Top AA variants of hepatocellular\_carcinoma cancer are (n=50):

Asia:  
p.R249S (7.0707%)  
p.T41A (5.0505%)  
p.S45F (3.5354%)  
p.S45P (3.0303%)  
p.S37C (2.0202%)  
p.G34E (2.0202%)  
p.V157F (1.5152%)  
p.T41I (1.5152%)  
p.S33C (1.5152%)  
p.S45A (1.0101%)  
p.H36P (1.0101%)  
p.H193P (1.0101%)  
p.Y234C (1.0101%)  
p.R273H (1.0101%)  
p.E68\* (1.0101%)  
p.R181C (0.5051%)  
p.C135Y (0.5051%)  
p.P278L (0.5051%)  
p.T118Qfs\*5 (0.5051%)  
p.C176F (0.5051%)  
p.W146\* (0.5051%)  
p.C275F (0.5051%)  
p.C238G (0.5051%)  
p.E271\* (0.5051%)  
p.G245D (0.5051%)  
p.V274A (0.5051%)  
p.V197L (0.5051%)  
p.I195F (0.5051%)  
p.N131I (0.5051%)  
p.R282Q (0.5051%)  
p.N29Rfs\*12 (0.5051%)  
p.R213Q (0.5051%)  
p.K321dup (0.5051%)  
p.R273C (0.5051%)  
p.C242Y (0.5051%)  
p.S183\* (0.5051%)  
p.V274F (0.5051%)  
p.E285V (0.5051%)  
p.R337H (0.5051%)  
p.N268Tfs\*77 (0.5051%)  
p.A159P (0.5051%)  
p.K319= (0.5051%)  
p.Q331H (0.5051%)  
p.D281E (0.5051%)  
p.Y234N (0.5051%)  
p.E285G (0.5051%)  
p.R174W (0.5051%)  
p.G245V (0.5051%)  
p.R175H (0.5051%)  
p.G266V (0.5051%)  
  
  
The world:  
p.R249S (4.2044%)  
p.S33F (0.3022%)  
p.V157F (0.2891%)  
p.R273C (0.2496%)  
p.E339\* (0.0526%)  
p.R175H (0.1708%)  
p.P278S (0.0526%)  
p.Y220C (0.1445%)  
p.M246V (0.1445%)  
p.H193R (0.1314%)  
p.R248Q (0.1314%)  
p.R282W (0.0788%)  
p.A159P (0.092%)  
p.E258G (0.0526%)  
p.E285V (0.0526%)  
p.H214R (0.1051%)  
p.G245D (0.092%)  
p.Y236C (0.0394%)  
p.R110L (0.0526%)  
p.R273H (0.092%)  
p.R174W (0.0788%)  
p.R249M (0.0788%)  
p.R273L (0.0788%)  
p.Y163N (0.0788%)  
p.G244C (0.0788%)  
p.M243I (0.0788%)  
p.C176Y (0.0788%)  
p.Y205C (0.0657%)  
p.H179Y (0.0526%)  
p.T125K (0.0131%)  
p.P190L (0.0131%)  
p.G266V (0.0657%)  
p.C176F (0.0657%)  
p.R213\* (0.0657%)  
p.R158H (0.0657%)  
p.R213Q (0.0657%)  
p.Y163C (0.0657%)  
p.R213L (0.0657%)  
p.R175L (0.0657%)  
p.R337C (0.0657%)  
p.M246T (0.0526%)  
p.C242F (0.0657%)  
p.V197L (0.0526%)  
p.I162S (0.0526%)  
p.A161S (0.0526%)  
p.C275Y (0.0526%)  
p.H193L (0.0526%)  
p.D281E (0.0526%)  
p.V203Mfs\*40 (0.0131%)  
p.Y126\* (0.0526%)  
p.Y163H (0.0526%)  
p.E294\* (0.0526%)  
p.R337H (0.0526%)  
p.R248L (0.0526%)  
p.Q192\* (0.0526%)  
p.R273S (0.0526%)  
p.V143M (0.0526%)  
p.R248W (0.0526%)  
p.H193P (0.0526%)  
p.Y234C (0.0526%)  
p.R342\* (0.0526%)  
p.G154V (0.0526%)  
p.G244D (0.0526%)  
p.P278L (0.0526%)  
p.P72R (0.0394%)  
p.A83\_S96dup (0.0394%)  
p.C242Y (0.0394%)  
p.E286K (0.0394%)  
p.E271V (0.0394%)  
p.C135Y (0.0394%)  
p.A159V (0.0394%)  
p.C141W (0.0394%)  
p.G266R (0.0394%)  
p.R249T (0.0394%)  
p.C242S (0.0394%)  
p.R280\* (0.0394%)  
p.C238R (0.0394%)  
p.V272M (0.0394%)  
p.R249G (0.0394%)  
p.L194R (0.0394%)  
p.E349\* (0.0394%)  
p.R337L (0.0394%)  
p.R306\* (0.0394%)  
p.H179R (0.0394%)  
p.Y205S (0.0394%)  
p.C275F (0.0394%)  
p.C275R (0.0394%)  
p.Y220N (0.0394%)  
p.R280G (0.0394%)  
p.Y220S (0.0394%)  
p.W146\* (0.0394%)  
p.S241F (0.0394%)  
p.V172F (0.0394%)  
p.L111R (0.0394%)  
p.S166\* (0.0394%)  
p.E286\* (0.0394%)  
p.V274A (0.0394%)  
p.E285K (0.0394%)  
p.R267W (0.0394%)  
p.H179L (0.0394%)  
p.A161T (0.0394%)  
p.E198\* (0.0394%)  
p.L257Q (0.0394%)  
p.C141Y (0.0394%)  
p.R283P (0.0394%)  
p.G245S (0.0394%)  
p.G244A (0.0394%)  
p.C176S (0.0394%)  
p.E68\* (0.0394%)  
p.N131I (0.0263%)  
p.I195F (0.0263%)  
p.C277\* (0.0263%)  
p.S90Lfs\*59 (0.0263%)  
p.M160I (0.0263%)  
p.P151S (0.0263%)  
p.M237I (0.0263%)  
p.C135\* (0.0263%)  
p.E204\* (0.0263%)  
p.Y126N (0.0263%)  
p.H179N (0.0263%)  
p.S215I (0.0263%)  
p.F134L (0.0263%)  
p.R249K (0.0263%)  
p.R249= (0.0263%)  
p.R181C (0.0263%)  
p.A276V (0.0263%)  
p.V272L (0.0131%)  
p.P151H (0.0263%)  
p.S127F (0.0263%)  
p.E221\* (0.0263%)  
p.V73M (0.0263%)  
p.G245R (0.0263%)  
p.S215N (0.0263%)  
p.G266E (0.0263%)  
p.C275S (0.0263%)  
p.I195T (0.0263%)  
p.Y163S (0.0263%)  
p.Y163Tfs\*7 (0.0263%)  
p.E286D (0.0263%)  
p.I255T (0.0263%)  
p.P278Lfs\*67 (0.0263%)  
p.S127Y (0.0263%)  
p.L145Q (0.0263%)  
p.E258K (0.0263%)  
p.M246K (0.0131%)  
p.F109V (0.0263%)  
p.R273P (0.0263%)  
p.D259Y (0.0263%)  
p.Q167\* (0.0263%)  
p.I254N (0.0263%)  
p.E180\* (0.0263%)  
p.R158L (0.0263%)  
p.N239S (0.0263%)  
p.R209\* (0.0263%)  
p.T155N (0.0263%)  
p.P250L (0.0263%)  
p.R196Efs\*51 (0.0263%)  
p.R282G (0.0263%)  
p.V216M (0.0263%)  
p.N239K (0.0263%)  
p.D259V (0.0263%)  
p.I162F (0.0263%)  
p.P300S (0.0263%)  
p.L330H (0.0263%)  
p.D281N (0.0263%)  
p.V172G (0.0263%)  
p.A138V (0.0263%)  
p.G244= (0.0263%)  
p.W146C (0.0263%)  
p.N235D (0.0263%)  
p.T155I (0.0263%)  
p.E286Sfs\*17 (0.0263%)  
p.I251= (0.0263%)  
p.C238F (0.0263%)  
p.E298\* (0.0263%)  
p.R175S (0.0263%)  
p.P34L (0.0263%)  
p.K132R (0.0263%)  
p.E294Sfs\*51 (0.0263%)  
p.R280S (0.0263%)  
p.N131S (0.0263%)  
p.D208V (0.0263%)  
p.E62\* (0.0263%)  
p.Y236\* (0.0263%)  
p.V97Tfs\*66 (0.0131%)  
p.A129Pfs\*41 (0.0131%)  
p.E56K (0.0131%)  
p.P58L (0.0131%)  
p.D57N (0.0131%)  
p.E68K (0.0131%)  
p.V217M (0.0131%)  
p.P223S (0.0131%)  
p.W53\* (0.0131%)  
p.K292\* (0.0131%)  
p.T125= (0.0131%)  
p.I195S (0.0131%)  
p.K139N (0.0131%)  
p.S127T (0.0131%)  
p.A276Lfs\*31 (0.0131%)  
p.H179D (0.0131%)  
p.L35Ffs\*8 (0.0131%)  
p.P72H (0.0131%)  
p.F341V (0.0131%)  
p.L257P (0.0131%)  
p.Y126D (0.0131%)  
p.Y163D (0.0131%)  
p.R156\_I162del (0.0131%)  
p.R267L (0.0131%)  
p.S106R (0.0131%)  
p.I332F (0.0131%)  
p.F113C (0.0131%)  
p.Q331\* (0.0131%)  
p.D57Tfs\*72 (0.0131%)  
p.E56Vfs\*73 (0.0131%)  
p.P72Rfs\*76 (0.0131%)  
p.V73Wfs\*50 (0.0131%)  
p.V73L (0.0131%)  
p.L130F (0.0131%)  
p.G266\* (0.0131%)  
p.E11Q (0.0131%)  
p.T253A (0.0131%)  
p.E224= (0.0131%)  
p.V143Afs\*29 (0.0131%)  
p.V157G (0.0131%)  
p.S215G (0.0131%)  
p.Q144\* (0.0131%)  
p.E56V (0.0131%)  
p.A74Sfs\*71 (0.0131%)  
p.T118= (0.0131%)  
p.M237K (0.0131%)  
p.G199V (0.0131%)  
p.A276G (0.0131%)  
p.R156P (0.0131%)  
p.R213Dfs\*34 (0.0131%)  
p.F212Sfs\*3 (0.0131%)  
p.R213G (0.0131%)  
p.L265R (0.0131%)  
p.L265P (0.0131%)  
p.H168R (0.0131%)  
p.C277G (0.0131%)  
p.E171\* (0.0131%)  
p.L130V (0.0131%)  
p.R273Vfs\*72 (0.0131%)  
p.G334W (0.0131%)  
p.H193Y (0.0131%)  
p.W91Cfs\*32 (0.0131%)  
p.R280K (0.0131%)  
p.Q136\* (0.0131%)  
p.H179Q (0.0131%)  
p.V216L (0.0131%)  
p.E180K (0.0131%)  
p.C176W (0.0131%)  
p.P152L (0.0131%)  
p.V173A (0.0131%)  
p.P67Rfs\*81 (0.0131%)  
p.E343Gfs\*2 (0.0131%)  
p.C135Afs\*35 (0.0131%)  
p.P75Lfs\*48 (0.0131%)  
p.R267P (0.0131%)  
p.Y107\* (0.0131%)  
p.P223R (0.0131%)  
p.N200S (0.0131%)  
p.D207A (0.0131%)  
p.S260P (0.0131%)  
p.C238G (0.0131%)  
p.P191del (0.0131%)  
p.N210S (0.0131%)  
p.V217A (0.0131%)  
p.E285G (0.0131%)  
p.T253N (0.0131%)  
p.I254V (0.0131%)  
p.A63Tfs\*66 (0.0131%)  
p.H179P (0.0131%)  
p.E287\* (0.0131%)  
p.L323M (0.0131%)  
p.L308M (0.0131%)  
p.P47S (0.0131%)  
p.M243K (0.0131%)  
p.P151A (0.0131%)  
p.E271D (0.0131%)  
p.T140= (0.0131%)  
p.C238Y (0.0131%)  
p.N288Y (0.0131%)  
p.E287K (0.0131%)  
p.H179\_E180del (0.0131%)  
p.R110P (0.0131%)  
p.P278T (0.0131%)  
p.H168Tfs\*69 (0.0131%)  
p.P152Rfs\*18 (0.0131%)  
p.I232S (0.0131%)  
p.S183\* (0.0131%)  
p.V274F (0.0131%)  
p.S241\_G245del (0.0131%)  
p.N247S (0.0131%)  
p.K305\* (0.0131%)  
p.Q144P (0.0131%)  
p.L137= (0.0131%)  
p.E68G (0.0131%)  
p.G245C (0.0131%)  
p.N268Tfs\*77 (0.0131%)  
p.V218A (0.0131%)  
p.K321dup (0.0131%)  
p.E258Q (0.0131%)  
p.A189= (0.0131%)  
p.F270V (0.0131%)  
p.E287D (0.0131%)  
p.K139E (0.0131%)  
p.A189D (0.0131%)  
p.D228Tfs\*12 (0.0131%)  
p.S227\* (0.0131%)  
p.V173M (0.0131%)  
p.D208\_V216del (0.0131%)  
p.P152Q (0.0131%)  
p.I251V (0.0131%)  
p.L35F (0.0131%)  
p.R110C (0.0131%)  
p.L252del (0.0131%)  
p.G154\_R156del (0.0131%)  
p.D281H (0.0131%)  
