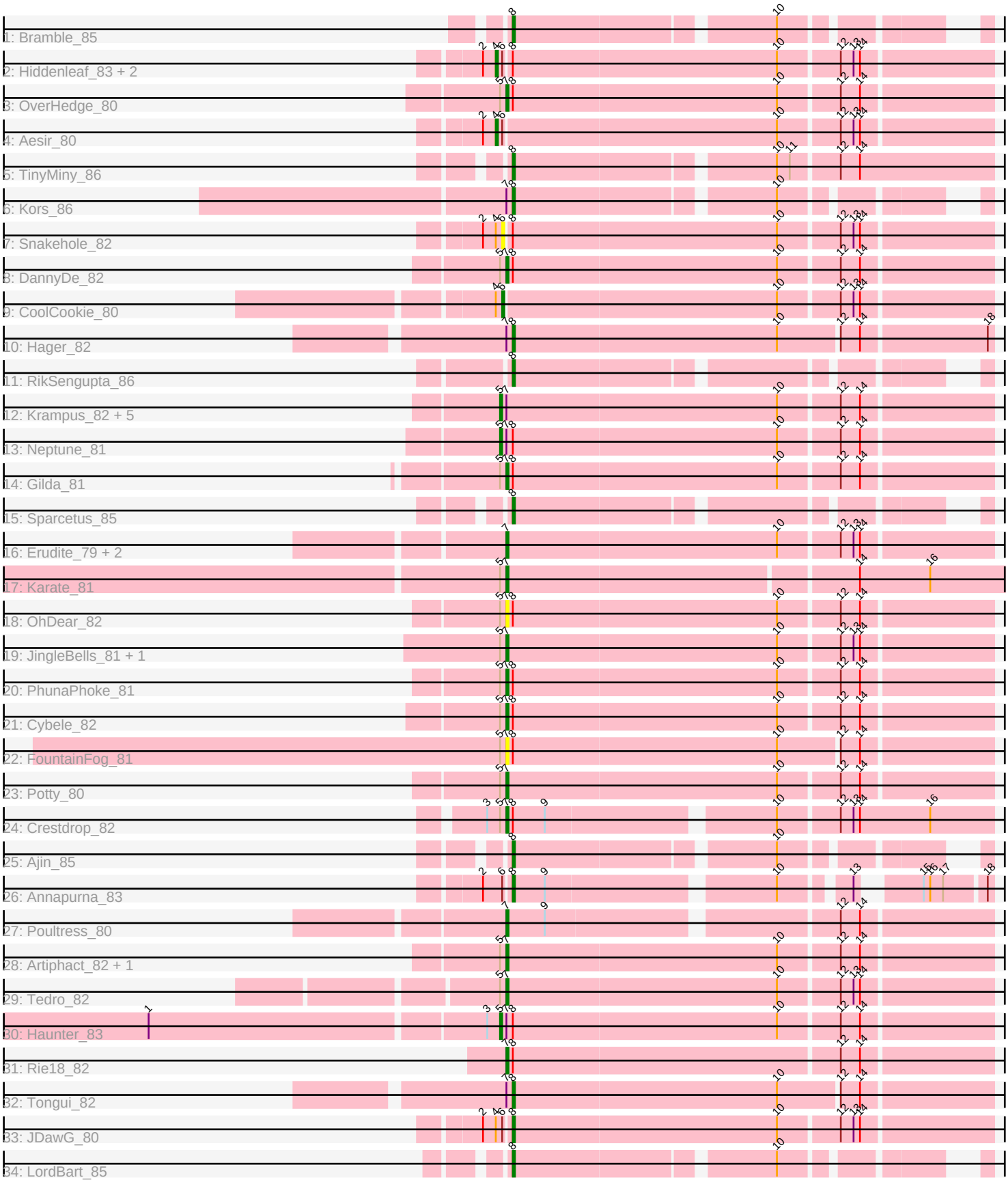
Zoomed Pham 296690



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 296690 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296690 has 45 members, 3 are drafts.

