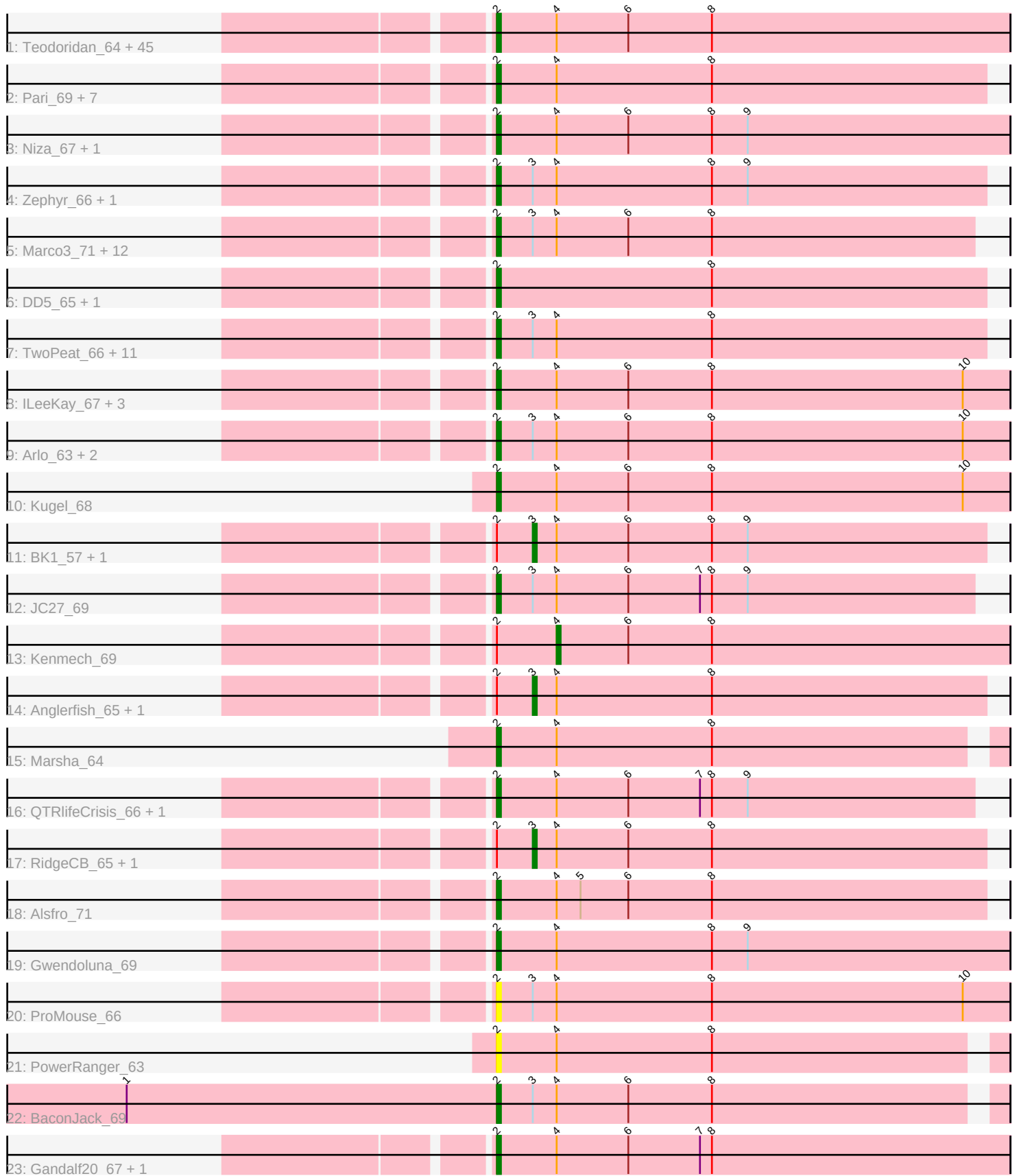


Pham 280255



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 280255 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280255 has 111 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Teodoridan_64, Gompeii16_65, DrFeelGood_63, Ohno789_66, Ashballer_68, Sumter_61, JuliaChild_66, Ichabod_69, MrGordo_68, Rufus_67, Fenn_71, Abrogate_650, PSullivan_63, Swole_66, Bircsak_65, Dussy_66, Sibs6_67, GrecoEtereo_64, Squee_68, Papez_67, Abbyshoes_67, Zeeculate_64, Museum_67, Tote_61, Pita2_66, Mryo10_63, Briton15_69, Ringer_68, Bob3_66, Manatee_65, BluSpix_63, Michley_69, Scowl_66, Ruotula_71, Thor_64, SarFire_64, KBG_66, Naira_70, Kykar_66, IgnatiusPatJac_65, Bruns_67, Rubeus_64, Molly_66, HanShotFirst_66, MPlant7149_65, Nerujay_70
- Track 2 : Pari_69, PacerPaul_65, MilleFeuille_61, Sanya_61, Francis47_64, Switzer_66, Blesser_61, TheloniousMonk_69
- Track 3 : Niza_67, Magnito_66
- Track 4 : Zephyr_66, Petp2012_68
- Track 5 : Marco3_71, Applejack_65, Burton_66, Atkinbua_68, Hope4ever_66, Dexes_65, SkiPole_73, BillKnuckles_62, Turj99_63, STLscum_74, Euphoria_64, Petruccio_67, Traft412_68
- Track 6 : DD5_65, Lockley_64
- Track 7 : TwoPeat_66, Slagathor_67, Kanely_66, Beatrix_64, Rajelicia_65, Altman_67, StrongArm_63, HermioneGrange_67, Agaliana_60, Bexan_62, BigMau_67, Arcanine_67
- Track 8 : ILeeKay_67, GMonster_63, BarrowTuph_66, Nhonho_64
- Track 9 : Arlo_63, BPBiebs31_68, ConceptII_69
- Track 10 : Kugel_68
- Track 11 : BK1_57, A6_57
- Track 12 : JC27_69
- Track 13 : Kenmech_69
- Track 14 : Anglerfish_65, ChristmasHams_59
- Track 15 : Marsha_64
- Track 16 : QTRlifeCrisis_66, CartmannCramer_64
- Track 17 : RidgeCB_65, Pepe_63
- Track 18 : Alsfro_71
- Track 19 : Gwendoluna_69
- Track 20 : ProMouse_66
- Track 21 : PowerRanger_63
- Track 22 : BaconJack_69
- Track 23 : Gandalf20_67, Espresso_62