p.R342Efs\*3 (0.0131%)  
p.P152A (0.0131%)  
p.C238S (0.0131%)  
p.A189Pfs\*58 (0.0131%)  
p.M246I (0.0131%)  
p.Q331H (0.0131%)  
p.H168P (0.0131%)  
p.G245F (0.0131%)  
p.R158\_A159del (0.0131%)  
p.H296Y (0.0131%)  
p.I195Sfs\*52 (0.0131%)  
p.S227Lfs\*20 (0.0131%)  
p.R196\* (0.0131%)  
p.R283Afs\*62 (0.0131%)  
p.K132N (0.0131%)  
p.K164\* (0.0131%)  
p.L130R (0.0131%)  
p.D207fs\*2 (0.0131%)  
p.Y234N (0.0131%)  
p.C176G (0.0131%)  
p.C242R (0.0131%)  
p.V272fs\*34 (0.0131%)  
p.Q192H (0.0131%)  
p.K292N (0.0131%)  
p.L145R (0.0131%)  
p.D208Afs\*39 (0.0131%)  
p.D57Sfs\*86 (0.0131%)  
p.V272A (0.0131%)  
p.A63Lfs\*60 (0.0131%)  
p.E285\_L289del (0.0131%)  
p.V147I (0.0131%)  
p.I232N (0.0131%)  
p.M133I (0.0131%)  
p.R282L (0.0131%)  
p.E171G (0.0131%)  
p.V218del (0.0131%)  
p.I255F (0.0131%)  
p.N200Ifs\*47 (0.0131%)  
p.S314F (0.0131%)  
p.Y220Mfs\*27 (0.0131%)  
p.N131Y (0.0131%)  
p.G154Afs\*28 (0.0131%)  
p.G226A (0.0131%)  
p.K382Nfs\*40 (0.0131%)  
p.Y236D (0.0131%)  
p.C135F (0.0131%)  
p.G244S (0.0131%)  
p.R196= (0.0131%)  
p.V225Lfs\*22 (0.0131%)  
p.K164E (0.0131%)  
p.G245V (0.0131%)  
p.K291\* (0.0131%)  
p.K319= (0.0131%)  
p.R306= (0.0131%)  
p.I251del (0.0131%)  
p.H179= (0.0131%)  
p.N247I (0.0131%)  
p.R280Efs\*65 (0.0131%)  
p.N239T (0.0131%)  
p.N29Rfs\*12 (0.0131%)  
p.L265= (0.0131%)  
p.I195N (0.0131%)  
p.R181P (0.0131%)  
p.M246L (0.0131%)  
p.Q144\_G154del (0.0131%)  
p.G105V (0.0131%)  
p.V197E (0.0131%)  
p.P177H (0.0131%)  
p.C277Y (0.0131%)  
p.G244Afs\*4 (0.0131%)  
p.G226D (0.0131%)  
p.S46\_D49del (0.0131%)  
p.Q136P (0.0131%)  
p.Q317\* (0.0131%)  
p.M133T (0.0131%)  
p.V216Afs\*28 (0.0131%)  
p.C242\* (0.0131%)  
p.R282Q (0.0131%)  
p.T118Qfs\*5 (0.0131%)  
p.R156Lfs\*18 (0.0131%)  
p.V173L (0.0131%)  
p.V216\_Y220del (0.0131%)  
p.R248= (0.0131%)  
p.W91Vfs\*13 (0.0131%)  
p.Y126\_K132del (0.0131%)  
p.I251F (0.0131%)  
p.E286V (0.0131%)  
p.L265del (0.0131%)  
p.E285\* (0.0131%)  
p.E271fs\*35 (0.0131%)  
p.D184Y (0.0131%)  
p.V274G (0.0131%)  
p.L206\* (0.0131%)  
p.S367Afs\*3 (0.0131%)  
p.M243R (0.0131%)  
p.K319\* (0.0131%)  
p.Q136E (0.0131%)  
p.Y236del (0.0131%)  
p.H193D (0.0131%)  
p.D281Y (0.0131%)  
p.P309Qfs\*26 (0.0131%)  
p.P177R (0.0131%)  
p.E171D (0.0131%)  
p.E271\* (0.0131%)  
p.T125Rfs\*45 (0.0131%)  
p.G187S (0.0131%)  
p.V157L (0.0131%)  
p.L111M (0.0131%)  
p.E286= (0.0131%)  
p.T41A (1.6029%)  
p.S45P (1.3796%)  
p.S33C (0.8803%)  
p.S45F (0.7883%)  
p.D32G (0.565%)  
p.G34V (0.4336%)  
p.H36P (0.4467%)  
p.I35S (0.3679%)  
p.G34R (0.4204%)  
p.S37C (0.4073%)  
p.D32N (0.381%)  
p.D32V (0.381%)  
p.D32Y (0.3679%)  
p.G34E (0.3416%)  
p.S33P (0.3547%)  
p.S37F (0.3547%)  
p.T41I (0.3416%)  
p.S45A (0.2496%)  
p.K335I (0.2365%)  
p.S37Y (0.1971%)  
p.D32H (0.1708%)  
p.S33Y (0.1708%)  
p.S45Y (0.1708%)  
p.S37A (0.1708%)  
p.D32A (0.1445%)  
p.A5\_A80del (0.1445%)  
p.S37P (0.1314%)  
p.N387K (0.1314%)  
p.S33A (0.092%)  
p.S45C (0.0788%)  
p.T41N (0.0657%)  
p.I35\_G38del (0.0657%)  
p.K335T (0.0526%)  
p.H36R (0.0526%)  
p.W383C (0.0394%)  
p.L31\_I35del (0.0263%)  
p.T41P (0.0394%)  
p.S33L (0.0394%)  
p.L405F (0.0263%)  
p.S47L (0.0263%)  
p.T41S (0.0263%)  
p.V22\_Y64del (0.0263%)  
p.A43\_P44dup (0.0263%)  
p.L31P (0.0263%)  
p.S23R (0.0263%)  
p.W25L (0.0263%)  
p.P44A (0.0263%)  
p.P44S (0.0263%)  
p.V22\_G38del (0.0263%)  
p.D32\_S47del (0.0263%)  
p.S29F (0.0263%)  
p.G69E (0.0263%)  
p.P52L (0.0263%)  
p.T42I (0.0263%)  
p.I35M (0.0263%)  
p.S29A (0.0131%)  
p.S29= (0.0131%)  
p.R185G (0.0131%)  
p.G400= (0.0131%)  
p.E54D (0.0131%)  
p.T42\_A43insSS (0.0131%)  
p.Y333F (0.0131%)  
p.N387Y (0.0131%)  
p.T42Sfs\*7 (0.0131%)  
p.G69A (0.0131%)  
p.S45= (0.0131%)  
p.P44= (0.0131%)  
p.V136A (0.0131%)  
p.L401H (0.0131%)  
p.V378F (0.0131%)  
p.L31= (0.0131%)  
p.R550L (0.0131%)  
p.L368H (0.0131%)  
p.S37del (0.0131%)  
p.L31\_S33del (0.0131%)  
p.G34\_G38del (0.0131%)  
p.H24\_Y142del (0.0131%)  
p.D32\_I35delinsV (0.0131%)  
p.S33= (0.0131%)  
p.S33N (0.0131%)  
p.N387I (0.0131%)  
p.K292E (0.0131%)  
p.D32\_H36del (0.0131%)  
p.HSGATTTAPSLSGKGNPEEEDVDTSQVLYEWEQGFSQSFTQEQVAGKSIIFHCLTESQNAVLRTKKLVYNSLNKMLW\*RKESNSNVTFTI\*DSKYLGKC\*TVDSEC\*INLFQILMDSMQ\*LELRGYELLCSLRH\*MRACRSHLHSLMLLIPLMSSVWLNHHRC\*NMQL\*T\*I36delext\*? (0.0131%)  
p.S29T (0.0131%)  
p.Q28\_D32delinsH (0.0131%)  
p.I35V (0.0131%)  
p.D32E (0.0131%)  
p.S33K (0.0131%)  
p.H24\_S33del (0.0131%)  
p.G34\_S71del (0.0131%)  
p.P16\_L156del (0.0131%)  
p.T42= (0.0131%)  
p.P16L (0.0131%)  
p.L46\_S47del (0.0131%)  
p.V22G (0.0131%)  
p.A21V (0.0131%)  
p.D32\_S37delinsA (0.0131%)  
p.TQGLCH\*IFSY\*IGALLRCH\*ASLAEIPLLSSLPAYLSGYLLLHFLLTPPNGLVK\*QTSHQQESSLDDCFWSLDAVPFFH\*FSE\*LLGGSLRD\*VFHH\*ANPGYHSAFLGCLSDLTLFLKIFQWVISQILFF\*IKVTFPIY\*C\*YCFVFIADLMELDMAMEPDRKAAVSHWQQQSYLDSGIHSGATTTAPSLSGKGNPEEEDVDTSQVLYEWEQGFSQSFTQEQVAGKSIIFHCLTESQNAVLRTKKLVYNSLNKMLW\*RKESNSNVTFTI\*DSKYLGKC\*TVDSEC\*INLFQILMDSMQ\*LELRGYELLCSLRH\*MRACRSHLHSLMLLIPLMSSVW\*3delext\*? (0.0131%)  
p.E55D (0.0131%)  
p.S37\_G48delinsC (0.0131%)  
p.A39V (0.0131%)  
p.I35N (0.0131%)  
p.T40A (0.0131%)  
p.G50D (0.0131%)  
p.L31Q (0.0131%)  
p.D6\_S60del (0.0131%)  
p.A20\_R151del (0.0131%)  
p.D32Vfs\*9 (0.0131%)  
p.S23N (0.0131%)  
p.Y30\_T40del (0.0131%)  
p.G34\_I35insTSG (0.0131%)  
p.P16\_K133del (0.0131%)  
p.T40\_L46del (0.0131%)  
p.D17\_A126del (0.0131%)  
p.I35\_T41del (0.0131%)  
p.S45T (0.0131%)  
p.D32X (0.0131%)  
p.A39G (0.0131%)  
p.S47C (0.0131%)  
p.Y30\_S33del (0.0131%)  
p.T42A (0.0131%)  
p.I35\_S37delinsT (0.0131%)  
p.T40\_A43del (0.0131%)  
p.Y30C (0.0131%)  
p.P110S (0.0131%)  
p.W66L (0.0131%)  
p.W25\_I140del (0.0131%)  
p.W25\_S33del (0.0131%)  
p.S45\_G48del (0.0131%)  
p.?Xfs\*? (0.0131%)  
p.Q27\* (0.0131%)  
p.T768I (0.0131%)  
p.D108G (0.0394%)  
p.Q1039L (0.0263%)  
p.E3458D (0.0131%)  
p.P2214L (0.0131%)  
p.D2944= (0.0131%)  
p.L320= (0.0131%)  
p.D562Y (0.0131%)  
p.C1861S (0.0131%)  
p.I3181K (0.0131%)  
p.G1242S (0.0131%)  
p.C987= (0.0131%)  
p.N2416K (0.0131%)  
p.D671Y (0.0131%)  
p.S645= (0.0131%)  
p.M1459I (0.0131%)  
p.F1613L (0.0131%)  
p.G2072\* (0.0131%)  
p.A2228S (0.0131%)  
p.Q371P (0.0131%)  
p.S4108= (0.0131%)  
p.W1114C (0.0131%)  
p.P4271= (0.0131%)  
p.P4271H (0.0131%)  
p.C69S (0.0131%)  
p.R1661H (0.0131%)  
p.E2807A (0.0131%)  
p.G3700\* (0.0131%)  
p.C4380Y (0.0131%)  
p.C120= (0.0131%)  
p.A4055V (0.0131%)  
p.E3024K (0.0131%)  
p.V1475L (0.0131%)  
p.P4282T (0.0131%)  
p.G2143R (0.0131%)  
p.Y715= (0.0131%)  
p.M356L (0.0131%)  
p.D2792N (0.0131%)  
p.N2488S (0.0131%)  
p.D2866N (0.0131%)  
p.L4268= (0.0131%)  
p.C3619W (0.0131%)  
p.A924P (0.0131%)  
p.L4070= (0.0131%)  
p.G1001V (0.0131%)  
p.T956= (0.0131%)  
p.S1504G (0.0131%)  
p.L3144F (0.0131%)  
p.S2791R (0.0131%)  
p.P3460S (0.0131%)  
p.I4482F (0.0131%)  
p.D539Y (0.0131%)  
p.C2978F (0.0131%)  
p.M3934T (0.0131%)  
p.W1114\* (0.0131%)  
p.P479S (0.0131%)  
p.I1727N (0.0131%)  
p.M1904I (0.0131%)  
p.D1246Y (0.0131%)  
p.T2407A (0.0131%)  
p.E1123D (0.0131%)  
p.K3474N (0.0131%)  
p.D2541= (0.0131%)  
p.G1914Efs\*2 (0.0131%)  
p.P4480L (0.0131%)  
p.A3370T (0.0131%)  
p.E2542K (0.0131%)  
p.I2454V (0.0131%)  
p.D755Y (0.0131%)  
p.V1335M (0.0131%)  
p.P172= (0.0263%)  
p.L744= (0.0131%)  
p.A1195D (0.0131%)  
p.E5A (0.0131%)  
p.Q19R (0.0131%)  
p.G499R (0.0131%)  
p.S267T (0.0131%)  
p.F586V (0.0131%)  
p.K1061N (0.0131%)  
p.A854T (0.0131%)  
p.N1271H (0.0131%)  
p.S695= (0.0131%)  
p.A1151T (0.0131%)  
p.A817= (0.0131%)  
p.R284= (0.0131%)  
p.E850V (0.0131%)  
p.E850\* (0.0131%)  
p.G314= (0.0788%)  
p.R1944\* (0.0263%)  
p.M802V (0.0263%)  
p.P1544= (0.0131%)  
p.Q129\_Q131del (0.0131%)  
p.G1436E (0.0131%)  
p.G2033= (0.0131%)  