Phages represented in each track:
• Track 1 : Bramble_85
• Track 2 : Hiddenleaf_83, Chivey_83, FreddieHg_83
• Track 3 : OverHedge_80
• Track 4 : Aesir_80
• Track 5 : TinyMiny_86
• Track 6 : Kors_86
• Track 7 : Snakehole_82
• Track 8 : DannyDe_82
• Track 9 : CoolCookie_80
• Track 10 : Hager_82
• Track 11 : RikSengupta_86
• Track 12 : Krampus_82, Rachella_82, Kate_82, NarutoRun_81, Anakin_81, AnnaSerena_82
• Track 13 : Neptune_81
• Track 14 : Gilda_81
• Track 15 : Sparcetus_85
• Track 16 : Erudite_79, MortySmith_78, Dauntless_79
• Track 17 : Karate_81
• Track 18 : OhDear_82
• Track 19 : JingleBells_81, SilentWarrior_82
• Track 20 : PhunaPhoke_81
• Track 21 : Cybele_82
• Track 22 : FountainFog_81
• Track 23 : Potty_80
• Track 24 : Crestdrop_82
• Track 25 : Ajin_85
• Track 26 : Annapurna_83
• Track 27 : Poultress_80
• Track 28 : Artiphact_82, Pharpay_80
• Track 29 : Tedro_82
• Track 30 : Haunter_83
• Track 31 : Rie18_82
• Track 32 : Tongui_82
• Track 33 : JDawG_80
• Track 34 : LordBart_85

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

The start number called the most often in the published annotations is 7, it was called in 18 of the 42 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Artiphact_82, Crestdrop_82, Cybele_82, DannyDe_82, Dauntless_79, Erudite_79, FountainFog_81, Gilda_81, JingleBells_81, Karate_81, MortySmith_78, OhDear_82, OverHedge_80, Pharpay_80, PhunaPhoke_81, Potty_80, Poultress_80, Rie18_82, SilentWarrior_82, Tedro_82,

Genes that have the "Most Annotated" start but do not call it:
• Anakin_81, AnnaSerena_82, Hager_82, Haunter_83, Kate_82, Kors_86, Krampus_82, NarutoRun_81, Neptune_81, Rachella_82, Tongui_82,

Genes that do not have the "Most Annotated" start:
• Aesir_80, Ajin_85, Annapurna_83, Bramble_85, Chivey_83, CoolCookie_80, FreddieHg_83, Hiddenleaf_83, JDawG_80, LordBart_85, RikSengupta_86, Snakehole_82, Sparcetus_85, TinyMiny_86,

Summary by start number:

Start 4:
• Found in 7 of 45 (15.6%) of genes in pham
• Manual Annotations of this start: 4 of 42
• Called 57.1% of time when present
• Phage (with cluster) where this start called: Aesir_80 (EF), Chivey_83 (EF), FreddieHg_83 (EF), Hiddenleaf_83 (EF),

Start 5:
• Found in 23 of 45 (51.1%) of genes in pham
• Manual Annotations of this start: 8 of 42
• Called 34.8% of time when present
• Phage (with cluster) where this start called: Anakin_81 (EF), AnnaSerena_82 (EF), Haunter_83 (EF), Kate_82 (EF), Krampus_82 (EF), NarutoRun_81 (EF), Neptune_81 (EF), Rachella_82 (EF),

Start 6:
• Found in 8 of 45 (17.8%) of genes in pham
• Manual Annotations of this start: 1 of 42
• Called 25.0% of time when present
• Phage (with cluster) where this start called: CoolCookie_80 (EF), Snakehole_82 (EF),

Start 7:
• Found in 31 of 45 (68.9%) of genes in pham
• Manual Annotations of this start: 18 of 42
• Called 64.5% of time when present
• Phage (with cluster) where this start called: Artiphact_82 (EF), Crestdrop_82 (EF), Cybele_82 (EF), DannyDe_82 (EF), Dauntless_79 (EF), Erudite_79 (EF), FountainFog_81 (EF), Gilda_81 (EF), JingleBells_81 (EF), Karate_81 (EF), MortySmith_78 (EF), OhDear_82 (EF), OverHedge_80 (EF), Pharpay_80 (EF),

PhunaPhoke_81 (EF), Potty_80 (EF), Poultress_80 (EF), Rie18_82 (EF), SilentWarrior_82 (EF), Tedro_82 (EF),

