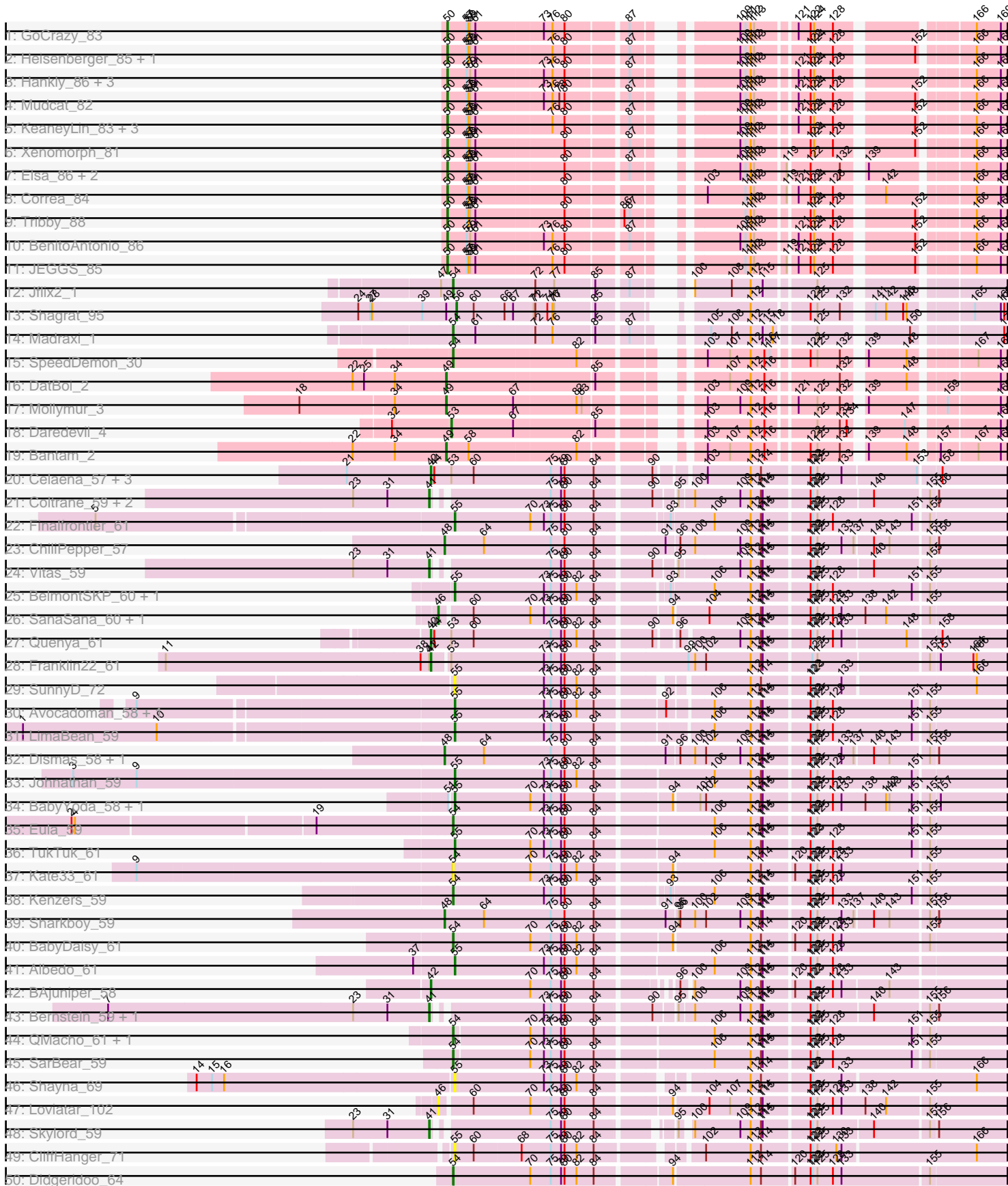
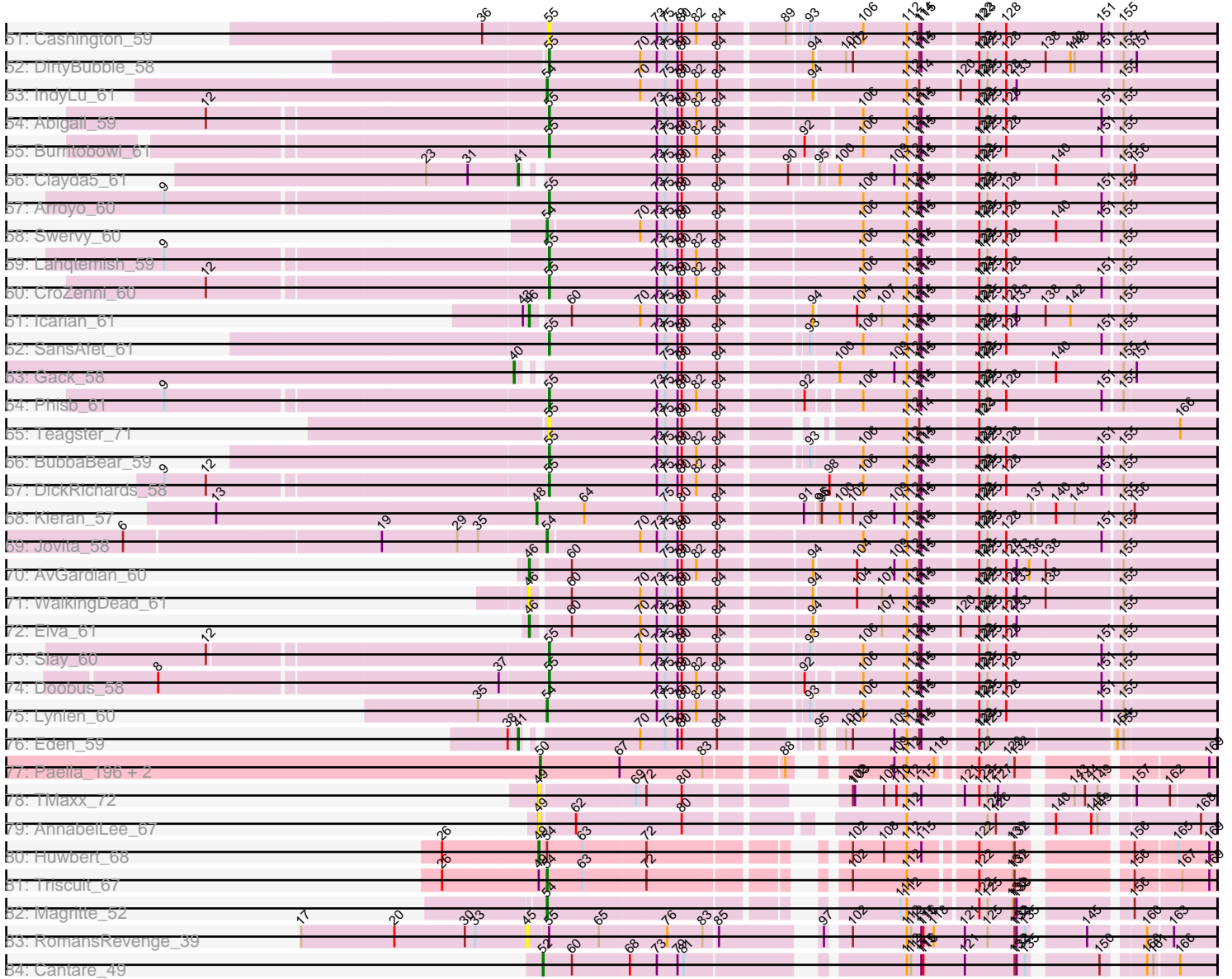


Pham 182121



Pham 182121



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 182121 Report

This analysis was run 11/02/24 on database version 579.

Pham number 182121 has 107 members, 13 are drafts.