p.G871= (0.0131%)  
p.L1113= (0.0131%)  
p.R2117W (0.0131%)  
p.S1134= (0.0131%)  
p.S1186= (0.0131%)  
p.P2189= (0.0131%)  
p.E1068G (0.0131%)  
p.E1161V (0.0131%)  
p.W1072R (0.0131%)  
p.F1695C (0.0131%)  
p.E647G (0.0131%)  
p.V1105= (0.0131%)  
p.N1548S (0.0131%)  
p.Q2183= (0.0131%)  
p.A1466E (0.0131%)  
p.T61M (0.0131%)  
p.L422= (0.0131%)  
p.Q628\* (0.0131%)  
p.S2213\* (0.0131%)  
p.I1443V (0.0131%)  
p.G551D (0.0131%)  
p.L2089V (0.0131%)  
p.L100H (0.0131%)  
p.G2051C (0.0131%)  
p.0 (0.092%)  
p.W85\* (0.0788%)  
p.R533\* (0.0526%)  
p.E406\* (0.0526%)  
p.A76T (0.0526%)  
p.S428= (0.0394%)  
p.S611\* (0.0131%)  
p.E288\* (0.0394%)  
p.G265\* (0.0394%)  
p.S581Cfs\*9 (0.0394%)  
p.C121F (0.0394%)  
p.D341Mfs\*73 (0.0263%)  
p.W674\* (0.0131%)  
p.Q4H (0.0263%)  
p.A526V (0.0263%)  
p.W635\* (0.0263%)  
p.R146\* (0.0263%)  
p.S43N (0.0263%)  
p.P661L (0.0263%)  
p.E465\* (0.0263%)  
p.A615T (0.0263%)  
p.E87\* (0.0263%)  
p.Y578\* (0.0263%)  
p.R412Afs\*12 (0.0263%)  
p.Q96\* (0.0263%)  
p.V517I (0.0263%)  
p.T336Vfs\*17 (0.0263%)  
p.S623\* (0.0263%)  
p.W247\* (0.0263%)  
p.Q190\* (0.0263%)  
p.G233D (0.0131%)  
p.K727\* (0.0131%)  
p.R125W (0.0131%)  
p.T543A (0.0131%)  
p.Q6\* (0.0131%)  
p.S200F (0.0131%)  
p.M181I (0.0131%)  
p.S200= (0.0131%)  
p.A191T (0.0131%)  
p.V340M (0.0131%)  
p.V280I (0.0131%)  
p.M193K (0.0131%)  
p.K607\* (0.0131%)  
p.E410\* (0.0131%)  
p.Q684\* (0.0131%)  
p.A120D (0.0131%)  
p.T555= (0.0131%)  
p.V25= (0.0131%)  
p.Y796\* (0.0131%)  
p.W444\* (0.0131%)  
p.E553\* (0.0131%)  
p.V827\* (0.0131%)  
p.Q351\* (0.0131%)  
p.M181Cfs\*61 (0.0131%)  
p.Q549\* (0.0131%)  
p.A609= (0.0131%)  
p.E419\* (0.0131%)  
p.R62S (0.0131%)  
p.E384Dfs\*31 (0.0131%)  
p.D320Efs\*94 (0.0131%)  
p.Q630\* (0.0131%)  
p.G738R (0.0131%)  
p.T656M (0.0131%)  
p.G565D (0.0131%)  
p.T694S (0.0131%)  
p.S665Yfs\*7 (0.0131%)  
p.Q678\* (0.0131%)  
p.R403W (0.0131%)  
p.R576\* (0.0131%)  
p.L592Pfs\*113 (0.0131%)  
p.V306Cfs\*45 (0.0131%)  
p.K387\* (0.0131%)  
p.E291\* (0.0131%)  
p.E384\* (0.0131%)  
p.G676Afs\*29 (0.0131%)  
p.P61Q (0.0131%)  
p.A76V (0.0131%)  
p.E87K (0.0131%)  
p.E411Vfs\*13 (0.0131%)  
p.G47R (0.0131%)  
p.G98E (0.0131%)  
p.P697L (0.0131%)  
p.P23S (0.0131%)  
p.E464\* (0.0131%)  
p.V33M (0.0131%)  
p.P345L (0.0131%)  
p.A526T (0.0131%)  
p.E243G (0.0131%)  
p.A462T (0.0131%)  
p.(A443\_H445)Xfs\*? (0.0131%)  
p.P263Lfs\*22 (0.0131%)  
p.E29\* (0.0131%)  
p.S428\* (0.0131%)  
p.K547Pfs\*150 (0.0131%)  
p.R22\* (0.0131%)  
p.S75G (0.0131%)  
p.E397\* (0.0131%)  
p.E580\* (0.0131%)  
p.R395P (0.0131%)  
p.G425S (0.0131%)  
p.H491R (0.0131%)  
p.E322Sfs\*92 (0.0131%)  
p.E464K (0.0131%)  
p.V539I (0.0131%)  
p.R373\_M418del (0.0131%)  
p.R349C (0.0131%)  
p.V535I (0.0131%)  
p.(R484\_R485)Xfs\*? (0.0131%)  
p.R492L (0.0131%)  
p.R533\_H534insQVHH (0.0131%)  
p.S486\* (0.0131%)  
p.(Q386\_F388)Xfs\*? (0.0131%)  
p.D829= (0.0131%)  
p.A522T (0.0131%)  
p.H491Y (0.0131%)  
p.G289Afs\*125 (0.0131%)  
p.K613Rfs\*92 (0.0131%)  
p.A526S (0.0131%)  
p.P568Hfs\*137 (0.0131%)  
p.L106R (0.0131%)  
p.P659= (0.0131%)  
p.R395Wfs\*18 (0.0131%)  
p.H1032L (0.0263%)  
p.T1191I (0.0263%)  
p.S148= (0.0131%)  
p.P465L (0.0131%)  
p.A70V (0.0131%)  
p.P45L (0.0131%)  
p.P548S (0.0131%)  
p.E1159= (0.0131%)  
p.K1004= (0.0131%)  
p.F84Y (0.0131%)  
p.L264Q (0.0131%)  
p.L528Q (0.0131%)  
p.K780R (0.0131%)  
p.Y951N (0.0131%)  
p.R525L (0.0131%)  
p.A503S (0.0131%)  
p.R846W (0.0131%)  
p.A1052V (0.0131%)  
p.T464= (0.0131%)  
p.L1254= (0.0131%)  
p.E2423G (0.0131%)  
p.L1406F (0.0131%)  
p.R365= (0.0131%)  
p.S850N (0.0131%)  
p.V1430L (0.0131%)  
p.L2168= (0.0131%)  
p.E1850D (0.0131%)  
p.E1240\* (0.0131%)  
p.P1497= (0.0131%)  
p.T2396S (0.0131%)  
p.Y2017C (0.0131%)  
p.L400F (0.0131%)  
p.T525Nfs\*11 (0.0131%)  
p.G2379= (0.0131%)  
p.E105K (0.0131%)  
p.L2124I (0.0131%)  
p.R2183H (0.0131%)  
p.R498C (0.0131%)  
p.T594= (0.0131%)  
p.S102N (0.0131%)  
p.L117= (0.0131%)  
p.R394C (0.0131%)  
p.D484G (0.0131%)  
p.M427V (0.0131%)  
p.L296P (0.0131%)  
p.Y43\* (0.0131%)  
p.P592R (0.0131%)  
p.T201K (0.0263%)  
p.I947T (0.0131%)  
p.L804= (0.0131%)  
p.G237S (0.0131%)  
p.W171\* (0.0131%)  
p.L932= (0.0131%)  
p.P637Q (0.0131%)  
p.Y115F (0.0131%)  
p.E547= (0.0131%)  
p.C532R (0.0131%)  
p.R488W (0.0131%)  
p.G516V (0.0131%)  
p.S1140I (0.0131%)  
p.L342F (0.0131%)  
p.R1174Q (0.0131%)  
p.D767G (0.0131%)  
p.F671S (0.0131%)  
p.N1177Kfs\*9 (0.0131%)  
p.L1111I (0.0131%)  
p.F297Y (0.0131%)  
p.D1122E (0.0131%)  
p.E1074= (0.0131%)  
p.K375M (0.0131%)  
p.L223= (0.0263%)  
p.T216= (0.0131%)  
p.L263\* (0.0131%)  
p.P142Q (0.0131%)  
p.Q446H (0.0131%)  
p.S85R (0.0131%)  
p.D434G (0.0131%)  
p.G140E (0.0131%)  
p.A671V (0.0131%)  
p.E985G (0.0131%)  
p.H662N (0.0131%)  
p.L658H (0.0131%)  
p.T584= (0.0131%)  
p.Y906\* (0.0131%)  
p.Y412= (0.0131%)  
p.E150D (0.0131%)  
p.Y1306H (0.0131%)  
p.K825I (0.0131%)  
p.P352A (0.0131%)  
p.Y594= (0.0131%)  
p.E355\* (0.0131%)  
p.D1071H (0.0131%)  
p.S537R (0.0131%)  
p.G713E (0.0131%)  
p.T606N (0.0131%)  
p.C1163F (0.0131%)  
p.R453C (0.0131%)  
p.A849Sfs\*102 (0.0263%)  
p.Y100\* (0.0263%)  
p.E712\* (0.0263%)  
p.S1725\* (0.0263%)  
p.E393\* (0.0263%)  
p.T358S (0.0263%)  
p.Q983\* (0.0263%)  
p.A307E (0.0263%)  
p.G198R (0.0131%)  
p.G998R (0.0131%)  
p.S1247N (0.0131%)  
p.G1153D (0.0131%)  
p.H765Sfs\*20 (0.0131%)  
p.V1585Rfs\*40 (0.0131%)  
p.H27Tfs\*31 (0.0131%)  
p.G235R (0.0131%)  
p.F26Vfs\*10 (0.0131%)  
p.C1667W (0.0131%)  
p.S813Lfs\*9 (0.0131%)  
p.E405D (0.0131%)  
p.S1476F (0.0131%)  
p.M1019V (0.0131%)  
p.Q520K (0.0131%)  
p.T358I (0.0131%)  
p.T619I (0.0131%)  
p.Q507\* (0.0131%)  
p.H353Y (0.0131%)  
p.C1667\* (0.0131%)  
p.T975= (0.0131%)  
p.Q793K (0.0131%)  
p.L1797Ffs\*6 (0.0131%)  
p.N309Y (0.0131%)  
p.W266\* (0.0131%)  
p.E1511Dfs\*5 (0.0131%)  
p.R1273\* (0.0131%)  
p.C362= (0.0131%)  
p.N626= (0.0131%)  
p.A1183Cfs\*58 (0.0131%)  
p.Q1711\* (0.0131%)  
p.I486V (0.0131%)  
p.F324C (0.0131%)  
p.Q1005\* (0.0131%)  
p.K361\* (0.0131%)  
p.L370\* (0.0131%)  
p.S1501F (0.0131%)  
p.E1264\* (0.0131%)  
p.L390\* (0.0131%)  
p.S907Ffs\*44 (0.0131%)  
p.C362Mfs\*7 (0.0131%)  
p.S1391Ifs\*20 (0.0131%)  
p.G1334\* (0.0131%)  
p.Y1118C (0.0131%)  
p.L381= (0.0131%)  
p.I1344Mfs\*5 (0.0131%)  
p.Q679\* (0.0131%)  
p.V906L (0.0131%)  
p.P1093S (0.0131%)  
p.A1092= (0.0131%)  
p.I968L (0.0131%)  
p.Q1100\* (0.0131%)  
p.Q1687H (0.0131%)  
p.Q613\* (0.0131%)  
p.E74\* (0.0131%)  
p.T109\_S112del (0.0131%)  
p.Q935Kfs\*28 (0.0131%)  
p.P536Rfs\*12 (0.0131%)  
p.G1658Efs\*43 (0.0131%)  
p.S473F (0.0131%)  
p.L775\* (0.0131%)  
p.E1511\* (0.0131%)  
p.G1331D (0.0131%)  
p.V504I (0.0131%)  
p.P1451L (0.0131%)  
p.I1415M (0.0131%)  
p.H1472Qfs\*11 (0.0131%)  
p.K1355Nfs\*3 (0.0131%)  
p.C362\_L370delCLMSRDRFL (0.0131%)  
p.A503Efs\*4 (0.0131%)  
p.N67Ifs\*23 (0.0131%)  
p.L422P (0.0131%)  
p.R601Q (0.0131%)  
p.K1641T (0.0131%)  
p.E1761\* (0.0131%)  
p.K1766Hfs\*14 (0.0131%)  
p.Y370= (0.0131%)  
p.V26G (0.0131%)  
p.S213L (0.0131%)  
p.G183D (0.0131%)  
p.I324S (0.0263%)  
p.V617F (0.0263%)  
p.R683\* (0.0131%)  
p.R158= (0.0131%)  
p.D370G (0.0131%)  
p.T455= (0.0131%)  
p.D1068G (0.0131%)  
p.I559L (0.0131%)  
p.S128C (0.0131%)  
p.S1035A (0.0131%)  
p.Q404\* (0.0394%)  
p.Q1142\* (0.0394%)  
p.A45dup (0.0394%)  
p.Q1145Rfs\*16 (0.0394%)  
p.Y995= (0.0263%)  
p.P823= (0.0263%)  
p.Q372Rfs\*28 (0.0263%)  
p.N106Pfs\*4 (0.0263%)  
p.M390Ifs\*10 (0.0263%)  
p.M967Gfs\*35 (0.0263%)  
p.A107Gfs\*4 (0.0263%)  
p.L2170Tfs\*55 (0.0263%)  
p.Q1095Afs\*10 (0.0263%)  
p.A345\_A349del (0.0263%)  
p.D1850Gfs\*4 (0.0263%)  
p.A163T (0.0263%)  
p.G2087E (0.0263%)  
p.G1274Efs\*7 (0.0131%)  