Start 8:
• Found in 26 of 45 (57.8%) of genes in pham
• Manual Annotations of this start: 11 of 42
• Called 42.3% of time when present
• Phage (with cluster) where this start called: Ajin_85 (EF), Annapurna_83 (EF), Bramble_85 (EF), Hager_82 (EF), JDawG_80 (EF), Kors_86 (EF), LordBart_85 (EF), RikSengupta_86 (EF), Sparcetus_85 (EF), TinyMiny_86 (EF), Tongui_82 (EF),

Summary by clusters:

There is one cluster represented in this pham: EF

Info for manual annotations of cluster EF:
•Start number 4 was manually annotated 4 times for cluster EF.
•Start number 5 was manually annotated 8 times for cluster EF.
•Start number 6 was manually annotated 1 time for cluster EF.
•Start number 7 was manually annotated 18 times for cluster EF.
•Start number 8 was manually annotated 11 times for cluster EF.

Gene Information:

Gene: Aesir_80 Start: 54421, Stop: 55284, Start Num: 4
Candidate Starts for Aesir_80:
(2, 54415), (Start: 4 @54421 has 4 MA's), (Start: 6 @54424 has 1 MA's), (10, 54550), (12, 54577), (13, 54583), (14, 54586), (27, 54853), (30, 54892), (31, 54904), (35, 54952), (36, 54970), (37, 55003), (39, 55021), (41, 55039), (52, 55195),

Gene: Ajin_85 Start: 54988, Stop: 55917, Start Num: 8
Candidate Starts for Ajin_85:
(Start: 8 @54988 has 11 MA's), (10, 55102), (21, 55177), (23, 55237), (28, 55414), (30, 55432), (32, 55453), (33, 55456), (34, 55468), (40, 55579), (42, 55597), (44, 55660), (47, 55741), (57, 55807), (61, 55834), (62, 55858), (63, 55864),

Gene: Anakin_81 Start: 54801, Stop: 55664, Start Num: 5
Candidate Starts for Anakin_81:
(Start: 5 @54801 has 8 MA's), (Start: 7 @54804 has 18 MA's), (10, 54930), (12, 54957), (14, 54966), (30, 55272), (31, 55284), (35, 55332), (36, 55350), (37, 55383), (56, 55596),

Gene: AnnaSerena_82 Start: 54835, Stop: 55698, Start Num: 5
Candidate Starts for AnnaSerena_82:
(Start: 5 @54835 has 8 MA's), (Start: 7 @54838 has 18 MA's), (10, 54964), (12, 54991), (14, 55000), (30, 55306), (31, 55318), (35, 55366), (36, 55384), (37, 55417), (56, 55630),

Gene: Annapurna_83 Start: 54426, Stop: 55247, Start Num: 8
Candidate Starts for Annapurna_83:
(2, 54414), (Start: 6 @54423 has 1 MA's), (Start: 8 @54426 has 11 MA's), (9, 54441), (10, 54540), (13, 54567), (15, 54588), (16, 54591), (17, 54597), (18, 54615), (27, 54816), (30, 54855), (31, 54867), (35, 54915), (36, 54933), (37, 54966), (39, 54984), (41, 55002), (52, 55158),

Gene: Artiphact_82 Start: 54828, Stop: 55688, Start Num: 7
Candidate Starts for Artiphact_82:
(Start: 5 @54825 has 8 MA's), (Start: 7 @54828 has 18 MA's), (10, 54954), (12, 54981), (14, 54990), (27, 55257), (30, 55296), (31, 55308), (35, 55356), (36, 55374), (37, 55407), (56, 55620),

Gene: Bramble_85 Start: 54955, Stop: 55884, Start Num: 8
Candidate Starts for Bramble_85:
(Start: 8 @54955 has 11 MA's), (10, 55069), (21, 55144), (23, 55204), (28, 55381), (30, 55399), (32, 55420), (33, 55423), (34, 55435), (40, 55546), (42, 55564), (44, 55627), (47, 55708), (57, 55774), (61, 55801), (62, 55825), (63, 55831),

Gene: Chivey_83 Start: 54223, Stop: 55083, Start Num: 4
Candidate Starts for Chivey_83:
(2, 54217), (Start: 4 @54223 has 4 MA's), (Start: 6 @54226 has 1 MA's), (Start: 8 @54229 has 11 MA's), (10, 54352), (12, 54379), (13, 54385), (14, 54388), (27, 54652), (30, 54691), (31, 54703), (35, 54751), (36, 54769), (37, 54802), (39, 54820), (41, 54838), (52, 54994),

