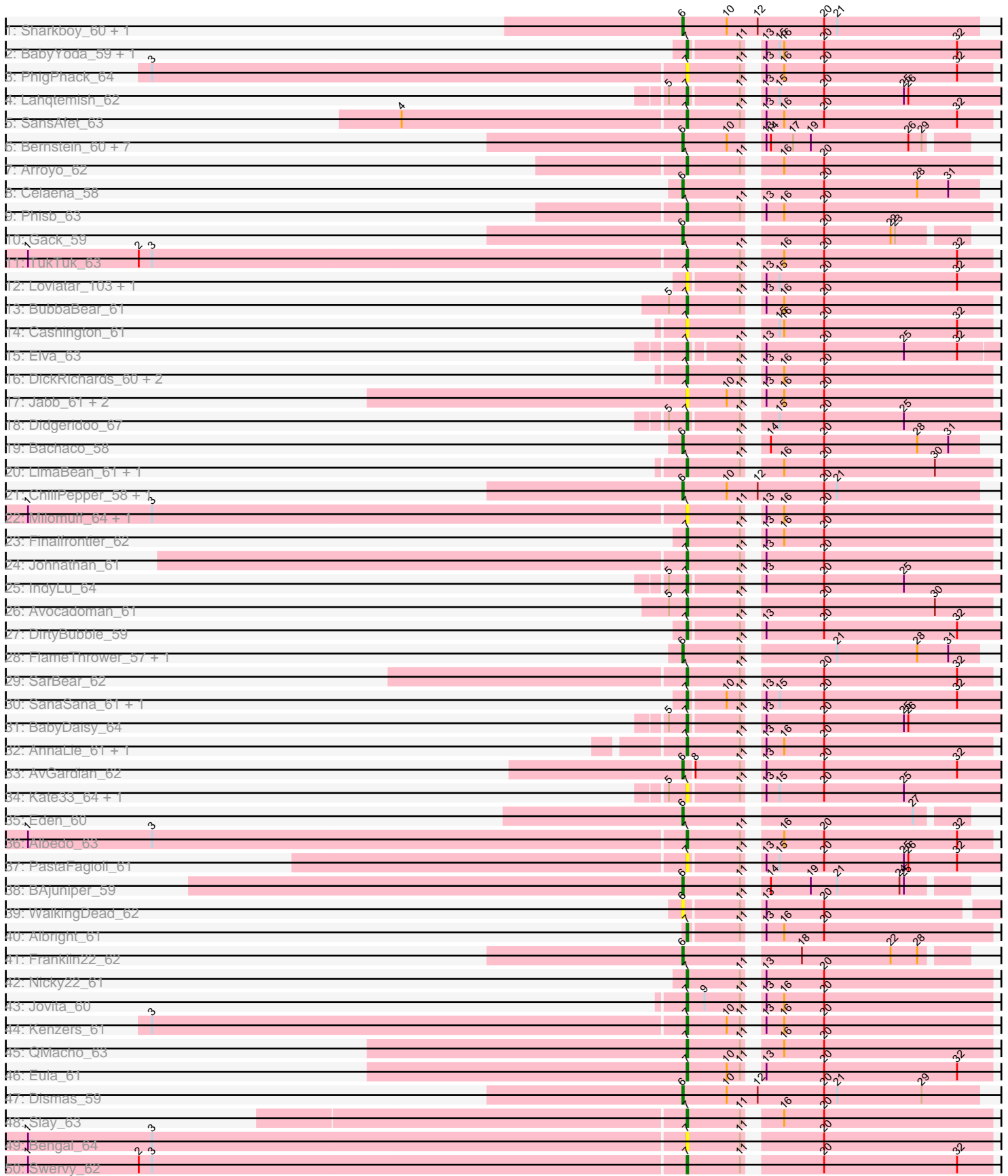


Pham 211049

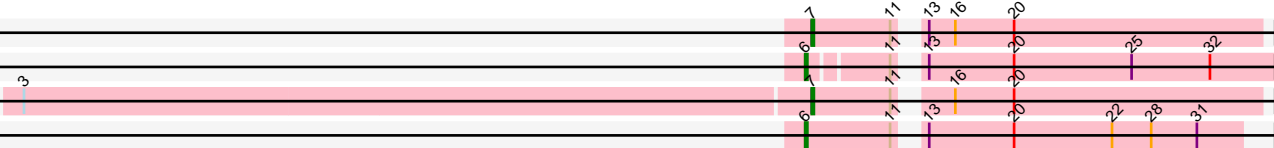


51: Lynlen_62

52: Icarian_62

53: Abigail_61

54: Quenya_62



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 211049 Report

This analysis was run 02/22/25 on database version 588.

Pham number 211049 has 75 members, 14 are drafts.

Phages represented in each track:

- Track 1 : Sharkboy_60, Kieran_58
- Track 2 : BabyYoda_59, Stromboli_59
- Track 3 : PhigPhack_64
- Track 4 : Lahqtemish_62
- Track 5 : SansAfet_63
- Track 6 : Bernstein_60, Clayda5_62, Brahms_60, Skylord_60, Rollins_60, Coltrane_60, Vitas_60, Armstrong_60
- Track 7 : Arroyo_62
- Track 8 : Celaena_58
- Track 9 : Phisb_63
- Track 10 : Gack_59
- Track 11 : TukTuk_63
- Track 12 : Loviatar_103, Akino08_103
- Track 13 : BubbaBear_61
- Track 14 : Cashington_61
- Track 15 : Elva_63
- Track 16 : DickRichards_60, Burritobowl_63, CroZenni_62
- Track 17 : Jabb_61, CupcakePrincess_61, MsUbiquitous_61
- Track 18 : Didgeridoo_67
- Track 19 : Bachaco_58
- Track 20 : LimaBean_61, Doobus_60
- Track 21 : ChiliPepper_58, Rona_58
- Track 22 : Milomuff_64, Solea_64
- Track 23 : Finalfrontier_62
- Track 24 : Johnathan_61
- Track 25 : IndyLu_64
- Track 26 : Avocadoman_61
- Track 27 : DirtyBubble_59
- Track 28 : FlameThrower_57, Katzastrophic_59
- Track 29 : SarBear_62
- Track 30 : SanaSana_61, Stoor_59