p.Y1281\* (0.0131%)  
p.P1275\_G1282del (0.0131%)  
p.M1273Rfs\*16 (0.0131%)  
p.V762= (0.0131%)  
p.I1180= (0.0131%)  
p.V2084D (0.0131%)  
p.A569T (0.0131%)  
p.Q1666L (0.0131%)  
p.P223= (0.0131%)  
p.E1542\* (0.0131%)  
p.L2259Rfs\*2 (0.0131%)  
p.S129N (0.0131%)  
p.G1265S (0.0131%)  
p.A837T (0.0131%)  
p.A1932T (0.0131%)  
p.G869S (0.0131%)  
p.P886L (0.0131%)  
p.G131E (0.0131%)  
p.P728S (0.0131%)  
p.P877L (0.0131%)  
p.P1348= (0.0131%)  
p.T1666Nfs\*32 (0.0131%)  
p.S2214C (0.0131%)  
p.R536G (0.0131%)  
p.Y1027C (0.0131%)  
p.Q450= (0.0131%)  
p.S2068W (0.0131%)  
p.Q1499\* (0.0131%)  
p.Q1835R (0.0131%)  
p.P726Sfs\*10 (0.0131%)  
p.K1129\* (0.0131%)  
p.G652R (0.0131%)  
p.K2025E (0.0131%)  
p.S668I (0.0131%)  
p.F1683= (0.0131%)  
p.I1107V (0.0131%)  
p.G914Afs\*5 (0.0131%)  
p.Q1519Pfs\*13 (0.0131%)  
p.A245Pfs\*114 (0.0131%)  
p.P640A (0.0131%)  
p.G91Tfs\*7 (0.0131%)  
p.M1220Ifs\*8 (0.0131%)  
p.P120S (0.0131%)  
p.G882= (0.0131%)  
p.A2204Pfs\*27 (0.0131%)  
p.Q176\* (0.0131%)  
p.G338= (0.0131%)  
p.R669Q (0.0131%)  
p.R81Q (0.0131%)  
p.K1603\* (0.0131%)  
p.E1836\* (0.0131%)  
p.P208S (0.0131%)  
p.R2232Gfs\*35 (0.0131%)  
p.S11Afs\*91 (0.0131%)  
p.E866\* (0.0131%)  
p.D200E (0.0131%)  
p.P136T (0.0131%)  
p.D1838\* (0.0131%)  
p.G410R (0.0131%)  
p.S357Ifs\*6 (0.0131%)  
p.Y551\* (0.0131%)  
p.S1001C (0.0131%)  
p.S2096\* (0.0131%)  
p.G1890V (0.0131%)  
p.Y1211\* (0.0131%)  
p.Q1212L (0.0131%)  
p.A2235Rfs\*41 (0.0131%)  
p.A1539Pfs\*26 (0.0131%)  
p.M793Rfs\*23 (0.0131%)  
p.E1450\* (0.0131%)  
p.L1812Dfs\*6 (0.0131%)  
p.S1085\* (0.0131%)  
p.D1050G (0.0131%)  
p.E1531K (0.0131%)  
p.Q268\* (0.0131%)  
p.N1475T (0.0131%)  
p.S1992L (0.0131%)  
p.A2234Pfs\*32 (0.0131%)  
p.A339Lfs\*24 (0.0131%)  
p.Q2207R (0.0131%)  
p.P478L (0.0131%)  
p.A591A (0.0131%)  
p.T1084T (0.0131%)  
p.R1046K (0.0131%)  
p.L1176Ifs\*17 (0.0131%)  
p.Q1096\* (0.0131%)  
p.P120fs\*275 (0.0131%)  
p.I1816Mfs\*67 (0.0131%)  
p.S2191\_G2193del (0.0131%)  
p.L2088R (0.0131%)  
p.M1273Rfs\*8 (0.0131%)  
p.Q171H (0.0131%)  
p.L1712Cfs\*2 (0.0131%)  
p.Q372Sfs\*19 (0.0131%)  
p.A226P (0.0131%)  
p.S1087Qfs\*15 (0.0131%)  
p.Q355R (0.0131%)  
p.A2182Efs\*36 (0.0131%)  
p.Q878\* (0.0131%)  
p.L2258Wfs\*8 (0.0131%)  
p.A1509Cfs\*23 (0.0131%)  
p.S634Dfs\*12 (0.0131%)  
p.N820Qfs\*52 (0.0131%)  
p.P729Gfs\*83 (0.0131%)  
p.R1721\* (0.0131%)  
p.E1924Kfs\*5 (0.0131%)  
p.S674Vfs\*68 (0.0131%)  
p.I1485Xfs\*5 (0.0131%)  
p.R401Efs\*3 (0.1051%)  
p.V1348F (0.0131%)  
p.I1218= (0.0131%)  
p.E121Q (0.0263%)  
p.A1523V (0.0131%)  
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p.L1580= (0.0131%)  
p.G1000C (0.0131%)  
p.V940G (0.0131%)  
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p.E790= (0.0131%)  
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p.S593P (0.0131%)  
p.G1507= (0.0131%)  
p.P407= (0.0131%)  
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p.S148I (0.0131%)  
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p.P3618T (0.0131%)  
p.V273L (0.0131%)  
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p.I2861K (0.0131%)  
p.Q3333\* (0.0131%)  
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p.A2718E (0.0131%)  
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p.K475\* (0.0131%)  
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p.L562= (0.0131%)  
p.S182= (0.0131%)  
p.D141= (0.0131%)  
p.R437G (0.0131%)  
p.I83= (0.0131%)  
p.S157= (0.0131%)  
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p.G315S (0.0263%)  
p.R444= (0.0131%)  
p.V2016M (0.0131%)  
p.L921= (0.0131%)  
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p.D274N (0.0131%)  
p.S842Y (0.0131%)  
p.K2832\* (0.0131%)  
p.\*4912Lext\*36 (0.0131%)  
p.G3746V (0.0131%)  
p.E1623\* (0.0131%)  
p.A1417T (0.0131%)  
p.Q3417= (0.0131%)  
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p.V1932L (0.0131%)  
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p.E642= (0.0131%)  
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p.D523= (0.0131%)  
p.S1139= (0.0131%)  
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p.P269= (0.0131%)  
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p.R365P (0.0131%)  
p.T427S (0.0131%)  
p.S255F (0.0131%)  
p.N507= (0.0131%)  
p.S536N (0.0131%)  
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p.G220E (0.0131%)  
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p.R644= (0.0131%)  
p.G664= (0.0131%)  
p.E205V (0.0131%)  
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p.E1199\* (0.0131%)  
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p.F1068I (0.0131%)  
p.R532I (0.0131%)  
p.N282= (0.0131%)  
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p.F1164= (0.0131%)  
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p.N169S (0.0131%)  
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p.Y734N (0.0131%)  
p.P106S (0.0131%)  
p.G452W (0.0131%)  
p.C443= (0.0131%)  
p.L1145Cfs\*5 (0.0131%)  
p.S619= (0.0131%)  
p.R1347Q (0.0131%)  
p.I628V (0.0131%)  
p.P650T (0.0131%)  
p.M233I (0.0131%)  
p.S670\* (0.0131%)  
p.P234H (0.0131%)  
p.Q1588K (0.0131%)  
p.S1614R (0.0131%)  
p.P336T (0.0131%)  
p.T1506M (0.0131%)  
p.M950I (0.0131%)  
p.S729C (0.0788%)  
p.S703I (0.0788%)  
p.K412\* (0.0263%)  
p.E637= (0.0131%)  
p.S260C (0.0131%)  
p.L910P (0.0526%)  
p.Q644H (0.0263%)  
p.V645F (0.0263%)  
p.L910S (0.0263%)  
p.R153W (0.0131%)  
p.A1268S (0.0131%)  
p.L452Q (0.0131%)  
p.L53F (0.0131%)  
p.G928R (0.0131%)  
p.K860Nfs\*16 (0.0131%)  
p.Y752N (0.0131%)  
p.E494= (0.0131%)  
p.H224Q (0.0131%)  
p.E1300\* (0.0131%)  
p.G843\* (0.0131%)  
p.C1096Y (0.0131%)  
p.L698= (0.0131%)  
p.D1079N (0.0131%)  
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p.Y1195= (0.0131%)  
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p.A557V (0.0131%)  
p.C176R (0.0131%)  
p.A611S (0.0131%)  
p.E871D (0.0131%)  
p.G902E (0.0131%)  
p.C724F (0.0131%)  
p.P815S (0.0131%)  
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p.C993S (0.0131%)  
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p.A28= (0.0131%)  
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p.D171Y (0.0131%)  
p.S92A (0.0131%)  
p.N242S (0.0131%)  
p.M620T (0.0131%)  
p.E318D (0.0263%)  
p.L657I (0.0131%)  
p.D527G (0.0131%)  
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p.A286V (0.0131%)  
p.T422= (0.0131%)  
p.L613P (0.0131%)  
p.F395Y (0.0131%)  
p.P480= (0.0131%)  
p.F756= (0.0131%)  
p.G59W (0.0131%)  
p.Q145R (0.0131%)  
p.Q519H (0.0131%)  
p.A631= (0.0131%)  
p.H622N (0.0131%)  
p.F407I (0.0131%)  
p.G233S (0.0131%)  
p.V401E (0.0131%)  
p.N499= (0.0131%)  
p.G33S (0.0131%)  
p.G311E (0.0131%)  
p.L99= (0.0131%)  
p.S93= (0.0131%)  
p.E26K (0.0131%)  
p.P572= (0.0131%)  
p.G569V (0.0131%)  
p.L29V (0.0131%)  
p.M343L (0.0131%)  
p.Q795= (0.0131%)  
p.N802= (0.0131%)  
p.M628I (0.0131%)  
p.R819= (0.0131%)  
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p.K107= (0.0131%)  
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p.A1601S (0.0131%)  
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p.S300F (0.0131%)  
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p.E1366\* (0.0131%)  
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p.A197T (0.0131%)  
p.I1788V (0.0131%)  
p.P826S (0.0131%)  
p.L600\* (0.0131%)  
p.S36\* (0.0131%)  
p.V1002L (0.0131%)  
p.L293F (0.0131%)  
p.N1068Kfs\*5 (0.1708%)  
p.E542K (0.1051%)  
p.H1047R (0.1314%)  
p.S553Tfs\*7 (0.1314%)  
p.E545K (0.0526%)  
p.H1047L (0.0526%)  
p.P27T (0.0394%)  
p.E545G (0.0394%)  
p.D1045N (0.0263%)  
p.D1029N (0.0131%)  
p.T86S (0.0131%)  
p.E545A (0.0131%)  
p.T1052K (0.0131%)  
p.P471L (0.0131%)  
p.G828= (0.0131%)  
p.E726K (0.0131%)  