Gene: CoolCookie_80 Start: 54925, Stop: 55782, Start Num: 6
Candidate Starts for CoolCookie_80:
(Start: 4 @54922 has 4 MA's), (Start: 6 @54925 has 1 MA's), (10, 55051), (12, 55078), (13, 55084), (14, 55087), (27, 55351), (30, 55390), (31, 55402), (35, 55450), (37, 55501), (39, 55519), (41, 55537), (52, 55693),

Gene: Crestdrop_82 Start: 54745, Stop: 55608, Start Num: 7
Candidate Starts for Crestdrop_82:
(3, 54736), (Start: 5 @54742 has 8 MA's), (Start: 7 @54745 has 18 MA's), (Start: 8 @54748 has 11 MA's), (9, 54763), (10, 54862), (12, 54889), (13, 54895), (14, 54898), (16, 54931), (22, 55000), (27, 55165), (30, 55204), (31, 55216), (35, 55264), (36, 55282), (37, 55315), (39, 55333), (41, 55351), (46, 55477), (50, 55498), (55, 55531),

Gene: Cybele_82 Start: 54825, Stop: 55685, Start Num: 7
Candidate Starts for Cybele_82:
(Start: 5 @54822 has 8 MA's), (Start: 7 @54825 has 18 MA's), (Start: 8 @54828 has 11 MA's), (10, 54951), (12, 54978), (14, 54987), (27, 55254), (30, 55293), (31, 55305), (35, 55353), (36, 55371), (37, 55404), (56, 55617),

Gene: DannyDe_82 Start: 54249, Stop: 55088, Start Num: 7
Candidate Starts for DannyDe_82:
(Start: 5 @54246 has 8 MA's), (Start: 7 @54249 has 18 MA's), (Start: 8 @54252 has 11 MA's), (10, 54375), (12, 54402), (14, 54411), (27, 54657), (30, 54696), (31, 54708), (35, 54756), (36, 54774), (37, 54807), (39, 54825), (41, 54843), (54, 55014), (56, 55020), (60, 55047),

Gene: Dauntless_79 Start: 54128, Stop: 54988, Start Num: 7
Candidate Starts for Dauntless_79:
(Start: 7 @54128 has 18 MA's), (10, 54254), (12, 54281), (13, 54287), (14, 54290), (27, 54557), (30, 54596), (31, 54608), (35, 54656), (36, 54674), (37, 54707), (39, 54725), (41, 54743), (52, 54899),

Gene: Erudite_79 Start: 54128, Stop: 54988, Start Num: 7
Candidate Starts for Erudite_79:
(Start: 7 @54128 has 18 MA's), (10, 54254), (12, 54281), (13, 54287), (14, 54290), (27, 54557), (30, 54596), (31, 54608), (35, 54656), (36, 54674), (37, 54707), (39, 54725), (41, 54743), (52, 54899),

Gene: FountainFog_81 Start: 54275, Stop: 55156, Start Num: 7
Candidate Starts for FountainFog_81:
(Start: 5 @54272 has 8 MA's), (Start: 7 @54275 has 18 MA's), (Start: 8 @54278 has 11 MA's), (10, 54401), (12, 54428), (14, 54437), (25, 54656), (27, 54704), (30, 54743), (31, 54755), (35, 54803), (46, 55016), (49, 55028),

Gene: FreddieHg_83 Start: 54240, Stop: 55100, Start Num: 4
Candidate Starts for FreddieHg_83:
(2, 54234), (Start: 4 @54240 has 4 MA's), (Start: 6 @54243 has 1 MA's), (Start: 8 @54246 has 11 MA's), (10, 54369), (12, 54396), (13, 54402), (14, 54405), (27, 54669), (30, 54708), (31, 54720), (35, 54768), (36, 54786), (37, 54819), (39, 54837), (41, 54855), (52, 55011),

Gene: Gilda_81 Start: 54832, Stop: 55692, Start Num: 7
Candidate Starts for Gilda_81:
(Start: 5 @54829 has 8 MA's), (Start: 7 @54832 has 18 MA's), (Start: 8 @54835 has 11 MA's), (10, 54958), (12, 54985), (14, 54994), (26, 55237), (30, 55300), (31, 55312), (35, 55360), (36, 55378), (37, 55411), (56, 55624),