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

The start number called the most often in the published annotations is 2, it was called in 96 of the 102 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abbyshoes_67, Abrogate_650, Agaliana_60, Alsfro_71, Altman_67, Applejack_65, Arcanine_67, Arlo_63, Ashballe_68, Atkinbua_68, BPBiebs31_68, BaconJack_69, BarrowTuph_66, Beatrix_64, Bexan_62, BigMau_67, BillKnuckles_62, Bircsak_65, Blesser_61, BluSpix_63, Bob3_66, Briton15_69, Bruns_67, Burton_66, CartmannCramer_64, ConceptII_69, DD5_65, Dexes_65, DrFeelGood_63, Dussy_66, Espresso_62, Euphoria_64, Fenn_71, Francis47_64, GMonster_63, Gandalf20_67, Gompeii16_65, GrecoEtereo_64, Gwendoluna_69, HanShotFirst_66, HermioneGrange_67, Hope4ever_66, ILeeKay_67, Ichabod_69, IgnatiusPatJac_65, JC27_69, JuliaChild_66, KBG_66, Kanely_66, Kugel_68, Kykar_66, Lockley_64, MPlant7149_65, Magnito_66, Manatee_65, Marco3_71, Marsha_64, Michley_69, MilleFeuille_61, Molly_66, MrGordo_68, Mryolo_63, Museum_67, Naira_70, Nerujay_70, Nhonho_64, Niza_67, Ohno789_66, PSullivan_63, PacerPaul_65, Papez_67, Pari_69, Petp2012_68, Petruchio_67, Pita2_66, PowerRanger_63, ProMouse_66, QTRlifeCrisis_66, Rajelicia_65, Ringer_68, Rubeus_64, Rufus_67, Ruotula_71, STLscum_74, Sanya_61, SarFire_64, Scowl_66, Sibs6_67, SkiPole_73, Slagathor_67, Squee_68, StrongArm_63, Sumter_61, Switzer_66, Swole_66, Teodoridan_64, ThelioniousMonk_69, Thor_64, Tote_61, Traft412_68, Turj99_63, TwoPeat_66, Zeeculate_64, Zephyr_66,

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

- A6_57, Anglerfish_65, BK1_57, ChristmasHams_59, Kenmech_69, Pepe_63, RidgeCB_65,

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

-

Summary by start number:

Start 2:

- Found in 111 of 111 (100.0%) of genes in pham
- Manual Annotations of this start: 96 of 102
- Called 93.7% of time when present
- Phage (with cluster) where this start called: Abbyshoes_67 (A1), Abrogate_650 (A1), Agaliana_60 (A1), Alsfro_71 (A1), Altman_67 (A1), Applejack_65 (A1), Arcanine_67 (A1), Arlo_63 (A1), Ashballe_68 (A1), Atkinbua_68 (A1), BPBiebs31_68 (A1), BaconJack_69 (A1), BarrowTuph_66 (A1), Beatrix_64 (A1), Bexan_62 (A1), BigMau_67 (A1), BillKnuckles_62 (A1), Bircsak_65 (A1), Blesser_61 (A1), BluSpix_63 (A1), Bob3_66 (A1), Briton15_69 (A1), Bruns_67 (A1), Burton_66 (A1), CartmannCramer_64 (A1), ConceptII_69 (A1), DD5_65 (A1), Dexes_65 (A1), DrFeelGood_63 (A1), Dussy_66 (A1), Espresso_62 (A1), Euphoria_64 (A1), Fenn_71 (A1), Francis47_64 (A1), GMonster_63 (A1), Gandalf20_67 (A1), Gompeii16_65 (A1), GrecoEtereo_64 (A1), Gwendoluna_69 (A1), HanShotFirst_66 (A1), HermioneGrange_67 (A1), Hope4ever_66 (A1), ILeeKay_67 (A1), Ichabod_69 (A1), IgnatiusPatJac_65 (A1), JC27_69 (A1), JuliaChild_66 (A1), KBG_66 (A1), Kanely_66 (A1), Kugel_68 (A1), Kykar_66 (A1), Lockley_64 (A1), MPlant7149_65 (A1), Magnito_66 (A1), Manatee_65 (A1), Marco3_71 (A1), Marsha_64 (A1), Michley_69