p.\*1069Wext\*4 (0.0131%)  
p.M30I (0.0131%)  
p.R38H (0.0131%)  
p.I816M (0.0131%)  
p.D549H (0.0131%)  
p.D133V (0.0131%)  
p.T1025= (0.0131%)  
p.E1034G (0.0131%)  
p.C420R (0.0131%)  
p.Q498= (0.0394%)  
p.K342N (0.0263%)  
p.A1699T (0.0131%)  
p.Q497= (0.0131%)  
p.Y73= (0.0131%)  
p.G3= (0.0131%)  
p.V1418M (0.0131%)  
p.E532V (0.0131%)  
p.E562K (0.0131%)  
p.R485Q (0.0131%)  
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p.Q499= (0.0131%)  
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p.T1436= (0.0131%)  
p.P960L (0.0131%)  
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p.E145Q (0.0131%)  
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p.R523K (0.0131%)  
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p.S1792F (0.0131%)  
p.T2457A (0.0131%)  
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p.L240P (0.0131%)  
p.G2398E (0.0131%)  
p.T1819= (0.0131%)  
p.V1237I (0.0131%)  
p.K1273Qfs\*9 (0.0131%)  
p.A1494V (0.0131%)  
p.Q499\* (0.0131%)  
p.Q235\* (0.0131%)  
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p.E1294Q (0.0263%)  
p.Q35\* (0.0263%)  
p.L629= (0.0263%)  
p.S809Lfs\*7 (0.0131%)  
p.A100V (0.0263%)  
p.H267= (0.0131%)  
p.V840M (0.0131%)  
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p.A1031= (0.0131%)  
p.L612= (0.0131%)  
p.S1482Efs\*42 (0.0131%)  
p.Y2083= (0.0131%)  
p.E1558G (0.0131%)  
p.Q625\* (0.0131%)  
p.P1996= (0.0131%)  
p.R1874L (0.0131%)  
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p.A1843= (0.0131%)  
p.S1586P (0.0131%)  
p.D596H (0.0131%)  
p.D1420H (0.0131%)  
p.W304\* (0.0131%)  
p.N133= (0.0131%)  
p.N1720S (0.0131%)  
p.S410F (0.0131%)  
p.I2078M (0.0131%)  
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p.E58V (0.0131%)  
p.S410= (0.0131%)  
p.R139W (0.0131%)  
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p.A973S (0.0131%)  
p.S433= (0.0131%)  
p.R570= (0.0131%)  
p.S1418\* (0.0131%)  
p.E96\* (0.0131%)  
p.Q794\* (0.0131%)  
p.R978H (0.0131%)  
p.E1583\* (0.0131%)  
p.R1012P (0.0131%)  
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p.I1385L (0.0131%)  
p.V319G (0.0131%)  
p.M280V (0.0131%)  
p.S1221\* (0.0131%)  
p.G1596V (0.0131%)  
p.L1624R (0.0131%)  
p.K945E (0.0131%)  
p.Q785H (0.0131%)  
p.R946W (0.0131%)  
p.G305V (0.0131%)  
p.S1514\* (0.0131%)  
p.T1071R (0.0131%)  
p.Q1377\* (0.0131%)  
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p.Y598S (0.0131%)  
p.G1134S (0.0131%)  
p.E1552del (0.0131%)  
p.R1032\* (0.0131%)  
p.Y407\* (0.0131%)  
p.H890P (0.0131%)  
p.N1651S (0.0131%)  
p.Q63\* (0.0131%)  
p.N1643Y (0.0131%)  
p.Q478H (0.0131%)  
p.Q1395\* (0.0131%)  
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p.R101L (0.0131%)  
p.A484V (0.0131%)  
p.L473M (0.0131%)  
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p.S397= (0.0263%)  
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p.F841L (0.0131%)  
p.S1363= (0.0131%)  
p.G148= (0.0131%)  
p.G819= (0.0131%)  
p.H711Y (0.0131%)  
p.Q1023= (0.0131%)  
p.H872N (0.0131%)  
p.A833D (0.0131%)  
p.G124R (0.0131%)  
p.T850= (0.0131%)  
p.A733T (0.0131%)  
p.T706= (0.0131%)  
p.A856D (0.0131%)  
p.G510D (0.0131%)  
p.R1022G (0.0131%)  
p.H409Y (0.0131%)  
p.G295D (0.0131%)  
p.G56V (0.0131%)  
p.Q179R (0.0131%)  
p.T1212K (0.0131%)  
p.A389T (0.0131%)  
p.D29G (0.0526%)  
p.E82G (0.0526%)  
p.G81V (0.0394%)  
p.K56R (0.0394%)  
p.Q61H (0.0394%)  
p.E82D (0.0394%)  
p.L54Tfs\*2 (0.0263%)  
p.K53Nfs\*24 (0.0263%)  
p.T80I (0.0263%)  
p.L23R (0.0263%)  
p.D77G (0.0263%)  
p.T80P (0.0263%)  
p.G81\_F83del (0.0263%)  
p.D29H (0.0263%)  
p.E82Q (0.0131%)  
p.I86L (0.0131%)  
p.Q51= (0.0131%)  
p.D27Y (0.0131%)  
p.G81A (0.0131%)  
p.L74= (0.0131%)  
p.D77A (0.0131%)  
p.D27A (0.0131%)  
p.Q26P (0.0131%)  
p.W24S (0.0131%)  
p.D77V (0.0131%)  
p.G81R (0.0131%)  
p.D29\_G31del (0.0131%)  
p.E79G (0.0131%)  
p.E79V (0.0131%)  
p.E79\* (0.0131%)  
p.Q73\_T80del (0.0131%)  
p.G81C (0.0131%)  
p.I86F (0.0131%)  
p.G81S (0.0131%)  
p.I28\_D29del (0.0131%)  
p.V32E (0.0131%)  
p.F37S (0.0131%)  
p.Q26H (0.0131%)  
p.P2152A (0.0131%)  
p.G146R (0.0263%)  
p.K4671E (0.0263%)  
p.L2277= (0.0131%)  
p.P151= (0.0131%)  
p.A1550= (0.0131%)  
p.S1615T (0.0131%)  
p.S373= (0.0131%)  
p.I852V (0.0131%)  
p.A1676T (0.0131%)  
p.L242= (0.0131%)  
p.P4045Q (0.0131%)  
p.S2664= (0.0131%)  
p.S2623R (0.0131%)  
p.S558C (0.0131%)  
p.A1674E (0.0131%)  
p.L1877V (0.0131%)  
p.N2399= (0.0131%)  
p.G2668R (0.0131%)  
p.D2480N (0.0131%)  
p.Y2015C (0.0131%)  
p.G118= (0.0131%)  
p.S2718R (0.0131%)  
p.S604L (0.0131%)  
p.V20= (0.0131%)  
p.E87D (0.0131%)  
p.R3796G (0.0131%)  
p.Y3080C (0.0131%)  
p.F97L (0.0131%)  
p.E1220Q (0.0131%)  
p.S822F (0.0131%)  
p.E182\* (0.0131%)  
p.W591R (0.0131%)  
p.N964S (0.0131%)  
p.G741A (0.0131%)  
p.Q3593R (0.0131%)  
p.I2521V (0.0131%)  
p.Q3615K (0.0131%)  
p.I5173= (0.0131%)  
p.E368\* (0.0131%)  
p.T433= (0.0131%)  
p.L373= (0.0131%)  
p.E1516G (0.0131%)  
p.R34H (0.0131%)  
p.D2364N (0.0131%)  
p.P2230= (0.0131%)  
p.S731C (0.0131%)  
p.N3683S (0.0131%)  
p.L551P (0.0131%)  
p.E717D (0.0131%)  
p.K2266\* (0.0131%)  
p.V1986= (0.0131%)  
p.L72R (0.0131%)  
p.E3486= (0.0131%)  
p.V4270A (0.0131%)  
p.L1802F (0.0131%)  
p.G3906R (0.0131%)  
p.K292Qfs\*23 (0.0131%)  
p.S2240\* (0.0131%)  
p.T562S (0.0131%)  
p.T3096= (0.0131%)  
p.A241S (0.0131%)  
p.P2225\_P2230dup (0.0131%)  
p.Q5145H (0.0131%)  
p.V844I (0.0394%)  
p.N4935T (0.0131%)  
p.L658= (0.0131%)  
p.P214= (0.0131%)  
p.G197R (0.0131%)  
p.A1861T (0.0131%)  
p.T322= (0.0131%)  
p.F1129L (0.0131%)  
p.L1813P (0.0131%)  
p.Q1462K (0.0131%)  
p.L1813= (0.0131%)  
p.I1505L (0.0131%)  
p.A4758V (0.0131%)  
p.A1449= (0.0131%)  
p.F689L (0.0131%)  
p.I2973L (0.0131%)  
p.T2856S (0.0131%)  
p.R363C (0.0131%)  
p.S1353G (0.0131%)  
p.R2425K (0.0131%)  
p.I682V (0.0131%)  
p.A4152V (0.0131%)  
p.S4840Y (0.0131%)  
p.S3670P (0.0131%)  
p.D1379Y (0.0131%)  
p.A2562T (0.0131%)  
p.D3153H (0.0131%)  
p.I1667V (0.0131%)  
p.L3658Tfs\*10 (0.0131%)  
p.Y985S (0.0131%)  
p.R3174I (0.0131%)  
p.E3449V (0.0131%)  
p.L2422F (0.0131%)  
p.K2987E (0.0131%)  
p.R2595K (0.0131%)  
p.Y2877\* (0.0131%)  
p.R1097K (0.0131%)  
p.A3119V (0.0131%)  
p.I1975F (0.0131%)  
p.Y2652= (0.0131%)  
p.R73G (0.0131%)  
p.V240L (0.0131%)  
p.I1180L (0.0131%)  
p.E3259A (0.0131%)  
p.V51L (0.0131%)  
p.N48Y (0.0131%)  
p.L139\* (0.0131%)  
p.T319\* (0.0263%)  
p.K330I (0.0131%)  
p.G1080S (0.0131%)  
p.L262R (0.0131%)  
p.S570= (0.0131%)  
p.A1775= (0.0131%)  
p.D24H (0.0131%)  
p.L467= (0.0131%)  
p.H1162R (0.0131%)  
p.F378= (0.0131%)  
p.E314= (0.0131%)  
p.Q1003P (0.0131%)  
p.Q1536H (0.0131%)  
p.A242= (0.0131%)  
p.R187K (0.0131%)  
p.Q621= (0.0131%)  
p.V175A (0.0131%)  
p.G129E (0.0131%)  
p.R1605G (0.0131%)  
p.R15I (0.0131%)  
p.N1771= (0.0131%)  
p.H61L (0.0131%)  
p.C250\* (0.0131%)  
p.Q1177\* (0.0131%)  
p.K574R (0.0131%)  
p.Q1003= (0.0131%)  
p.Q637\* (0.0131%)  
p.P246R (0.0131%)  
p.Y1804\* (0.0131%)  
p.A151= (0.0131%)  
p.I67K (0.0131%)  
p.N323Kfs\*2 (0.0131%)  
p.Y176\* (0.0131%)  
p.A663V (0.0131%)  
p.D2118G (0.0131%)  
p.E611= (0.0131%)  
p.L146V (0.0131%)  
p.S1822= (0.0131%)  
p.C211\* (0.0131%)  
p.G127E (0.0131%)  
p.V1371I (0.0131%)  
p.H2046R (0.0131%)  
p.R171K (0.0131%)  
p.V255A (0.0131%)  
p.K144I (0.0131%)  
p.A309= (0.0131%)  
p.M35V (0.0131%)  
p.C83Lfs\*9 (0.0131%)  
p.C304G (0.0131%)  
p.Y177C (0.0131%)  
p.M1? (0.0394%)  
p.F1262Rfs\*11 (0.0263%)  
p.V2345M (0.0263%)  
p.L1249= (0.0131%)  
p.V2108I (0.0131%)  
p.H1847= (0.0131%)  
p.L2521Efs\*6 (0.0131%)  
p.Y316C (0.0131%)  
p.Q1750Efs\*38 (0.0131%)  
p.V2951D (0.0131%)  
p.S474G (0.0131%)  
p.V2298A (0.0131%)  
p.R1459Qfs\*26 (0.0131%)  
p.C219S (0.0131%)  