Gene: Hager_82 Start: 53963, Stop: 54835, Start Num: 8
Candidate Starts for Hager_82:
(Start: 7 @53960 has 18 MA's), (Start: 8 @53963 has 11 MA's), (10, 54086), (12, 54113), (14, 54122), (18, 54179), (20, 54182), (27, 54386), (30, 54425), (31, 54437), (35, 54485), (36, 54503), (37, 54536), (38, 54551), (46, 54698), (55, 54752), (58, 54764),

Gene: Haunter_83 Start: 54202, Stop: 55065, Start Num: 5
Candidate Starts for Haunter_83:
(1, 54043), (3, 54196), (Start: 5 @54202 has 8 MA's), (Start: 7 @54205 has 18 MA's), (Start: 8 @54208 has 11 MA's), (10, 54331), (12, 54358), (14, 54367), (30, 54673), (31, 54685), (35, 54733), (36, 54751), (37, 54784), (56, 54997),

Gene: Hiddenleaf_83 Start: 54223, Stop: 55083, Start Num: 4
Candidate Starts for Hiddenleaf_83:
(2, 54217), (Start: 4 @54223 has 4 MA's), (Start: 6 @54226 has 1 MA's), (Start: 8 @54229 has 11 MA's), (10, 54352), (12, 54379), (13, 54385), (14, 54388), (27, 54652), (30, 54691), (31, 54703), (35, 54751), (36, 54769), (37, 54802), (39, 54820), (41, 54838), (52, 54994),

Gene: JDawG_80 Start: 54422, Stop: 55276, Start Num: 8
Candidate Starts for JDawG_80:
(2, 54410), (Start: 4 @54416 has 4 MA's), (Start: 6 @54419 has 1 MA's), (Start: 8 @54422 has 11 MA's), (10, 54545), (12, 54572), (13, 54578), (14, 54581), (27, 54845), (30, 54884), (31, 54896), (35, 54944), (36, 54962), (37, 54995), (39, 55013), (41, 55031), (52, 55187),

Gene: JingleBells_81 Start: 54352, Stop: 55215, Start Num: 7
Candidate Starts for JingleBells_81:
(Start: 5 @54349 has 8 MA's), (Start: 7 @54352 has 18 MA's), (10, 54478), (12, 54505), (13, 54511), (14, 54514), (27, 54778), (30, 54817), (31, 54829), (35, 54877), (36, 54895), (37, 54928), (39, 54946), (41, 54964), (50, 55105), (55, 55138),

Gene: Karate_81 Start: 54532, Stop: 55410, Start Num: 7
Candidate Starts for Karate_81:
(Start: 5 @54529 has 8 MA's), (Start: 7 @54532 has 18 MA's), (14, 54691), (16, 54724), (19, 54760), (24, 54895), (27, 54979), (29, 55003), (30, 55018), (31, 55030), (35, 55078), (36, 55096), (37, 55129), (39, 55147), (41, 55165), (45, 55252), (51, 55321),

Gene: Kate_82 Start: 54746, Stop: 55609, Start Num: 5
Candidate Starts for Kate_82:
(Start: 5 @54746 has 8 MA's), (Start: 7 @54749 has 18 MA's), (10, 54875), (12, 54902), (14, 54911), (30, 55217), (31, 55229), (35, 55277), (36, 55295), (37, 55328), (56, 55541),

Gene: Kors_86 Start: 55136, Stop: 56110, Start Num: 8
Candidate Starts for Kors_86:
(Start: 7 @55133 has 18 MA's), (Start: 8 @55136 has 11 MA's), (10, 55250), (21, 55325), (23, 55385), (28, 55562), (30, 55580), (32, 55601), (33, 55604), (34, 55616), (40, 55727), (42, 55745), (44, 55808), (48, 55883), (53, 55931), (57, 55943), (59, 55958), (62, 56006), (63, 56012), (65, 56036), (67, 56045), (68, 56069),

Gene: Krampus_82 Start: 54836, Stop: 55699, Start Num: 5
Candidate Starts for Krampus_82:
(Start: 5 @54836 has 8 MA's), (Start: 7 @54839 has 18 MA's), (10, 54965), (12, 54992), (14, 55001), (30, 55307), (31, 55319), (35, 55367), (36, 55385), (37, 55418), (56, 55631),