- Track 31 : BabyDaisy_64
- Track 32 : AnnaLie_61, BelmontSKP_61
- Track 33 : AvGardian_62
- Track 34 : Kate33_64, Softsoap_63
- Track 35 : Eden_60
- Track 36 : Albedo_63

- Track 37 : PastaFagioli_61
- Track 38 : BAjuniper_59
- Track 39 : WalkingDead_62
- Track 40 : Albright_61
- Track 41 : Franklin22_62
- Track 42 : Nicky22_61
- Track 43 : Jovita_60
- Track 44 : Kenzers_61
- Track 45 : QMacho_63
- Track 46 : Eula_61
- Track 47 : Dismas_59
- Track 48 : Slay_63
- Track 49 : Bengal_64
- Track 50 : Swervy_62
- Track 51 : Lynlen_62
- Track 52 : Icarian_62
- Track 53 : Abigail_61
- Track 54 : Quenya_62

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 37 of the 61 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abigail_61, Akino08_103, Albedo_63, Albright_61, AnnaLie_61, Arroyo_62, Avocadoman_61, BabyDaisy_64, BabyYoda_59, BelmontSKP_61, Bengal_64, BubbaBear_61, Burritobowl_63, Cashington_61, CroZenni_62, CupcakePrincess_61, DickRichards_60, Didgeridoo_67, DirtyBubble_59, Doobus_60, Elva_63, Eula_61, Finalfrontier_62, IndyLu_64, Jabb_61, Johnathan_61, Jovita_60, Kate33_64, Kenzers_61, Lahqtemish_62, LimaBean_61, Loviatar_103, Lynlen_62, Milomuff_64, MsUbiquitous_61, Nicky22_61, PastaFagioli_61, PhigPhack_64, Phisb_63, QMacho_63, SanaSana_61, SansAfet_63, SarBear_62, Slay_63, Softsoap_63, Solea_64, Stoor_59, Stromboli_59, Swervy_62, TukTuk_63,

