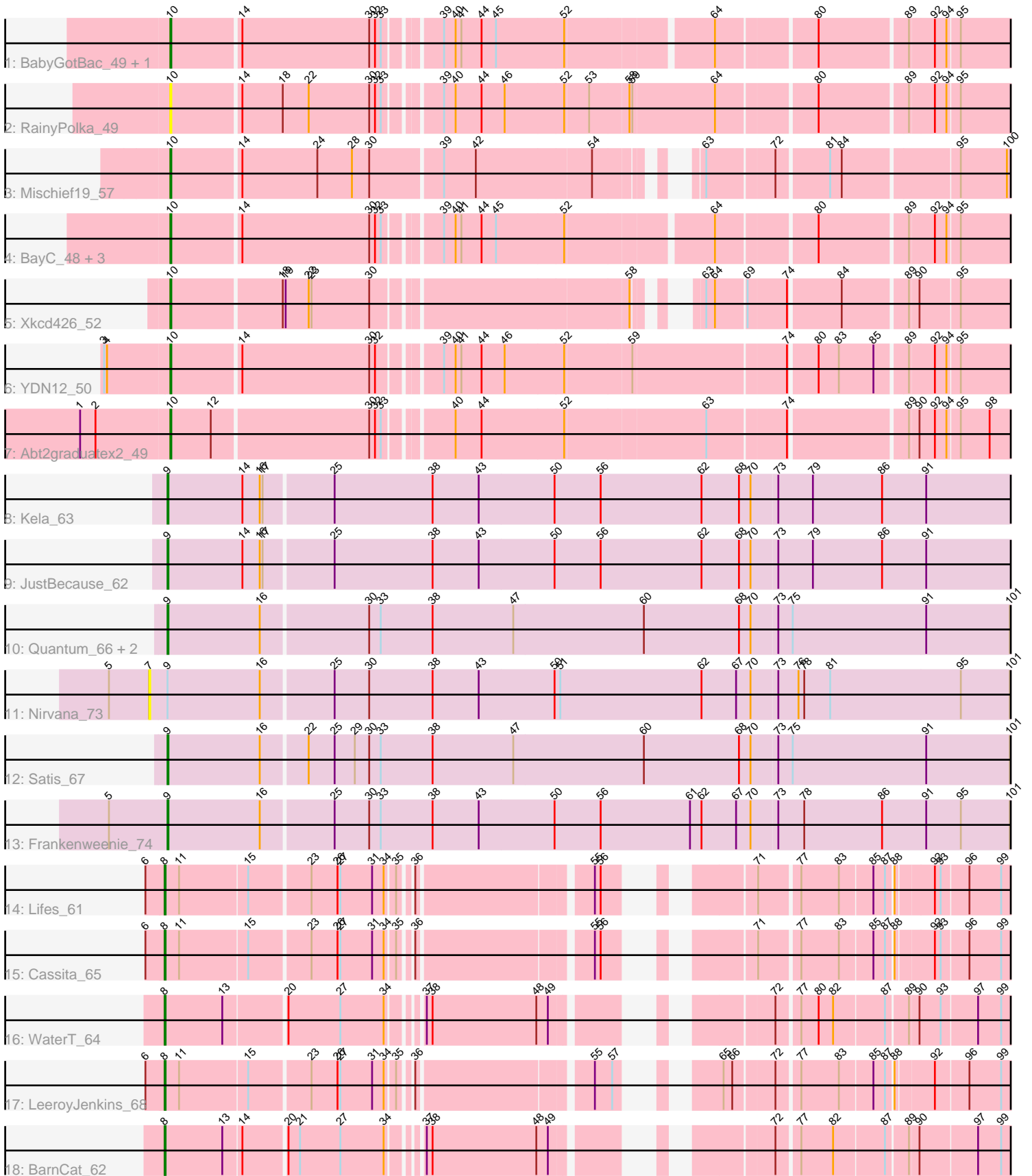


Zoomed Pham 224846



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 224846 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224846 has 24 members, 2 are drafts.