p.E739\* (0.0131%)  
p.S867T (0.0131%)  
p.Y2323D (0.0131%)  
p.L2885H (0.0131%)  
p.S407= (0.0131%)  
p.S2146G (0.0131%)  
p.G2022D (0.0131%)  
p.T2301= (0.0131%)  
p.W2638C (0.0131%)  
p.K1355= (0.0131%)  
p.Q2729H (0.0131%)  
p.N28D (0.0131%)  
p.C1529R (0.0131%)  
p.W484L (0.0131%)  
p.K466R (0.0131%)  
p.L174R (0.0131%)  
p.E2366\* (0.0131%)  
p.S1530T (0.0131%)  
p.N109Sfs\*3 (0.0131%)  
p.E1867\* (0.0131%)  
p.L1837\* (0.0131%)  
p.V1554A (0.0131%)  
p.Q1996\* (0.0131%)  
p.P1244L (0.0131%)  
p.L1755V (0.0131%)  
p.E1420= (0.0131%)  
p.S681C (0.0131%)  
p.T842= (0.0131%)  
p.S301C (0.0131%)  
p.R1768G (0.0131%)  
p.P107L (0.0131%)  
p.R2428T (0.0131%)  
p.F640= (0.0131%)  
p.S1023G (0.0131%)  
p.R1592\* (0.0131%)  
p.E1832\* (0.0131%)  
p.Q162\* (0.0131%)  
p.L895P (0.0131%)  
p.A2562= (0.0131%)  
p.G3051E (0.0131%)  
p.S2479A (0.0131%)  
p.N660S (0.0131%)  
p.Y1415Rfs\*35 (0.0131%)  
p.D18N (0.0131%)  
p.T2118I (0.0131%)  
p.Y2954C (0.0131%)  
p.N2875T (0.0131%)  
p.K53Xfs\*3 (0.0131%)  
p.K1587\* (0.0131%)  
p.P2380R (0.0131%)  
p.A1121Gfs\*3 (0.0131%)  
p.L2952P (0.0131%)  
p.H996L (0.0131%)  
p.R2109\* (0.0131%)  
p.Q2442P (0.0131%)  
p.L544Cfs\*21 (0.0131%)  
p.R1070= (0.0131%)  
p.E281K (0.0131%)  
p.V672= (0.0131%)  
p.K1032M (0.0131%)  
p.G557= (0.0131%)  
p.V1269= (0.0131%)  
p.A962D (0.0131%)  
p.A1136= (0.0131%)  
p.V691M (0.0131%)  
p.R632H (0.0131%)  
p.V222E (0.0131%)  
p.S1073R (0.0131%)  
p.R968M (0.0131%)  
p.R589C (0.0131%)  
p.G772Afs\*6 (0.0131%)  
p.L793= (0.0131%)  
p.L675V (0.0131%)  
p.Q1330R (0.0131%)  
p.Y669C (0.0131%)  
p.Q673= (0.0131%)  
p.D556= (0.0131%)  
p.P948H (0.0131%)  
p.Q471K (0.0131%)  
p.P1178T (0.0131%)  
p.M903K (0.0131%)  
p.L90= (0.0394%)  
p.E393K (0.0263%)  
p.T1493= (0.0263%)  
p.E1494Kfs\*13 (0.0263%)  
p.K782Rfs\*38 (0.0263%)  
p.E1573\* (0.0131%)  
p.G1635R (0.0131%)  
p.G1517R (0.0131%)  
p.V85I (0.0131%)  
p.G355D (0.0131%)  
p.Q1096= (0.0131%)  
p.G445= (0.0131%)  
p.Q2457K (0.0131%)  
p.R463\* (0.0131%)  
p.D1297G (0.0131%)  
p.E1241G (0.0131%)  
p.S2577= (0.0131%)  
p.M1583I (0.0131%)  
p.D1562N (0.0131%)  
p.T1585I (0.0131%)  
p.Q1448R (0.0131%)  
p.I1557V (0.0131%)  
p.A8D (0.0131%)  
p.V1692E (0.0131%)  
p.E1540G (0.0131%)  
p.I1918T (0.0131%)  
p.R497I (0.0131%)  
p.T1989= (0.0131%)  
p.G1596C (0.0131%)  
p.K634E (0.0131%)  
p.S1187Y (0.0131%)  
p.I21T (0.0131%)  
p.E19= (0.0131%)  
p.E262\* (0.0131%)  
p.S2687= (0.0131%)  
p.K2585I (0.0131%)  
p.A680S (0.0131%)  
p.G502V (0.0131%)  
p.G502R (0.0131%)  
p.D2732H (0.0131%)  
p.S1650P (0.0131%)  
p.Y159\* (0.0131%)  
p.E1494Kfs\*19 (0.0131%)  
p.R1158S (0.0131%)  
p.Q1272Kfs\*15 (0.0131%)  
p.S2631= (0.0131%)  
p.M706R (0.0131%)  
p.Q2482K (0.0131%)  
p.E1156Gfs\*8 (0.0131%)  
p.Q542\* (0.0131%)  
p.T1556Nfs\*3 (0.0131%)  
p.A1985T (0.0131%)  
p.F1089L (0.0131%)  
p.M1431V (0.0131%)  
p.Q999\* (0.0131%)  
p.T216S (0.0131%)  
p.S2533F (0.0131%)  
p.T683I (0.0131%)  
p.N1919K (0.0131%)  
p.R384I (0.0131%)  
p.Y622\* (0.0131%)  
p.D1297Qfs\*2 (0.0131%)  
p.T1585Qfs\*65 (0.0131%)  
p.E1889G (0.0131%)  
p.G682\* (0.0131%)  
p.G1836R (0.0131%)  
p.S568Vfs\*2 (0.0131%)  
p.F442L (0.0131%)  
p.G292Rfs\*25 (0.0394%)  
p.S34F (0.0263%)  
p.Q175\* (0.0263%)  
p.I27\_L30del (0.0263%)  
p.Q250\_G255del (0.0263%)  
p.Q460\* (0.0263%)  
p.W206L (0.0263%)  
p.Q250P (0.0263%)  
p.W165C (0.0263%)  
p.N127Y (0.0263%)  
p.P33= (0.0131%)  
p.P169L (0.0131%)  
p.T632I (0.0131%)  
p.Q556= (0.0131%)  
p.G424D (0.0131%)  
p.R226= (0.0131%)  
p.V178I (0.0131%)  
p.F63I (0.0131%)  
p.S142= (0.0131%)  
p.T763S (0.0131%)  
p.L681F (0.0131%)  
p.S197\* (0.0131%)  
p.D765G (0.0131%)  
p.R466= (0.0131%)  
p.P573Q (0.0131%)  
p.R50H (0.0131%)  
p.R263G (0.0131%)  
p.P380= (0.0131%)  
p.K158R (0.0131%)  
p.N512K (0.0131%)  
p.S352F (0.0131%)  
p.R244G (0.0131%)  
p.S709\* (0.0131%)  
p.A326S (0.0131%)  
p.S197L (0.0131%)  
p.D409A (0.0131%)  
p.C809\* (0.0131%)  
p.K205T (0.0131%)  
p.K197T (0.0131%)  
p.P266T (0.0131%)  
p.D696Y (0.0131%)  
p.V48I (0.0131%)  
p.T525I (0.0131%)  
p.L254Q (0.0131%)  
p.P141S (0.0131%)  
p.T214= (0.0131%)  
p.I242F (0.0131%)  
p.A752T (0.0131%)  
p.A752D (0.0131%)  
p.Y771D (0.0131%)  
p.R229Q (0.0131%)  
p.R114Wfs\*40 (0.0131%)  
p.N237S (0.0131%)  
p.R171\* (0.0131%)  
p.L38P (0.0131%)  
p.A122D (0.0131%)  
p.S608\* (0.0131%)  
p.A276D (0.0131%)  
p.S210T (0.0131%)  
p.P754S (0.0131%)  
p.M412L (0.0131%)  
p.G552S (0.0131%)  
p.E514K (0.0131%)  
p.R888W (0.0131%)  
p.E198G (0.0131%)  
p.G215= (0.0131%)  
p.I85Hfs\*11 (0.0131%)  
p.K4= (0.0131%)  
p.L5= (0.0131%)  
p.T413I (0.0131%)  
p.N598= (0.0131%)  
p.T847M (0.0131%)  
p.A339= (0.0131%)  
p.K735E (0.0131%)  
p.V597M (0.0131%)  
p.P447L (0.0131%)  
p.R271\_R272insG (0.0131%)  
p.Y855\* (0.0131%)  
p.R272S (0.0131%)  
p.S19\* (0.0131%)  
p.T322A (0.0131%)  
p.P224A (0.0131%)  
p.Q211P (0.0131%)  
p.L923I (0.0131%)  
p.A622T (0.0131%)  
p.R263L (0.0131%)  
p.P504= (0.0131%)  
p.V282= (0.0131%)  
p.V950M (0.0131%)  
p.G859E (0.0263%)  
p.E580D (0.0263%)  
p.Q436\* (0.0263%)  
p.R741S (0.0131%)  
p.R251\* (0.0131%)  
p.T638S (0.0131%)  
p.N399Kfs\*7 (0.0131%)  
p.E655Rfs\*15 (0.0131%)  
p.A313E (0.0131%)  
p.E748Dfs\*6 (0.0131%)  
p.I123V (0.0131%)  
p.A616V (0.0131%)  
p.P67A (0.0131%)  
p.I66K (0.0131%)  
p.R322S (0.0131%)  
p.G435\* (0.0131%)  
p.G27= (0.0131%)  
p.C826Y (0.0131%)  
p.E381G (0.0131%)  
p.R552\* (0.0131%)  
p.P392H (0.0131%)  
p.V657L (0.0131%)  
p.A392= (0.0131%)  
p.N316Y (0.0131%)  
p.Q444= (0.0131%)  
p.W78\* (0.0131%)  
p.N123Tfs\*2 (0.0131%)  
p.A141= (0.0131%)  
p.K96M (0.0131%)  
p.Y476C (0.0131%)  
p.K432\* (0.0131%)  
p.Q266\* (0.0131%)  
p.L512Cfs\*7 (0.0131%)  
p.Y606\* (0.0131%)  
p.E440\* (0.0131%)  
p.E675\* (0.0131%)  
p.C826F (0.0131%)  
p.L389Ffs\*3 (0.0131%)  
p.T77Lfs\*34 (0.0131%)  
p.V138M (0.0131%)  
p.T260A (0.0131%)  
p.L127S (0.0131%)  
p.K176R (0.0131%)  
p.Q3603= (0.0394%)  
p.G2493= (0.0131%)  
p.S3708N (0.0131%)  
p.G100E (0.0131%)  
p.N5236H (0.0131%)  
p.P4889= (0.0131%)  
p.R3547H (0.0131%)  
p.P906S (0.0131%)  
p.D3039G (0.0131%)  
p.P205Q (0.0131%)  
p.D4072G (0.0131%)  
p.P3798= (0.0131%)  
p.Y277C (0.0131%)  
p.P4886= (0.0131%)  
p.M1417I (0.0131%)  
p.G3095D (0.0131%)  
p.G2573S (0.0131%)  
p.H1030R (0.0131%)  
p.L5411P (0.0131%)  
p.W5395C (0.0131%)  
p.Q2702L (0.0131%)  
p.L2761= (0.0131%)  
p.P27= (0.0131%)  
p.L3266H (0.0131%)  
p.Q3480H (0.0131%)  
p.Q3480L (0.0131%)  
p.A482T (0.0131%)  
p.Q3899\* (0.0131%)  
p.E541K (0.0131%)  
p.V1163= (0.0131%)  
p.Q1754K (0.0131%)  
p.E2643Kfs\*11 (0.0131%)  
p.A4793T (0.0131%)  
p.G4716W (0.0131%)  
p.R199Q (0.0131%)  
p.V184M (0.0131%)  
p.Q1023\* (0.0131%)  
p.G4303S (0.0131%)  
p.S1744I (0.0131%)  
p.K370N (0.0131%)  
p.K206N (0.0131%)  
p.V289L (0.0131%)  
p.A144S (0.0131%)  
p.L233= (0.0131%)  
p.D1876E (0.0131%)  
p.P1818S (0.0131%)  
p.E2270K (0.0131%)  
p.R3582L (0.0131%)  
p.R3321\* (0.0131%)  
p.C5133W (0.0131%)  
p.T261Dfs\*12 (0.0131%)  
p.S4608T (0.0131%)  
p.R1258W (0.0131%)  
p.S35P (0.0131%)  
p.G1160E (0.0263%)  
p.P171= (0.0263%)  
p.D1528= (0.0131%)  
p.K892= (0.0131%)  
p.W1314\* (0.0131%)  
p.P1421= (0.0131%)  
p.A887T (0.0131%)  
p.Q590= (0.0131%)  
p.K443Q (0.0131%)  
p.G1277D (0.0131%)  
p.D1644N (0.0131%)  
p.R1192G (0.0131%)  
p.V2126A (0.0131%)  
p.G573C (0.0131%)  
p.H175= (0.0131%)  
p.A871P (0.0131%)  
p.K796N (0.0131%)  
p.R1192C (0.0131%)  
p.G203D (0.0131%)  
p.A293V (0.0131%)  
p.G1068V (0.0131%)  
p.Q673R (0.0131%)  
p.D1177E (0.0131%)  
p.G250A (0.0131%)  
p.N2286K (0.0131%)  
p.R1250P (0.0131%)  
p.S1591N (0.0131%)  
p.L2604V (0.0131%)  
p.D1114N (0.0131%)  
p.F1467L (0.0131%)  
p.K1386N (0.0131%)  
p.I1803V (0.0131%)  
p.L1184P (0.0131%)  
p.K1552T (0.0131%)  