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

-

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

- Armstrong_60, AvGardian_62, BAjuniper_59, Bachaco_58, Bernstein_60, Brahms_60, Celaena_58, ChiliPepper_58, Clayda5_62, Coltrane_60, Dismas_59, Eden_60, FlameThrower_57, Franklin22_62, Gack_59, Icarian_62, Katzastrophic_59, Kieran_58, Quenya_62, Rollins_60, Rona_58, Sharkboy_60, Skylord_60, Vitas_60, WalkingDead_62,

Summary by start number:

Start 6:

- Found in 25 of 75 (33.3%) of genes in pham
- Manual Annotations of this start: 24 of 61

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Armstrong_60 (EB), AvGardian_62 (EB), BAjuniper_59 (EB), Bachaco_58 (EB), Bernstein_60 (EB), Brahms_60 (EB), Celaena_58 (EB), ChiliPepper_58 (EB), Clayda5_62 (EB), Coltrane_60 (EB), Dismas_59 (EB), Eden_60 (EB), FlameThrower_57 (EB), Franklin22_62 (EB), Gack_59 (EB), Icarian_62 (EB), Katzastrophic_59 (EB), Kieran_58 (EB), Quenya_62 (EB), Rollins_60 (EB), Rona_58 (EB), Sharkboy_60 (EB), Skylord_60 (EB), Vitas_60 (EB), WalkingDead_62 (EB),

Start 7:

- Found in 50 of 75 (66.7%) of genes in pham
- Manual Annotations of this start: 37 of 61
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abigail_61 (EB), Akino08_103 (EB), Albedo_63 (EB), Albright_61 (EB), AnnaLie_61 (EB), Arroyo_62 (EB), Avocadoman_61 (EB), BabyDaisy_64 (EB), BabyYoda_59 (EB), BelmontSKP_61 (EB), Bengal_64 (EB), BubbaBear_61 (EB), Burritobowl_63 (EB), Cashington_61 (EB), CroZenni_62 (EB), CupcakePrincess_61 (EB), DickRichards_60 (EB), Didgeridoo_67 (EB), DirtyBubble_59 (EB), Doobus_60 (EB), Elva_63 (EB), Eula_61 (EB), Finalfrontier_62 (EB), IndyLu_64 (EB), Jabb_61 (EB), Johnathan_61 (EB), Jovita_60 (EB), Kate33_64 (EB), Kenzers_61 (EB), Lahqtemish_62 (EB), LimaBean_61 (EB), Loviatar_103 (EB), Lynlen_62 (EB), Milomuff_64 (EB), MsUbiquitous_61 (EB), Nicky22_61 (EB), PastaFagioli_61 (EB), PhigPhack_64 (EB), Phisb_63 (EB), QMacho_63 (EB), SanaSana_61 (EB), SansAfet_63 (EB), SarBear_62 (EB), Slay_63 (EB), Softsoap_63 (EB), Solea_64 (EB), Stoor_59 (EB), Stromboli_59 (EB), Swervy_62 (EB), TukTuk_63 (EB),

Summary by clusters:

There is one cluster represented in this pham: EB

Info for manual annotations of cluster EB:

- Start number 6 was manually annotated 24 times for cluster EB.
- Start number 7 was manually annotated 37 times for cluster EB.