Phages represented in each track:

- Track 1 : GoCrazy_83
- Track 2 : Heisenberger_85, Cheesy_87
- Track 3 : Hankly_86, Kardesai_86, Benllo_86, Mooshroom_87
- Track 4 : Mudcat_82
- Track 5 : KeaneyLin_83, Circum_86, NapoleonB_87, Dynamite_86
- Track 6 : Xenomorph_81
- Track 7 : Elsa_86, Arcadia_86, Nason_86
- Track 8 : Correa_84
- Track 9 : Tribby_88
- Track 10 : BenitoAntonio_86
- Track 11 : JEGGS_85
- Track 12 : Jflix2_1
- Track 13 : Shagrat_95
- Track 14 : Madraxi_1
- Track 15 : SpeedDemon_30
- Track 16 : DatBoi_2
- Track 17 : Mollymur_3
- Track 18 : Daredevil_4
- Track 19 : Bantam_2
- Track 20 : Celaena_57, Bachaco_57, Katzastrophic_58, FlameThrower_56
- Track 21 : Coltrane_59, Armstrong_59, Brahms_59
- Track 22 : Finalfrontier_61
- Track 23 : ChiliPepper_57
- Track 24 : Vitas_59
- Track 25 : BelmontSKP_60, AnnaLie_60
- Track 26 : SanaSana_60, Stoor_58
- Track 27 : Quenya_61
- Track 28 : Franklin22_61
- Track 29 : SunnyD_72
- Track 30 : Avocadoman_58, Albright_57
- Track 31 : LimaBean_59
- Track 32 : Dismas_58, Rona_57
- Track 33 : Johnathan_59
- Track 34 : BabyYoda_58, Stromboli_58
- Track 35 : Eula_59
- Track 36 : TukTuk_61
- Track 37 : Kate33_61

- Track 38 : Kenzers_59
- Track 39 : Sharkboy_59
- Track 40 : BabyDaisy_61
- Track 41 : Albedo_61
- Track 42 : BAjuniper_58
- Track 43 : Bernstein_59, Rollins_59
- Track 44 : QMacho_61, Nicky22_60
- Track 45 : SarBear_59
- Track 46 : Shayna_69
- Track 47 : Loviatar_102
- Track 48 : Skylord_59
- Track 49 : CliffHanger_71
- Track 50 : Didgeridoo_64
- Track 51 : Cashington_59
- Track 52 : DirtyBubble_58
- Track 53 : IndyLu_61
- Track 54 : Abigail_59
- Track 55 : Burritobowl_61
- Track 56 : Clayda5_61
- Track 57 : Arroyo_60
- Track 58 : Swervy_60
- Track 59 : Lahqtemish_59
- Track 60 : CroZenni_60
- Track 61 : Icarian_61
- Track 62 : SansAfet_61
- Track 63 : Gack_58
- Track 64 : Phisb_61
- Track 65 : Teagster_71
- Track 66 : BubbaBear_59
- Track 67 : DickRichards_58
- Track 68 : Kieran_57
- Track 69 : Jovita_58
- Track 70 : AvGardian_60
- Track 71 : WalkingDead_61
- Track 72 : Elva_61
- Track 73 : Slay_60
- Track 74 : Doobus_58
- Track 75 : Lynlen_60
- Track 76 : Eden_59
- Track 77 : Paella_196, Qui_196, Elver_192
- Track 78 : TMaxx_72
- Track 79 : AnnabelLee_67
- Track 80 : Huwbert_68
- Track 81 : Triscuit_67
- Track 82 : Magritte_52
- Track 83 : RomansRevenge_39
- Track 84 : Cantare_49

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

The start number called the most often in the published annotations is 55, it was called in 23 of the 94 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abigail_59, Albedo_61, Albright_57, AnnaLie_60, Arroyo_60, Avocadoman_58, BabyYoda_58, BelmontSKP_60, BubbaBear_59, Burritobowl_61, Cashington_59, CliffHanger_71, CroZenni_60, DickRichards_58, DirtyBubble_58, Doobus_58, Finalfrontier_61, Johnathan_59, Lahqtemish_59, LimaBean_59, Phisb_61, SansAfet_61, Shayna_69, Slay_60, Stromboli_58, SunnyD_72, Teagster_71, TukTuk_61,

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

- RomansRevenge_39,

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

- AnnabelLee_67, Arcadia_86, Armstrong_59, AvGardian_60, BAjuniper_58, BabyDaisy_61, Bachaco_57, Bantam_2, BenitoAntonio_86, Benllo_86, Bernstein_59, Brahms_59, Cantare_49, Celaena_57, Cheesy_87, ChiliPepper_57, Circum_86, Clayda5_61, Coltrane_59, Correa_84, Daredevil_4, DatBoi_2, Didgeridoo_64, Dismas_58, Dynamite_86, Eden_59, Elsa_86, Elva_61, Elver_192, Eula_59, FlameThrower_56, Franklin22_61, Gack_58, GoCrazy_83, Hankly_86, Heisenberger_85, Huwbert_68, Icarian_61, IndyLu_61, JEGGS_85, Jflix2_1, Jovita_58, Kardesai_86, Kate33_61, Katzastrophic_58, KeaneyLin_83, Kenzers_59, Kieran_57, Loviatar_102, Lynlen_60, Madraxi_1, Magritte_52, Mollymur_3, Mooshroom_87, Mudcat_82, NapoleonB_87, Nason_86, Nicky22_60, Paella_196, QMacho_61, Quenya_61, Qui_196, Rollins_59, Rona_57, SanaSana_60, SarBear_59, Shagrat_95, Sharkboy_59, Skylord_59, SpeedDemon_30, Stoor_58, Swervy_60, TMaxx_72, Tribby_88, Triscuit_67, Vitas_59, WalkingDead_61, Xenomorph_81,

Summary by start number:

Start 40:

- Found in 1 of 107 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gack_58 (EB),

Start 41:

- Found in 10 of 107 (9.3%) of genes in pham
- Manual Annotations of this start: 9 of 94
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Armstrong_59 (EB), Bernstein_59 (EB), Brahms_59 (EB), Clayda5_61 (EB), Coltrane_59 (EB), Eden_59 (EB), Rollins_59 (EB), Skylord_59 (EB), Vitas_59 (EB),

Start 42:

- Found in 7 of 107 (6.5%) of genes in pham
- Manual Annotations of this start: 7 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BAjuniper_58 (EB), Bachaco_57 (EB), Celaena_57 (EB), FlameThrower_56 (EB), Franklin22_61 (EB), Katzastrophic_58 (EB), Quenya_61 (EB),

Start 45:

- Found in 1 of 107 (0.9%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RomansRevenge_39 (singleton),

Start 46:

- Found in 7 of 107 (6.5%) of genes in pham
- Manual Annotations of this start: 5 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AvGardian_60 (EB), Elva_61 (EB), Icarian_61 (EB), Loviatar_102 (EB), SanaSana_60 (EB), Stoor_58 (EB), WalkingDead_61 (EB),

Start 48:

- Found in 5 of 107 (4.7%) of genes in pham
- Manual Annotations of this start: 5 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ChiliPepper_57 (EB), Dismas_58 (EB), Kieran_57 (EB), Rona_57 (EB), Sharkboy_59 (EB),

Start 49:

- Found in 8 of 107 (7.5%) of genes in pham
- Manual Annotations of this start: 4 of 94
- Called 75.0% of time when present
- Phage (with cluster) where this start called: AnnabelLee_67 (FR), Bantam_2 (DL), DatBoi_2 (DL), Huwburt_68 (GG), Mollymur_3 (DL), TMaxx_72 (FR),

Start 50:

- Found in 23 of 107 (21.5%) of genes in pham
- Manual Annotations of this start: 21 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Arcadia_86 (AM), BenitoAntonio_86 (AM), Benllo_86 (AM), Cheesy_87 (AM), Circum_86 (AM), Correa_84 (AM), Dynamite_86 (AM), Elsa_86 (AM), Elver_192 (FK), GoCrazy_83 (AM), Hankly_86 (AM), Heisenberger_85 (AM), JEGGS_85 (AM), Kardesai_86 (AM), KeaneyLin_83 (AM), Mooshroom_87 (AM), Mudcat_82 (AM), NapoleonB_87 (AM), Nason_86 (AM), Paella_196 (FK), Qui_196 (FK), Tribby_88 (AM), Xenomorph_81 (AM),

Start 52:

- Found in 1 of 107 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cantare_49 (singleton),

Start 53:

- Found in 7 of 107 (6.5%) of genes in pham
- Manual Annotations of this start: 1 of 94
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Daredevil_4 (DL),

Start 54:

- Found in 18 of 107 (16.8%) of genes in pham
- Manual Annotations of this start: 16 of 94
- Called 94.4% of time when present
- Phage (with cluster) where this start called: BabyDaisy_61 (EB), Didgeridoo_64 (EB), Eula_59 (EB), IndyLu_61 (EB), Jflix2_1 (CF), Jovita_58 (EB), Kate33_61 (EB), Kenzers_59 (EB), Lynlen_60 (EB), Madraxi_1 (CF), Magritte_52 (singleton), Nicky22_60 (EB), QMacho_61 (EB), SarBear_59 (EB), SpeedDemon_30 (DL), Swervy_60 (EB), Triscuit_67 (GG),

Start 55:

- Found in 29 of 107 (27.1%) of genes in pham
- Manual Annotations of this start: 23 of 94
- Called 96.6% of time when present
- Phage (with cluster) where this start called: Abigail_59 (EB), Albedo_61 (EB), Albright_57 (EB), AnnaLie_60 (EB), Arroyo_60 (EB), Avocadoman_58 (EB), BabyYoda_58 (EB), BelmontSKP_60 (EB), BubbaBear_59 (EB), Burritobowl_61 (EB), Cashington_59 (EB), CliffHanger_71 (EB), CroZenni_60 (EB), DickRichards_58 (EB), DirtyBubble_58 (EB), Doobus_58 (EB), Finalfrontier_61 (EB), Johnathan_59 (EB), Lahqtemish_59 (EB), LimaBean_59 (EB), Phisb_61 (EB), SansAfet_61 (EB), Shayna_69 (EB), Slay_60 (EB), Stromboli_58 (EB), SunnyD_72 (EB), Teagster_71 (EB), TukTuk_61 (EB),

Start 56:

- Found in 1 of 107 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 94
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Shagrat_95 (CF),

Summary by clusters:

There are 8 clusters represented in this pham: FR, AM, singleton, EB, GG, CF, FK, DL,

Info for manual annotations of cluster AM:

- Start number 50 was manually annotated 19 times for cluster AM.