(A1), MilleFeuille_61 (A1), Molly_66 (A1), MrGordo_68 (A1), Mryolo_63 (A1), Museum_67 (A1), Naira_70 (A1), Nerujay_70 (A1), Nhonho_64 (A1), Niza_67 (A1), Ohno789_66 (A1), PSullivan_63 (A1), PacerPaul_65 (A1), Papez_67 (A1), Pari_69 (A1), Petp2012_68 (A1), Petruchio_67 (A1), Pita2_66 (A1), PowerRanger_63 (A1), ProMouse_66 (A1), QTRlifeCrisis_66 (A1), Rajelicia_65 (A1), Ringer_68 (A1), Rubeus_64 (A1), Rufus_67 (A1), Ruotula_71 (A1), STLscum_74 (A1), Sanya_61 (A1), SarFire_64 (A1), Scowl_66 (A1), Sibs6_67 (A1), SkiPole_73 (A1), Slagathor_67 (A1), Squee_68 (A1), StrongArm_63 (A1), Sumter_61 (A1), Switzer_66 (A1), Swole_66 (A1), Teodoridan_64 (A1), TheloniousMonk_69 (A1), Thor_64 (A1), Tote_61 (A1), Traft412_68 (A1), Turj99_63 (A1), TwoPeat_66 (A1), Zeeculate_64 (A1), Zephyr_66 (A1),

Start 3:

- Found in 39 of 111 (35.1%) of genes in pham
- Manual Annotations of this start: 5 of 102
- Called 15.4% of time when present
- Phage (with cluster) where this start called: A6_57 (A1), Anglerfish_65 (A1), BK1_57 (A1), ChristmasHams_59 (A1), Pepe_63 (A1), RidgeCB_65 (A1),

Start 4:

- Found in 109 of 111 (98.2%) of genes in pham
- Manual Annotations of this start: 1 of 102
- Called 0.9% of time when present
- Phage (with cluster) where this start called: Kenmech_69 (A1),

Summary by clusters:

There is one cluster represented in this pham: A1

Info for manual annotations of cluster A1:

- Start number 2 was manually annotated 96 times for cluster A1.
- Start number 3 was manually annotated 5 times for cluster A1.
- Start number 4 was manually annotated 1 time for cluster A1.

Gene Information:

Gene: A6_57 Start: 40014, Stop: 39901, Start Num: 3

Candidate Starts for A6_57:

(Start: 2 @40023 has 96 MA's), (Start: 3 @40014 has 5 MA's), (Start: 4 @40008 has 1 MA's), (6, 39990), (8, 39969), (9, 39960),

Gene: Abbyshoes_67 Start: 42982, Stop: 42854, Start Num: 2

Candidate Starts for Abbyshoes_67:

(Start: 2 @42982 has 96 MA's), (Start: 4 @42967 has 1 MA's), (6, 42949), (8, 42928),

Gene: Abrogate_650 Start: 44071, Stop: 43949, Start Num: 2

Candidate Starts for Abrogate_650:

(Start: 2 @44071 has 96 MA's), (Start: 4 @44056 has 1 MA's), (6, 44038), (8, 44017),

Gene: Agaliana_60 Start: 39357, Stop: 39235, Start Num: 2

Candidate Starts for Agaliana_60:

(Start: 2 @39357 has 96 MA's), (Start: 3 @39348 has 5 MA's), (Start: 4 @39342 has 1 MA's), (8, 39303),

Gene: Alsfro_71 Start: 42875, Stop: 42753, Start Num: 2

Candidate Starts for Alsfro_71:

(Start: 2 @42875 has 96 MA's), (Start: 4 @42860 has 1 MA's), (5, 42854), (6, 42842), (8, 42821),

Gene: Altman_67 Start: 42513, Stop: 42391, Start Num: 2

Candidate Starts for Altman_67:

(Start: 2 @42513 has 96 MA's), (Start: 3 @42504 has 5 MA's), (Start: 4 @42498 has 1 MA's), (8, 42459),

Gene: Anglerfish_65 Start: 42676, Stop: 42563, Start Num: 3

Candidate Starts for Anglerfish_65:

(Start: 2 @42685 has 96 MA's), (Start: 3 @42676 has 5 MA's), (Start: 4 @42670 has 1 MA's), (8, 42631),

Gene: Applejack_65 Start: 41083, Stop: 40961, Start Num: 2

Candidate Starts for Applejack_65:

(Start: 2 @41083 has 96 MA's), (Start: 3 @41074 has 5 MA's), (Start: 4 @41068 has 1 MA's), (6, 41050), (8, 41029),

Gene: Arcanine_67 Start: 43409, Stop: 43287, Start Num: 2

Candidate Starts for Arcanine_67:

(Start: 2 @43409 has 96 MA's), (Start: 3 @43400 has 5 MA's), (Start: 4 @43394 has 1 MA's), (8, 43355),

Gene: Arlo_63 Start: 42000, Stop: 41872, Start Num: 2

Candidate Starts for Arlo_63:

(Start: 2 @42000 has 96 MA's), (Start: 3 @41991 has 5 MA's), (Start: 4 @41985 has 1 MA's), (6, 41967), (8, 41946), (10, 41883),

Gene: Ashballer_68 Start: 43159, Stop: 43037, Start Num: 2

Candidate Starts for Ashballer_68:

(Start: 2 @43159 has 96 MA's), (Start: 4 @43144 has 1 MA's), (6, 43126), (8, 43105),

Gene: Atkinbua_68 Start: 42384, Stop: 42256, Start Num: 2

Candidate Starts for Atkinbua_68:

(Start: 2 @42384 has 96 MA's), (Start: 3 @42375 has 5 MA's), (Start: 4 @42369 has 1 MA's), (6, 42351), (8, 42330),