Phages represented in each track:

- Track 1 : BabyGotBac_49, TP1604_48
- Track 2 : RainyPolka_49
- Track 3 : Mischief19_57
- Track 4 : BayC_48, Asis_48, Salete_48, Maih_47
- Track 5 : Xkcd426_52
- Track 6 : YDN12_50
- Track 7 : Abt2graduatex2_49
- Track 8 : Kela_63
- Track 9 : JustBecause_62
- Track 10 : Quantum_66, EhyElimayoE_67, Kradal_67
- Track 11 : Nirvana_73
- Track 12 : Satis_67
- Track 13 : Frankenweenie_74
- Track 14 : Lifes_61
- Track 15 : Cassita_65
- Track 16 : WaterT_64
- Track 17 : LeeroyJenkins_68
- Track 18 : BarnCat_62

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

The start number called the most often in the published annotations is 10, it was called in 10 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abt2graduatex2_49, Asis_48, BabyGotBac_49, BayC_48, Maih_47, Mischief19_57, RainyPolka_49, Salete_48, TP1604_48, Xkcd426_52, YDN12_50,

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

-

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

- BarnCat_62, Cassita_65, EhyElimayoE_67, Frankenweenie_74, JustBecause_62, Kela_63, Kradal_67, LeeroyJenkins_68, Lifes_61, Nirvana_73, Quantum_66,

Satis_67, WaterT_64,

Summary by start number:

Start 7:

- Found in 1 of 24 (4.2%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nirvana_73 (BM),

Start 8:

- Found in 5 of 24 (20.8%) of genes in pham
- Manual Annotations of this start: 5 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BarnCat_62 (GB), Cassita_65 (GB), LeeroyJenkins_68 (GB), Lifes_61 (GB), WaterT_64 (GB),

Start 9:

- Found in 8 of 24 (33.3%) of genes in pham
- Manual Annotations of this start: 7 of 22
- Called 87.5% of time when present
- Phage (with cluster) where this start called: EhyElimayoE_67 (BM), Frankenweenie_74 (BM), JustBecause_62 (BM), Kela_63 (BM), Kradal_67 (BM), Quantum_66 (BM), Satis_67 (BM),

Start 10:

- Found in 11 of 24 (45.8%) of genes in pham
- Manual Annotations of this start: 10 of 22
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abt2graduatex2_49 (BG), Asis_48 (BG), BabyGotBac_49 (BG), BayC_48 (BG), Maih_47 (BG), Mischief19_57 (BG), RainyPolka_49 (BG), Salete_48 (BG), TP1604_48 (BG), Xkcd426_52 (BG), YDN12_50 (BG),

Summary by clusters:

There are 3 clusters represented in this pham: BM, BG, GB,

Info for manual annotations of cluster BG:

- Start number 10 was manually annotated 10 times for cluster BG.

Info for manual annotations of cluster BM:

- Start number 9 was manually annotated 7 times for cluster BM.

Info for manual annotations of cluster GB:

- Start number 8 was manually annotated 5 times for cluster GB.

Gene Information:

Gene: Abt2graduatex2_49 Start: 39647, Stop: 37638, Start Num: 10

Candidate Starts for Abt2graduatex2_49:

(1, 39737), (2, 39722), (Start: 10 @39647 has 10 MA's), (12, 39605), (30, 39446), (32, 39440), (33, 39434), (40, 39374), (44, 39347), (52, 39263), (63, 39122), (74, 39044), (89, 38930), (90, 38921), (92, 38906), (94, 38894), (95, 38882), (98, 38852), (103, 38813), (112, 38666), (129, 38561), (132, 38549), (133, 38546), (135, 38489), (137, 38468), (141, 38426), (144, 38396), (149, 38330), (151, 38309), (152, 38303), (153, 38291), (155, 38267), (156, 38237), (158, 38210), (166, 38126), (168, 38108), (169, 38102), (170, 38096), (172, 38081), (173, 38072), (184, 37940), (188, 37895), (190, 37871), (191, 37868), (199, 37814), (202, 37796), (206, 37763), (209, 37739), (211, 37718), (214, 37691),

Gene: Asis_48 Start: 39369, Stop: 37369, Start Num: 10

Candidate Starts for Asis_48:

(Start: 10 @39369 has 10 MA's), (14, 39300), (30, 39168), (32, 39162), (33, 39156), (39, 39108), (40, 39096), (41, 39090), (44, 39069), (45, 39054), (52, 38985), (64, 38844), (80, 38748), (89, 38661), (92, 38637), (94, 38625), (95, 38613), (103, 38544), (112, 38397), (129, 38292), (133, 38277), (135, 38220), (137, 38199), (141, 38157), (144, 38127), (146, 38094), (151, 38040), (154, 38010), (158, 37941), (159, 37920), (166, 37857), (168, 37839), (170, 37827), (173, 37803), (190, 37602), (191, 37599), (193, 37578), (199, 37545), (202, 37527), (206, 37494), (209, 37470), (214, 37422),

Gene: BabyGotBac_49 Start: 39369, Stop: 37369, Start Num: 10

Candidate Starts for BabyGotBac_49:

(Start: 10 @39369 has 10 MA's), (14, 39300), (30, 39168), (32, 39162), (33, 39156), (39, 39108), (40, 39096), (41, 39090), (44, 39069), (45, 39054), (52, 38985), (64, 38844), (80, 38748), (89, 38661), (92, 38637), (94, 38625), (95, 38613), (103, 38544), (112, 38397), (129, 38292), (133, 38277), (135, 38220), (137, 38199), (141, 38157), (144, 38127), (146, 38094), (151, 38040), (154, 38010), (158, 37941), (159, 37920), (166, 37857), (168, 37839), (170, 37827), (173, 37803), (190, 37602), (191, 37599), (199, 37545), (202, 37527), (206, 37494), (209, 37470), (214, 37422),

Gene: BarnCat_62 Start: 37491, Stop: 35530, Start Num: 8

Candidate Starts for BarnCat_62:

(Start: 8 @37491 has 5 MA's), (13, 37431), (14, 37413), (20, 37371), (21, 37359), (27, 37317), (34, 37272), (37, 37248), (38, 37242), (48, 37134), (49, 37122), (72, 36969), (77, 36948), (82, 36915), (87, 36864), (89, 36843), (90, 36834), (97, 36777), (99, 36753), (102, 36741), (107, 36633), (110, 36603), (125, 36516), (127, 36498), (128, 36495), (129, 36492), (131, 36483), (138, 36375), (147, 36291), (162, 36072), (165, 36027), (174, 35961), (178, 35919), (181, 35889), (184, 35838), (185, 35832), (186, 35808), (189, 35781), (190, 35769), (191, 35766), (197, 35712), (201, 35688), (203, 35682), (209, 35628), (215, 35574),

Gene: BayC_48 Start: 39366, Stop: 37366, Start Num: 10

Candidate Starts for BayC_48:

(Start: 10 @39366 has 10 MA's), (14, 39297), (30, 39165), (32, 39159), (33, 39153), (39, 39105), (40, 39093), (41, 39087), (44, 39066), (45, 39051), (52, 38982), (64, 38841), (80, 38745), (89, 38658), (92, 38634), (94, 38622), (95, 38610), (103, 38541), (112, 38394), (129, 38289), (133, 38274), (135, 38217), (137, 38196), (141, 38154), (144, 38124), (146, 38091), (151, 38037), (154, 38007), (158, 37938), (159, 37917), (166, 37854), (168, 37836), (170, 37824), (173, 37800), (190, 37599), (191, 37596), (193, 37575), (199, 37542), (202, 37524), (206, 37491), (209, 37467), (214, 37419),

Gene: Cassita_65 Start: 38135, Stop: 36300, Start Num: 8

Candidate Starts for Cassita_65:

(6, 38150), (Start: 8 @38135 has 5 MA's), (11, 38120), (15, 38051), (23, 37991), (26, 37964), (27, 37961), (31, 37928), (34, 37916), (35, 37907), (36, 37898), (55, 37733), (56, 37727), (71, 37634), (77, 37595), (83, 37556), (85, 37523), (87, 37511), (88, 37505), (92, 37469), (93, 37463), (96, 37436), (99, 37403), (103, 37376), (113, 37229), (124, 37172), (135, 37067), (139, 37019), (143, 36980), (145, 36971), (160, 36776), (164, 36749), (174, 36725), (179, 36686), (182, 36638), (184, 36614), (192, 36530), (195, 36500), (198, 36482), (201, 36464), (202, 36461), (206, 36428), (207, 36425), (209,