Gene: LordBart_85 Start: 54970, Stop: 55899, Start Num: 8
Candidate Starts for LordBart_85:
(Start: 8 @54970 has 11 MA's), (10, 55084), (21, 55159), (23, 55219), (28, 55396), (30, 55414), (32, 55435), (33, 55438), (34, 55450), (40, 55561), (42, 55579), (44, 55642), (47, 55723), (57, 55789), (61, 55816), (62, 55840), (63, 55846),

Gene: MortySmith_78 Start: 53602, Stop: 54462, Start Num: 7
Candidate Starts for MortySmith_78:
(Start: 7 @53602 has 18 MA's), (10, 53728), (12, 53755), (13, 53761), (14, 53764), (27, 54031), (30, 54070), (31, 54082), (35, 54130), (36, 54148), (37, 54181), (39, 54199), (41, 54217), (52, 54373),

Gene: NarutoRun_81 Start: 54801, Stop: 55664, Start Num: 5
Candidate Starts for NarutoRun_81:
(Start: 5 @54801 has 8 MA's), (Start: 7 @54804 has 18 MA's), (10, 54930), (12, 54957), (14, 54966), (30, 55272), (31, 55284), (35, 55332), (36, 55350), (37, 55383), (56, 55596),

Gene: Neptune_81 Start: 54822, Stop: 55685, Start Num: 5
Candidate Starts for Neptune_81:
(Start: 5 @54822 has 8 MA's), (Start: 7 @54825 has 18 MA's), (Start: 8 @54828 has 11 MA's), (10, 54951), (12, 54978), (14, 54987), (27, 55254), (30, 55293), (31, 55305), (35, 55353), (36, 55371), (37, 55404), (56, 55617),

Gene: OhDear_82 Start: 54802, Stop: 55662, Start Num: 7
Candidate Starts for OhDear_82:
(Start: 5 @54799 has 8 MA's), (Start: 7 @54802 has 18 MA's), (Start: 8 @54805 has 11 MA's), (10, 54928), (12, 54955), (14, 54964), (30, 55270), (31, 55282), (35, 55330), (36, 55348), (37, 55381), (56, 55594),

Gene: OverHedge_80 Start: 54691, Stop: 55551, Start Num: 7
Candidate Starts for OverHedge_80:
(Start: 5 @54688 has 8 MA's), (Start: 7 @54691 has 18 MA's), (Start: 8 @54694 has 11 MA's), (10, 54817), (12, 54844), (14, 54853), (26, 55096), (30, 55159), (31, 55171), (35, 55219), (36, 55237), (37, 55270), (56, 55483),

Gene: Pharpay_80 Start: 54849, Stop: 55709, Start Num: 7

Candidate Starts for Pharpay_80:
(Start: 5 @54846 has 8 MA's), (Start: 7 @54849 has 18 MA's), (10, 54975), (12, 55002), (14, 55011), (27, 55278), (30, 55317), (31, 55329), (35, 55377), (36, 55395), (37, 55428), (56, 55641),

Gene: PhunaPhoke_81 Start: 54819, Stop: 55679, Start Num: 7
Candidate Starts for PhunaPhoke_81:
(Start: 5 @54816 has 8 MA's), (Start: 7 @54819 has 18 MA's), (Start: 8 @54822 has 11 MA's), (10, 54945), (12, 54972), (14, 54981), (26, 55224), (30, 55287), (31, 55299), (35, 55347), (36, 55365), (37, 55398), (56, 55611),

Gene: Potty_80 Start: 54749, Stop: 55609, Start Num: 7
Candidate Starts for Potty_80:
(Start: 5 @54746 has 8 MA's), (Start: 7 @54749 has 18 MA's), (10, 54875), (12, 54902), (14, 54911), (26, 55154), (30, 55217), (31, 55229), (35, 55277), (36, 55295), (37, 55328), (56, 55541),

Gene: Poultress_80 Start: 54704, Stop: 55555, Start Num: 7
Candidate Starts for Poultress_80:
(Start: 7 @54704 has 18 MA's), (9, 54722), (12, 54848), (14, 54857), (27, 55124), (30, 55163), (31, 55175), (35, 55223), (36, 55241), (56, 55487),