Gene: BK1_57 Start: 40014, Stop: 39901, Start Num: 3

Candidate Starts for BK1_57:

(Start: 2 @40023 has 96 MA's), (Start: 3 @40014 has 5 MA's), (Start: 4 @40008 has 1 MA's), (6, 39990), (8, 39969), (9, 39960),

Gene: BPBiebs31_68 Start: 43106, Stop: 42978, Start Num: 2

Candidate Starts for BPBiebs31_68:

(Start: 2 @43106 has 96 MA's), (Start: 3 @43097 has 5 MA's), (Start: 4 @43091 has 1 MA's), (6, 43073), (8, 43052), (10, 42989),

Gene: BaconJack_69 Start: 45126, Stop: 45004, Start Num: 2

Candidate Starts for BaconJack_69:

(1, 45219), (Start: 2 @45126 has 96 MA's), (Start: 3 @45117 has 5 MA's), (Start: 4 @45111 has 1 MA's), (6, 45093), (8, 45072),

Gene: BarrowTuph_66 Start: 42194, Stop: 42066, Start Num: 2

Candidate Starts for BarrowTuph_66:

(Start: 2 @42194 has 96 MA's), (Start: 4 @42179 has 1 MA's), (6, 42161), (8, 42140), (10, 42077),

Gene: Beatrix_64 Start: 43246, Stop: 43124, Start Num: 2

Candidate Starts for Beatrix_64:

(Start: 2 @43246 has 96 MA's), (Start: 3 @43237 has 5 MA's), (Start: 4 @43231 has 1 MA's), (8, 43192),

Gene: Bexan_62 Start: 43025, Stop: 42903, Start Num: 2

Candidate Starts for Bexan_62:

(Start: 2 @43025 has 96 MA's), (Start: 3 @43016 has 5 MA's), (Start: 4 @43010 has 1 MA's), (8, 42971),

Gene: BigMau_67 Start: 42914, Stop: 42792, Start Num: 2

Candidate Starts for BigMau_67:

(Start: 2 @42914 has 96 MA's), (Start: 3 @42905 has 5 MA's), (Start: 4 @42899 has 1 MA's), (8, 42860),

Gene: BillKnuckles_62 Start: 43545, Stop: 43423, Start Num: 2

Candidate Starts for BillKnuckles_62:

(Start: 2 @43545 has 96 MA's), (Start: 3 @43536 has 5 MA's), (Start: 4 @43530 has 1 MA's), (6, 43512), (8, 43491),

Gene: Bircsak_65 Start: 44274, Stop: 44149, Start Num: 2

Candidate Starts for Bircsak_65:

(Start: 2 @44274 has 96 MA's), (Start: 4 @44259 has 1 MA's), (6, 44241), (8, 44220),

Gene: Blessner_61 Start: 41295, Stop: 41173, Start Num: 2

Candidate Starts for Blessner_61:

(Start: 2 @41295 has 96 MA's), (Start: 4 @41280 has 1 MA's), (8, 41241),

Gene: BluSpix_63 Start: 38129, Stop: 38007, Start Num: 2

Candidate Starts for BluSpix_63:

(Start: 2 @38129 has 96 MA's), (Start: 4 @38114 has 1 MA's), (6, 38096), (8, 38075),

Gene: Bob3_66 Start: 42184, Stop: 42065, Start Num: 2

Candidate Starts for Bob3_66:

(Start: 2 @42184 has 96 MA's), (Start: 4 @42169 has 1 MA's), (6, 42151), (8, 42130),

Gene: Briton15_69 Start: 43988, Stop: 43869, Start Num: 2

Candidate Starts for Briton15_69:

(Start: 2 @43988 has 96 MA's), (Start: 4 @43973 has 1 MA's), (6, 43955), (8, 43934),

Gene: Bruns_67 Start: 42125, Stop: 42003, Start Num: 2

Candidate Starts for Bruns_67:

(Start: 2 @42125 has 96 MA's), (Start: 4 @42110 has 1 MA's), (6, 42092), (8, 42071),

Gene: Burton_66 Start: 43947, Stop: 43825, Start Num: 2

Candidate Starts for Burton_66:

(Start: 2 @43947 has 96 MA's), (Start: 3 @43938 has 5 MA's), (Start: 4 @43932 has 1 MA's), (6, 43914), (8, 43893),

Gene: CartmannCramer_64 Start: 44221, Stop: 44102, Start Num: 2

Candidate Starts for CartmannCramer_64:

(Start: 2 @44221 has 96 MA's), (Start: 4 @44206 has 1 MA's), (6, 44188), (7, 44170), (8, 44167), (9, 44158),

Gene: ChristmasHams_59 Start: 39915, Stop: 39802, Start Num: 3

Candidate Starts for ChristmasHams_59:

(Start: 2 @39924 has 96 MA's), (Start: 3 @39915 has 5 MA's), (Start: 4 @39909 has 1 MA's), (8, 39870),

Gene: ConceptII_69 Start: 43741, Stop: 43613, Start Num: 2

Candidate Starts for ConceptII_69:

(Start: 2 @43741 has 96 MA's), (Start: 3 @43732 has 5 MA's), (Start: 4 @43726 has 1 MA's), (6, 43708), (8, 43687), (10, 43624),

Gene: DD5_65 Start: 43288, Stop: 43166, Start Num: 2

Candidate Starts for DD5_65:

(Start: 2 @43288 has 96 MA's), (8, 43234),

Gene: Dexes_65 Start: 43009, Stop: 42890, Start Num: 2

Candidate Starts for Dexes_65:

(Start: 2 @43009 has 96 MA's), (Start: 3 @43000 has 5 MA's), (Start: 4 @42994 has 1 MA's), (6, 42976), (8, 42955),

Gene: DrFeelGood_63 Start: 41543, Stop: 41424, Start Num: 2

Candidate Starts for DrFeelGood_63:

(Start: 2 @41543 has 96 MA's), (Start: 4 @41528 has 1 MA's), (6, 41510), (8, 41489),

Gene: Dussy_66 Start: 43002, Stop: 42874, Start Num: 2

Candidate Starts for Dussy_66:

(Start: 2 @43002 has 96 MA's), (Start: 4 @42987 has 1 MA's), (6, 42969), (8, 42948),

Gene: Espresso_62 Start: 42227, Stop: 42099, Start Num: 2

Candidate Starts for Espresso_62:

(Start: 2 @42227 has 96 MA's), (Start: 4 @42212 has 1 MA's), (6, 42194), (7, 42176), (8, 42173),

Gene: Euphoria_64 Start: 42069, Stop: 41950, Start Num: 2

Candidate Starts for Euphoria_64:

(Start: 2 @42069 has 96 MA's), (Start: 3 @42060 has 5 MA's), (Start: 4 @42054 has 1 MA's), (6, 42036), (8, 42015),

Gene: Fenn_71 Start: 44460, Stop: 44344, Start Num: 2

Candidate Starts for Fenn_71:

(Start: 2 @44460 has 96 MA's), (Start: 4 @44445 has 1 MA's), (6, 44427), (8, 44406),

Gene: Francis47_64 Start: 43201, Stop: 43079, Start Num: 2

Candidate Starts for Francis47_64:

(Start: 2 @43201 has 96 MA's), (Start: 4 @43186 has 1 MA's), (8, 43147),

Gene: GMonster_63 Start: 41964, Stop: 41836, Start Num: 2

Candidate Starts for GMonster_63:

(Start: 2 @41964 has 96 MA's), (Start: 4 @41949 has 1 MA's), (6, 41931), (8, 41910), (10, 41847),

Gene: Gandalf20_67 Start: 43512, Stop: 43384, Start Num: 2

Candidate Starts for Gandalf20_67:

(Start: 2 @43512 has 96 MA's), (Start: 4 @43497 has 1 MA's), (6, 43479), (7, 43461), (8, 43458),

Gene: Gompeii16_65 Start: 44275, Stop: 44150, Start Num: 2

Candidate Starts for Gompeii16_65:

(Start: 2 @44275 has 96 MA's), (Start: 4 @44260 has 1 MA's), (6, 44242), (8, 44221),

Gene: GrecoEtereo_64 Start: 41398, Stop: 41279, Start Num: 2

Candidate Starts for GrecoEtereo_64:

(Start: 2 @41398 has 96 MA's), (Start: 4 @41383 has 1 MA's), (6, 41365), (8, 41344),

Gene: Gwendoluna_69 Start: 44339, Stop: 44211, Start Num: 2

Candidate Starts for Gwendoluna_69:

(Start: 2 @44339 has 96 MA's), (Start: 4 @44324 has 1 MA's), (8, 44285), (9, 44276),

Gene: HanShotFirst_66 Start: 43937, Stop: 43818, Start Num: 2

Candidate Starts for HanShotFirst_66:

(Start: 2 @43937 has 96 MA's), (Start: 4 @43922 has 1 MA's), (6, 43904), (8, 43883),

Gene: HermioneGrange_67 Start: 43408, Stop: 43286, Start Num: 2

Candidate Starts for HermioneGrange_67:

(Start: 2 @43408 has 96 MA's), (Start: 3 @43399 has 5 MA's), (Start: 4 @43393 has 1 MA's), (8, 43354),

Gene: Hope4ever_66 Start: 42392, Stop: 42270, Start Num: 2

Candidate Starts for Hope4ever_66:

(Start: 2 @42392 has 96 MA's), (Start: 3 @42383 has 5 MA's), (Start: 4 @42377 has 1 MA's), (6, 42359), (8, 42338),

Gene: ILeeKay_67 Start: 42289, Stop: 42161, Start Num: 2

Candidate Starts for ILeeKay_67:

(Start: 2 @42289 has 96 MA's), (Start: 4 @42274 has 1 MA's), (6, 42256), (8, 42235), (10, 42172),

Gene: Ichabod_69 Start: 43502, Stop: 43383, Start Num: 2

Candidate Starts for Ichabod_69:

(Start: 2 @43502 has 96 MA's), (Start: 4 @43487 has 1 MA's), (6, 43469), (8, 43448),

Gene: IgnatiusPatJac_65 Start: 42074, Stop: 41952, Start Num: 2

Candidate Starts for IgnatiusPatJac_65:

(Start: 2 @42074 has 96 MA's), (Start: 4 @42059 has 1 MA's), (6, 42041), (8, 42020),

Gene: JC27_69 Start: 43136, Stop: 43017, Start Num: 2

Candidate Starts for JC27_69:

(Start: 2 @43136 has 96 MA's), (Start: 3 @43127 has 5 MA's), (Start: 4 @43121 has 1 MA's), (6, 43103), (7, 43085), (8, 43082), (9, 43073),