36404), (212, 36374), (215, 36350), (216, 36335), (217, 36326),

Gene: EhyElimayoE_67 Start: 46750, Stop: 44786, Start Num: 9

Candidate Starts for EhyElimayoE_67:

(Start: 9 @46750 has 7 MA's), (16, 46654), (30, 46546), (33, 46534), (38, 46480), (47, 46396), (60, 46261), (68, 46162), (70, 46150), (73, 46123), (75, 46108), (91, 45970), (101, 45883), (105, 45787), (116, 45679), (117, 45676), (119, 45649), (124, 45622), (128, 45592), (134, 45562), (140, 45457), (150, 45349), (151, 45340), (152, 45334), (171, 45190), (173, 45172), (175, 45154), (182, 45100), (193, 44983), (194, 44971), (196, 44962), (199, 44950), (202, 44932), (205, 44908), (208, 44884), (210, 44866),

Gene: Frankenweenie_74 Start: 49485, Stop: 47518, Start Num: 9

Candidate Starts for Frankenweenie_74:

(5, 49545), (Start: 9 @49485 has 7 MA's), (16, 49389), (25, 49317), (30, 49281), (33, 49269), (38, 49215), (43, 49167), (50, 49089), (56, 49041), (61, 48948), (62, 48936), (67, 48900), (70, 48885), (73, 48858), (78, 48831), (86, 48750), (91, 48705), (95, 48669), (101, 48618), (118, 48384), (123, 48357), (134, 48294), (136, 48234), (140, 48189), (147, 48123), (149, 48093), (151, 48072), (152, 48066), (173, 47904), (175, 47886), (182, 47832), (193, 47715), (194, 47703), (196, 47694), (199, 47682), (202, 47664), (208, 47616),

Gene: JustBecause_62 Start: 44100, Stop: 42133, Start Num: 9

Candidate Starts for JustBecause_62:

(Start: 9 @44100 has 7 MA's), (14, 44022), (16, 44004), (17, 44001), (25, 43932), (38, 43830), (43, 43782), (50, 43704), (56, 43656), (62, 43551), (68, 43512), (70, 43500), (73, 43473), (79, 43437), (86, 43365), (91, 43320), (104, 43209), (105, 43137), (118, 42999), (123, 42972), (128, 42939), (134, 42909), (136, 42849), (140, 42804), (147, 42738), (149, 42708), (151, 42687), (152, 42681), (173, 42519), (175, 42501), (176, 42498), (188, 42378), (193, 42330), (194, 42318), (196, 42309), (199, 42297), (202, 42279), (204, 42270), (205, 42255), (208, 42231),

Gene: Kela_63 Start: 43965, Stop: 41998, Start Num: 9

Candidate Starts for Kela_63:

(Start: 9 @43965 has 7 MA's), (14, 43887), (16, 43869), (17, 43866), (25, 43797), (38, 43695), (43, 43647), (50, 43569), (56, 43521), (62, 43416), (68, 43377), (70, 43365), (73, 43338), (79, 43302), (86, 43230), (91, 43185), (104, 43074), (105, 43002), (108, 42975), (118, 42864), (123, 42837), (128, 42804), (134, 42774), (136, 42714), (140, 42669), (147, 42603), (149, 42573), (151, 42552), (152, 42546), (173, 42384), (175, 42366), (176, 42363), (188, 42243), (193, 42195), (194, 42183), (196, 42174), (199, 42162), (202, 42144), (204, 42135), (205, 42120), (208, 42096),

Gene: Kradal_67 Start: 46750, Stop: 44786, Start Num: 9

Candidate Starts for Kradal_67:

(Start: 9 @46750 has 7 MA's), (16, 46654), (30, 46546), (33, 46534), (38, 46480), (47, 46396), (60, 46261), (68, 46162), (70, 46150), (73, 46123), (75, 46108), (91, 45970), (101, 45883), (105, 45787), (116, 45679), (117, 45676), (119, 45649), (124, 45622), (128, 45592), (134, 45562), (140, 45457), (150, 45349), (151, 45340), (152, 45334), (171, 45190), (173, 45172), (175, 45154), (182, 45100), (193, 44983), (194, 44971), (196, 44962), (199, 44950), (202, 44932), (205, 44908), (208, 44884), (210, 44866),