Gene Information:

Gene: Abigail_61 Start: 38638, Stop: 38832, Start Num: 7

Candidate Starts for Abigail_61:

(3, 38281), (Start: 7 @38638 has 37 MA's), (11, 38674), (16, 38692), (20, 38719),

Gene: Akino08_103 Start: 40091, Stop: 40291, Start Num: 7

Candidate Starts for Akino08_103:

(Start: 7 @40091 has 37 MA's), (11, 40124), (13, 40130), (15, 40139), (20, 40169), (32, 40259),

Gene: Albedo_63 Start: 39558, Stop: 39752, Start Num: 7

Candidate Starts for Albedo_63:

(1, 39117), (3, 39201), (Start: 7 @39558 has 37 MA's), (11, 39594), (16, 39612), (20, 39639), (32, 39729),

Gene: Albright_61 Start: 38623, Stop: 38814, Start Num: 7

Candidate Starts for Albright_61:
(Start: 7 @38623 has 37 MA's), (11, 38656), (13, 38662), (16, 38674), (20, 38701),

Gene: AnnaLie_61 Start: 39293, Stop: 39487, Start Num: 7
Candidate Starts for AnnaLie_61:
(Start: 7 @39293 has 37 MA's), (11, 39329), (13, 39335), (16, 39347), (20, 39374),

Gene: Armstrong_60 Start: 37153, Stop: 37329, Start Num: 6
Candidate Starts for Armstrong_60:
(Start: 6 @37153 has 24 MA's), (10, 37183), (13, 37198), (14, 37201), (17, 37216), (19, 37228), (26, 37294), (29, 37303),

Gene: Arroyo_62 Start: 39595, Stop: 39789, Start Num: 7
Candidate Starts for Arroyo_62:
(Start: 7 @39595 has 37 MA's), (11, 39631), (16, 39649), (20, 39676),

Gene: AvGardian_62 Start: 39340, Stop: 39543, Start Num: 6
Candidate Starts for AvGardian_62:
(Start: 6 @39340 has 24 MA's), (8, 39346), (11, 39376), (13, 39382), (20, 39421), (32, 39511),

Gene: Avocadoman_61 Start: 38566, Stop: 38760, Start Num: 7
Candidate Starts for Avocadoman_61:
(5, 38554), (Start: 7 @38566 has 37 MA's), (11, 38602), (20, 38647), (30, 38722),

Gene: BAjuniper_59 Start: 39343, Stop: 39519, Start Num: 6
Candidate Starts for BAjuniper_59:
(Start: 6 @39343 has 24 MA's), (11, 39382), (14, 39391), (19, 39418), (21, 39436), (24, 39478), (25, 39481),

Gene: BabyDaisy_64 Start: 40097, Stop: 40297, Start Num: 7
Candidate Starts for BabyDaisy_64:
(5, 40085), (Start: 7 @40097 has 37 MA's), (11, 40130), (13, 40136), (20, 40175), (25, 40229), (26, 40232),

Gene: BabyYoda_59 Start: 39000, Stop: 39200, Start Num: 7
Candidate Starts for BabyYoda_59:
(Start: 7 @39000 has 37 MA's), (11, 39033), (13, 39039), (15, 39048), (16, 39051), (20, 39078), (32, 39168),

Gene: Bachaco_58 Start: 40052, Stop: 40240, Start Num: 6
Candidate Starts for Bachaco_58:
(Start: 6 @40052 has 24 MA's), (11, 40091), (14, 40100), (20, 40136), (28, 40199), (31, 40220),

Gene: BelmontSKP_61 Start: 39293, Stop: 39487, Start Num: 7
Candidate Starts for BelmontSKP_61:
(Start: 7 @39293 has 37 MA's), (11, 39329), (13, 39335), (16, 39347), (20, 39374),

Gene: Bengal_64 Start: 39353, Stop: 39547, Start Num: 7
Candidate Starts for Bengal_64:
(1, 38912), (3, 38996), (Start: 7 @39353 has 37 MA's), (11, 39389), (20, 39434),

Gene: Bernstein_60 Start: 37151, Stop: 37327, Start Num: 6
Candidate Starts for Bernstein_60:

(Start: 6 @37151 has 24 MA's), (10, 37181), (13, 37196), (14, 37199), (17, 37214), (19, 37226), (26, 37292), (29, 37301),