Info for manual annotations of cluster CF:

- Start number 54 was manually annotated 2 times for cluster CF.
- Start number 56 was manually annotated 1 time for cluster CF.

Info for manual annotations of cluster DL:

- Start number 49 was manually annotated 3 times for cluster DL.
- Start number 53 was manually annotated 1 time for cluster DL.
- Start number 54 was manually annotated 1 time for cluster DL.

Info for manual annotations of cluster EB:

- Start number 40 was manually annotated 1 time for cluster EB.
- Start number 41 was manually annotated 9 times for cluster EB.
- Start number 42 was manually annotated 7 times for cluster EB.
- Start number 46 was manually annotated 5 times for cluster EB.
- Start number 48 was manually annotated 5 times for cluster EB.
- Start number 54 was manually annotated 11 times for cluster EB.
- Start number 55 was manually annotated 23 times for cluster EB.

Info for manual annotations of cluster FK:

- Start number 50 was manually annotated 2 times for cluster FK.

Info for manual annotations of cluster GG:

- Start number 49 was manually annotated 1 time for cluster GG.
- Start number 54 was manually annotated 1 time for cluster GG.

Gene Information:

Gene: Abigail_59 Start: 37497, Stop: 38399, Start Num: 55

Candidate Starts for Abigail_59:

(12, 37032), (Start: 55 @37497 has 23 MA's), (73, 37650), (75, 37662), (79, 37680), (80, 37686), (82, 37707), (84, 37737), (106, 37911), (112, 37974), (114, 37992), (115, 37995), (122, 38070), (123, 38073), (125, 38082), (128, 38109), (151, 38244), (155, 38268),

Gene: Albedo_61 Start: 38402, Stop: 39319, Start Num: 55

Candidate Starts for Albedo_61:

(37, 38333), (Start: 55 @38402 has 23 MA's), (73, 38558), (75, 38570), (79, 38588), (80, 38594), (82, 38615), (84, 38645), (106, 38831), (112, 38894), (114, 38912), (115, 38915), (122, 38990), (123, 38993), (125, 39002), (128, 39029),

Gene: Albright_57 Start: 36898, Stop: 37803, Start Num: 55

Candidate Starts for Albright_57:

(9, 36373), (Start: 55 @36898 has 23 MA's), (73, 37051), (75, 37063), (79, 37081), (80, 37087), (82, 37108), (84, 37138), (92, 37246), (106, 37315), (112, 37378), (114, 37396), (115, 37399), (122, 37474), (123, 37477), (125, 37486), (128, 37513), (151, 37648), (155, 37672),

Gene: AnnaLie_60 Start: 38333, Stop: 39238, Start Num: 55

Candidate Starts for AnnaLie_60:

(Start: 55 @38333 has 23 MA's), (73, 38486), (75, 38498), (79, 38516), (80, 38522), (82, 38543), (84, 38573), (93, 38681), (106, 38750), (112, 38813), (114, 38831), (115, 38834), (122, 38909), (123, 38912), (125, 38921), (128, 38948), (151, 39083), (155, 39107),

Gene: AnnabelLee_67 Start: 38383, Stop: 39231, Start Num: 49

Candidate Starts for AnnabelLee_67:

(Start: 49 @38383 has 4 MA's), (62, 38431), (80, 38581), (112, 38836), (125, 38944), (126, 38956), (140, 39019), (146, 39070), (149, 39079), (168, 39208),

Gene: Arcadia_86 Start: 50975, Stop: 51781, Start Num: 50

Candidate Starts for Arcadia_86:

(Start: 50 @50975 has 21 MA's), (57, 51005), (58, 51008), (59, 51011), (61, 51020), (80, 51170), (87, 51263), (109, 51389), (111, 51398), (112, 51407), (113, 51413), (119, 51461), (122, 51494), (132, 51545), (139, 51572), (166, 51731), (169, 51770),

Gene: Armstrong_59 Start: 36227, Stop: 37141, Start Num: 41

Candidate Starts for Armstrong_59:

(23, 36095), (31, 36155), (Start: 41 @36227 has 9 MA's), (75, 36410), (79, 36428), (80, 36434), (84, 36485), (90, 36572), (95, 36602), (100, 36623), (109, 36701), (112, 36719), (114, 36737), (115, 36740), (122, 36815), (123, 36818), (125, 36827), (140, 36920), (155, 37010), (156, 37022),

Gene: Arroyo_60 Start: 38445, Stop: 39356, Start Num: 55

Candidate Starts for Arroyo_60:

(9, 37914), (Start: 55 @38445 has 23 MA's), (73, 38598), (75, 38610), (79, 38628), (80, 38634), (84, 38685), (106, 38868), (112, 38931), (114, 38949), (115, 38952), (122, 39027), (123, 39030), (125, 39039), (128, 39066), (151, 39201), (155, 39225),

Gene: AvGardian_60 Start: 38063, Stop: 38998, Start Num: 46

Candidate Starts for AvGardian_60:

(Start: 46 @38063 has 5 MA's), (60, 38114), (75, 38249), (79, 38267), (80, 38273), (82, 38294), (84, 38324), (94, 38444), (104, 38498), (109, 38552), (112, 38570), (114, 38588), (115, 38591), (122, 38666), (123, 38669), (125, 38678), (128, 38705), (133, 38720), (136, 38738), (138, 38762), (155, 38867),

Gene: Avocadoman_58 Start: 37099, Stop: 38004, Start Num: 55

Candidate Starts for Avocadoman_58:

(9, 36574), (Start: 55 @37099 has 23 MA's), (73, 37252), (75, 37264), (79, 37282), (80, 37288), (82, 37309), (84, 37339), (92, 37447), (106, 37516), (112, 37579), (114, 37597), (115, 37600), (122, 37675), (123, 37678), (125, 37687), (128, 37714), (151, 37849), (155, 37873),

Gene: BAjuniper_58 Start: 38409, Stop: 39332, Start Num: 42

Candidate Starts for BAjuniper_58:

(Start: 42 @38409 has 7 MA's), (70, 38580), (75, 38616), (79, 38634), (80, 38640), (84, 38691), (96, 38799), (100, 38814), (109, 38892), (112, 38910), (114, 38928), (115, 38931), (120, 38979), (122, 39006), (123, 39009), (128, 39045), (133, 39060), (143, 39138),

Gene: BabyDaisy_61 Start: 38618, Stop: 39529, Start Num: 54

Candidate Starts for BabyDaisy_61:

(Start: 54 @38618 has 16 MA's), (70, 38750), (75, 38786), (79, 38804), (80, 38810), (82, 38831), (84, 38861), (94, 38981), (112, 39107), (114, 39125), (120, 39176), (122, 39203), (123, 39206), (125, 39215), (128, 39242), (133, 39257), (155, 39398),

Gene: BabyYoda_58 Start: 38076, Stop: 38990, Start Num: 55

Candidate Starts for BabyYoda_58:

(51, 38070), (Start: 55 @38076 has 23 MA's), (70, 38208), (73, 38232), (75, 38244), (79, 38262), (80, 38268), (84, 38319), (94, 38439), (101, 38478), (102, 38487), (112, 38565), (114, 38583), (115, 38586), (122, 38661), (123, 38664), (125, 38673), (128, 38700), (133, 38715), (138, 38754), (142, 38790), (143, 38796), (151, 38835), (155, 38859), (157, 38874),

Gene: Bachaco_57 Start: 39107, Stop: 40042, Start Num: 42

Candidate Starts for Bachaco_57:

(21, 38960), (Start: 42 @39107 has 7 MA's), (44, 39113), (Start: 53 @39140 has 1 MA's), (60, 39179), (75, 39314), (79, 39332), (80, 39338), (84, 39389), (90, 39479), (103, 39545), (112, 39620), (114, 39638), (122, 39716), (123, 39719), (125, 39728), (133, 39770), (153, 39896), (158, 39929),

Gene: Bantam_2 Start: 764, Stop: 1576, Start Num: 49

Candidate Starts for Bantam_2:

(22, 605), (34, 674), (Start: 49 @764 has 4 MA's), (58, 800), (82, 983), (103, 1130), (107, 1169), (112, 1205), (116, 1229), (122, 1292), (125, 1304), (132, 1343), (139, 1370), (148, 1436), (157, 1475), (167, 1529), (169, 1565),

Gene: BelmontSKP_60 Start: 38333, Stop: 39238, Start Num: 55

Candidate Starts for BelmontSKP_60:

(Start: 55 @38333 has 23 MA's), (73, 38486), (75, 38498), (79, 38516), (80, 38522), (82, 38543), (84, 38573), (93, 38681), (106, 38750), (112, 38813), (114, 38831), (115, 38834), (122, 38909), (123, 38912), (125, 38921), (128, 38948), (151, 39083), (155, 39107),

Gene: BenitoAntonio_86 Start: 50552, Stop: 51358, Start Num: 50

Candidate Starts for BenitoAntonio_86:

(Start: 50 @50552 has 21 MA's), (57, 50582), (59, 50588), (61, 50597), (73, 50711), (76, 50726), (80, 50747), (87, 50840), (109, 50966), (111, 50975), (112, 50984), (113, 50990), (121, 51050), (122, 51071), (124, 51077), (128, 51110), (152, 51230), (166, 51308), (169, 51347),

Gene: Benllo_86 Start: 50870, Stop: 51676, Start Num: 50

Candidate Starts for Benllo_86:

(Start: 50 @50870 has 21 MA's), (57, 50900), (59, 50906), (61, 50915), (73, 51029), (76, 51044), (80, 51065), (87, 51158), (109, 51284), (111, 51293), (112, 51302), (113, 51308), (121, 51368), (122, 51389), (124, 51395), (128, 51428), (166, 51626), (169, 51665),

Gene: Bernstein_59 Start: 36225, Stop: 37139, Start Num: 41

Candidate Starts for Bernstein_59:

(7, 35667), (23, 36093), (31, 36153), (Start: 41 @36225 has 9 MA's), (73, 36396), (75, 36408), (79, 36426), (80, 36432), (84, 36483), (90, 36570), (95, 36600), (100, 36621), (109, 36699), (112, 36717), (114, 36735), (115, 36738), (122, 36813), (123, 36816), (125, 36825), (140, 36918), (155, 37008), (156, 37020),

Gene: Brahms_59 Start: 36127, Stop: 37041, Start Num: 41

Candidate Starts for Brahms_59:

(23, 35995), (31, 36055), (Start: 41 @36127 has 9 MA's), (75, 36310), (79, 36328), (80, 36334), (84, 36385), (90, 36472), (95, 36502), (100, 36523), (109, 36601), (112, 36619), (114, 36637), (115, 36640), (122, 36715), (123, 36718), (125, 36727), (140, 36820), (155, 36910), (156, 36922),

Gene: BubbaBear_59 Start: 38098, Stop: 39003, Start Num: 55

Candidate Starts for BubbaBear_59:

(Start: 55 @38098 has 23 MA's), (73, 38251), (75, 38263), (79, 38281), (80, 38287), (82, 38308), (84, 38338), (93, 38446), (106, 38515), (112, 38578), (114, 38596), (115, 38599), (122, 38674), (123, 38677), (125, 38686), (128, 38713), (151, 38848), (155, 38872),

Gene: Burritobowl_61 Start: 37977, Stop: 38882, Start Num: 55

Candidate Starts for Burritobowl_61:

(Start: 55 @37977 has 23 MA's), (73, 38130), (75, 38142), (79, 38160), (80, 38166), (82, 38187), (84, 38217), (92, 38325), (106, 38394), (112, 38457), (114, 38475), (115, 38478), (122, 38553), (123, 38556), (125, 38565), (128, 38592), (151, 38727), (155, 38751),

Gene: Cantare_49 Start: 44954, Stop: 45802, Start Num: 52

Candidate Starts for Cantare_49:

(Start: 52 @44954 has 1 MA's), (60, 44996), (68, 45077), (73, 45113), (79, 45143), (81, 45152), (112, 45413), (113, 45419), (115, 45434), (116, 45437), (121, 45497), (132, 45569), (133, 45572), (135, 45584), (150, 45668), (160, 45713), (161, 45722), (166, 45752),

Gene: Cashington_59 Start: 37553, Stop: 38458, Start Num: 55

Candidate Starts for Cashington_59:

(36, 37460), (Start: 55 @37553 has 23 MA's), (73, 37706), (75, 37718), (79, 37736), (80, 37742), (82, 37763), (84, 37793), (89, 37880), (93, 37901), (106, 37970), (112, 38033), (114, 38051), (115, 38054), (122, 38129), (123, 38132), (128, 38168), (151, 38303), (155, 38327),

Gene: Celaena_57 Start: 38869, Stop: 39804, Start Num: 42

Candidate Starts for Celaena_57:

(21, 38722), (Start: 42 @38869 has 7 MA's), (44, 38875), (Start: 53 @38902 has 1 MA's), (60, 38941), (75, 39076), (79, 39094), (80, 39100), (84, 39151), (90, 39241), (103, 39307), (112, 39382), (114, 39400), (122, 39478), (123, 39481), (125, 39490), (133, 39532), (153, 39658), (158, 39691),

Gene: Cheesy_87 Start: 50767, Stop: 51573, Start Num: 50

Candidate Starts for Cheesy_87:

(Start: 50 @50767 has 21 MA's), (57, 50797), (58, 50800), (59, 50803), (61, 50812), (76, 50941), (80, 50962), (87, 51055), (109, 51181), (111, 51190), (112, 51199), (113, 51205), (122, 51286), (124, 51292), (128, 51325), (152, 51445), (166, 51523), (169, 51562),

Gene: ChiliPepper_57 Start: 38412, Stop: 39344, Start Num: 48

Candidate Starts for ChiliPepper_57:

(Start: 48 @38412 has 5 MA's), (64, 38481), (75, 38598), (80, 38622), (84, 38673), (91, 38784), (96, 38802), (100, 38826), (109, 38904), (112, 38922), (114, 38940), (115, 38943), (122, 39018), (123, 39021), (125, 39030), (133, 39072), (137, 39093), (140, 39123), (143, 39150), (155, 39213), (156, 39225),

Gene: Circum_86 Start: 50824, Stop: 51630, Start Num: 50

Candidate Starts for Circum_86:

(Start: 50 @50824 has 21 MA's), (57, 50854), (58, 50857), (59, 50860), (61, 50869), (76, 50998), (80, 51019), (87, 51112), (109, 51238), (111, 51247), (112, 51256), (113, 51262), (121, 51322), (122, 51343), (124, 51349), (128, 51382), (152, 51502), (166, 51580), (169, 51619),

Gene: Clayda5_61 Start: 36192, Stop: 37106, Start Num: 41

Candidate Starts for Clayda5_61:

(23, 36060), (31, 36120), (Start: 41 @36192 has 9 MA's), (73, 36363), (75, 36375), (79, 36393), (80, 36399), (84, 36450), (90, 36537), (95, 36567), (100, 36588), (109, 36666), (112, 36684), (114, 36702), (115, 36705), (122, 36780), (123, 36783), (125, 36792), (140, 36885), (155, 36975), (156, 36987),

Gene: CliffHanger_71 Start: 37853, Stop: 38749, Start Num: 55

Candidate Starts for CliffHanger_71:

(Start: 55 @37853 has 23 MA's), (60, 37883), (68, 37964), (75, 38015), (79, 38033), (80, 38039), (82, 38060), (84, 38090), (102, 38240), (112, 38318), (114, 38336), (122, 38414), (123, 38417), (125, 38426), (130, 38459), (133, 38468), (166, 38696),

Gene: Coltrane_59 Start: 36127, Stop: 37041, Start Num: 41

Candidate Starts for Coltrane_59:

(23, 35995), (31, 36055), (Start: 41 @36127 has 9 MA's), (75, 36310), (79, 36328), (80, 36334), (84, 36385), (90, 36472), (95, 36502), (100, 36523), (109, 36601), (112, 36619), (114, 36637), (115, 36640), (122, 36715), (123, 36718), (125, 36727), (140, 36820), (155, 36910), (156, 36922),

Gene: Correa_84 Start: 50324, Stop: 51130, Start Num: 50

Candidate Starts for Correa_84:

(Start: 50 @50324 has 21 MA's), (57, 50354), (58, 50357), (59, 50360), (61, 50369), (80, 50519), (103, 50681), (111, 50747), (112, 50756), (113, 50762), (119, 50810), (121, 50822), (122, 50843), (124, 50849), (128, 50882), (142, 50951), (166, 51080), (169, 51119),

Gene: CroZenni_60 Start: 37761, Stop: 38672, Start Num: 55

Candidate Starts for CroZenni_60:

(12, 37296), (Start: 55 @37761 has 23 MA's), (73, 37914), (75, 37926), (79, 37944), (80, 37950), (82, 37971), (84, 38001), (106, 38184), (112, 38247), (114, 38265), (115, 38268), (122, 38343), (123,

38346), (125, 38355), (128, 38382), (151, 38517), (155, 38541),

Gene: Daredevil_4 Start: 1040, Stop: 1846, Start Num: 53

Candidate Starts for Daredevil_4:

(32, 941), (Start: 53 @1040 has 1 MA's), (67, 1148), (85, 1277), (103, 1397), (112, 1472), (116, 1496), (125, 1571), (132, 1610), (134, 1622), (147, 1700), (169, 1835),

Gene: DatBoi_2 Start: 770, Stop: 1582, Start Num: 49

Candidate Starts for DatBoi_2:

(22, 611), (25, 629), (34, 680), (Start: 49 @770 has 4 MA's), (85, 1013), (107, 1175), (112, 1211), (116, 1235), (132, 1349), (148, 1442), (169, 1571),

Gene: DickRichards_58 Start: 37915, Stop: 38838, Start Num: 55

Candidate Starts for DickRichards_58:

(9, 37390), (12, 37450), (Start: 55 @37915 has 23 MA's), (73, 38068), (75, 38080), (79, 38098), (80, 38104), (82, 38125), (84, 38155), (98, 38302), (106, 38350), (112, 38413), (114, 38431), (115, 38434), (122, 38509), (123, 38512), (125, 38521), (128, 38548), (151, 38683), (155, 38707),

Gene: Didgeridoo_64 Start: 38737, Stop: 39648, Start Num: 54

Candidate Starts for Didgeridoo_64:

(Start: 54 @38737 has 16 MA's), (70, 38869), (75, 38905), (79, 38923), (80, 38929), (82, 38950), (84, 38980), (94, 39100), (112, 39226), (114, 39244), (120, 39295), (122, 39322), (123, 39325), (125, 39334), (128, 39361), (133, 39376), (155, 39517),

Gene: DirtyBubble_58 Start: 38114, Stop: 39028, Start Num: 55

Candidate Starts for DirtyBubble_58:

(Start: 55 @38114 has 23 MA's), (70, 38246), (73, 38270), (75, 38282), (79, 38300), (80, 38306), (84, 38357), (94, 38477), (101, 38516), (102, 38525), (112, 38603), (114, 38621), (115, 38624), (122, 38699), (123, 38702), (125, 38711), (128, 38738), (138, 38792), (142, 38828), (143, 38834), (151, 38873), (155, 38897), (157, 38912),

Gene: Dismas_58 Start: 38333, Stop: 39265, Start Num: 48

Candidate Starts for Dismas_58:

(Start: 48 @38333 has 5 MA's), (64, 38402), (75, 38519), (80, 38543), (84, 38594), (91, 38705), (96, 38723), (100, 38747), (102, 38765), (109, 38825), (112, 38843), (114, 38861), (115, 38864), (122, 38939), (123, 38942), (125, 38951), (133, 38993), (137, 39014), (140, 39044), (143, 39071), (155, 39134), (156, 39146),

Gene: Doobus_58 Start: 37608, Stop: 38513, Start Num: 55

Candidate Starts for Doobus_58:

(8, 37074), (37, 37539), (Start: 55 @37608 has 23 MA's), (73, 37761), (75, 37773), (79, 37791), (80, 37797), (82, 37818), (84, 37848), (92, 37956), (106, 38025), (112, 38088), (114, 38106), (115, 38109), (122, 38184), (123, 38187), (125, 38196), (128, 38223), (151, 38358), (155, 38382),

Gene: Dynamite_86 Start: 50343, Stop: 51149, Start Num: 50

Candidate Starts for Dynamite_86:

(Start: 50 @50343 has 21 MA's), (57, 50373), (58, 50376), (59, 50379), (61, 50388), (76, 50517), (80, 50538), (87, 50631), (109, 50757), (111, 50766), (112, 50775), (113, 50781), (121, 50841), (122, 50862), (124, 50868), (128, 50901), (152, 51021), (166, 51099), (169, 51138),

Gene: Eden_59 Start: 36997, Stop: 37890, Start Num: 41

Candidate Starts for Eden_59:

(38, 36982), (Start: 41 @36997 has 9 MA's), (70, 37144), (75, 37180), (79, 37198), (80, 37204), (84, 37255), (95, 37360), (101, 37381), (102, 37390), (109, 37450), (112, 37468), (114, 37486), (115, 37489), (122, 37564), (123, 37567), (125, 37576), (154, 37750), (155, 37759),

Gene: Elsa_86 Start: 50975, Stop: 51781, Start Num: 50

Candidate Starts for Elsa_86:

(Start: 50 @50975 has 21 MA's), (57, 51005), (58, 51008), (59, 51011), (61, 51020), (80, 51170), (87, 51263), (109, 51389), (111, 51398), (112, 51407), (113, 51413), (119, 51461), (122, 51494), (132, 51545), (139, 51572), (166, 51731), (169, 51770),

Gene: Elva_61 Start: 38508, Stop: 39437, Start Num: 46

Candidate Starts for Elva_61:

(Start: 46 @38508 has 5 MA's), (60, 38559), (70, 38658), (73, 38682), (75, 38694), (79, 38712), (80, 38718), (84, 38769), (94, 38889), (107, 38979), (112, 39015), (114, 39033), (115, 39036), (120, 39084), (122, 39111), (123, 39114), (125, 39123), (128, 39150), (133, 39165), (155, 39306),

Gene: Elver_192 Start: 93137, Stop: 93946, Start Num: 50

Candidate Starts for Elver_192:

(Start: 50 @93137 has 21 MA's), (67, 93245), (83, 93359), (88, 93452), (109, 93554), (112, 93572), (118, 93611), (122, 93659), (129, 93701), (132, 93710), (169, 93935),

Gene: Eula_59 Start: 37405, Stop: 38319, Start Num: 54

Candidate Starts for Eula_59:

(2, 36772), (4, 36778), (19, 37177), (Start: 54 @37405 has 16 MA's), (73, 37561), (75, 37573), (79, 37591), (80, 37597), (84, 37648), (106, 37831), (112, 37894), (114, 37912), (115, 37915), (122, 37990), (123, 37993), (125, 38002), (151, 38164), (155, 38188),

Gene: Finalfrontier_61 Start: 38910, Stop: 39815, Start Num: 55

Candidate Starts for Finalfrontier_61:

(5, 38307), (Start: 55 @38910 has 23 MA's), (70, 39039), (73, 39063), (75, 39075), (79, 39093), (80, 39099), (84, 39150), (93, 39258), (106, 39327), (112, 39390), (114, 39408), (115, 39411), (122, 39486), (123, 39489), (125, 39498), (128, 39525), (151, 39660), (155, 39684),

Gene: FlameThrower_56 Start: 37906, Stop: 38841, Start Num: 42

Candidate Starts for FlameThrower_56:

(21, 37759), (Start: 42 @37906 has 7 MA's), (44, 37912), (Start: 53 @37939 has 1 MA's), (60, 37978), (75, 38113), (79, 38131), (80, 38137), (84, 38188), (90, 38278), (103, 38344), (112, 38419), (114, 38437), (122, 38515), (123, 38518), (125, 38527), (133, 38569), (153, 38695), (158, 38728),

Gene: Franklin22_61 Start: 36648, Stop: 37604, Start Num: 42

Candidate Starts for Franklin22_61:

(11, 36195), (38, 36630), (Start: 41 @36645 has 9 MA's), (Start: 42 @36648 has 7 MA's), (Start: 53 @36675 has 1 MA's), (73, 36837), (75, 36849), (79, 36867), (80, 36873), (84, 36924), (99, 37074), (100, 37086), (102, 37104), (112, 37182), (114, 37200), (115, 37203), (123, 37281), (125, 37290), (155, 37473), (157, 37488), (164, 37545), (166, 37551),

Gene: Gack_58 Start: 36593, Stop: 37522, Start Num: 40

Candidate Starts for Gack_58:

(Start: 40 @36593 has 1 MA's), (75, 36782), (79, 36800), (80, 36806), (84, 36857), (100, 37004), (109, 37082), (112, 37100), (114, 37118), (115, 37121), (122, 37196), (123, 37199), (125, 37208), (140, 37301), (155, 37391), (157, 37406),

Gene: GoCrazy_83 Start: 49603, Stop: 50409, Start Num: 50

Candidate Starts for GoCrazy_83:

(Start: 50 @49603 has 21 MA's), (57, 49633), (58, 49636), (59, 49639), (61, 49648), (73, 49762), (76, 49777), (80, 49798), (87, 49891), (109, 50017), (111, 50026), (112, 50035), (113, 50041), (121, 50101), (122, 50122), (124, 50128), (128, 50161), (166, 50359), (169, 50398),