p.Y489C (0.0131%)  
p.M748R (0.0131%)  
p.P407L (0.0131%)  
p.K981M (0.0131%)  
p.A1544T (0.0131%)  
p.G911S (0.0131%)  
p.Q1189H (0.0131%)  
p.D697G (0.0131%)  
p.Y580Lfs\*8 (0.0131%)  
p.P678Rfs\*10 (0.0131%)  
p.R114P (0.0131%)  
p.H884Y (0.0131%)  
p.S1599Y (0.0131%)  
p.I1931Lfs\*12 (0.0131%)  
p.Y1106C (0.0131%)  
p.L704M (0.0131%)  
p.P648T (0.0131%)  
p.R1192H (0.0131%)  
p.R417= (0.0131%)  
p.R1491\* (0.0131%)  
p.G1162V (0.0131%)  
p.D692Y (0.0131%)  
p.L2605V (0.0131%)  
p.F1539L (0.0131%)  
p.Q1534H (0.0131%)  
p.D2482V (0.0131%)  
p.R1241\* (0.0131%)  
p.K1332Sfs\*26 (0.0131%)  
p.E572D (0.0131%)  
p.G2488W (0.0131%)  
p.E463K (0.0263%)  
p.P2158Afs\*26 (0.0131%)  
p.V1607L (0.0131%)  
p.P2963= (0.0131%)  
p.T1591A (0.0131%)  
p.L2693= (0.0131%)  
p.R1056\* (0.0131%)  
p.S1641R (0.0131%)  
p.P3354= (0.0131%)  
p.E1271D (0.0131%)  
p.I97V (0.0131%)  
p.A2199S (0.0131%)  
p.N905S (0.0131%)  
p.S3043G (0.0131%)  
p.H3015= (0.0131%)  
p.A3233D (0.0131%)  
p.Y500C (0.0131%)  
p.L929V (0.0131%)  
p.P1927L (0.0131%)  
p.D798H (0.0131%)  
p.S646F (0.0131%)  
p.M80I (0.0263%)  
p.D84Y (0.0263%)  
p.H83Y (0.0526%)  
p.A102E (0.0394%)  
p.A927V (0.0263%)  
p.E88\* (0.0263%)  
p.R354\* (0.0263%)  
p.A30= (0.0263%)  
p.D125N (0.0263%)  
p.A10T (0.0131%)  
p.P323L (0.0131%)  
p.Q596= (0.0131%)  
p.G720D (0.0131%)  
p.R378Q (0.0131%)  
p.R41W (0.0131%)  
p.P230L (0.0131%)  
p.V59Gfs\*59 (0.0131%)  
p.E389K (0.0131%)  
p.S366T (0.0131%)  
p.Q349L (0.0131%)  
p.S156= (0.0131%)  
p.R24P (0.0131%)  
p.D108Y (0.0131%)  
p.M754V (0.0131%)  
p.G281S (0.0131%)  
p.H83D (0.0131%)  
p.A61= (0.0131%)  
p.S56R (0.0131%)  
p.S12\* (0.0131%)  
p.D605G (0.0131%)  
p.Q621E (0.0131%)  
p.G1075= (0.0131%)  
p.T980M (0.0131%)  
p.T121A (0.0131%)  
p.H83P (0.0131%)  
p.E33\_N39delinsD (0.0131%)  
p.R124H (0.0131%)  
p.Y129C (0.0131%)  
p.A73S (0.0131%)  
p.L91Q (0.0131%)  
p.A86D (0.0131%)  
p.L121= (0.0131%)  
p.A60= (0.0131%)  
p.P70Qfs\*49 (0.0131%)  
p.T18M (0.0131%)  
p.R112G (0.0131%)  
p.A21D (0.0131%)  
p.W15\* (0.0131%)  
p.L130Q (0.0131%)  
p.R58\* (0.0131%)  
p.A34= (0.0131%)  
p.T137A (0.0131%)  
p.E88A (0.0131%)  
p.V82M (0.0131%)  
p.L78Hfs\*41 (0.0131%)  
p.E61\* (0.0131%)  
p.Q50\* (0.0131%)  
p.G1328= (0.0131%)  
p.P841= (0.0131%)  
p.G1170S (0.0131%)  
p.P645Q (0.0131%)  
p.T1355= (0.0131%)  
p.S475Y (0.0131%)  
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p.Q177H (0.0131%)  
p.A65V (0.0131%)  
p.E783Q (0.0131%)  
p.N400S (0.0131%)  
p.D105G (0.0131%)  
p.I976V (0.0131%)  
p.R1214W (0.0131%)  
p.P652= (0.0131%)  
p.W2094Afs\*2 (0.0263%)  
p.P160S (0.0263%)  
p.Q1269R (0.0131%)  
p.V515E (0.0131%)  
p.S467N (0.0131%)  
p.Q351H (0.0131%)  
p.H1302L (0.0131%)  
p.T282I (0.0131%)  
p.P285S (0.0131%)  
p.I2164= (0.0131%)  
p.K525M (0.0131%)  
p.Q468L (0.0131%)  
p.G826E (0.0131%)  
p.S164F (0.0131%)  
p.R109L (0.0131%)  
p.Q1020L (0.0131%)  
p.A443E (0.0131%)  
p.Q1869= (0.0131%)  
p.E230D (0.0131%)  
p.H1594L (0.0131%)  
p.H1594= (0.0131%)  
p.R90C (0.0131%)  
p.S472C (0.0131%)  
p.Y2132= (0.0131%)  
p.H368Q (0.0131%)  
p.I241= (0.0131%)  
p.A550T (0.0131%)  
p.R1929W (0.0131%)  
p.S684= (0.0131%)  
p.I2122M (0.0131%)  
p.Q272E (0.0131%)  
p.E1981V (0.0131%)  
p.F1661L (0.0131%)  
p.S1616= (0.0131%)  
p.M97I (0.0131%)  
p.K690N (0.0131%)  
p.P153R (0.0131%)  
p.M1553I (0.0131%)  
p.Y2084Lfs\*13 (0.0131%)  
p.C1514F (0.0131%)  
p.K463= (0.0131%)  
p.P2229Rfs\*9 (0.0131%)  
p.P377S (0.0131%)  
p.R2356C (0.0131%)  
p.I586V (0.0131%)  
p.V915I (0.0131%)  
p.P356L (0.0131%)  
p.C124F (0.0131%)  
p.T2743S (0.0131%)  
p.K1178E (0.0131%)  
p.T142A (0.0131%)  
p.Y443C (0.0131%)  
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p.S1360N (0.0263%)  
p.A767\_V769dup (0.0263%)  
p.I491V (0.0263%)  
p.V271L (0.0263%)  
p.Y525C (0.0263%)  
p.D236Y (0.0263%)  
p.G1481= (0.0131%)  
p.S2448= (0.0131%)  
p.E160K (0.0131%)  
p.A1048T (0.0131%)  
p.A131T (0.0131%)  
p.H436= (0.0131%)  
p.G1014E (0.0131%)  
p.A429T (0.0131%)  
p.I3572V (0.0131%)  
p.S1153I (0.0131%)  
p.L1198= (0.0131%)  
p.R113S (0.0131%)  
p.N3064S (0.0131%)  
p.E3499Sfs\*52 (0.0131%)  
p.I2089M (0.0131%)  
p.P3573L (0.0131%)  
p.S104R (0.0131%)  
p.H311L (0.0131%)  
p.V168G (0.0131%)  
p.H1456Y (0.0131%)  
p.D2481= (0.0131%)  
p.P89L (0.0131%)  
p.S592G (0.0131%)  
p.P373= (0.0131%)  
p.R1101\* (0.0131%)  
p.K1212= (0.0131%)  
p.K97\* (0.0131%)  
p.Y396Sfs\*19 (0.0131%)  
p.E2728K (0.0131%)  
p.I744V (0.0131%)  
p.V1063= (0.0131%)  
p.R601= (0.0131%)  
p.P514= (0.0131%)  
p.H2087R (0.0131%)  
p.N157S (0.0131%)  
p.G379V (0.0131%)  
p.A202= (0.0131%)  
p.S2805P (0.0131%)  
p.G112\* (0.0131%)  
p.S3415L (0.0131%)  
p.L115Q (0.0131%)  
p.A383Gfs\*6 (0.0131%)  
p.S191\* (0.0131%)  
p.L175Wfs\*55 (0.0131%)  
p.L1950V (0.0131%)  
p.D2742Y (0.0131%)  
p.V2300= (0.0131%)  
p.N1151S (0.0131%)  
p.S4R (0.0131%)  
p.E593\* (0.0131%)  
p.Q1371\* (0.0131%)  
p.R71Q (0.0131%)  
p.K806fs\*? (0.0131%)  
p.L2203Yfs\*10 (0.0131%)  
p.Y125C (0.0131%)  
p.R3283\* (0.0131%)  
p.R320W (0.0131%)  
p.A822P (0.0131%)  
p.S1162C (0.0131%)  
p.P1518S (0.0131%)  
p.A955T (0.0131%)  
p.L1079F (0.0131%)  
p.I3174V (0.0131%)  
p.P941T (0.0131%)  
p.P949A (0.0131%)  
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p.P3418L (0.0131%)  
p.T1150S (0.0131%)  
p.R354T (0.0131%)  
p.D1084G (0.0131%)  
p.G429D (0.0131%)  
p.V2428A (0.0131%)  
p.K129E (0.0131%)  
p.E1325Nfs\*18 (0.0131%)  
p.K423N (0.0131%)  
p.V152G (0.0131%)  
p.S3419Lfs\*10 (0.0131%)  
p.S1819L (0.0131%)  
p.E582K (0.0131%)  
p.D236N (0.0131%)  
p.E542Dfs\*31 (0.0131%)  
p.T506Pfs\*61 (0.0131%)  
p.P1252R (0.0131%)  
p.I137T (0.0131%)  
p.R269W (0.0131%)  
p.P105Lfs\*52 (0.0131%)  
p.G114W (0.0131%)  
p.P411R (0.0131%)  
p.D837Y (0.0131%)  
p.R23W (0.0131%)  
p.D1330= (0.0131%)  
p.L3733Sfs\*29 (0.0131%)  
p.Q3123R (0.0131%)  
p.G186S (0.0131%)  
p.T330= (0.0131%)  
p.K2772E (0.0131%)  
p.L342M (0.0131%)  
p.R336Q (0.0131%)  
p.V819= (0.0131%)  
p.G379D (0.0131%)  
p.Y764= (0.0131%)  
p.N183S (0.0131%)  
p.P216L (0.0131%)  
p.G825E (0.0131%)  
p.V1686A (0.0131%)  
p.P434= (0.0131%)  
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p.E2029= (0.0131%)  
p.P1180A (0.0131%)  
p.K2267N (0.0131%)  
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p.G108= (0.0131%)  
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p.V439I (0.0131%)  
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p.E2300V (0.0131%)  
p.N270Y (0.0131%)  
p.Q1210= (0.0131%)  
p.A2329S (0.0131%)  
p.G580R (0.0131%)  
p.K9I (0.0131%)  
p.P1374L (0.0131%)  
p.E314G (0.0131%)  
p.T786= (0.0131%)  
p.N1699= (0.0131%)  
p.F923L (0.0131%)  
p.G2438= (0.0131%)  
p.E2135D (0.0131%)  
p.E2135\* (0.0131%)  
p.S1032= (0.0131%)  
p.Q162R (0.0131%)  
p.P2003L (0.0131%)  
p.Y2420N (0.0131%)  
p.I1235V (0.0131%)  
p.V1146M (0.0131%)  
p.L81= (0.0131%)  
p.P1998L (0.0131%)  
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p.R745S (0.0131%)  
p.L361M (0.0131%)  
p.T609I (0.0131%)  
p.T609= (0.0131%)  
p.S15N (0.0131%)  
p.E445K (0.0131%)  
p.A2098T (0.0131%)  
p.W1502\* (0.0131%)  
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p.E1835\* (0.0131%)  
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p.A2219= (0.0131%)  
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p.Q357= (0.0131%)  
p.L189P (0.0131%)  
p.A65= (0.0131%)  
p.V259= (0.0131%)  
p.K1203\* (0.0131%)  
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p.M325L (0.0131%)  
p.Q1065L (0.0131%)  
p.C1240Y (0.0131%)  
p.N2143S (0.0131%)  
p.Q300H (0.0131%)  
p.P993S (0.0131%)  
p.R1800Q (0.0131%)  
p.H595R (0.0131%)  
p.T263R (0.0131%)  
p.N1232S (0.0131%)  
p.Q540H (0.0131%)  
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p.V1405L (0.0131%)  