Gene: Rachella_82 Start: 54827, Stop: 55690, Start Num: 5
Candidate Starts for Rachella_82:
(Start: 5 @54827 has 8 MA's), (Start: 7 @54830 has 18 MA's), (10, 54956), (12, 54983), (14, 54992), (30, 55298), (31, 55310), (35, 55358), (36, 55376), (37, 55409), (56, 55622),

Gene: Rie18_82 Start: 54561, Stop: 55439, Start Num: 7
Candidate Starts for Rie18_82:
(Start: 7 @54561 has 18 MA's), (Start: 8 @54564 has 11 MA's), (12, 54714), (14, 54723), (27, 54990), (30, 55029), (31, 55041), (35, 55089), (36, 55107), (37, 55140), (38, 55155), (46, 55302), (50, 55323), (55, 55356), (58, 55368),

Gene: RikSengupta_86 Start: 55182, Stop: 56111, Start Num: 8
Candidate Starts for RikSengupta_86:
(Start: 8 @55182 has 11 MA's), (21, 55371), (23, 55431), (28, 55608), (30, 55626), (31, 55641), (32, 55647), (33, 55650), (34, 55662), (40, 55773), (42, 55791), (44, 55854), (48, 55929), (53, 55977), (57, 55989), (62, 56052), (63, 56058),

Gene: SilentWarrior_82 Start: 54213, Stop: 55076, Start Num: 7
Candidate Starts for SilentWarrior_82:
(Start: 5 @54210 has 8 MA's), (Start: 7 @54213 has 18 MA's), (10, 54339), (12, 54366), (13, 54372), (14, 54375), (27, 54639), (30, 54678), (31, 54690), (35, 54738), (36, 54756), (37, 54789), (39, 54807), (41, 54825), (50, 54966), (55, 54999),

Gene: Snakehole_82 Start: 54175, Stop: 55032, Start Num: 6
Candidate Starts for Snakehole_82:
(2, 54166), (Start: 4 @54172 has 4 MA's), (Start: 6 @54175 has 1 MA's), (Start: 8 @54178 has 11 MA's), (10, 54301), (12, 54328), (13, 54334), (14, 54337), (27, 54601), (30, 54640), (31, 54652), (35, 54700), (36, 54718), (37, 54751), (39, 54769), (41, 54787), (52, 54943),

Gene: Sparcetus_85 Start: 54866, Stop: 55795, Start Num: 8
Candidate Starts for Sparcetus_85:
(Start: 8 @54866 has 11 MA's), (21, 55055), (23, 55115), (28, 55292), (30, 55310), (31, 55325), (32, 55331), (33, 55334), (34, 55346), (40, 55457), (42, 55475), (44, 55538), (48, 55613), (53, 55661), (57,

55673), (62, 55736), (63, 55742),

Gene: Tedro_82 Start: 54322, Stop: 55179, Start Num: 7
Candidate Starts for Tedro_82:
(Start: 5 @54319 has 8 MA's), (Start: 7 @54322 has 18 MA's), (10, 54448), (12, 54475), (13, 54481), (14, 54484), (27, 54748), (30, 54787), (31, 54799), (35, 54847), (36, 54865), (37, 54898), (45, 55021), (51, 55090),

Gene: TinyMiny_86 Start: 54995, Stop: 55966, Start Num: 8
Candidate Starts for TinyMiny_86:
(Start: 8 @54995 has 11 MA's), (10, 55109), (11, 55115), (12, 55136), (14, 55145), (23, 55271), (28, 55448), (30, 55466), (32, 55487), (33, 55490), (34, 55502), (40, 55613), (42, 55631), (43, 55658), (44, 55694), (48, 55769), (53, 55817), (57, 55829), (62, 55892), (64, 55901), (66, 55925),

Gene: Tongui_82 Start: 54346, Stop: 55221, Start Num: 8
Candidate Starts for Tongui_82:
(Start: 7 @54343 has 18 MA's), (Start: 8 @54346 has 11 MA's), (10, 54469), (12, 54496), (14, 54505), (24, 54688), (27, 54772), (30, 54811), (31, 54823), (35, 54871), (46, 55084), (49, 55096), (50, 55105), (55, 55138), (57, 55147), (58, 55150),