Gene: Brahms_60 Start: 37053, Stop: 37229, Start Num: 6

Candidate Starts for Brahms_60:

(Start: 6 @37053 has 24 MA's), (10, 37083), (13, 37098), (14, 37101), (17, 37116), (19, 37128), (26, 37194), (29, 37203),

Gene: BubbaBear_61 Start: 39350, Stop: 39544, Start Num: 7

Candidate Starts for BubbaBear_61:

(5, 39338), (Start: 7 @39350 has 37 MA's), (11, 39386), (13, 39392), (16, 39404), (20, 39431),

Gene: Burritobowl_63 Start: 39121, Stop: 39315, Start Num: 7

Candidate Starts for Burritobowl_63:

(Start: 7 @39121 has 37 MA's), (11, 39157), (13, 39163), (16, 39175), (20, 39202),

Gene: Cashington_61 Start: 38697, Stop: 38891, Start Num: 7

Candidate Starts for Cashington_61:

(Start: 7 @38697 has 37 MA's), (15, 38748), (16, 38751), (20, 38778), (32, 38868),

Gene: Celaena_58 Start: 39814, Stop: 40002, Start Num: 6

Candidate Starts for Celaena_58:

(Start: 6 @39814 has 24 MA's), (20, 39898), (28, 39961), (31, 39982),

Gene: ChiliPepper_58 Start: 39356, Stop: 39556, Start Num: 6

Candidate Starts for ChiliPepper_58:

(Start: 6 @39356 has 24 MA's), (10, 39386), (12, 39407), (20, 39452), (21, 39461),

Gene: Clayda5_62 Start: 37118, Stop: 37294, Start Num: 6

Candidate Starts for Clayda5_62:

(Start: 6 @37118 has 24 MA's), (10, 37148), (13, 37163), (14, 37166), (17, 37181), (19, 37193), (26, 37259), (29, 37268),

Gene: Coltrane_60 Start: 37053, Stop: 37229, Start Num: 6

Candidate Starts for Coltrane_60:

(Start: 6 @37053 has 24 MA's), (10, 37083), (13, 37098), (14, 37101), (17, 37116), (19, 37128), (26, 37194), (29, 37203),

Gene: CroZenni_62 Start: 38911, Stop: 39105, Start Num: 7

Candidate Starts for CroZenni_62:

(Start: 7 @38911 has 37 MA's), (11, 38947), (13, 38953), (16, 38965), (20, 38992),

Gene: CupcakePrincess_61 Start: 38675, Stop: 38869, Start Num: 7

Candidate Starts for CupcakePrincess_61:

(Start: 7 @38675 has 37 MA's), (10, 38702), (11, 38711), (13, 38717), (16, 38729), (20, 38756),

Gene: DickRichards_60 Start: 39077, Stop: 39271, Start Num: 7

Candidate Starts for DickRichards_60:

(Start: 7 @39077 has 37 MA's), (11, 39113), (13, 39119), (16, 39131), (20, 39158),

Gene: Didgeridoo_67 Start: 40207, Stop: 40407, Start Num: 7

Candidate Starts for Didgeridoo_67:

(5, 40195), (Start: 7 @40207 has 37 MA's), (11, 40240), (15, 40255), (20, 40285), (25, 40339),

Gene: DirtyBubble_59 Start: 39038, Stop: 39238, Start Num: 7

Candidate Starts for DirtyBubble_59:

(Start: 7 @39038 has 37 MA's), (11, 39071), (13, 39077), (20, 39116), (32, 39206),

Gene: Dismas_59 Start: 39277, Stop: 39477, Start Num: 6

Candidate Starts for Dismas_59:

(Start: 6 @39277 has 24 MA's), (10, 39307), (12, 39328), (20, 39373), (21, 39382), (29, 39439),

Gene: Doobus_60 Start: 38752, Stop: 38946, Start Num: 7

Candidate Starts for Doobus_60:

(Start: 7 @38752 has 37 MA's), (11, 38788), (16, 38806), (20, 38833), (30, 38908),

Gene: Eden_60 Start: 37901, Stop: 38077, Start Num: 6

Candidate Starts for Eden_60:

(Start: 6 @37901 has 24 MA's), (27, 38045),

Gene: Elva_63 Start: 39777, Stop: 39971, Start Num: 7

Candidate Starts for Elva_63:

(Start: 7 @39777 has 37 MA's), (11, 39807), (13, 39813), (20, 39852), (25, 39906), (32, 39942),

Gene: Eula_61 Start: 38661, Stop: 38855, Start Num: 7

Candidate Starts for Eula_61:

(Start: 7 @38661 has 37 MA's), (10, 38688), (11, 38697), (13, 38703), (20, 38742), (32, 38832),

Gene: Finalfrontier_62 Start: 39825, Stop: 40019, Start Num: 7

Candidate Starts for Finalfrontier_62:

(Start: 7 @39825 has 37 MA's), (11, 39861), (13, 39867), (16, 39879), (20, 39906),

Gene: FlameThrower_57 Start: 38851, Stop: 39039, Start Num: 6

Candidate Starts for FlameThrower_57:

(Start: 6 @38851 has 24 MA's), (11, 38890), (21, 38944), (28, 38998), (31, 39019),

Gene: Franklin22_62 Start: 37616, Stop: 37792, Start Num: 6

Candidate Starts for Franklin22_62:

(Start: 6 @37616 has 24 MA's), (18, 37685), (22, 37745), (28, 37763),

Gene: Gack_59 Start: 37534, Stop: 37710, Start Num: 6

Candidate Starts for Gack_59:

(Start: 6 @37534 has 24 MA's), (20, 37618), (22, 37663), (23, 37666),

Gene: Icarian_62 Start: 39689, Stop: 39889, Start Num: 6

Candidate Starts for Icarian_62:

(Start: 6 @39689 has 24 MA's), (11, 39722), (13, 39728), (20, 39767), (25, 39821), (32, 39857),

Gene: IndyLu_64 Start: 39828, Stop: 40028, Start Num: 7

Candidate Starts for IndyLu_64:

(5, 39816), (Start: 7 @39828 has 37 MA's), (11, 39861), (13, 39867), (20, 39906), (25, 39960),

Gene: Jabb_61 Start: 38675, Stop: 38869, Start Num: 7

Candidate Starts for Jabb_61:

(Start: 7 @38675 has 37 MA's), (10, 38702), (11, 38711), (13, 38717), (16, 38729), (20, 38756),

Gene: Johnathan_61 Start: 38621, Stop: 38815, Start Num: 7
Candidate Starts for Johnathan_61:
(Start: 7 @38621 has 37 MA's), (11, 38657), (13, 38663), (20, 38702),

Gene: Jovita_60 Start: 38432, Stop: 38626, Start Num: 7
Candidate Starts for Jovita_60:
(Start: 7 @38432 has 37 MA's), (9, 38444), (11, 38468), (13, 38474), (16, 38486), (20, 38513),

Gene: Kate33_64 Start: 39564, Stop: 39764, Start Num: 7
Candidate Starts for Kate33_64:
(5, 39552), (Start: 7 @39564 has 37 MA's), (11, 39597), (13, 39603), (15, 39612), (20, 39642), (25, 39696),

Gene: Katzastrophic_59 Start: 39361, Stop: 39549, Start Num: 6
Candidate Starts for Katzastrophic_59:
(Start: 6 @39361 has 24 MA's), (11, 39400), (21, 39454), (28, 39508), (31, 39529),

Gene: Kenzers_61 Start: 38491, Stop: 38685, Start Num: 7
Candidate Starts for Kenzers_61:
(3, 38134), (Start: 7 @38491 has 37 MA's), (10, 38518), (11, 38527), (13, 38533), (16, 38545), (20, 38572),

