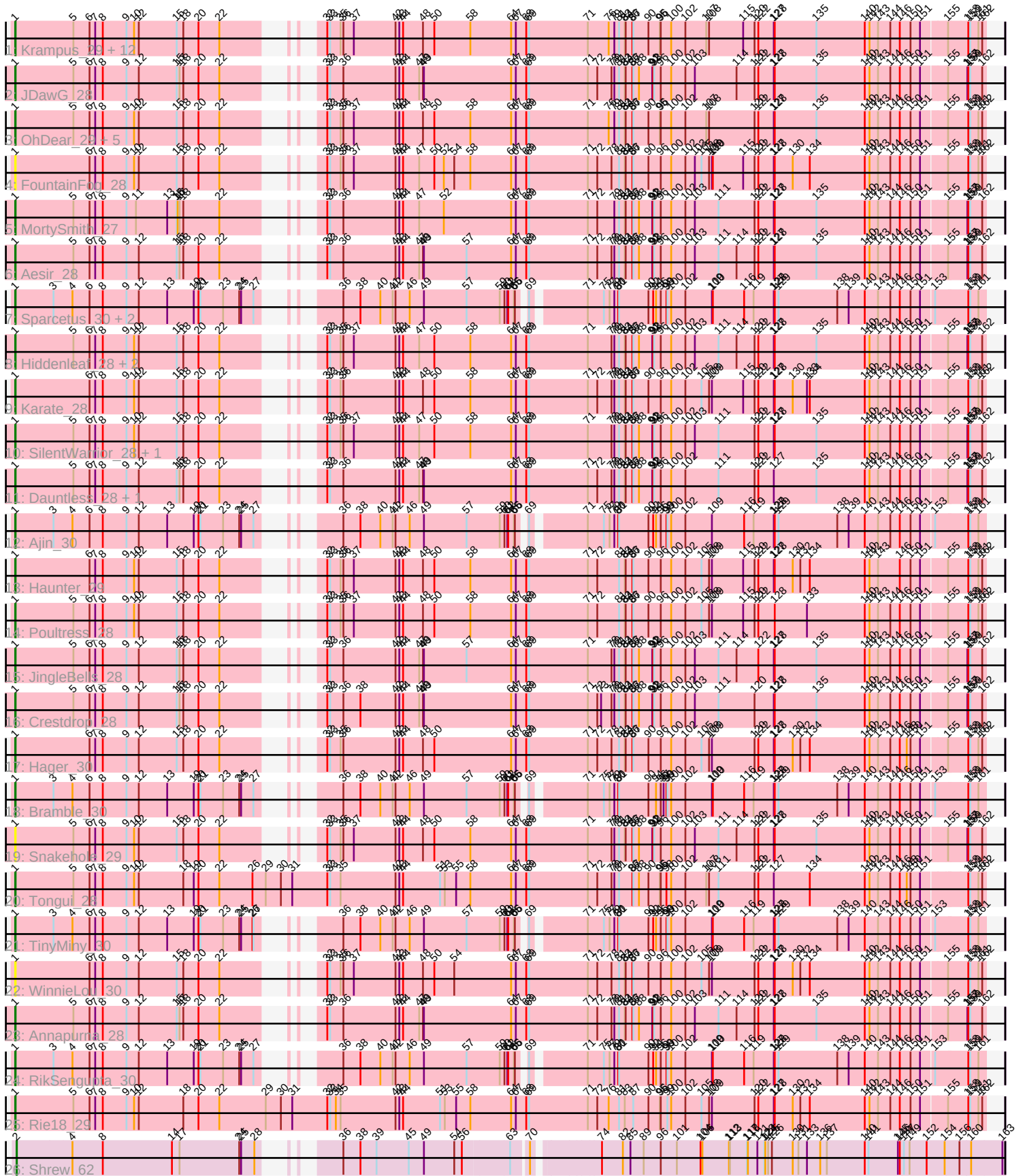




Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly 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 330956 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330956 has 49 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Krampus_29, Anakin_29, Cybele_29, SafetyGuy_29, Tiggy93_29, NarutoRun_29, Potty_29, Rachella_29, Tedro_29, Kate_29, OverHedge_29, Neptune_29, AnnaSerena_29
- Track 2 : JDawG_28
- Track 3 : OhDear_29, Artiphact_29, CoolCookie_29, PhunaPhoke_29, Pharpay_29, Gilda_29
- Track 4 : FountainFog_28
- Track 5 : MortySmith_27
- Track 6 : Aesir_28
- Track 7 : Sparcet_30, Kors_30, LordBart_30
- Track 8 : Hiddenleaf_28, Chivey_28, FreddieHg_28
- Track 9 : Karate_28
- Track 10 : SilentWarrior_28, DannyDe_28
- Track 11 : Dauntless_28, Erudite_28
- Track 12 : Ajin_30
- Track 13 : Haunter_29
- Track 14 : Poultriss_28
- Track 15 : JingleBells_28
- Track 16 : Crestdrop_28
- Track 17 : Hager_30
- Track 18 : Bramble_30
- Track 19 : Snakehole_29
- Track 20 : Tongui_28
- Track 21 : TinyMiny_30
- Track 22 : WinnieLou_30
- Track 23 : Annapurna_28
- Track 24 : RikSengupta_30
- Track 25 : Rie18_29
- Track 26 : Shrew_62

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

The start number called the most often in the published annotations is 1, it was called in 43 of the 44 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aesir_28, Ajin_30, Anakin_29, AnnaSerena_29, Annapurna_28, Artiphact_29, Bramble_30, Chivey_28, CoolCookie_29, Crestdrop_28, Cybele_29, DannyDe_28, Dauntless_28, Erudite_28, FountainFog_28, FreddieHg_28, Gilda_29, Hager_30, Haunter_29, Hiddenleaf_28, JDawG_28, JingleBells_28, Karate_28, Kate_29, Kors_30, Krampus_29, LordBart_30, MortySmith_27, NarutoRun_29, Neptune_29, OhDear_29, OverHedge_29, Pharpay_29, PhunaPhoke_29, Potty_29, Poultruss_28, Rachella_29, Rie18_29, RikSengupta_30, SafetyGuy_29, SilentWarrior_28, Snakehole_29, Sparcetus_30, Tedro_29, Tiggy93_29, TinyMiny_30, Tongui_28, WinnieLou_30,

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

-

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

- Shrew_62,

Summary by start number:

Start 1:

- Found in 48 of 49 (98.0%) of genes in pham
- Manual Annotations of this start: 43 of 44
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aesir_28 (EF), Ajin_30 (EF), Anakin_29 (EF), AnnaSerena_29 (EF), Annapurna_28 (EF), Artiphact_29 (EF), Bramble_30 (EF), Chivey_28 (EF), CoolCookie_29 (EF), Crestdrop_28 (EF), Cybele_29 (EF), DannyDe_28 (EF), Dauntless_28 (EF), Erudite_28 (EF), FountainFog_28 (EF), FreddieHg_28 (EF), Gilda_29 (EF), Hager_30 (EF), Haunter_29 (EF), Hiddenleaf_28 (EF), JDawG_28 (EF), JingleBells_28 (EF), Karate_28 (EF), Kate_29 (EF), Kors_30 (EF), Krampus_29 (EF), LordBart_30 (EF), MortySmith_27 (EF), NarutoRun_29 (EF), Neptune_29 (EF), OhDear_29 (EF), OverHedge_29 (EF), Pharpay_29 (EF), PhunaPhoke_29 (EF), Potty_29 (EF), Poultruss_28 (EF), Rachella_29 (EF), Rie18_29 (EF), RikSengupta_30 (EF), SafetyGuy_29 (EF), SilentWarrior_28 (EF), Snakehole_29 (EF), Sparcetus_30 (EF), Tedro_29 (EF), Tiggy93_29 (EF), TinyMiny_30 (EF), Tongui_28 (EF), WinnieLou_30 (EF),

Start 2:

- Found in 1 of 49 (2.0%) of genes in pham
- Manual Annotations of this start: 1 of 44
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Shrew_62 (singleton),

Summary by clusters:

There are 2 clusters represented in this pham: singleton, EF,

Info for manual annotations of cluster EF:

- Start number 1 was manually annotated 43 times for cluster EF.