Gene: Hankly_86 Start: 49981, Stop: 50787, Start Num: 50

Candidate Starts for Hankly_86:

(Start: 50 @49981 has 21 MA's), (57, 50011), (59, 50017), (61, 50026), (73, 50140), (76, 50155), (80, 50176), (87, 50269), (109, 50395), (111, 50404), (112, 50413), (113, 50419), (121, 50479), (122, 50500), (124, 50506), (128, 50539), (166, 50737), (169, 50776),

Gene: Heisenberger_85 Start: 50232, Stop: 51038, Start Num: 50

Candidate Starts for Heisenberger_85:

(Start: 50 @50232 has 21 MA's), (57, 50262), (58, 50265), (59, 50268), (61, 50277), (76, 50406), (80, 50427), (87, 50520), (109, 50646), (111, 50655), (112, 50664), (113, 50670), (122, 50751), (124, 50757), (128, 50790), (152, 50910), (166, 50988), (169, 51027),

Gene: Huwbert_68 Start: 42366, Stop: 43169, Start Num: 49

Candidate Starts for Huwbert_68:

(26, 42228), (Start: 49 @42366 has 4 MA's), (Start: 54 @42375 has 16 MA's), (63, 42426), (72, 42513), (102, 42720), (108, 42765), (112, 42798), (115, 42819), (122, 42885), (131, 42933), (132, 42936), (156, 43065), (165, 43116), (169, 43158),

Gene: Icarian_61 Start: 38747, Stop: 39679, Start Num: 46

Candidate Starts for Icarian_61:

(43, 38741), (Start: 46 @38747 has 5 MA's), (60, 38798), (70, 38897), (73, 38921), (75, 38933), (79, 38951), (80, 38957), (84, 39008), (94, 39128), (104, 39182), (107, 39218), (112, 39254), (114, 39272), (115, 39275), (122, 39350), (123, 39353), (125, 39362), (128, 39389), (133, 39404), (138, 39443), (142, 39479), (155, 39548),

Gene: IndyLu_61 Start: 38349, Stop: 39260, Start Num: 54

Candidate Starts for IndyLu_61:

(Start: 54 @38349 has 16 MA's), (70, 38481), (75, 38517), (79, 38535), (80, 38541), (82, 38562), (84, 38592), (94, 38712), (112, 38838), (114, 38856), (120, 38907), (122, 38934), (123, 38937), (125, 38946), (128, 38973), (133, 38988), (155, 39129),

Gene: JEGGS_85 Start: 50311, Stop: 51117, Start Num: 50

Candidate Starts for JEGGS_85:

(Start: 50 @50311 has 21 MA's), (57, 50341), (58, 50344), (59, 50347), (61, 50356), (76, 50485), (80, 50506), (111, 50734), (112, 50743), (113, 50749), (119, 50797), (121, 50809), (122, 50830), (124, 50836), (128, 50869), (152, 50989), (166, 51067), (169, 51106),

Gene: Jflix2_1 Start: 198, Stop: 998, Start Num: 54

Candidate Starts for Jflix2_1:

(47, 183), (Start: 54 @198 has 16 MA's), (72, 336), (77, 369), (85, 432), (87, 480), (100, 528), (108, 591), (112, 624), (115, 645), (125, 723),

Gene: Johnathan_59 Start: 37470, Stop: 38381, Start Num: 55

Candidate Starts for Johnathan_59:

(3, 36819), (9, 36930), (Start: 55 @37470 has 23 MA's), (73, 37623), (75, 37635), (79, 37653), (80, 37659), (82, 37680), (84, 37710), (106, 37893), (112, 37956), (114, 37974), (115, 37977), (122, 38052), (123, 38055), (125, 38064), (128, 38091), (151, 38226),

Gene: Jovita_58 Start: 37280, Stop: 38191, Start Num: 54

Candidate Starts for Jovita_58:

(6, 36695), (19, 37052), (29, 37160), (35, 37187), (Start: 54 @37280 has 16 MA's), (70, 37409), (73, 37433), (75, 37445), (79, 37463), (80, 37469), (84, 37520), (106, 37703), (112, 37766), (114, 37784), (115, 37787), (122, 37862), (123, 37865), (125, 37874), (128, 37901), (151, 38036), (155, 38060),

Gene: Kardesai_86 Start: 49918, Stop: 50724, Start Num: 50

Candidate Starts for Kardesai_86:

(Start: 50 @49918 has 21 MA's), (57, 49948), (59, 49954), (61, 49963), (73, 50077), (76, 50092), (80, 50113), (87, 50206), (109, 50332), (111, 50341), (112, 50350), (113, 50356), (121, 50416), (122, 50437), (124, 50443), (128, 50476), (166, 50674), (169, 50713),

Gene: Kate33_61 Start: 38085, Stop: 38996, Start Num: 54

Candidate Starts for Kate33_61:

(9, 37551), (Start: 54 @38085 has 16 MA's), (70, 38217), (75, 38253), (79, 38271), (80, 38277), (82, 38298), (84, 38328), (94, 38448), (112, 38574), (114, 38592), (120, 38643), (122, 38670), (123, 38673), (125, 38682), (128, 38709), (133, 38724), (155, 38865),

Gene: Katzastrophic_58 Start: 38416, Stop: 39351, Start Num: 42

Candidate Starts for Katzastrophic_58:

(21, 38269), (Start: 42 @38416 has 7 MA's), (44, 38422), (Start: 53 @38449 has 1 MA's), (60, 38488), (75, 38623), (79, 38641), (80, 38647), (84, 38698), (90, 38788), (103, 38854), (112, 38929), (114, 38947), (122, 39025), (123, 39028), (125, 39037), (133, 39079), (153, 39205), (158, 39238),

Gene: KeaneyLin_83 Start: 50046, Stop: 50852, Start Num: 50

Candidate Starts for KeaneyLin_83:

(Start: 50 @50046 has 21 MA's), (57, 50076), (58, 50079), (59, 50082), (61, 50091), (76, 50220), (80, 50241), (87, 50334), (109, 50460), (111, 50469), (112, 50478), (113, 50484), (121, 50544), (122, 50565), (124, 50571), (128, 50604), (152, 50724), (166, 50802), (169, 50841),

Gene: Kenzers_59 Start: 37344, Stop: 38252, Start Num: 54

Candidate Starts for Kenzers_59:

(Start: 54 @37344 has 16 MA's), (73, 37500), (75, 37512), (79, 37530), (80, 37536), (84, 37587), (93, 37695), (106, 37764), (112, 37827), (114, 37845), (115, 37848), (122, 37923), (123, 37926), (125, 37935), (128, 37962), (151, 38097), (155, 38121),

Gene: Kieran_57 Start: 38374, Stop: 39306, Start Num: 48

Candidate Starts for Kieran_57:

(13, 37912), (Start: 48 @38374 has 5 MA's), (64, 38443), (75, 38560), (80, 38584), (84, 38635), (91, 38746), (95, 38761), (96, 38764), (100, 38788), (102, 38806), (109, 38866), (112, 38884), (114, 38902), (115, 38905), (122, 38980), (123, 38983), (125, 38992), (137, 39055), (140, 39085), (143, 39112), (155, 39175), (156, 39187),

Gene: Lahqtemish_59 Start: 38368, Stop: 39276, Start Num: 55

Candidate Starts for Lahqtemish_59:

(9, 37837), (Start: 55 @38368 has 23 MA's), (73, 38521), (75, 38533), (79, 38551), (80, 38557), (82, 38578), (84, 38608), (106, 38791), (112, 38854), (114, 38872), (115, 38875), (122, 38950), (123, 38953), (125, 38962), (128, 38989), (155, 39145),

Gene: LimaBean_59 Start: 37374, Stop: 38276, Start Num: 55

Candidate Starts for LimaBean_59:

(1, 36651), (10, 36885), (Start: 55 @37374 has 23 MA's), (73, 37527), (75, 37539), (79, 37557), (80, 37563), (84, 37614), (106, 37788), (112, 37851), (114, 37869), (115, 37872), (122, 37947), (123,

37950), (125, 37959), (128, 37986), (151, 38121), (155, 38145),

Gene: Loviatar_102 Start: 39164, Stop: 40096, Start Num: 46

Candidate Starts for Loviatar_102:

(Start: 46 @39164 has 5 MA's), (60, 39215), (70, 39314), (75, 39350), (79, 39368), (80, 39374), (84, 39425), (94, 39545), (104, 39599), (107, 39635), (112, 39671), (114, 39689), (115, 39692), (122, 39767), (123, 39770), (125, 39779), (128, 39806), (133, 39821), (138, 39860), (142, 39896), (155, 39965),

Gene: Lynlen_60 Start: 37527, Stop: 38435, Start Num: 54

Candidate Starts for Lynlen_60:

(35, 37437), (Start: 54 @37527 has 16 MA's), (73, 37683), (75, 37695), (79, 37713), (80, 37719), (82, 37740), (84, 37770), (93, 37878), (106, 37947), (112, 38010), (114, 38028), (115, 38031), (122, 38106), (123, 38109), (125, 38118), (128, 38145), (151, 38280), (155, 38304),

Gene: Madraxi_1 Start: 197, Stop: 994, Start Num: 54

Candidate Starts for Madraxi_1:

(Start: 54 @197 has 16 MA's), (61, 236), (72, 335), (76, 365), (85, 431), (87, 479), (105, 554), (108, 590), (112, 623), (115, 644), (118, 662), (125, 722), (150, 860), (170, 989),

Gene: Magritte_52 Start: 50451, Stop: 51248, Start Num: 54

Candidate Starts for Magritte_52:

(Start: 54 @50451 has 16 MA's), (111, 50868), (112, 50877), (122, 50964), (125, 50976), (131, 51012), (132, 51015), (133, 51018), (156, 51144),

Gene: Mollymur_3 Start: 852, Stop: 1661, Start Num: 49

Candidate Starts for Mollymur_3:

(18, 603), (34, 762), (Start: 49 @852 has 4 MA's), (67, 966), (82, 1071), (83, 1080), (103, 1215), (109, 1272), (112, 1290), (116, 1314), (121, 1356), (125, 1389), (132, 1428), (139, 1455), (159, 1569), (169, 1650),

Gene: Mooshroom_87 Start: 49918, Stop: 50724, Start Num: 50

Candidate Starts for Mooshroom_87:

(Start: 50 @49918 has 21 MA's), (57, 49948), (59, 49954), (61, 49963), (73, 50077), (76, 50092), (80, 50113), (87, 50206), (109, 50332), (111, 50341), (112, 50350), (113, 50356), (121, 50416), (122, 50437), (124, 50443), (128, 50476), (166, 50674), (169, 50713),

Gene: Mudcat_82 Start: 51669, Stop: 52475, Start Num: 50

Candidate Starts for Mudcat_82:

(Start: 50 @51669 has 21 MA's), (57, 51699), (58, 51702), (59, 51705), (61, 51714), (73, 51828), (76, 51843), (78, 51855), (80, 51864), (87, 51957), (109, 52083), (111, 52092), (112, 52101), (113, 52107), (121, 52167), (122, 52188), (124, 52194), (128, 52227), (152, 52347), (166, 52425), (169, 52464),

Gene: NapoleonB_87 Start: 50343, Stop: 51149, Start Num: 50

Candidate Starts for NapoleonB_87:

(Start: 50 @50343 has 21 MA's), (57, 50373), (58, 50376), (59, 50379), (61, 50388), (76, 50517), (80, 50538), (87, 50631), (109, 50757), (111, 50766), (112, 50775), (113, 50781), (121, 50841), (122, 50862), (124, 50868), (128, 50901), (152, 51021), (166, 51099), (169, 51138),

Gene: Nason_86 Start: 50975, Stop: 51781, Start Num: 50

Candidate Starts for Nason_86:

(Start: 50 @50975 has 21 MA's), (57, 51005), (58, 51008), (59, 51011), (61, 51020), (80, 51170), (87, 51263), (109, 51389), (111, 51398), (112, 51407), (113, 51413), (119, 51461), (122, 51494), (132,

51545), (139, 51572), (166, 51731), (169, 51770),

Gene: Nicky22_60 Start: 38174, Stop: 39073, Start Num: 54

Candidate Starts for Nicky22_60:

(Start: 54 @38174 has 16 MA's), (70, 38303), (73, 38327), (75, 38339), (79, 38357), (80, 38363), (84, 38414), (106, 38585), (112, 38648), (114, 38666), (115, 38669), (122, 38744), (123, 38747), (125, 38756), (128, 38783), (151, 38918), (155, 38942),

Gene: Paella_196 Start: 94013, Stop: 94822, Start Num: 50

Candidate Starts for Paella_196:

(Start: 50 @94013 has 21 MA's), (67, 94121), (83, 94235), (88, 94328), (109, 94430), (112, 94448), (118, 94487), (122, 94535), (129, 94577), (132, 94586), (169, 94811),

Gene: Phisb_61 Start: 38046, Stop: 38951, Start Num: 55

Candidate Starts for Phisb_61:

(9, 37515), (Start: 55 @38046 has 23 MA's), (73, 38199), (75, 38211), (79, 38229), (80, 38235), (82, 38256), (84, 38286), (92, 38394), (106, 38463), (112, 38526), (114, 38544), (115, 38547), (122, 38622), (123, 38625), (125, 38634), (128, 38661), (151, 38796), (155, 38820),

Gene: QMacho_61 Start: 38068, Stop: 38979, Start Num: 54

Candidate Starts for QMacho_61:

(Start: 54 @38068 has 16 MA's), (70, 38197), (73, 38221), (75, 38233), (79, 38251), (80, 38257), (84, 38308), (106, 38491), (112, 38554), (114, 38572), (115, 38575), (122, 38650), (123, 38653), (125, 38662), (128, 38689), (151, 38824), (155, 38848),

Gene: Quenya_61 Start: 38811, Stop: 39746, Start Num: 42

Candidate Starts for Quenya_61:

(Start: 42 @38811 has 7 MA's), (44, 38817), (Start: 53 @38844 has 1 MA's), (60, 38883), (75, 39018), (79, 39036), (80, 39042), (82, 39063), (84, 39093), (90, 39183), (96, 39213), (109, 39306), (112, 39324), (114, 39342), (115, 39345), (122, 39420), (123, 39423), (125, 39432), (128, 39459), (133, 39474), (148, 39582), (158, 39633),

Gene: Qui_196 Start: 94010, Stop: 94819, Start Num: 50

Candidate Starts for Qui_196:

(Start: 50 @94010 has 21 MA's), (67, 94118), (83, 94232), (88, 94325), (109, 94427), (112, 94445), (118, 94484), (122, 94532), (129, 94574), (132, 94583), (169, 94808),

Gene: Rollins_59 Start: 36225, Stop: 37139, Start Num: 41

Candidate Starts for Rollins_59:

(7, 35667), (23, 36093), (31, 36153), (Start: 41 @36225 has 9 MA's), (73, 36396), (75, 36408), (79, 36426), (80, 36432), (84, 36483), (90, 36570), (95, 36600), (100, 36621), (109, 36699), (112, 36717), (114, 36735), (115, 36738), (122, 36813), (123, 36816), (125, 36825), (140, 36918), (155, 37008), (156, 37020),

Gene: RomansRevenge_39 Start: 36241, Stop: 35375, Start Num: 45

Candidate Starts for RomansRevenge_39:

(17, 36568), (20, 36433), (30, 36331), (33, 36316), (45, 36241), (Start: 55 @36214 has 23 MA's), (65, 36142), (76, 36049), (83, 35998), (85, 35980), (97, 35866), (102, 35842), (112, 35764), (113, 35758), (115, 35743), (116, 35740), (118, 35725), (121, 35680), (125, 35647), (132, 35608), (133, 35605), (135, 35593), (145, 35527), (160, 35464), (163, 35434),

Gene: Rona_57 Start: 38324, Stop: 39256, Start Num: 48

Candidate Starts for Rona_57:

(Start: 48 @38324 has 5 MA's), (64, 38393), (75, 38510), (80, 38534), (84, 38585), (91, 38696), (96, 38714), (100, 38738), (102, 38756), (109, 38816), (112, 38834), (114, 38852), (115, 38855), (122, 38930), (123, 38933), (125, 38942), (133, 38984), (137, 39005), (140, 39035), (143, 39062), (155, 39125), (156, 39137),

Gene: SanaSana_60 Start: 38507, Stop: 39439, Start Num: 46

Candidate Starts for SanaSana_60:

(Start: 46 @38507 has 5 MA's), (60, 38558), (70, 38657), (73, 38681), (75, 38693), (79, 38711), (80, 38717), (84, 38768), (94, 38888), (104, 38942), (112, 39014), (114, 39032), (115, 39035), (122, 39110), (123, 39113), (125, 39122), (128, 39149), (133, 39164), (138, 39203), (142, 39239), (155, 39308),

Gene: SansAfet_61 Start: 37872, Stop: 38777, Start Num: 55

Candidate Starts for SansAfet_61:

(Start: 55 @37872 has 23 MA's), (73, 38025), (75, 38037), (79, 38055), (80, 38061), (84, 38112), (93, 38220), (106, 38289), (112, 38352), (114, 38370), (115, 38373), (122, 38448), (123, 38451), (125, 38460), (128, 38487), (151, 38622), (155, 38646),

Gene: SarBear_59 Start: 37372, Stop: 38283, Start Num: 54

Candidate Starts for SarBear_59:

(Start: 54 @37372 has 16 MA's), (70, 37501), (73, 37525), (75, 37537), (79, 37555), (80, 37561), (84, 37612), (106, 37795), (112, 37858), (114, 37876), (115, 37879), (122, 37954), (123, 37957), (125, 37966), (128, 37993), (151, 38128), (155, 38152),

Gene: Shagrat_95 Start: 49780, Stop: 50556, Start Num: 56

Candidate Starts for Shagrat_95:

(24, 49615), (27, 49636), (28, 49639), (39, 49726), (Start: 49 @49768 has 4 MA's), (Start: 56 @49780 has 1 MA's), (60, 49810), (66, 49864), (67, 49879), (71, 49909), (72, 49912), (74, 49933), (76, 49942), (77, 49945), (85, 50008), (112, 50185), (122, 50272), (125, 50284), (132, 50323), (141, 50362), (142, 50380), (146, 50410), (148, 50416), (165, 50503), (169, 50545), (170, 50551),

Gene: Sharkboy_59 Start: 38698, Stop: 39630, Start Num: 48

Candidate Starts for Sharkboy_59:

(Start: 48 @38698 has 5 MA's), (64, 38767), (75, 38884), (80, 38908), (84, 38959), (91, 39070), (95, 39085), (96, 39088), (100, 39112), (102, 39130), (109, 39190), (112, 39208), (114, 39226), (115, 39229), (122, 39304), (123, 39307), (125, 39316), (133, 39358), (137, 39379), (140, 39409), (143, 39436), (155, 39499), (156, 39511),

Gene: Shayna_69 Start: 38654, Stop: 39547, Start Num: 55

Candidate Starts for Shayna_69:

(14, 38210), (15, 38237), (16, 38258), (Start: 55 @38654 has 23 MA's), (73, 38807), (75, 38819), (79, 38837), (80, 38843), (82, 38864), (84, 38894), (112, 39119), (114, 39137), (122, 39215), (123, 39218), (133, 39269), (166, 39494),

Gene: Skylord_59 Start: 36166, Stop: 37056, Start Num: 41

Candidate Starts for Skylord_59:

(23, 36034), (31, 36094), (Start: 41 @36166 has 9 MA's), (75, 36349), (79, 36367), (80, 36373), (84, 36424), (95, 36526), (100, 36538), (109, 36616), (112, 36634), (114, 36652), (115, 36655), (122, 36730), (123, 36733), (125, 36742), (140, 36835), (155, 36925), (156, 36937),

Gene: Slay_60 Start: 38344, Stop: 39249, Start Num: 55

Candidate Starts for Slay_60:

(12, 37879), (Start: 55 @38344 has 23 MA's), (70, 38473), (73, 38497), (75, 38509), (79, 38527), (80, 38533), (84, 38584), (93, 38692), (106, 38761), (112, 38824), (114, 38842), (115, 38845), (122, 38920), (123, 38923), (125, 38932), (128, 38959), (151, 39094), (155, 39118),

Gene: SpeedDemon_30 Start: 715, Stop: 1518, Start Num: 54

Candidate Starts for SpeedDemon_30:

(Start: 54 @715 has 16 MA's), (82, 925), (103, 1072), (107, 1111), (112, 1147), (116, 1171), (117, 1180), (122, 1234), (125, 1246), (132, 1285), (139, 1312), (148, 1378), (167, 1471), (169, 1507),

Gene: Stoor_58 Start: 38294, Stop: 39226, Start Num: 46

Candidate Starts for Stoor_58:

(Start: 46 @38294 has 5 MA's), (60, 38345), (70, 38444), (73, 38468), (75, 38480), (79, 38498), (80, 38504), (84, 38555), (94, 38675), (104, 38729), (112, 38801), (114, 38819), (115, 38822), (122, 38897), (123, 38900), (125, 38909), (128, 38936), (133, 38951), (138, 38990), (142, 39026), (155, 39095),

Gene: Stromboli_58 Start: 38113, Stop: 39027, Start Num: 55

Candidate Starts for Stromboli_58:

(51, 38107), (Start: 55 @38113 has 23 MA's), (70, 38245), (73, 38269), (75, 38281), (79, 38299), (80, 38305), (84, 38356), (94, 38476), (101, 38515), (102, 38524), (112, 38602), (114, 38620), (115, 38623), (122, 38698), (123, 38701), (125, 38710), (128, 38737), (133, 38752), (138, 38791), (142, 38827), (143, 38833), (151, 38872), (155, 38896), (157, 38911),

Gene: SunnyD_72 Start: 38654, Stop: 39547, Start Num: 55

Candidate Starts for SunnyD_72:

(Start: 55 @38654 has 23 MA's), (73, 38807), (75, 38819), (79, 38837), (80, 38843), (82, 38864), (84, 38894), (112, 39119), (114, 39137), (122, 39215), (123, 39218), (133, 39269), (166, 39494),

Gene: Swervy_60 Start: 37644, Stop: 38555, Start Num: 54

Candidate Starts for Swervy_60:

(Start: 54 @37644 has 16 MA's), (70, 37773), (73, 37797), (75, 37809), (79, 37827), (80, 37833), (84, 37884), (106, 38067), (112, 38130), (114, 38148), (115, 38151), (122, 38226), (123, 38229), (125, 38238), (128, 38265), (140, 38334), (151, 38400), (155, 38424),

Gene: TMaxx_72 Start: 40011, Stop: 40820, Start Num: 49

Candidate Starts for TMaxx_72:

(Start: 49 @40011 has 4 MA's), (69, 40143), (72, 40158), (80, 40209), (102, 40356), (103, 40359), (108, 40401), (110, 40419), (112, 40434), (115, 40455), (121, 40509), (122, 40530), (125, 40542), (127, 40557), (143, 40644), (144, 40659), (149, 40677), (157, 40713), (162, 40761),

Gene: Teagster_71 Start: 39117, Stop: 39992, Start Num: 55

Candidate Starts for Teagster_71:

(Start: 55 @39117 has 23 MA's), (73, 39270), (75, 39282), (79, 39300), (80, 39306), (84, 39357), (112, 39564), (114, 39582), (122, 39660), (123, 39663), (166, 39939),

Gene: Tribby_88 Start: 51102, Stop: 51908, Start Num: 50

Candidate Starts for Tribby_88:

(Start: 50 @51102 has 21 MA's), (57, 51132), (58, 51135), (59, 51138), (61, 51147), (80, 51297), (86, 51381), (87, 51390), (111, 51525), (112, 51534), (113, 51540), (122, 51621), (124, 51627), (128, 51660), (152, 51780), (166, 51858), (169, 51897),

Gene: Triscuit_67 Start: 42329, Stop: 43126, Start Num: 54

Candidate Starts for Triscuit_67:

(26, 42182), (Start: 49 @42320 has 4 MA's), (Start: 54 @42329 has 16 MA's), (63, 42380), (72, 42467), (102, 42677), (112, 42755), (122, 42842), (131, 42890), (132, 42893), (156, 43022), (167, 43079), (169, 43115),

Gene: TukTuk_61 Start: 38089, Stop: 39000, Start Num: 55

Candidate Starts for TukTuk_61:

(Start: 55 @38089 has 23 MA's), (70, 38218), (73, 38242), (75, 38254), (79, 38272), (80, 38278), (84, 38329), (106, 38512), (112, 38575), (114, 38593), (115, 38596), (122, 38671), (123, 38674), (128, 38710), (151, 38845), (155, 38869),

Gene: Vitas_59 Start: 36198, Stop: 37112, Start Num: 41

Candidate Starts for Vitas_59:

(23, 36066), (31, 36126), (Start: 41 @36198 has 9 MA's), (75, 36381), (79, 36399), (80, 36405), (84, 36456), (90, 36543), (95, 36573), (109, 36672), (112, 36690), (114, 36708), (115, 36711), (122, 36786), (123, 36789), (125, 36798), (140, 36891), (155, 36981),

Gene: WalkingDead_61 Start: 39268, Stop: 40203, Start Num: 46

Candidate Starts for WalkingDead_61:

(Start: 46 @39268 has 5 MA's), (60, 39319), (70, 39418), (73, 39442), (75, 39454), (79, 39472), (80, 39478), (84, 39529), (94, 39649), (104, 39703), (107, 39739), (112, 39775), (114, 39793), (115, 39796), (122, 39871), (123, 39874), (125, 39883), (128, 39910), (133, 39925), (138, 39967), (155, 40072),

Gene: Xenomorph_81 Start: 50629, Stop: 51435, Start Num: 50

Candidate Starts for Xenomorph_81:

(Start: 50 @50629 has 21 MA's), (57, 50659), (58, 50662), (59, 50665), (61, 50674), (80, 50824), (87, 50917), (109, 51043), (111, 51052), (112, 51061), (113, 51067), (122, 51148), (124, 51154), (128, 51187), (152, 51307), (166, 51385), (169, 51424),