Gene: JuliaChild_66 Start: 42723, Stop: 42604, Start Num: 2

Candidate Starts for JuliaChild_66:

(Start: 2 @42723 has 96 MA's), (Start: 4 @42708 has 1 MA's), (6, 42690), (8, 42669),

Gene: KBG_66 Start: 44255, Stop: 44133, Start Num: 2

Candidate Starts for KBG_66:

(Start: 2 @44255 has 96 MA's), (Start: 4 @44240 has 1 MA's), (6, 44222), (8, 44201),

Gene: Kanely_66 Start: 42290, Stop: 42168, Start Num: 2

Candidate Starts for Kanely_66:

(Start: 2 @42290 has 96 MA's), (Start: 3 @42281 has 5 MA's), (Start: 4 @42275 has 1 MA's), (8, 42236),

Gene: Kenmech_69 Start: 44113, Stop: 44000, Start Num: 4

Candidate Starts for Kenmech_69:

(Start: 2 @44128 has 96 MA's), (Start: 4 @44113 has 1 MA's), (6, 44095), (8, 44074),

Gene: Kugel_68 Start: 43936, Stop: 43808, Start Num: 2

Candidate Starts for Kugel_68:

(Start: 2 @43936 has 96 MA's), (Start: 4 @43921 has 1 MA's), (6, 43903), (8, 43882), (10, 43819),

Gene: Kykar_66 Start: 42871, Stop: 42749, Start Num: 2

Candidate Starts for Kykar_66:

(Start: 2 @42871 has 96 MA's), (Start: 4 @42856 has 1 MA's), (6, 42838), (8, 42817),

Gene: Lockley_64 Start: 42450, Stop: 42328, Start Num: 2

Candidate Starts for Lockley_64:

(Start: 2 @42450 has 96 MA's), (8, 42396),

Gene: MPlant7149_65 Start: 41296, Stop: 41174, Start Num: 2

Candidate Starts for MPlant7149_65:

(Start: 2 @41296 has 96 MA's), (Start: 4 @41281 has 1 MA's), (6, 41263), (8, 41242),

Gene: Magnito_66 Start: 42565, Stop: 42446, Start Num: 2

Candidate Starts for Magnito_66:

(Start: 2 @42565 has 96 MA's), (Start: 4 @42550 has 1 MA's), (6, 42532), (8, 42511), (9, 42502),

Gene: Manatee_65 Start: 42037, Stop: 41909, Start Num: 2

Candidate Starts for Manatee_65:

(Start: 2 @42037 has 96 MA's), (Start: 4 @42022 has 1 MA's), (6, 42004), (8, 41983),

Gene: Marco3_71 Start: 44874, Stop: 44755, Start Num: 2

Candidate Starts for Marco3_71:

(Start: 2 @44874 has 96 MA's), (Start: 3 @44865 has 5 MA's), (Start: 4 @44859 has 1 MA's), (6, 44841), (8, 44820),

Gene: Marsha_64 Start: 43363, Stop: 43241, Start Num: 2

Candidate Starts for Marsha_64:

(Start: 2 @43363 has 96 MA's), (Start: 4 @43348 has 1 MA's), (8, 43309),

Gene: Michley_69 Start: 42991, Stop: 42869, Start Num: 2

Candidate Starts for Michley_69:

(Start: 2 @42991 has 96 MA's), (Start: 4 @42976 has 1 MA's), (6, 42958), (8, 42937),

Gene: MilleFeuille_61 Start: 42162, Stop: 42040, Start Num: 2

Candidate Starts for MilleFeuille_61:

(Start: 2 @42162 has 96 MA's), (Start: 4 @42147 has 1 MA's), (8, 42108),

Gene: Molly_66 Start: 42673, Stop: 42554, Start Num: 2

Candidate Starts for Molly_66:

(Start: 2 @42673 has 96 MA's), (Start: 4 @42658 has 1 MA's), (6, 42640), (8, 42619),

Gene: MrGordo_68 Start: 42912, Stop: 42790, Start Num: 2

Candidate Starts for MrGordo_68:

(Start: 2 @42912 has 96 MA's), (Start: 4 @42897 has 1 MA's), (6, 42879), (8, 42858),

Gene: Mryolo_63 Start: 41946, Stop: 41827, Start Num: 2

Candidate Starts for Mryolo_63:

(Start: 2 @41946 has 96 MA's), (Start: 4 @41931 has 1 MA's), (6, 41913), (8, 41892),

Gene: Museum_67 Start: 43892, Stop: 43773, Start Num: 2

Candidate Starts for Museum_67:

(Start: 2 @43892 has 96 MA's), (Start: 4 @43877 has 1 MA's), (6, 43859), (8, 43838),

Gene: Naira_70 Start: 44516, Stop: 44400, Start Num: 2

Candidate Starts for Naira_70:

(Start: 2 @44516 has 96 MA's), (Start: 4 @44501 has 1 MA's), (6, 44483), (8, 44462),

Gene: Nerujay_70 Start: 44095, Stop: 43979, Start Num: 2

Candidate Starts for Nerujay_70:

(Start: 2 @44095 has 96 MA's), (Start: 4 @44080 has 1 MA's), (6, 44062), (8, 44041),

Gene: Nhonho_64 Start: 43037, Stop: 42909, Start Num: 2

Candidate Starts for Nhonho_64:

(Start: 2 @43037 has 96 MA's), (Start: 4 @43022 has 1 MA's), (6, 43004), (8, 42983), (10, 42920),