Gene: Kieran_58 Start: 39318, Stop: 39518, Start Num: 6
Candidate Starts for Kieran_58:
(Start: 6 @39318 has 24 MA's), (10, 39348), (12, 39369), (20, 39414), (21, 39423),

Gene: Lahqtemish_62 Start: 39841, Stop: 40041, Start Num: 7
Candidate Starts for Lahqtemish_62:
(5, 39829), (Start: 7 @39841 has 37 MA's), (11, 39874), (13, 39880), (15, 39889), (20, 39919), (25, 39973), (26, 39976),

Gene: LimaBean_61 Start: 38515, Stop: 38709, Start Num: 7
Candidate Starts for LimaBean_61:
(Start: 7 @38515 has 37 MA's), (11, 38551), (16, 38569), (20, 38596), (30, 38671),

Gene: Loviatar_103 Start: 40106, Stop: 40306, Start Num: 7
Candidate Starts for Loviatar_103:
(Start: 7 @40106 has 37 MA's), (11, 40139), (13, 40145), (15, 40154), (20, 40184), (32, 40274),

Gene: Lynlen_62 Start: 38674, Stop: 38868, Start Num: 7
Candidate Starts for Lynlen_62:
(Start: 7 @38674 has 37 MA's), (11, 38710), (13, 38716), (16, 38728), (20, 38755),

Gene: Milomuff_64 Start: 39210, Stop: 39404, Start Num: 7
Candidate Starts for Milomuff_64:
(1, 38769), (3, 38853), (Start: 7 @39210 has 37 MA's), (11, 39246), (13, 39252), (16, 39264), (20, 39291),

Gene: MsUbiquitous_61 Start: 38675, Stop: 38869, Start Num: 7
Candidate Starts for MsUbiquitous_61:
(Start: 7 @38675 has 37 MA's), (10, 38702), (11, 38711), (13, 38717), (16, 38729), (20, 38756),

Gene: Nicky22_61 Start: 39083, Stop: 39277, Start Num: 7

Candidate Starts for Nicky22_61:

(Start: 7 @39083 has 37 MA's), (11, 39119), (13, 39125), (20, 39164),

Gene: PastaFagioli_61 Start: 39787, Stop: 39987, Start Num: 7

Candidate Starts for PastaFagioli_61:

(Start: 7 @39787 has 37 MA's), (11, 39820), (13, 39826), (15, 39835), (20, 39865), (25, 39919), (26, 39922), (32, 39955),

Gene: PhigPhack_64 Start: 39217, Stop: 39411, Start Num: 7

Candidate Starts for PhigPhack_64:

(3, 38860), (Start: 7 @39217 has 37 MA's), (11, 39253), (13, 39259), (16, 39271), (20, 39298), (32, 39388),

Gene: Phisb_63 Start: 39190, Stop: 39384, Start Num: 7

Candidate Starts for Phisb_63:

(Start: 7 @39190 has 37 MA's), (11, 39226), (13, 39232), (16, 39244), (20, 39271),

Gene: QMacho_63 Start: 39321, Stop: 39515, Start Num: 7

Candidate Starts for QMacho_63:

(Start: 7 @39321 has 37 MA's), (11, 39357), (16, 39375), (20, 39402),

Gene: Quenya_62 Start: 39756, Stop: 39944, Start Num: 6

Candidate Starts for Quenya_62:

(Start: 6 @39756 has 24 MA's), (11, 39795), (13, 39801), (20, 39840), (22, 39885), (28, 39903), (31, 39924),

Gene: Rollins_60 Start: 37151, Stop: 37327, Start Num: 6

Candidate Starts for Rollins_60:

(Start: 6 @37151 has 24 MA's), (10, 37181), (13, 37196), (14, 37199), (17, 37214), (19, 37226), (26, 37292), (29, 37301),

Gene: Rona_58 Start: 39268, Stop: 39468, Start Num: 6

Candidate Starts for Rona_58:

(Start: 6 @39268 has 24 MA's), (10, 39298), (12, 39319), (20, 39364), (21, 39373),

Gene: SanaSana_61 Start: 39449, Stop: 39649, Start Num: 7

Candidate Starts for SanaSana_61:

(Start: 7 @39449 has 37 MA's), (10, 39473), (11, 39482), (13, 39488), (15, 39497), (20, 39527), (32, 39617),

Gene: SansAfet_63 Start: 39166, Stop: 39360, Start Num: 7

Candidate Starts for SansAfet_63:

(4, 38977), (Start: 7 @39166 has 37 MA's), (11, 39202), (13, 39208), (16, 39220), (20, 39247), (32, 39337),

Gene: SarBear_62 Start: 38730, Stop: 38924, Start Num: 7

Candidate Starts for SarBear_62:

(Start: 7 @38730 has 37 MA's), (11, 38766), (20, 38811), (32, 38901),

Gene: Sharkboy_60 Start: 39642, Stop: 39842, Start Num: 6

Candidate Starts for Sharkboy_60:

(Start: 6 @39642 has 24 MA's), (10, 39672), (12, 39693), (20, 39738), (21, 39747),

Gene: Skylord_60 Start: 37068, Stop: 37244, Start Num: 6
Candidate Starts for Skylord_60:
(Start: 6 @37068 has 24 MA's), (10, 37098), (13, 37113), (14, 37116), (17, 37131), (19, 37143), (26, 37209), (29, 37218),

Gene: Slay_63 Start: 39700, Stop: 39894, Start Num: 7
Candidate Starts for Slay_63:
(Start: 7 @39700 has 37 MA's), (11, 39736), (16, 39754), (20, 39781),

Gene: Softsoap_63 Start: 39383, Stop: 39583, Start Num: 7
Candidate Starts for Softsoap_63:
(5, 39371), (Start: 7 @39383 has 37 MA's), (11, 39416), (13, 39422), (15, 39431), (20, 39461), (25, 39515),

Gene: Solea_64 Start: 39209, Stop: 39403, Start Num: 7
Candidate Starts for Solea_64:
(1, 38768), (3, 38852), (Start: 7 @39209 has 37 MA's), (11, 39245), (13, 39251), (16, 39263), (20, 39290),

Gene: Stoor_59 Start: 39236, Stop: 39436, Start Num: 7
Candidate Starts for Stoor_59:
(Start: 7 @39236 has 37 MA's), (10, 39260), (11, 39269), (13, 39275), (15, 39284), (20, 39314), (32, 39404),

Gene: Stromboli_59 Start: 39037, Stop: 39237, Start Num: 7
Candidate Starts for Stromboli_59:
(Start: 7 @39037 has 37 MA's), (11, 39070), (13, 39076), (15, 39085), (16, 39088), (20, 39115), (32, 39205),

Gene: Swervy_62 Start: 38794, Stop: 38988, Start Num: 7
Candidate Starts for Swervy_62:
(1, 38353), (2, 38428), (3, 38437), (Start: 7 @38794 has 37 MA's), (11, 38830), (20, 38875), (32, 38965),

Gene: TukTuk_63 Start: 39239, Stop: 39433, Start Num: 7
Candidate Starts for TukTuk_63:
(1, 38798), (2, 38873), (3, 38882), (Start: 7 @39239 has 37 MA's), (11, 39275), (16, 39293), (20, 39320), (32, 39410),

Gene: Vitas_60 Start: 37124, Stop: 37300, Start Num: 6
Candidate Starts for Vitas_60:
(Start: 6 @37124 has 24 MA's), (10, 37154), (13, 37169), (14, 37172), (17, 37187), (19, 37199), (26, 37265), (29, 37274),

Gene: WalkingDead_62 Start: 40213, Stop: 40407, Start Num: 6
Candidate Starts for WalkingDead_62:
(Start: 6 @40213 has 24 MA's), (11, 40249), (13, 40255), (20, 40294),