Gene Information:

Gene: Aesir_28 Start: 14656, Stop: 17532, Start Num: 1

Candidate Starts for Aesir_28:

(Start: 1 @14656 has 43 MA's), (5, 14839), (6, 14890), (7, 14908), (8, 14932), (9, 15007), (12, 15046), (15, 15166), (17, 15175), (18, 15187), (20, 15235), (22, 15301), (32, 15472), (33, 15481), (36, 15523), (42, 15688), (43, 15700), (44, 15712), (47, 15763), (48, 15775), (49, 15778), (57, 15913), (64, 16054), (67, 16069), (68, 16102), (69, 16111), (71, 16297), (72, 16327), (78, 16372), (79, 16381), (81, 16396), (83, 16414), (84, 16417), (86, 16438), (87, 16441), (88, 16459), (91, 16501), (92, 16504), (93, 16507), (96, 16528), (100, 16561), (102, 16606), (103, 16636), (111, 16711), (114, 16768), (120, 16825), (122, 16837), (127, 16885), (128, 16888), (135, 17020), (140, 17173), (142, 17188), (143, 17215), (144, 17254), (146, 17284), (150, 17317), (151, 17347), (155, 17422), (157, 17479), (158, 17482), (159, 17488), (162, 17524),

Gene: Ajin_30 Start: 14799, Stop: 17618, Start Num: 1

Candidate Starts for Ajin_30:

(Start: 1 @14799 has 43 MA's), (3, 14919), (4, 14979), (6, 15033), (8, 15075), (9, 15150), (12, 15189), (13, 15279), (19, 15363), (20, 15378), (21, 15384), (23, 15456), (24, 15507), (25, 15513), (27, 15552), (36, 15666), (38, 15720), (40, 15783), (41, 15822), (42, 15831), (46, 15876), (49, 15921), (57, 16056), (59, 16161), (60, 16176), (61, 16182), (62, 16185), (65, 16203), (66, 16206), (69, 16224), (71, 16377), (75, 16428), (77, 16446), (79, 16461), (80, 16473), (81, 16476), (90, 16569), (92, 16584), (94, 16593), (96, 16608), (98, 16626), (99, 16629), (100, 16641), (102, 16686), (109, 16770), (116, 16872), (119, 16902), (127, 16965), (128, 16968), (129, 16980), (138, 17166), (139, 17202), (140, 17253), (143, 17295), (144, 17334), (146, 17364), (150, 17397), (151, 17427), (153, 17466), (158, 17565), (159, 17571), (161, 17595),

Gene: Anakin_29 Start: 14910, Stop: 17786, Start Num: 1

Candidate Starts for Anakin_29:

(Start: 1 @14910 has 43 MA's), (5, 15093), (6, 15144), (7, 15162), (8, 15186), (9, 15261), (10, 15285), (12, 15300), (15, 15420), (18, 15441), (20, 15489), (22, 15555), (32, 15726), (33, 15735), (35, 15768), (36, 15777), (37, 15810), (42, 15942), (43, 15954), (44, 15966), (48, 16029), (50, 16065), (58, 16179), (64, 16308), (67, 16323), (68, 16356), (69, 16365), (71, 16551), (76, 16617), (79, 16635), (81, 16650), (83, 16668), (84, 16671), (86, 16692), (87, 16695), (90, 16743), (95, 16779), (96, 16782), (100, 16815), (102, 16860), (107, 16926), (108, 16935), (115, 17043), (120, 17079), (122, 17091), (127, 17139), (128, 17142), (135, 17274), (140, 17427), (142, 17442), (143, 17469), (144, 17508), (146, 17538), (150, 17571), (151, 17601), (155, 17676), (158, 17736), (159, 17742), (161, 17766), (162, 17778),

Gene: AnnaSerena_29 Start: 14919, Stop: 17795, Start Num: 1

Candidate Starts for AnnaSerena_29:

(Start: 1 @14919 has 43 MA's), (5, 15102), (6, 15153), (7, 15171), (8, 15195), (9, 15270), (10, 15294), (12, 15309), (15, 15429), (18, 15450), (20, 15498), (22, 15564), (32, 15735), (33, 15744), (35, 15777), (36, 15786), (37, 15819), (42, 15951), (43, 15963), (44, 15975), (48, 16038), (50, 16074), (58, 16188), (64, 16317), (67, 16332), (68, 16365), (69, 16374), (71, 16560), (76, 16626), (79, 16644), (81, 16659), (83, 16677), (84, 16680), (86, 16701), (87, 16704), (90, 16752), (95, 16788), (96, 16791), (100, 16824), (102, 16869), (107, 16935), (108, 16944), (115, 17052), (120, 17088), (122, 17100), (127, 17148), (128, 17151), (135, 17283), (140, 17436), (142, 17451), (143, 17478), (144, 17517), (146, 17547), (150, 17580), (151, 17610), (155, 17685), (158, 17745), (159, 17751), (161, 17775), (162, 17787),

Gene: Annapurna_28 Start: 14118, Stop: 16994, Start Num: 1

Candidate Starts for Annapurna_28:

(Start: 1 @14118 has 43 MA's), (5, 14301), (6, 14352), (7, 14370), (8, 14394), (9, 14469), (12, 14508), (15, 14628), (17, 14637), (18, 14649), (20, 14697), (22, 14763), (32, 14934), (33, 14943), (36, 14985), (42, 15150), (43, 15162), (44, 15174), (47, 15225), (48, 15237), (49, 15240), (64, 15516), (67, 15531), (68, 15564), (69, 15573), (71, 15759), (72, 15789), (78, 15834), (79, 15843), (81, 15858), (83, 15876), (84, 15879), (86, 15900), (87, 15903), (88, 15921), (91, 15963), (92, 15966), (93, 15969), (96, 15990),

(100, 16023), (102, 16068), (103, 16098), (111, 16173), (114, 16230), (120, 16287), (122, 16299), (127, 16347), (128, 16350), (135, 16482), (140, 16635), (142, 16650), (143, 16677), (144, 16716), (146, 16746), (150, 16779), (151, 16809), (155, 16884), (157, 16941), (158, 16944), (159, 16950), (162, 16986),

Gene: Artiphact_29 Start: 14911, Stop: 17787, Start Num: 1

Candidate Starts for Artiphact_29:

(Start: 1 @14911 has 43 MA's), (5, 15094), (6, 15145), (7, 15163), (8, 15187), (9, 15262), (10, 15286), (12, 15301), (15, 15421), (18, 15442), (20, 15490), (22, 15556), (32, 15727), (33, 15736), (35, 15769), (36, 15778), (37, 15811), (42, 15943), (43, 15955), (44, 15967), (48, 16030), (50, 16066), (58, 16180), (64, 16309), (67, 16324), (68, 16357), (69, 16366), (71, 16552), (76, 16618), (79, 16636), (81, 16651), (83, 16669), (84, 16672), (86, 16693), (87, 16696), (90, 16744), (95, 16780), (96, 16783), (100, 16816), (102, 16861), (107, 16927), (108, 16936), (120, 17080), (122, 17092), (127, 17140), (128, 17143), (135, 17275), (140, 17428), (142, 17443), (143, 17470), (144, 17509), (146, 17539), (150, 17572), (151, 17602), (155, 17677), (158, 17737), (159, 17743), (161, 17767), (162, 17779),

Gene: Bramble_30 Start: 14765, Stop: 17584, Start Num: 1

Candidate Starts for Bramble_30:

(Start: 1 @14765 has 43 MA's), (3, 14885), (4, 14945), (6, 14999), (8, 15041), (9, 15116), (12, 15155), (13, 15245), (19, 15329), (20, 15344), (21, 15350), (23, 15422), (24, 15473), (25, 15479), (27, 15518), (36, 15632), (38, 15686), (40, 15749), (41, 15788), (42, 15797), (46, 15842), (49, 15887), (57, 16022), (59, 16127), (60, 16142), (61, 16148), (62, 16151), (65, 16169), (66, 16172), (69, 16190), (71, 16343), (75, 16394), (77, 16412), (79, 16427), (80, 16439), (81, 16442), (90, 16535), (94, 16559), (96, 16574), (97, 16583), (98, 16592), (99, 16595), (100, 16607), (102, 16652), (109, 16736), (110, 16739), (116, 16838), (119, 16868), (127, 16931), (128, 16934), (129, 16946), (138, 17132), (139, 17168), (140, 17219), (143, 17261), (144, 17300), (146, 17330), (150, 17363), (151, 17393), (153, 17432), (158, 17531), (159, 17537), (161, 17561),

Gene: Chivey_28 Start: 14072, Stop: 16948, Start Num: 1

Candidate Starts for Chivey_28:

(Start: 1 @14072 has 43 MA's), (5, 14255), (6, 14306), (7, 14324), (8, 14348), (9, 14423), (10, 14447), (12, 14462), (15, 14582), (18, 14603), (20, 14651), (22, 14717), (32, 14888), (33, 14897), (35, 14930), (36, 14939), (37, 14972), (42, 15104), (43, 15116), (44, 15128), (47, 15179), (50, 15227), (58, 15341), (64, 15470), (67, 15485), (68, 15518), (69, 15527), (71, 15713), (78, 15788), (79, 15797), (81, 15812), (83, 15830), (84, 15833), (86, 15854), (87, 15857), (88, 15875), (91, 15917), (92, 15920), (93, 15923), (96, 15944), (100, 15977), (102, 16022), (103, 16052), (111, 16127), (114, 16184), (120, 16241), (122, 16253), (127, 16301), (128, 16304), (135, 16436), (140, 16589), (142, 16604), (143, 16631), (144, 16670), (146, 16700), (150, 16733), (151, 16763), (155, 16838), (157, 16895), (158, 16898), (159, 16904), (162, 16940),

Gene: CoolCookie_29 Start: 14917, Stop: 17793, Start Num: 1

Candidate Starts for CoolCookie_29:

(Start: 1 @14917 has 43 MA's), (5, 15100), (6, 15151), (7, 15169), (8, 15193), (9, 15268), (10, 15292), (12, 15307), (15, 15427), (18, 15448), (20, 15496), (22, 15562), (32, 15733), (33, 15742), (35, 15775), (36, 15784), (37, 15817), (42, 15949), (43, 15961), (44, 15973), (48, 16036), (50, 16072), (58, 16186), (64, 16315), (67, 16330), (68, 16363), (69, 16372), (71, 16558), (76, 16624), (79, 16642), (81, 16657), (83, 16675), (84, 16678), (86, 16699), (87, 16702), (90, 16750), (95, 16786), (96, 16789), (100, 16822), (102, 16867), (107, 16933), (108, 16942), (120, 17086), (122, 17098), (127, 17146), (128, 17149), (135, 17281), (140, 17434), (142, 17449), (143, 17476), (144, 17515), (146, 17545), (150, 17578), (151, 17608), (155, 17683), (158, 17743), (159, 17749), (161, 17773), (162, 17785),

Gene: Crestdrop_28 Start: 13981, Stop: 16857, Start Num: 1

Candidate Starts for Crestdrop_28:

(Start: 1 @13981 has 43 MA's), (5, 14164), (6, 14215), (7, 14233), (8, 14257), (9, 14332), (12, 14371), (15, 14491), (17, 14500), (18, 14512), (20, 14560), (22, 14626), (32, 14797), (33, 14806), (36, 14848), (38, 14902), (42, 15013), (43, 15025), (44, 15037), (47, 15088), (48, 15100), (49, 15103), (64, 15379), (67, 15394), (68, 15427), (69, 15436), (71, 15622), (72, 15652), (73, 15664), (78, 15697), (79, 15706), (81, 15721), (83, 15739), (84, 15742), (86, 15763), (87, 15766), (88, 15784), (91, 15826), (92, 15829), (93, 15832), (96, 15853), (100, 15886), (102, 15931), (103, 15961), (111, 16036), (120, 16150), (127, 16210), (128, 16213), (135, 16345), (140, 16498), (142, 16513), (143, 16540), (144, 16579), (146, 16609), (150, 16642), (151, 16672), (155, 16747), (157, 16804), (158, 16807), (159, 16813), (162, 16849),

Gene: Cybele_29 Start: 14887, Stop: 17763, Start Num: 1

Candidate Starts for Cybele_29:

(Start: 1 @14887 has 43 MA's), (5, 15070), (6, 15121), (7, 15139), (8, 15163), (9, 15238), (10, 15262), (12, 15277), (15, 15397), (18, 15418), (20, 15466), (22, 15532), (32, 15703), (33, 15712), (35, 15745), (36, 15754), (37, 15787), (42, 15919), (43, 15931), (44, 15943), (48, 16006), (50, 16042), (58, 16156), (64, 16285), (67, 16300), (68, 16333), (69, 16342), (71, 16528), (76, 16594), (79, 16612), (81, 16627), (83, 16645), (84, 16648), (86, 16669), (87, 16672), (90, 16720), (95, 16756), (96, 16759), (100, 16792), (102, 16837), (107, 16903), (108, 16912), (115, 17020), (120, 17056), (122, 17068), (127, 17116), (128, 17119), (135, 17251), (140, 17404), (142, 17419), (143, 17446), (144, 17485), (146, 17515), (150, 17548), (151, 17578), (155, 17653), (158, 17713), (159, 17719), (161, 17743), (162, 17755),

Gene: DannyDe_28 Start: 14064, Stop: 16940, Start Num: 1

Candidate Starts for DannyDe_28:

(Start: 1 @14064 has 43 MA's), (5, 14247), (6, 14298), (7, 14316), (8, 14340), (9, 14415), (10, 14439), (12, 14454), (15, 14574), (18, 14595), (20, 14643), (22, 14709), (32, 14880), (33, 14889), (35, 14922), (36, 14931), (37, 14964), (42, 15096), (43, 15108), (44, 15120), (47, 15171), (50, 15219), (58, 15333), (64, 15462), (67, 15477), (68, 15510), (69, 15519), (71, 15705), (78, 15780), (79, 15789), (81, 15804), (83, 15822), (84, 15825), (86, 15846), (87, 15849), (88, 15867), (91, 15909), (92, 15912), (93, 15915), (96, 15936), (100, 15969), (102, 16014), (103, 16044), (111, 16119), (120, 16233), (122, 16245), (127, 16293), (128, 16296), (135, 16428), (140, 16581), (142, 16596), (143, 16623), (144, 16662), (146, 16692), (150, 16725), (151, 16755), (155, 16830), (157, 16887), (158, 16890), (159, 16896), (162, 16932),

Gene: Dauntless_28 Start: 14624, Stop: 17500, Start Num: 1

Candidate Starts for Dauntless_28:

(Start: 1 @14624 has 43 MA's), (5, 14807), (6, 14858), (7, 14876), (8, 14900), (9, 14975), (12, 15014), (15, 15134), (17, 15143), (18, 15155), (20, 15203), (22, 15269), (32, 15440), (33, 15449), (36, 15491), (42, 15656), (43, 15668), (44, 15680), (47, 15731), (48, 15743), (49, 15746), (64, 16022), (67, 16037), (68, 16070), (69, 16079), (71, 16265), (72, 16295), (78, 16340), (79, 16349), (81, 16364), (83, 16382), (84, 16385), (86, 16406), (87, 16409), (88, 16427), (91, 16469), (92, 16472), (93, 16475), (96, 16496), (100, 16529), (102, 16574), (111, 16679), (120, 16793), (122, 16805), (127, 16853), (135, 16988), (140, 17141), (142, 17156), (143, 17183), (144, 17222), (146, 17252), (150, 17285), (151, 17315), (155, 17390), (157, 17447), (158, 17450), (159, 17456), (162, 17492),

Gene: Erudite_28 Start: 14624, Stop: 17500, Start Num: 1

Candidate Starts for Erudite_28:

(Start: 1 @14624 has 43 MA's), (5, 14807), (6, 14858), (7, 14876), (8, 14900), (9, 14975), (12, 15014), (15, 15134), (17, 15143), (18, 15155), (20, 15203), (22, 15269), (32, 15440), (33, 15449), (36, 15491), (42, 15656), (43, 15668), (44, 15680), (47, 15731), (48, 15743), (49, 15746), (64, 16022), (67, 16037), (68, 16070), (69, 16079), (71, 16265), (72, 16295), (78, 16340), (79, 16349), (81, 16364), (83, 16382), (84, 16385), (86, 16406), (87, 16409), (88, 16427), (91, 16469), (92, 16472), (93, 16475), (96, 16496), (100, 16529), (102, 16574), (111, 16679), (120, 16793), (122, 16805), (127, 16853), (135, 16988), (140, 17141), (142, 17156), (143, 17183), (144, 17222), (146, 17252), (150, 17285), (151, 17315),

(155, 17390), (157, 17447), (158, 17450), (159, 17456), (162, 17492),

Gene: FountainFog_28 Start: 14229, Stop: 17105, Start Num: 1

Candidate Starts for FountainFog_28:

(Start: 1 @14229 has 43 MA's), (6, 14463), (7, 14481), (8, 14505), (9, 14580), (10, 14604), (12, 14619), (15, 14739), (18, 14760), (20, 14808), (22, 14874), (32, 15045), (33, 15054), (35, 15087), (36, 15096), (37, 15129), (42, 15261), (43, 15273), (44, 15285), (47, 15336), (50, 15384), (52, 15414), (54, 15447), (58, 15498), (64, 15627), (67, 15642), (68, 15675), (69, 15684), (71, 15870), (72, 15900), (78, 15945), (81, 15969), (83, 15987), (84, 15990), (86, 16011), (87, 16014), (90, 16062), (96, 16101), (100, 16134), (102, 16179), (103, 16209), (105, 16230), (108, 16254), (109, 16263), (110, 16266), (115, 16362), (120, 16398), (122, 16410), (127, 16458), (128, 16461), (130, 16518), (134, 16572), (140, 16746), (142, 16761), (143, 16788), (144, 16827), (146, 16857), (150, 16890), (151, 16920), (155, 16995), (158, 17055), (159, 17061), (161, 17085), (162, 17097),

Gene: FreddieHg_28 Start: 14088, Stop: 16964, Start Num: 1

Candidate Starts for FreddieHg_28:

(Start: 1 @14088 has 43 MA's), (5, 14271), (6, 14322), (7, 14340), (8, 14364), (9, 14439), (10, 14463), (12, 14478), (15, 14598), (18, 14619), (20, 14667), (22, 14733), (32, 14904), (33, 14913), (35, 14946), (36, 14955), (37, 14988), (42, 15120), (43, 15132), (44, 15144), (47, 15195), (50, 15243), (58, 15357), (64, 15486), (67, 15501), (68, 15534), (69, 15543), (71, 15729), (78, 15804), (79, 15813), (81, 15828), (83, 15846), (84, 15849), (86, 15870), (87, 15873), (88, 15891), (91, 15933), (92, 15936), (93, 15939), (96, 15960), (100, 15993), (102, 16038), (103, 16068), (111, 16143), (114, 16200), (120, 16257), (122, 16269), (127, 16317), (128, 16320), (135, 16452), (140, 16605), (142, 16620), (143, 16647), (144, 16686), (146, 16716), (150, 16749), (151, 16779), (155, 16854), (157, 16911), (158, 16914), (159, 16920), (162, 16956),

Gene: Gilda_29 Start: 14911, Stop: 17787, Start Num: 1

Candidate Starts for Gilda_29:

(Start: 1 @14911 has 43 MA's), (5, 15094), (6, 15145), (7, 15163), (8, 15187), (9, 15262), (10, 15286), (12, 15301), (15, 15421), (18, 15442), (20, 15490), (22, 15556), (32, 15727), (33, 15736), (35, 15769), (36, 15778), (37, 15811), (42, 15943), (43, 15955), (44, 15967), (48, 16030), (50, 16066), (58, 16180), (64, 16309), (67, 16324), (68, 16357), (69, 16366), (71, 16552), (76, 16618), (79, 16636), (81, 16651), (83, 16669), (84, 16672), (86, 16693), (87, 16696), (90, 16744), (95, 16780), (96, 16783), (100, 16816), (102, 16861), (107, 16927), (108, 16936), (120, 17080), (122, 17092), (127, 17140), (128, 17143), (135, 17275), (140, 17428), (142, 17443), (143, 17470), (144, 17509), (146, 17539), (150, 17572), (151, 17602), (155, 17677), (158, 17737), (159, 17743), (161, 17767), (162, 17779),

Gene: Hager_30 Start: 14473, Stop: 17349, Start Num: 1

Candidate Starts for Hager_30:

(Start: 1 @14473 has 43 MA's), (6, 14707), (7, 14725), (8, 14749), (9, 14824), (12, 14863), (15, 14983), (18, 15004), (20, 15052), (22, 15118), (32, 15289), (33, 15298), (35, 15331), (36, 15340), (42, 15505), (43, 15517), (44, 15529), (48, 15592), (50, 15628), (64, 15871), (67, 15886), (68, 15919), (69, 15928), (71, 16114), (72, 16144), (78, 16189), (81, 16213), (83, 16231), (84, 16234), (86, 16255), (87, 16258), (90, 16306), (96, 16345), (100, 16378), (102, 16423), (105, 16474), (108, 16498), (109, 16507), (120, 16642), (122, 16654), (127, 16702), (128, 16705), (130, 16762), (132, 16786), (134, 16816), (140, 16990), (142, 17005), (143, 17032), (144, 17071), (146, 17101), (148, 17122), (150, 17134), (151, 17164), (155, 17239), (158, 17299), (159, 17305), (161, 17329), (162, 17341),

Gene: Haunter_29 Start: 14324, Stop: 17200, Start Num: 1

Candidate Starts for Haunter_29:

(Start: 1 @14324 has 43 MA's), (6, 14558), (7, 14576), (8, 14600), (9, 14675), (10, 14699), (12, 14714), (15, 14834), (18, 14855), (20, 14903), (22, 14969), (32, 15140), (33, 15149), (35, 15182), (36, 15191), (37, 15224), (42, 15356), (43, 15368), (44, 15380), (48, 15443), (50, 15479), (58, 15593), (64, 15722),

(67, 15737), (68, 15770), (69, 15779), (71, 15965), (72, 15995), (81, 16064), (83, 16082), (84, 16085), (86, 16106), (87, 16109), (90, 16157), (96, 16196), (100, 16229), (102, 16274), (105, 16325), (108, 16349), (109, 16358), (115, 16457), (120, 16493), (122, 16505), (127, 16553), (128, 16556), (130, 16613), (132, 16637), (134, 16667), (140, 16841), (142, 16856), (143, 16883), (146, 16952), (150, 16985), (151, 17015), (155, 17090), (158, 17150), (159, 17156), (161, 17180), (162, 17192),

Gene: Hiddenleaf_28 Start: 14072, Stop: 16948, Start Num: 1

Candidate Starts for Hiddenleaf_28:

(Start: 1 @14072 has 43 MA's), (5, 14255), (6, 14306), (7, 14324), (8, 14348), (9, 14423), (10, 14447), (12, 14462), (15, 14582), (18, 14603), (20, 14651), (22, 14717), (32, 14888), (33, 14897), (35, 14930), (36, 14939), (37, 14972), (42, 15104), (43, 15116), (44, 15128), (47, 15179), (50, 15227), (58, 15341), (64, 15470), (67, 15485), (68, 15518), (69, 15527), (71, 15713), (78, 15788), (79, 15797), (81, 15812), (83, 15830), (84, 15833), (86, 15854), (87, 15857), (88, 15875), (91, 15917), (92, 15920), (93, 15923), (96, 15944), (100, 15977), (102, 16022), (103, 16052), (111, 16127), (114, 16184), (120, 16241), (122, 16253), (127, 16301), (128, 16304), (135, 16436), (140, 16589), (142, 16604), (143, 16631), (144, 16670), (146, 16700), (150, 16733), (151, 16763), (155, 16838), (157, 16895), (158, 16898), (159, 16904), (162, 16940),

Gene: JDawG_28 Start: 14654, Stop: 17530, Start Num: 1

Candidate Starts for JDawG_28:

(Start: 1 @14654 has 43 MA's), (5, 14837), (6, 14888), (7, 14906), (8, 14930), (9, 15005), (12, 15044), (15, 15164), (17, 15173), (18, 15185), (20, 15233), (22, 15299), (32, 15470), (33, 15479), (36, 15521), (42, 15686), (43, 15698), (44, 15710), (47, 15761), (48, 15773), (49, 15776), (64, 16052), (67, 16067), (68, 16100), (69, 16109), (71, 16295), (72, 16325), (78, 16370), (79, 16379), (81, 16394), (83, 16412), (84, 16415), (86, 16436), (87, 16439), (88, 16457), (91, 16499), (92, 16502), (93, 16505), (96, 16526), (100, 16559), (102, 16604), (103, 16634), (114, 16766), (120, 16823), (122, 16835), (127, 16883), (128, 16886), (135, 17018), (140, 17171), (142, 17186), (143, 17213), (144, 17252), (146, 17282), (150, 17315), (151, 17345), (155, 17420), (157, 17477), (158, 17480), (159, 17486), (162, 17522),

Gene: JingleBells_28 Start: 14188, Stop: 17064, Start Num: 1

Candidate Starts for JingleBells_28:

(Start: 1 @14188 has 43 MA's), (5, 14371), (6, 14422), (7, 14440), (8, 14464), (9, 14539), (12, 14578), (15, 14698), (17, 14707), (18, 14719), (20, 14767), (22, 14833), (32, 15004), (33, 15013), (36, 15055), (42, 15220), (43, 15232), (44, 15244), (47, 15295), (48, 15307), (49, 15310), (57, 15445), (64, 15586), (67, 15601), (68, 15634), (69, 15643), (71, 15829), (78, 15904), (79, 15913), (81, 15928), (83, 15946), (84, 15949), (86, 15970), (87, 15973), (88, 15991), (91, 16033), (92, 16036), (93, 16039), (96, 16060), (100, 16093), (102, 16138), (103, 16168), (111, 16243), (114, 16300), (122, 16369), (127, 16417), (128, 16420), (135, 16552), (140, 16705), (142, 16720), (143, 16747), (144, 16786), (146, 16816), (150, 16849), (151, 16879), (155, 16954), (157, 17011), (158, 17014), (159, 17020), (162, 17056),

Gene: Karate_28 Start: 14323, Stop: 17199, Start Num: 1

Candidate Starts for Karate_28:

(Start: 1 @14323 has 43 MA's), (6, 14557), (7, 14575), (8, 14599), (9, 14674), (10, 14698), (12, 14713), (15, 14833), (18, 14854), (20, 14902), (22, 14968), (32, 15139), (33, 15148), (35, 15181), (36, 15190), (42, 15355), (43, 15367), (44, 15379), (48, 15442), (50, 15478), (58, 15592), (64, 15721), (67, 15736), (68, 15769), (69, 15778), (71, 15964), (72, 15994), (78, 16039), (79, 16048), (81, 16063), (83, 16081), (84, 16084), (86, 16105), (87, 16108), (90, 16156), (96, 16195), (100, 16228), (102, 16273), (105, 16324), (108, 16348), (109, 16357), (115, 16456), (120, 16492), (122, 16504), (127, 16552), (128, 16555), (130, 16612), (133, 16657), (134, 16666), (140, 16840), (142, 16855), (143, 16882), (144, 16921), (146, 16951), (150, 16984), (151, 17014), (155, 17089), (158, 17149), (159, 17155), (161, 17179), (162, 17191),

Gene: Kate_29 Start: 14919, Stop: 17795, Start Num: 1

Candidate Starts for Kate_29:

(Start: 1 @14919 has 43 MA's), (5, 15102), (6, 15153), (7, 15171), (8, 15195), (9, 15270), (10, 15294), (12, 15309), (15, 15429), (18, 15450), (20, 15498), (22, 15564), (32, 15735), (33, 15744), (35, 15777), (36, 15786), (37, 15819), (42, 15951), (43, 15963), (44, 15975), (48, 16038), (50, 16074), (58, 16188), (64, 16317), (67, 16332), (68, 16365), (69, 16374), (71, 16560), (76, 16626), (79, 16644), (81, 16659), (83, 16677), (84, 16680), (86, 16701), (87, 16704), (90, 16752), (95, 16788), (96, 16791), (100, 16824), (102, 16869), (107, 16935), (108, 16944), (115, 17052), (120, 17088), (122, 17100), (127, 17148), (128, 17151), (135, 17283), (140, 17436), (142, 17451), (143, 17478), (144, 17517), (146, 17547), (150, 17580), (151, 17610), (155, 17685), (158, 17745), (159, 17751), (161, 17775), (162, 17787),

Gene: Kors_30 Start: 14845, Stop: 17664, Start Num: 1

Candidate Starts for Kors_30:

(Start: 1 @14845 has 43 MA's), (3, 14965), (4, 15025), (6, 15079), (8, 15121), (9, 15196), (12, 15235), (13, 15325), (19, 15409), (20, 15424), (21, 15430), (23, 15502), (24, 15553), (25, 15559), (27, 15598), (36, 15712), (38, 15766), (40, 15829), (41, 15868), (42, 15877), (46, 15922), (49, 15967), (57, 16102), (59, 16207), (60, 16222), (61, 16228), (62, 16231), (65, 16249), (66, 16252), (69, 16270), (71, 16423), (75, 16474), (77, 16492), (79, 16507), (80, 16519), (81, 16522), (90, 16615), (92, 16630), (94, 16639), (96, 16654), (98, 16672), (99, 16675), (100, 16687), (102, 16732), (109, 16816), (110, 16819), (116, 16918), (119, 16948), (127, 17011), (128, 17014), (129, 17026), (138, 17212), (139, 17248), (140, 17299), (143, 17341), (144, 17380), (146, 17410), (150, 17443), (151, 17473), (153, 17512), (158, 17611), (159, 17617), (161, 17641),

Gene: Krampus_29 Start: 14917, Stop: 17793, Start Num: 1

Candidate Starts for Krampus_29:

(Start: 1 @14917 has 43 MA's), (5, 15100), (6, 15151), (7, 15169), (8, 15193), (9, 15268), (10, 15292), (12, 15307), (15, 15427), (18, 15448), (20, 15496), (22, 15562), (32, 15733), (33, 15742), (35, 15775), (36, 15784), (37, 15817), (42, 15949), (43, 15961), (44, 15973), (48, 16036), (50, 16072), (58, 16186), (64, 16315), (67, 16330), (68, 16363), (69, 16372), (71, 16558), (76, 16624), (79, 16642), (81, 16657), (83, 16675), (84, 16678), (86, 16699), (87, 16702), (90, 16750), (95, 16786), (96, 16789), (100, 16822), (102, 16867), (107, 16933), (108, 16942), (115, 17050), (120, 17086), (122, 17098), (127, 17146), (128, 17149), (135, 17281), (140, 17434), (142, 17449), (143, 17476), (144, 17515), (146, 17545), (150, 17578), (151, 17608), (155, 17683), (158, 17743), (159, 17749), (161, 17773), (162, 17785),

Gene: LordBart_30 Start: 14761, Stop: 17580, Start Num: 1

Candidate Starts for LordBart_30:

(Start: 1 @14761 has 43 MA's), (3, 14881), (4, 14941), (6, 14995), (8, 15037), (9, 15112), (12, 15151), (13, 15241), (19, 15325), (20, 15340), (21, 15346), (23, 15418), (24, 15469), (25, 15475), (27, 15514), (36, 15628), (38, 15682), (40, 15745), (41, 15784), (42, 15793), (46, 15838), (49, 15883), (57, 16018), (59, 16123), (60, 16138), (61, 16144), (62, 16147), (65, 16165), (66, 16168), (69, 16186), (71, 16339), (75, 16390), (77, 16408), (79, 16423), (80, 16435), (81, 16438), (90, 16531), (92, 16546), (94, 16555), (96, 16570), (98, 16588), (99, 16591), (100, 16603), (102, 16648), (109, 16732), (110, 16735), (116, 16834), (119, 16864), (127, 16927), (128, 16930), (129, 16942), (138, 17128), (139, 17164), (140, 17215), (143, 17257), (144, 17296), (146, 17326), (150, 17359), (151, 17389), (153, 17428), (158, 17527), (159, 17533), (161, 17557),

Gene: MortySmith_27 Start: 14047, Stop: 16923, Start Num: 1

Candidate Starts for MortySmith_27:

(Start: 1 @14047 has 43 MA's), (5, 14230), (6, 14281), (7, 14299), (8, 14323), (9, 14398), (11, 14428), (13, 14527), (15, 14557), (16, 14560), (17, 14566), (18, 14578), (22, 14692), (32, 14863), (33, 14872), (36, 14914), (42, 15079), (43, 15091), (44, 15103), (47, 15154), (52, 15232), (64, 15445), (67, 15460), (68, 15493), (69, 15502), (71, 15688), (72, 15718), (79, 15772), (81, 15787), (83, 15805), (84, 15808), (86, 15829), (87, 15832), (88, 15850), (91, 15892), (92, 15895), (93, 15898), (96, 15919), (100, 15952), (102, 15997), (103, 16027), (111, 16102), (120, 16216), (122, 16228), (127, 16276), (128, 16279),

(135, 16411), (140, 16564), (142, 16579), (143, 16606), (144, 16645), (146, 16675), (150, 16708),
(151, 16738), (155, 16813), (157, 16870), (158, 16873), (159, 16879), (162, 16915),

Gene: NarutoRun_29 Start: 14910, Stop: 17786, Start Num: 1

Candidate Starts for NarutoRun_29:

(Start: 1 @14910 has 43 MA's), (5, 15093), (6, 15144), (7, 15162), (8, 15186), (9, 15261), (10, 15285),
(12, 15300), (15, 15420), (18, 15441), (20, 15489), (22, 15555), (32, 15726), (33, 15735), (35, 15768),
(36, 15777), (37, 15810), (42, 15942), (43, 15954), (44, 15966), (48, 16029), (50, 16065), (58, 16179),
(64, 16308), (67, 16323), (68, 16356), (69, 16365), (71, 16551), (76, 16617), (79, 16635), (81, 16650),
(83, 16668), (84, 16671), (86, 16692), (87, 16695), (90, 16743), (95, 16779), (96, 16782), (100, 16815),
(102, 16860), (107, 16926), (108, 16935), (115, 17043), (120, 17079), (122, 17091), (127, 17139),
(128, 17142), (135, 17274), (140, 17427), (142, 17442), (143, 17469), (144, 17508), (146, 17538),
(150, 17571), (151, 17601), (155, 17676), (158, 17736), (159, 17742), (161, 17766), (162, 17778),

Gene: Neptune_29 Start: 14887, Stop: 17763, Start Num: 1

Candidate Starts for Neptune_29:

(Start: 1 @14887 has 43 MA's), (5, 15070), (6, 15121), (7, 15139), (8, 15163), (9, 15238), (10, 15262),
(12, 15277), (15, 15397), (18, 15418), (20, 15466), (22, 15532), (32, 15703), (33, 15712), (35, 15745),
(36, 15754), (37, 15787), (42, 15919), (43, 15931), (44, 15943), (48, 16006), (50, 16042), (58, 16156),
(64, 16285), (67, 16300), (68, 16333), (69, 16342), (71, 16528), (76, 16594), (79, 16612), (81, 16627),
(83, 16645), (84, 16648), (86, 16669), (87, 16672), (90, 16720), (95, 16756), (96, 16759), (100, 16792),
(102, 16837), (107, 16903), (108, 16912), (115, 17020), (120, 17056), (122, 17068), (127, 17116),
(128, 17119), (135, 17251), (140, 17404), (142, 17419), (143, 17446), (144, 17485), (146, 17515),
(150, 17548), (151, 17578), (155, 17653), (158, 17713), (159, 17719), (161, 17743), (162, 17755),

Gene: OhDear_29 Start: 14916, Stop: 17792, Start Num: 1

Candidate Starts for OhDear_29:

(Start: 1 @14916 has 43 MA's), (5, 15099), (6, 15150), (7, 15168), (8, 15192), (9, 15267), (10, 15291),
(12, 15306), (15, 15426), (18, 15447), (20, 15495), (22, 15561), (32, 15732), (33, 15741), (35, 15774),
(36, 15783), (37, 15816), (42, 15948), (43, 15960), (44, 15972), (48, 16035), (50, 16071), (58, 16185),
(64, 16314), (67, 16329), (68, 16362), (69, 16371), (71, 16557), (76, 16623), (79, 16641), (81, 16656),
(83, 16674), (84, 16677), (86, 16698), (87, 16701), (90, 16749), (95, 16785), (96, 16788), (100, 16821),
(102, 16866), (107, 16932), (108, 16941), (120, 17085), (122, 17097), (127, 17145), (128, 17148),
(135, 17280), (140, 17433), (142, 17448), (143, 17475), (144, 17514), (146, 17544), (150, 17577),
(151, 17607), (155, 17682), (158, 17742), (159, 17748), (161, 17772), (162, 17784),

Gene: OverHedge_29 Start: 14877, Stop: 17753, Start Num: 1

Candidate Starts for OverHedge_29:

(Start: 1 @14877 has 43 MA's), (5, 15060), (6, 15111), (7, 15129), (8, 15153), (9, 15228), (10, 15252),
(12, 15267), (15, 15387), (18, 15408), (20, 15456), (22, 15522), (32, 15693), (33, 15702), (35, 15735),
(36, 15744), (37, 15777), (42, 15909), (43, 15921), (44, 15933), (48, 15996), (50, 16032), (58, 16146),
(64, 16275), (67, 16290), (68, 16323), (69, 16332), (71, 16518), (76, 16584), (79, 16602), (81, 16617),
(83, 16635), (84, 16638), (86, 16659), (87, 16662), (90, 16710), (95, 16746), (96, 16749), (100, 16782),
(102, 16827), (107, 16893), (108, 16902), (115, 17010), (120, 17046), (122, 17058), (127, 17106),
(128, 17109), (135, 17241), (140, 17394), (142, 17409), (143, 17436), (144, 17475), (146, 17505),
(150, 17538), (151, 17568), (155, 17643), (158, 17703), (159, 17709), (161, 17733), (162, 17745),

Gene: Pharpay_29 Start: 14932, Stop: 17808, Start Num: 1

Candidate Starts for Pharpay_29:

(Start: 1 @14932 has 43 MA's), (5, 15115), (6, 15166), (7, 15184), (8, 15208), (9, 15283), (10, 15307),
(12, 15322), (15, 15442), (18, 15463), (20, 15511), (22, 15577), (32, 15748), (33, 15757), (35, 15790),
(36, 15799), (37, 15832), (42, 15964), (43, 15976), (44, 15988), (48, 16051), (50, 16087), (58, 16201),
(64, 16330), (67, 16345), (68, 16378), (69, 16387), (71, 16573), (76, 16639), (79, 16657), (81, 16672),

(83, 16690), (84, 16693), (86, 16714), (87, 16717), (90, 16765), (95, 16801), (96, 16804), (100, 16837), (102, 16882), (107, 16948), (108, 16957), (120, 17101), (122, 17113), (127, 17161), (128, 17164), (135, 17296), (140, 17449), (142, 17464), (143, 17491), (144, 17530), (146, 17560), (150, 17593), (151, 17623), (155, 17698), (158, 17758), (159, 17764), (161, 17788), (162, 17800),

Gene: PhunaPhoke_29 Start: 14905, Stop: 17781, Start Num: 1

Candidate Starts for PhunaPhoke_29:

(Start: 1 @14905 has 43 MA's), (5, 15088), (6, 15139), (7, 15157), (8, 15181), (9, 15256), (10, 15280), (12, 15295), (15, 15415), (18, 15436), (20, 15484), (22, 15550), (32, 15721), (33, 15730), (35, 15763), (36, 15772), (37, 15805), (42, 15937), (43, 15949), (44, 15961), (48, 16024), (50, 16060), (58, 16174), (64, 16303), (67, 16318), (68, 16351), (69, 16360), (71, 16546), (76, 16612), (79, 16630), (81, 16645), (83, 16663), (84, 16666), (86, 16687), (87, 16690), (90, 16738), (95, 16774), (96, 16777), (100, 16810), (102, 16855), (107, 16921), (108, 16930), (120, 17074), (122, 17086), (127, 17134), (128, 17137), (135, 17269), (140, 17422), (142, 17437), (143, 17464), (144, 17503), (146, 17533), (150, 17566), (151, 17596), (155, 17671), (158, 17731), (159, 17737), (161, 17761), (162, 17773),

Gene: Potty_29 Start: 14910, Stop: 17786, Start Num: 1

Candidate Starts for Potty_29:

(Start: 1 @14910 has 43 MA's), (5, 15093), (6, 15144), (7, 15162), (8, 15186), (9, 15261), (10, 15285), (12, 15300), (15, 15420), (18, 15441), (20, 15489), (22, 15555), (32, 15726), (33, 15735), (35, 15768), (36, 15777), (37, 15810), (42, 15942), (43, 15954), (44, 15966), (48, 16029), (50, 16065), (58, 16179), (64, 16308), (67, 16323), (68, 16356), (69, 16365), (71, 16551), (76, 16617), (79, 16635), (81, 16650), (83, 16668), (84, 16671), (86, 16692), (87, 16695), (90, 16743), (95, 16779), (96, 16782), (100, 16815), (102, 16860), (107, 16926), (108, 16935), (115, 17043), (120, 17079), (122, 17091), (127, 17139), (128, 17142), (135, 17274), (140, 17427), (142, 17442), (143, 17469), (144, 17508), (146, 17538), (150, 17571), (151, 17601), (155, 17676), (158, 17736), (159, 17742), (161, 17766), (162, 17778),

Gene: Poultress_28 Start: 14674, Stop: 17550, Start Num: 1

Candidate Starts for Poultress_28:

(Start: 1 @14674 has 43 MA's), (5, 14857), (6, 14908), (7, 14926), (8, 14950), (9, 15025), (10, 15049), (12, 15064), (15, 15184), (18, 15205), (20, 15253), (22, 15319), (32, 15490), (33, 15499), (35, 15532), (36, 15541), (37, 15574), (42, 15706), (43, 15718), (44, 15730), (48, 15793), (50, 15829), (58, 15943), (64, 16072), (67, 16087), (68, 16120), (69, 16129), (71, 16315), (72, 16345), (81, 16414), (83, 16432), (84, 16435), (86, 16456), (87, 16459), (90, 16507), (96, 16546), (100, 16579), (102, 16624), (105, 16675), (108, 16699), (109, 16708), (115, 16807), (120, 16843), (122, 16855), (128, 16906), (133, 17008), (140, 17191), (142, 17206), (143, 17233), (144, 17272), (146, 17302), (150, 17335), (151, 17365), (155, 17440), (158, 17500), (159, 17506), (161, 17530), (162, 17542),

Gene: Rachella_29 Start: 14913, Stop: 17789, Start Num: 1

Candidate Starts for Rachella_29:

(Start: 1 @14913 has 43 MA's), (5, 15096), (6, 15147), (7, 15165), (8, 15189), (9, 15264), (10, 15288), (12, 15303), (15, 15423), (18, 15444), (20, 15492), (22, 15558), (32, 15729), (33, 15738), (35, 15771), (36, 15780), (37, 15813), (42, 15945), (43, 15957), (44, 15969), (48, 16032), (50, 16068), (58, 16182), (64, 16311), (67, 16326), (68, 16359), (69, 16368), (71, 16554), (76, 16620), (79, 16638), (81, 16653), (83, 16671), (84, 16674), (86, 16695), (87, 16698), (90, 16746), (95, 16782), (96, 16785), (100, 16818), (102, 16863), (107, 16929), (108, 16938), (115, 17046), (120, 17082), (122, 17094), (127, 17142), (128, 17145), (135, 17277), (140, 17430), (142, 17445), (143, 17472), (144, 17511), (146, 17541), (150, 17574), (151, 17604), (155, 17679), (158, 17739), (159, 17745), (161, 17769), (162, 17781),

Gene: Rie18_29 Start: 14255, Stop: 17302, Start Num: 1

Candidate Starts for Rie18_29:

(Start: 1 @14255 has 43 MA's), (5, 14438), (6, 14489), (7, 14507), (8, 14531), (9, 14606), (10, 14630), (12, 14645), (18, 14786), (20, 14834), (22, 14900), (29, 15047), (30, 15095), (31, 15131), (32, 15242),

(33, 15251), (34, 15269), (35, 15284), (42, 15458), (43, 15470), (44, 15482), (51, 15599), (53, 15614), (55, 15650), (58, 15695), (64, 15824), (67, 15839), (68, 15872), (69, 15881), (71, 16067), (72, 16097), (76, 16133), (81, 16166), (83, 16184), (87, 16211), (90, 16259), (95, 16295), (96, 16298), (99, 16319), (100, 16331), (102, 16376), (105, 16427), (108, 16451), (109, 16460), (120, 16595), (122, 16607), (127, 16655), (128, 16658), (130, 16715), (132, 16739), (134, 16769), (140, 16943), (142, 16958), (143, 16985), (144, 17024), (146, 17054), (150, 17087), (151, 17117), (155, 17192), (158, 17252), (159, 17258), (161, 17282), (162, 17294),

Gene: RikSengupta_30 Start: 14882, Stop: 17701, Start Num: 1

Candidate Starts for RikSengupta_30:

(Start: 1 @14882 has 43 MA's), (3, 15002), (4, 15062), (6, 15116), (7, 15134), (8, 15158), (9, 15233), (12, 15272), (13, 15362), (19, 15446), (20, 15461), (21, 15467), (23, 15539), (24, 15590), (25, 15596), (27, 15635), (36, 15749), (38, 15803), (40, 15866), (41, 15905), (42, 15914), (46, 15959), (49, 16004), (57, 16139), (59, 16244), (60, 16259), (61, 16265), (62, 16268), (65, 16286), (66, 16289), (69, 16307), (71, 16460), (75, 16511), (77, 16529), (79, 16544), (80, 16556), (81, 16559), (90, 16652), (92, 16667), (94, 16676), (96, 16691), (98, 16709), (99, 16712), (100, 16724), (102, 16769), (109, 16853), (110, 16856), (116, 16955), (119, 16985), (127, 17048), (128, 17051), (129, 17063), (138, 17249), (139, 17285), (140, 17336), (143, 17378), (144, 17417), (146, 17447), (150, 17480), (151, 17510), (153, 17549), (158, 17648), (159, 17654), (161, 17678),

Gene: SafetyGuy_29 Start: 14916, Stop: 17792, Start Num: 1

Candidate Starts for SafetyGuy_29:

(Start: 1 @14916 has 43 MA's), (5, 15099), (6, 15150), (7, 15168), (8, 15192), (9, 15267), (10, 15291), (12, 15306), (15, 15426), (18, 15447), (20, 15495), (22, 15561), (32, 15732), (33, 15741), (35, 15774), (36, 15783), (37, 15816), (42, 15948), (43, 15960), (44, 15972), (48, 16035), (50, 16071), (58, 16185), (64, 16314), (67, 16329), (68, 16362), (69, 16371), (71, 16557), (76, 16623), (79, 16641), (81, 16656), (83, 16674), (84, 16677), (86, 16698), (87, 16701), (90, 16749), (95, 16785), (96, 16788), (100, 16821), (102, 16866), (107, 16932), (108, 16941), (115, 17049), (120, 17085), (122, 17097), (127, 17145), (128, 17148), (135, 17280), (140, 17433), (142, 17448), (143, 17475), (144, 17514), (146, 17544), (150, 17577), (151, 17607), (155, 17682), (158, 17742), (159, 17748), (161, 17772), (162, 17784),

Gene: Shrew_62 Start: 29859, Stop: 32717, Start Num: 2

Candidate Starts for Shrew_62:

(Start: 2 @29859 has 1 MA's), (4, 30030), (8, 30126), (14, 30345), (17, 30369), (24, 30558), (25, 30564), (28, 30606), (36, 30717), (38, 30771), (39, 30822), (45, 30924), (49, 30972), (54, 31068), (56, 31092), (63, 31233), (70, 31281), (74, 31461), (82, 31521), (85, 31542), (89, 31581), (96, 31635), (101, 31686), (104, 31761), (106, 31767), (112, 31851), (113, 31854), (117, 31908), (118, 31911), (121, 31941), (123, 31962), (124, 31965), (125, 31974), (126, 31986), (130, 32052), (131, 32070), (133, 32097), (136, 32139), (137, 32160), (140, 32280), (141, 32292), (145, 32385), (146, 32391), (147, 32403), (149, 32421), (152, 32475), (154, 32532), (156, 32577), (160, 32613), (163, 32709),

Gene: SilentWarrior_28 Start: 14080, Stop: 16956, Start Num: 1

Candidate Starts for SilentWarrior_28:

(Start: 1 @14080 has 43 MA's), (5, 14263), (6, 14314), (7, 14332), (8, 14356), (9, 14431), (10, 14455), (12, 14470), (15, 14590), (18, 14611), (20, 14659), (22, 14725), (32, 14896), (33, 14905), (35, 14938), (36, 14947), (37, 14980), (42, 15112), (43, 15124), (44, 15136), (47, 15187), (50, 15235), (58, 15349), (64, 15478), (67, 15493), (68, 15526), (69, 15535), (71, 15721), (78, 15796), (79, 15805), (81, 15820), (83, 15838), (84, 15841), (86, 15862), (87, 15865), (88, 15883), (91, 15925), (92, 15928), (93, 15931), (96, 15952), (100, 15985), (102, 16030), (103, 16060), (111, 16135), (120, 16249), (122, 16261), (127, 16309), (128, 16312), (135, 16444), (140, 16597), (142, 16612), (143, 16639), (144, 16678), (146, 16708), (150, 16741), (151, 16771), (155, 16846), (157, 16903), (158, 16906), (159, 16912), (162, 16948),

Gene: Snakehole_29 Start: 14169, Stop: 17045, Start Num: 1

Candidate Starts for Snakehole_29:

(Start: 1 @14169 has 43 MA's), (5, 14352), (6, 14403), (7, 14421), (8, 14445), (9, 14520), (10, 14544), (12, 14559), (15, 14679), (18, 14700), (20, 14748), (22, 14814), (32, 14985), (33, 14994), (35, 15027), (36, 15036), (37, 15069), (42, 15201), (43, 15213), (44, 15225), (48, 15288), (50, 15324), (58, 15438), (64, 15567), (67, 15582), (68, 15615), (69, 15624), (71, 15810), (78, 15885), (79, 15894), (81, 15909), (83, 15927), (84, 15930), (86, 15951), (87, 15954), (88, 15972), (91, 16014), (92, 16017), (93, 16020), (96, 16041), (100, 16074), (102, 16119), (103, 16149), (111, 16224), (114, 16281), (120, 16338), (122, 16350), (127, 16398), (128, 16401), (135, 16533), (140, 16686), (142, 16701), (143, 16728), (144, 16767), (146, 16797), (150, 16830), (151, 16860), (155, 16935), (157, 16992), (158, 16995), (159, 17001), (162, 17037),

Gene: Sparcetus_30 Start: 14761, Stop: 17580, Start Num: 1

Candidate Starts for Sparcetus_30:

(Start: 1 @14761 has 43 MA's), (3, 14881), (4, 14941), (6, 14995), (8, 15037), (9, 15112), (12, 15151), (13, 15241), (19, 15325), (20, 15340), (21, 15346), (23, 15418), (24, 15469), (25, 15475), (27, 15514), (36, 15628), (38, 15682), (40, 15745), (41, 15784), (42, 15793), (46, 15838), (49, 15883), (57, 16018), (59, 16123), (60, 16138), (61, 16144), (62, 16147), (65, 16165), (66, 16168), (69, 16186), (71, 16339), (75, 16390), (77, 16408), (79, 16423), (80, 16435), (81, 16438), (90, 16531), (92, 16546), (94, 16555), (96, 16570), (98, 16588), (99, 16591), (100, 16603), (102, 16648), (109, 16732), (110, 16735), (116, 16834), (119, 16864), (127, 16927), (128, 16930), (129, 16942), (138, 17128), (139, 17164), (140, 17215), (143, 17257), (144, 17296), (146, 17326), (150, 17359), (151, 17389), (153, 17428), (158, 17527), (159, 17533), (161, 17557),

Gene: Tedro_29 Start: 14383, Stop: 17259, Start Num: 1

Candidate Starts for Tedro_29:

(Start: 1 @14383 has 43 MA's), (5, 14566), (6, 14617), (7, 14635), (8, 14659), (9, 14734), (10, 14758), (12, 14773), (15, 14893), (18, 14914), (20, 14962), (22, 15028), (32, 15199), (33, 15208), (35, 15241), (36, 15250), (37, 15283), (42, 15415), (43, 15427), (44, 15439), (48, 15502), (50, 15538), (58, 15652), (64, 15781), (67, 15796), (68, 15829), (69, 15838), (71, 16024), (76, 16090), (79, 16108), (81, 16123), (83, 16141), (84, 16144), (86, 16165), (87, 16168), (90, 16216), (95, 16252), (96, 16255), (100, 16288), (102, 16333), (107, 16399), (108, 16408), (115, 16516), (120, 16552), (122, 16564), (127, 16612), (128, 16615), (135, 16747), (140, 16900), (142, 16915), (143, 16942), (144, 16981), (146, 17011), (150, 17044), (151, 17074), (155, 17149), (158, 17209), (159, 17215), (161, 17239), (162, 17251),

Gene: Tiggy93_29 Start: 14916, Stop: 17792, Start Num: 1

Candidate Starts for Tiggy93_29:

(Start: 1 @14916 has 43 MA's), (5, 15099), (6, 15150), (7, 15168), (8, 15192), (9, 15267), (10, 15291), (12, 15306), (15, 15426), (18, 15447), (20, 15495), (22, 15561), (32, 15732), (33, 15741), (35, 15774), (36, 15783), (37, 15816), (42, 15948), (43, 15960), (44, 15972), (48, 16035), (50, 16071), (58, 16185), (64, 16314), (67, 16329), (68, 16362), (69, 16371), (71, 16557), (76, 16623), (79, 16641), (81, 16656), (83, 16674), (84, 16677), (86, 16698), (87, 16701), (90, 16749), (95, 16785), (96, 16788), (100, 16821), (102, 16866), (107, 16932), (108, 16941), (115, 17049), (120, 17085), (122, 17097), (127, 17145), (128, 17148), (135, 17280), (140, 17433), (142, 17448), (143, 17475), (144, 17514), (146, 17544), (150, 17577), (151, 17607), (155, 17682), (158, 17742), (159, 17748), (161, 17772), (162, 17784),

Gene: TinyMiny_30 Start: 14780, Stop: 17599, Start Num: 1

Candidate Starts for TinyMiny_30:

(Start: 1 @14780 has 43 MA's), (3, 14900), (4, 14960), (6, 15014), (7, 15032), (8, 15056), (9, 15131), (12, 15170), (13, 15260), (19, 15344), (20, 15359), (21, 15365), (23, 15437), (24, 15488), (25, 15494), (26, 15530), (27, 15533), (36, 15647), (38, 15701), (40, 15764), (41, 15803), (42, 15812), (46, 15857), (49, 15902), (57, 16037), (59, 16142), (60, 16157), (61, 16163), (62, 16166), (65, 16184), (66, 16187), (69, 16205), (71, 16358), (75, 16409), (77, 16427), (79, 16442), (80, 16454), (81, 16457), (90, 16550),

(92, 16565), (94, 16574), (96, 16589), (98, 16607), (99, 16610), (100, 16622), (102, 16667), (109, 16751), (110, 16754), (116, 16853), (119, 16883), (127, 16946), (128, 16949), (129, 16961), (138, 17147), (139, 17183), (140, 17234), (143, 17276), (144, 17315), (146, 17345), (150, 17378), (151, 17408), (153, 17447), (158, 17546), (159, 17552), (161, 17576),

Gene: Tongui_28 Start: 14247, Stop: 17294, Start Num: 1

Candidate Starts for Tongui_28:

(Start: 1 @14247 has 43 MA's), (5, 14430), (6, 14481), (7, 14499), (8, 14523), (9, 14598), (10, 14622), (12, 14637), (18, 14778), (19, 14811), (20, 14826), (22, 14892), (26, 14997), (29, 15039), (30, 15087), (31, 15123), (32, 15234), (33, 15243), (35, 15276), (42, 15450), (43, 15462), (44, 15474), (51, 15591), (53, 15606), (55, 15642), (58, 15687), (64, 15816), (67, 15831), (68, 15864), (69, 15873), (71, 16059), (72, 16089), (78, 16134), (79, 16143), (81, 16158), (86, 16200), (87, 16203), (88, 16221), (90, 16251), (95, 16287), (96, 16290), (98, 16308), (100, 16323), (102, 16368), (107, 16434), (108, 16443), (111, 16473), (120, 16587), (122, 16599), (127, 16647), (134, 16761), (140, 16935), (142, 16950), (143, 16977), (144, 17016), (146, 17046), (148, 17067), (150, 17079), (151, 17109), (158, 17244), (159, 17250), (161, 17274), (162, 17286),

Gene: WinnieLou_30 Start: 14542, Stop: 17418, Start Num: 1

Candidate Starts for WinnieLou_30:

(Start: 1 @14542 has 43 MA's), (6, 14776), (7, 14794), (8, 14818), (9, 14893), (12, 14932), (15, 15052), (18, 15073), (20, 15121), (22, 15187), (32, 15358), (33, 15367), (35, 15400), (36, 15409), (37, 15442), (42, 15574), (43, 15586), (44, 15598), (48, 15661), (50, 15697), (54, 15760), (64, 15940), (67, 15955), (68, 15988), (69, 15997), (71, 16183), (72, 16213), (78, 16258), (81, 16282), (83, 16300), (84, 16303), (86, 16324), (87, 16327), (90, 16375), (96, 16414), (100, 16447), (102, 16492), (105, 16543), (108, 16567), (109, 16576), (120, 16711), (122, 16723), (127, 16771), (128, 16774), (130, 16831), (132, 16855), (134, 16885), (140, 17059), (142, 17074), (143, 17101), (144, 17140), (146, 17170), (150, 17203), (151, 17233), (155, 17308), (158, 17368), (159, 17374), (161, 17398), (162, 17410),