Gene: Niza_67 Start: 44182, Stop: 44054, Start Num: 2

Candidate Starts for Niza_67:

(Start: 2 @44182 has 96 MA's), (Start: 4 @44167 has 1 MA's), (6, 44149), (8, 44128), (9, 44119),

Gene: Ohno789_66 Start: 43010, Stop: 42888, Start Num: 2

Candidate Starts for Ohno789_66:

(Start: 2 @43010 has 96 MA's), (Start: 4 @42995 has 1 MA's), (6, 42977), (8, 42956),

Gene: PSullivan_63 Start: 40790, Stop: 40671, Start Num: 2

Candidate Starts for PSullivan_63:

(Start: 2 @40790 has 96 MA's), (Start: 4 @40775 has 1 MA's), (6, 40757), (8, 40736),

Gene: PacerPaul_65 Start: 42568, Stop: 42446, Start Num: 2

Candidate Starts for PacerPaul_65:

(Start: 2 @42568 has 96 MA's), (Start: 4 @42553 has 1 MA's), (8, 42514),

Gene: Papez_67 Start: 43734, Stop: 43612, Start Num: 2

Candidate Starts for Papez_67:

(Start: 2 @43734 has 96 MA's), (Start: 4 @43719 has 1 MA's), (6, 43701), (8, 43680),

Gene: Pari_69 Start: 42086, Stop: 41964, Start Num: 2

Candidate Starts for Pari_69:

(Start: 2 @42086 has 96 MA's), (Start: 4 @42071 has 1 MA's), (8, 42032),

Gene: Pepe_63 Start: 41355, Stop: 41242, Start Num: 3

Candidate Starts for Pepe_63:

(Start: 2 @41364 has 96 MA's), (Start: 3 @41355 has 5 MA's), (Start: 4 @41349 has 1 MA's), (6, 41331), (8, 41310),

Gene: Petp2012_68 Start: 44379, Stop: 44257, Start Num: 2

Candidate Starts for Petp2012_68:

(Start: 2 @44379 has 96 MA's), (Start: 3 @44370 has 5 MA's), (Start: 4 @44364 has 1 MA's), (8, 44325), (9, 44316),

Gene: Petruchio_67 Start: 42200, Stop: 42078, Start Num: 2

Candidate Starts for Petruchio_67:

(Start: 2 @42200 has 96 MA's), (Start: 3 @42191 has 5 MA's), (Start: 4 @42185 has 1 MA's), (6, 42167), (8, 42146),

Gene: Pita2_66 Start: 42287, Stop: 42168, Start Num: 2

Candidate Starts for Pita2_66:

(Start: 2 @42287 has 96 MA's), (Start: 4 @42272 has 1 MA's), (6, 42254), (8, 42233),

Gene: PowerRanger_63 Start: 43350, Stop: 43228, Start Num: 2

Candidate Starts for PowerRanger_63:

(Start: 2 @43350 has 96 MA's), (Start: 4 @43335 has 1 MA's), (8, 43296),

Gene: ProMouse_66 Start: 42805, Stop: 42677, Start Num: 2

Candidate Starts for ProMouse_66:

(Start: 2 @42805 has 96 MA's), (Start: 3 @42796 has 5 MA's), (Start: 4 @42790 has 1 MA's), (8, 42751), (10, 42688),

Gene: QTRLifeCrisis_66 Start: 42816, Stop: 42697, Start Num: 2

Candidate Starts for QTRLifeCrisis_66:

(Start: 2 @42816 has 96 MA's), (Start: 4 @42801 has 1 MA's), (6, 42783), (7, 42765), (8, 42762), (9, 42753),

Gene: Rajelicia_65 Start: 43919, Stop: 43797, Start Num: 2

Candidate Starts for Rajelicia_65:

(Start: 2 @43919 has 96 MA's), (Start: 3 @43910 has 5 MA's), (Start: 4 @43904 has 1 MA's), (8, 43865),

Gene: RidgeCB_65 Start: 42227, Stop: 42114, Start Num: 3

Candidate Starts for RidgeCB_65:

(Start: 2 @42236 has 96 MA's), (Start: 3 @42227 has 5 MA's), (Start: 4 @42221 has 1 MA's), (6, 42203), (8, 42182),

Gene: Ringer_68 Start: 44342, Stop: 44220, Start Num: 2

Candidate Starts for Ringer_68:

(Start: 2 @44342 has 96 MA's), (Start: 4 @44327 has 1 MA's), (6, 44309), (8, 44288),

Gene: Rubeus_64 Start: 40056, Stop: 39934, Start Num: 2

Candidate Starts for Rubeus_64:

(Start: 2 @40056 has 96 MA's), (Start: 4 @40041 has 1 MA's), (6, 40023), (8, 40002),

Gene: Rufus_67 Start: 42740, Stop: 42618, Start Num: 2

Candidate Starts for Rufus_67:

(Start: 2 @42740 has 96 MA's), (Start: 4 @42725 has 1 MA's), (6, 42707), (8, 42686),

Gene: Ruotula_71 Start: 44843, Stop: 44715, Start Num: 2

Candidate Starts for Ruotula_71:

(Start: 2 @44843 has 96 MA's), (Start: 4 @44828 has 1 MA's), (6, 44810), (8, 44789),

Gene: STLscum_74 Start: 44557, Stop: 44435, Start Num: 2

Candidate Starts for STLscum_74:

(Start: 2 @44557 has 96 MA's), (Start: 3 @44548 has 5 MA's), (Start: 4 @44542 has 1 MA's), (6, 44524), (8, 44503),