Gene: LeeroyJenkins_68 Start: 39223, Stop: 37388, Start Num: 8

Candidate Starts for LeeroyJenkins_68:

(6, 39238), (Start: 8 @39223 has 5 MA's), (11, 39208), (15, 39139), (23, 39079), (26, 39052), (27, 39049), (31, 39016), (34, 39004), (35, 38995), (36, 38986), (55, 38821), (57, 38803), (65, 38752), (66, 38743), (72, 38704), (77, 38683), (83, 38644), (85, 38611), (87, 38599), (88, 38593), (92, 38557), (96, 38524), (99, 38491), (103, 38464), (113, 38317), (124, 38260), (135, 38155), (139, 38107), (143,

38068), (145, 38059), (160, 37864), (164, 37837), (167, 37825), (174, 37813), (179, 37774), (182, 37726), (184, 37702), (192, 37618), (195, 37588), (198, 37570), (200, 37564), (202, 37549), (205, 37525), (207, 37513), (208, 37501), (209, 37492), (210, 37483), (212, 37462), (215, 37438), (216, 37423),

Gene: Lifes_61 Start: 36067, Stop: 34232, Start Num: 8

Candidate Starts for Lifes_61:

(6, 36082), (Start: 8 @36067 has 5 MA's), (11, 36052), (15, 35983), (23, 35923), (26, 35896), (27, 35893), (31, 35860), (34, 35848), (35, 35839), (36, 35830), (55, 35665), (56, 35659), (71, 35566), (77, 35527), (83, 35488), (85, 35455), (87, 35443), (88, 35437), (92, 35401), (93, 35395), (96, 35368), (99, 35335), (103, 35308), (113, 35161), (124, 35104), (135, 34999), (139, 34951), (143, 34912), (145, 34903), (160, 34708), (164, 34681), (167, 34669), (174, 34657), (179, 34618), (182, 34570), (184, 34546), (192, 34462), (195, 34432), (198, 34414), (200, 34408), (202, 34393), (205, 34369), (207, 34357), (208, 34345), (209, 34336), (210, 34327), (212, 34306), (215, 34282), (216, 34267),

Gene: Maih_47 Start: 39368, Stop: 37368, Start Num: 10

Candidate Starts for Maih_47:

(Start: 10 @39368 has 10 MA's), (14, 39299), (30, 39167), (32, 39161), (33, 39155), (39, 39107), (40, 39095), (41, 39089), (44, 39068), (45, 39053), (52, 38984), (64, 38843), (80, 38747), (89, 38660), (92, 38636), (94, 38624), (95, 38612), (103, 38543), (112, 38396), (129, 38291), (133, 38276), (135, 38219), (137, 38198), (141, 38156), (144, 38126), (146, 38093), (151, 38039), (154, 38009), (158, 37940), (159, 37919), (166, 37856), (168, 37838), (170, 37826), (173, 37802), (190, 37601), (191, 37598), (193, 37577), (199, 37544), (202, 37526), (206, 37493), (209, 37469), (214, 37421),

Gene: Mischief19_57 Start: 49917, Stop: 47956, Start Num: 10

Candidate Starts for Mischief19_57:

(Start: 10 @49917 has 10 MA's), (14, 49848), (24, 49770), (28, 49734), (30, 49716), (39, 49644), (42, 49611), (54, 49494), (63, 49428), (72, 49362), (81, 49311), (84, 49299), (95, 49185), (100, 49137), (103, 49116), (106, 49026), (113, 48957), (115, 48948), (122, 48906), (126, 48876), (130, 48861), (134, 48837), (135, 48792), (140, 48732), (142, 48705), (148, 48654), (149, 48633), (150, 48621), (154, 48582), (157, 48552), (159, 48522), (161, 48501), (163, 48474), (166, 48459), (172, 48414), (173, 48405), (177, 48363), (180, 48342), (182, 48300), (184, 48273), (187, 48231), (193, 48180), (197, 48156), (200, 48144), (202, 48129), (209, 48072), (211, 48051), (213, 48033),

Gene: Nirvana_73 Start: 48873, Stop: 46888, Start Num: 7

Candidate Starts for Nirvana_73:

(5, 48915), (7, 48873), (Start: 9 @48855 has 7 MA's), (16, 48759), (25, 48687), (30, 48651), (38, 48585), (43, 48537), (50, 48459), (51, 48453), (62, 48306), (67, 48270), (70, 48255), (73, 48228), (76, 48207), (78, 48201), (81, 48174), (95, 48039), (101, 47988), (118, 47754), (120, 47745), (123, 47727), (128, 47694), (134, 47664), (140, 47559), (147, 47493), (149, 47463), (151, 47442), (152, 47436), (173, 47274), (182, 47202), (183, 47181), (193, 47085), (194, 47073), (196, 47064), (199, 47052), (202, 47034), (205, 47010), (208, 46986),

Gene: Quantum_66 Start: 46750, Stop: 44786, Start Num: 9

Candidate Starts for Quantum_66:

(Start: 9 @46750 has 7 MA's), (16, 46654), (30, 46546), (33, 46534), (38, 46480), (47, 46396), (60, 46261), (68, 46162), (70, 46150), (73, 46123), (75, 46108), (91, 45970), (101, 45883), (105, 45787), (116, 45679), (117, 45676), (119, 45649), (124, 45622), (128, 45592), (134, 45562), (140, 45457), (150, 45349), (151, 45340), (152, 45334), (171, 45190), (173, 45172), (175, 45154), (182, 45100), (193, 44983), (194, 44971), (196, 44962), (199, 44950), (202, 44932), (205, 44908), (208, 44884), (210, 44866),

Gene: RainyPolka_49 Start: 39380, Stop: 37371, Start Num: 10

Candidate Starts for RainyPolka_49:

(Start: 10 @39380 has 10 MA's), (14, 39311), (18, 39269), (22, 39242), (30, 39179), (32, 39173), (33, 39167), (39, 39119), (40, 39107), (44, 39080), (46, 39056), (52, 38996), (53, 38972), (58, 38933), (59, 38930), (64, 38846), (80, 38750), (89, 38663), (92, 38639), (94, 38627), (95, 38615), (103, 38546), (129, 38294), (133, 38279), (135, 38222), (136, 38207), (137, 38201), (141, 38159), (144, 38129), (146, 38096), (149, 38063), (151, 38042), (153, 38024), (155, 38000), (158, 37943), (166, 37859), (168, 37841), (169, 37835), (170, 37829), (172, 37814), (173, 37805), (184, 37673), (188, 37628), (190, 37604), (191, 37601), (199, 37547), (202, 37529), (206, 37496), (209, 37472), (211, 37451), (214, 37424),

Gene: Salete_48 Start: 39366, Stop: 37366, Start Num: 10

Candidate Starts for Salete_48:

(Start: 10 @39366 has 10 MA's), (14, 39297), (30, 39165), (32, 39159), (33, 39153), (39, 39105), (40, 39093), (41, 39087), (44, 39066), (45, 39051), (52, 38982), (64, 38841), (80, 38745), (89, 38658), (92, 38634), (94, 38622), (95, 38610), (103, 38541), (112, 38394), (129, 38289), (133, 38274), (135, 38217), (137, 38196), (141, 38154), (144, 38124), (146, 38091), (151, 38037), (154, 38007), (158, 37938), (159, 37917), (166, 37854), (168, 37836), (170, 37824), (173, 37800), (190, 37599), (191, 37596), (193, 37575), (199, 37542), (202, 37524), (206, 37491), (209, 37467), (214, 37419),

Gene: Satis_67 Start: 46746, Stop: 44782, Start Num: 9

Candidate Starts for Satis_67:

(Start: 9 @46746 has 7 MA's), (16, 46650), (22, 46605), (25, 46578), (29, 46557), (30, 46542), (33, 46530), (38, 46476), (47, 46392), (60, 46257), (68, 46158), (70, 46146), (73, 46119), (75, 46104), (91, 45966), (101, 45879), (105, 45783), (116, 45675), (117, 45672), (119, 45645), (124, 45618), (128, 45588), (134, 45558), (140, 45453), (150, 45345), (151, 45336), (152, 45330), (171, 45186), (173, 45168), (175, 45150), (182, 45096), (193, 44979), (194, 44967), (196, 44958), (199, 44946), (202, 44928), (205, 44904), (208, 44880), (210, 44862),

Gene: TP1604_48 Start: 39372, Stop: 37372, Start Num: 10

Candidate Starts for TP1604_48:

(Start: 10 @39372 has 10 MA's), (14, 39303), (30, 39171), (32, 39165), (33, 39159), (39, 39111), (40, 39099), (41, 39093), (44, 39072), (45, 39057), (52, 38988), (64, 38847), (80, 38751), (89, 38664), (92, 38640), (94, 38628), (95, 38616), (103, 38547), (112, 38400), (129, 38295), (133, 38280), (135, 38223), (137, 38202), (141, 38160), (144, 38130), (146, 38097), (151, 38043), (154, 38013), (158, 37944), (159, 37923), (166, 37860), (168, 37842), (170, 37830), (173, 37806), (190, 37605), (191, 37602), (199, 37548), (202, 37530), (206, 37497), (209, 37473), (214, 37425),

Gene: WaterT_64 Start: 38299, Stop: 36338, Start Num: 8

Candidate Starts for WaterT_64:

(Start: 8 @38299 has 5 MA's), (13, 38239), (20, 38179), (27, 38125), (34, 38080), (37, 38056), (38, 38050), (48, 37942), (49, 37930), (72, 37777), (77, 37756), (80, 37738), (82, 37723), (87, 37672), (89, 37651), (90, 37642), (93, 37621), (97, 37585), (99, 37561), (102, 37549), (110, 37411), (114, 37384), (121, 37351), (125, 37324), (127, 37306), (128, 37303), (131, 37291), (138, 37183), (147, 37099), (162, 36880), (165, 36835), (174, 36769), (178, 36727), (181, 36697), (184, 36646), (185, 36640), (186, 36616), (189, 36589), (190, 36577), (191, 36574), (197, 36520), (201, 36496), (203, 36490), (209, 36436), (212, 36406), (215, 36382),

Gene: Xkcd426_52 Start: 45445, Stop: 43514, Start Num: 10

Candidate Starts for Xkcd426_52:

(Start: 10 @45445 has 10 MA's), (18, 45334), (19, 45331), (22, 45307), (23, 45304), (30, 45244), (58, 44998), (63, 44968), (64, 44959), (69, 44929), (74, 44890), (84, 44839), (89, 44776), (90, 44767), (95, 44728), (103, 44659), (111, 44527), (124, 44437), (126, 44419), (130, 44404), (133, 44392), (135, 44335), (136, 44320), (144, 44242), (146, 44209), (149, 44176), (151, 44155), (153, 44137), (157,

44095), (166, 44002), (168, 43984), (169, 43978), (170, 43972), (173, 43948), (184, 43816), (190, 43747), (191, 43744), (202, 43672), (206, 43639), (209, 43615),

Gene: YDN12_50 Start: 39191, Stop: 37182, Start Num: 10

Candidate Starts for YDN12_50:

(3, 39257), (4, 39254), (Start: 10 @39191 has 10 MA's), (14, 39122), (30, 38990), (32, 38984), (39, 38930), (40, 38918), (41, 38912), (44, 38891), (46, 38867), (52, 38807), (59, 38741), (74, 38588), (80, 38561), (83, 38540), (85, 38504), (89, 38474), (92, 38450), (94, 38438), (95, 38426), (103, 38357), (109, 38246), (133, 38090), (135, 38033), (137, 38012), (141, 37970), (144, 37940), (146, 37907), (149, 37874), (151, 37853), (153, 37835), (166, 37670), (168, 37652), (170, 37640), (172, 37625), (173, 37616), (184, 37484), (188, 37439), (190, 37415), (191, 37412), (202, 37340), (206, 37307), (209, 37283), (211, 37262), (214, 37235),