Gene: Sanya_61 Start: 43296, Stop: 43174, Start Num: 2

Candidate Starts for Sanya_61:

(Start: 2 @43296 has 96 MA's), (Start: 4 @43281 has 1 MA's), (8, 43242),

Gene: SarFire_64 Start: 42283, Stop: 42155, Start Num: 2

Candidate Starts for SarFire_64:

(Start: 2 @42283 has 96 MA's), (Start: 4 @42268 has 1 MA's), (6, 42250), (8, 42229),

Gene: Scowl_66 Start: 42209, Stop: 42087, Start Num: 2

Candidate Starts for Scowl_66:

(Start: 2 @42209 has 96 MA's), (Start: 4 @42194 has 1 MA's), (6, 42176), (8, 42155),

Gene: Sibs6_67 Start: 40939, Stop: 40820, Start Num: 2

Candidate Starts for Sibs6_67:

(Start: 2 @40939 has 96 MA's), (Start: 4 @40924 has 1 MA's), (6, 40906), (8, 40885),

Gene: SkiPole_73 Start: 43830, Stop: 43708, Start Num: 2

Candidate Starts for SkiPole_73:

(Start: 2 @43830 has 96 MA's), (Start: 3 @43821 has 5 MA's), (Start: 4 @43815 has 1 MA's), (6, 43797), (8, 43776),

Gene: Slagathor_67 Start: 44305, Stop: 44183, Start Num: 2

Candidate Starts for Slagathor_67:

(Start: 2 @44305 has 96 MA's), (Start: 3 @44296 has 5 MA's), (Start: 4 @44290 has 1 MA's), (8, 44251),

Gene: Squee_68 Start: 42436, Stop: 42314, Start Num: 2

Candidate Starts for Squee_68:

(Start: 2 @42436 has 96 MA's), (Start: 4 @42421 has 1 MA's), (6, 42403), (8, 42382),

Gene: StrongArm_63 Start: 43153, Stop: 43031, Start Num: 2

Candidate Starts for StrongArm_63:

(Start: 2 @43153 has 96 MA's), (Start: 3 @43144 has 5 MA's), (Start: 4 @43138 has 1 MA's), (8, 43099),

Gene: Sumter_61 Start: 42394, Stop: 42272, Start Num: 2

Candidate Starts for Sumter_61:

(Start: 2 @42394 has 96 MA's), (Start: 4 @42379 has 1 MA's), (6, 42361), (8, 42340),

Gene: Switzer_66 Start: 43928, Stop: 43806, Start Num: 2

Candidate Starts for Switzer_66:

(Start: 2 @43928 has 96 MA's), (Start: 4 @43913 has 1 MA's), (8, 43874),

Gene: Swole_66 Start: 42197, Stop: 42078, Start Num: 2

Candidate Starts for Swole_66:

(Start: 2 @42197 has 96 MA's), (Start: 4 @42182 has 1 MA's), (6, 42164), (8, 42143),

Gene: Teodoridan_64 Start: 41520, Stop: 41392, Start Num: 2

Candidate Starts for Teodoridan_64:

(Start: 2 @41520 has 96 MA's), (Start: 4 @41505 has 1 MA's), (6, 41487), (8, 41466),

Gene: TheloniousMonk_69 Start: 44891, Stop: 44775, Start Num: 2

Candidate Starts for TheloniousMonk_69:

(Start: 2 @44891 has 96 MA's), (Start: 4 @44876 has 1 MA's), (8, 44837),

Gene: Thor_64 Start: 41641, Stop: 41513, Start Num: 2

Candidate Starts for Thor_64:

(Start: 2 @41641 has 96 MA's), (Start: 4 @41626 has 1 MA's), (6, 41608), (8, 41587),

Gene: Tote_61 Start: 39464, Stop: 39345, Start Num: 2

Candidate Starts for Tote_61:

(Start: 2 @39464 has 96 MA's), (Start: 4 @39449 has 1 MA's), (6, 39431), (8, 39410),

Gene: Traft412_68 Start: 43252, Stop: 43130, Start Num: 2

Candidate Starts for Traft412_68:

(Start: 2 @43252 has 96 MA's), (Start: 3 @43243 has 5 MA's), (Start: 4 @43237 has 1 MA's), (6, 43219), (8, 43198),

Gene: Turj99_63 Start: 43176, Stop: 43057, Start Num: 2

Candidate Starts for Turj99_63:

(Start: 2 @43176 has 96 MA's), (Start: 3 @43167 has 5 MA's), (Start: 4 @43161 has 1 MA's), (6, 43143), (8, 43122),

Gene: TwoPeat_66 Start: 43028, Stop: 42906, Start Num: 2

Candidate Starts for TwoPeat_66:

(Start: 2 @43028 has 96 MA's), (Start: 3 @43019 has 5 MA's), (Start: 4 @43013 has 1 MA's), (8, 42974),

Gene: Zeeculate_64 Start: 42837, Stop: 42715, Start Num: 2

Candidate Starts for Zeeculate_64:

(Start: 2 @42837 has 96 MA's), (Start: 4 @42822 has 1 MA's), (6, 42804), (8, 42783),

Gene: Zephyr_66 Start: 41938, Stop: 41816, Start Num: 2

Candidate Starts for Zephyr_66:

(Start: 2 @41938 has 96 MA's), (Start: 3 @41929 has 5 MA's), (Start: 4 @41923 has 1 MA's), (8, 41884), (9, 41875),