p.S1005T (0.0131%)  
p.A167= (0.0131%)  
p.M89L (0.0131%)  
p.R2004= (0.0131%)  
p.E354K (0.0131%)  
p.N2181Kfs\*5 (0.0131%)  
p.P227= (0.0131%)  
p.T1242S (0.0131%)  
p.L829P (0.0131%)  
p.Q2029H (0.0131%)  
p.H342= (0.0131%)  
p.V1055= (0.0131%)  
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p.C148= (0.0131%)  
p.S923F (0.0131%)  
p.R1787Q (0.0131%)  
p.S1162G (0.0131%)  
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p.R859G (0.0131%)  
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p.R621K (0.0131%)  
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p.L1785= (0.0131%)  
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p.D762Y (0.0131%)  
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p.N2005I (0.0131%)  
p.L2617R (0.0131%)  
p.K316E (0.0131%)  
p.I1346= (0.0131%)  
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p.K862R (0.0131%)  
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p.E230Q (0.0131%)  
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p.R1097H (0.0131%)  
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p.G274A (0.0263%)  
p.R659W (0.0263%)  
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p.A508= (0.0131%)  
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p.R204S (0.0131%)  
p.Q472L (0.0131%)  
p.K1138M (0.0131%)  
p.D675G (0.0131%)  
p.R786\* (0.0131%)  
p.Q141L (0.0131%)  
p.Q1018R (0.0131%)  
p.R498P (0.0131%)  
p.Q739\* (0.0131%)  
p.H583R (0.0131%)  
p.A63V (0.0131%)  
p.E24K (0.0131%)  
p.P295S (0.0131%)  
p.H234Y (0.0131%)  
p.R555= (0.0131%)  
p.P322= (0.0131%)  
p.N935S (0.0131%)  
p.N298S (0.0131%)  
p.L187R (0.0131%)  
p.Q870L (0.0131%)  
p.G328S (0.0131%)  
p.R844S (0.0131%)  
p.G833C (0.0131%)  
p.L662= (0.0131%)  
p.Q332\* (0.0131%)  
p.G87D (0.0131%)  
p.P645S (0.0131%)  
p.G126= (0.0131%)  
p.A218E (0.0131%)  
p.D125Y (0.0131%)  
p.Q900\* (0.0131%)  
p.A367= (0.0131%)  
p.E422\* (0.0131%)  
p.G546S (0.0131%)  
p.C555Y (0.0131%)  
p.P776S (0.0131%)  
p.S270\* (0.0131%)  
p.S453F (0.0131%)  
p.V610A (0.0131%)  
p.V347L (0.0131%)  
p.C771Y (0.0131%)  
p.M49I (0.0131%)  
p.Q173\* (0.0131%)  
p.Q621\* (0.0131%)  
p.G504= (0.0131%)  
p.P196L (0.0131%)  
p.S317T (0.0131%)  
p.S738F (0.0131%)  
p.D618N (0.0131%)  
p.R509\* (0.0131%)  
p.R844L (0.0131%)  
p.M322Ifs\*19 (0.0131%)  
p.S444P (0.0131%)  
p.G755D (0.0131%)  
p.T672\_R675del (0.0131%)  
p.R760Dfs\*13 (0.0131%)  
p.R245\* (0.0131%)  
p.K90\* (0.0131%)  
p.T299= (0.0131%)  
p.I144V (0.0131%)  
p.V985M (0.0131%)  
p.W366\* (0.0131%)  
p.D1053N (0.0131%)  
p.M6I (0.0131%)  
p.L1127P (0.0131%)  
p.G1450R (0.0131%)  
p.N1791Y (0.0131%)  
p.M881V (0.0131%)  
p.E1252V (0.0131%)  
p.H1788Y (0.0131%)  
p.K151R (0.0131%)  
p.T607A (0.0131%)  
p.P204= (0.0131%)  
p.E1873\* (0.0131%)  
p.A531= (0.0131%)  
p.T1854A (0.0131%)  
p.T1538P (0.0131%)  
p.P2098L (0.0131%)  
p.L2150P (0.0131%)  
p.A1662S (0.0131%)  
p.H385R (0.0131%)  
p.P393= (0.0131%)  
p.V1347= (0.0131%)  
p.A515= (0.0131%)  
p.H1668Y (0.0131%)  
p.S1820I (0.0131%)  
p.S187\_Y190del (0.0526%)  
p.Y190\_N193del (0.0394%)  
p.P216H (0.0263%)  
p.Y186\_Y190del (0.0263%)  
p.P2411= (0.0263%)  
p.F191\_N193del (0.0263%)  
p.G309= (0.0131%)  
p.G308R (0.0131%)  
p.E1382= (0.0131%)  
p.E694\* (0.0131%)  
p.L2081= (0.0131%)  
p.A831V (0.0131%)  
p.F191V (0.0131%)  
p.A200V (0.0131%)  
p.P1429= (0.0131%)  
p.T194P (0.0131%)  
p.A1918T (0.0131%)  
p.E325G (0.0131%)  
p.I284V (0.0131%)  
p.Q5\* (0.0131%)  
p.M569V (0.0131%)  
p.G1281S (0.0131%)  
p.D1942V (0.0131%)  
p.T1997M (0.0131%)  
p.M1452V (0.0131%)  
p.S2542R (0.0131%)  
p.K528= (0.0131%)  
p.G599D (0.0131%)  
p.P1313= (0.0131%)  
p.Q107H (0.0131%)  
p.A1640S (0.0131%)  
p.L50P (0.0131%)  
p.C878Y (0.0131%)  
p.P407S (0.0131%)  
p.T1333A (0.0131%)  
p.F1519L (0.0131%)  
p.R79H (0.0131%)  
p.P11= (0.0131%)  
p.G1660V (0.0131%)  
p.N193del (0.0131%)  
p.A958V (0.0131%)  
p.V189\_V192del (0.0131%)  
p.T2466M (0.0131%)  
p.S720\_G725delinsR (0.0131%)  
p.E201Q (0.0131%)  
p.R2159C (0.0131%)  
p.A418\_F421del (0.0131%)  
p.T1572= (0.0131%)  
p.Q308H (0.0131%)  
p.R153H (0.0263%)  
p.V1420L (0.0263%)  
p.A361T (0.0263%)  
p.T219= (0.0263%)  
p.E1262K (0.0263%)  
p.L758= (0.0131%)  
p.W525Cfs\*19 (0.0131%)  
p.S1338N (0.0131%)  
p.A20V (0.0131%)  
p.P117S (0.0131%)  
p.G1109= (0.0131%)  
p.L848= (0.0131%)  
p.L1082= (0.0131%)  
p.L591R (0.0131%)  
p.R54= (0.0131%)  
p.R343Q (0.0131%)  
p.D1084Efs\*43 (0.0131%)  
p.E494K (0.0131%)  
p.S673Lfs\*3 (0.0131%)  
p.I1078V (0.0131%)  
p.I456M (0.0131%)  
p.P862= (0.0131%)  
p.P282S (0.0131%)  
p.L182F (0.0131%)  
p.E1268G (0.0131%)  
p.V191L (0.0131%)  
p.R237= (0.0131%)  
p.D868= (0.0131%)  
p.D433Y (0.0131%)  
p.R347C (0.0131%)  
p.Y1319\* (0.0131%)  
p.E174K (0.0131%)  
p.E824\_R827del (0.0131%)  
p.Q1447L (0.0131%)  
p.S574Y (0.0131%)  
p.K980R (0.0131%)  
p.E513G (0.0131%)  
p.S1041T (0.0131%)  
p.S1100= (0.0131%)  
p.L77F (0.0131%)  
p.Y175C (0.0131%)  
p.R256= (0.0131%)  
p.Q555R (0.0131%)  
p.T1222I (0.0131%)  
p.R293= (0.0131%)  
p.P391H (0.0131%)  
p.R472\* (0.0131%)  
p.H1104R (0.0131%)  
p.A318D (0.0131%)  
p.F1085L (0.0131%)  
p.V741L (0.0131%)  
p.R227H (0.0131%)  
p.A844= (0.0131%)  
p.V238A (0.0131%)  
p.K1148M (0.0131%)  
p.M1135K (0.0131%)  
p.H1439R (0.0131%)  
p.T1316P (0.0131%)  
p.A1345= (0.0131%)  
p.M180I (0.0131%)  
p.T1650S (0.0131%)  
p.K236T (0.0131%)  
p.R48C (0.0131%)  
p.V262= (0.0131%)  
p.C1208Y (0.0131%)  
p.Q90\* (0.0131%)  
p.H88L (0.0131%)  
p.S1325A (0.0131%)  
p.R86C (0.0131%)  
p.G800R (0.0131%)  
p.A352S (0.0131%)  
p.Y417Ifs\*3 (0.0131%)  
p.E543= (0.0131%)  
p.Q929\* (0.0131%)  
p.S941\* (0.0131%)  
p.V729Sfs\*2 (0.0131%)  
p.A45D (0.0131%)  
p.S743F (0.0131%)  
p.Q81H (0.0131%)  
p.M714L (0.0131%)  
p.R698= (0.0131%)  
p.K119Q (0.0131%)  
p.S877N (0.0131%)  
p.Q1348\* (0.0131%)  
p.D39H (0.0131%)  
p.P1336L (0.0131%)  
p.Q505= (0.0131%)  
p.T186N (0.0131%)  
p.E1043\* (0.0131%)  
p.E980D (0.0131%)  
p.H876N (0.0131%)  
p.L42V (0.0131%)  
p.S627I (0.0131%)  
p.Y1503H (0.0131%)  
p.I1161V (0.0131%)  
p.Q1225K (0.0131%)  
p.G1333E (0.0131%)  
p.W22G (0.0131%)  
p.S1091F (0.0131%)  
p.C626F (0.0131%)  
p.G1152V (0.0131%)  
p.D1315G (0.0131%)  
p.V1590= (0.0131%)  
p.G2005S (0.0131%)  
p.K683Q (0.0131%)  
p.M489I (0.0131%)  
p.H2154L (0.0131%)  
p.Q1865= (0.0131%)  
p.Q135L (0.0131%)  
p.Q499L (0.0131%)  
p.E1969K (0.0131%)  
p.R528P (0.0131%)  
p.Y141C (0.0131%)  
p.L455= (0.0131%)  
p.Q714H (0.0131%)  
p.S635A (0.0131%)  
p.S908N (0.0131%)  
p.L1262= (0.0131%)  
p.I101= (0.0131%)  
p.A382= (0.0131%)  
p.T1150K (0.0131%)  
p.P474R (0.0131%)  
p.R1584= (0.0131%)  
p.T1690= (0.0131%)  
p.Y117= (0.0131%)  
p.M727I (0.0131%)  
p.K433\* (0.0131%)  
p.K891N (0.0131%)  
p.T1828A (0.0131%)  
p.K1539\* (0.0131%)  
p.S929G (0.0131%)  
p.I95N (0.0131%)  
p.L767F (0.0131%)  
p.I678Ffs\*41 (0.0131%)  
p.G2025D (0.0131%)  
p.Q1162L (0.0131%)  
p.G1997D (0.0131%)  
p.P2212L (0.0131%)  
p.A61S (0.0131%)  
p.A456T (0.0131%)  
p.T1134A (0.0131%)  
p.A451T (0.0131%)  
p.G12E (0.0131%)  
p.S558\* (0.0131%)  
p.R835\* (0.0131%)  
p.K1300E (0.0131%)  
p.D35= (0.0131%)  
p.E1832Q (0.0131%)  
p.N636T (0.0131%)  
p.S24G (0.0131%)  
p.E1511Q (0.0131%)  
p.T844I (0.0131%)  
p.T85P (0.0131%)  
p.N676= (0.0131%)  
p.E28= (0.0131%)  
p.L642R (0.0131%)  
p.G1098\* (0.0131%)  
p.L276\* (0.0131%)  
p.R314\* (0.0131%)  
p.K1103\* (0.0131%)  
p.A144= (0.0131%)  
p.N1768\_L1769delinsTV (0.0131%)  
p.C232Vfs\*25 (0.0131%)  
p.S1991F (0.0131%)  
p.G1376R (0.0131%)  
p.E2123K (0.0131%)  
p.P511S (0.0131%)  
p.L2631= (0.0131%)  
p.A2632S (0.0131%)  
p.S2559P (0.0131%)  
p.E2918G (0.0131%)  
p.Y2726C (0.0131%)  
p.D974G (0.0131%)  
p.K1015E (0.0131%)  
p.L782I (0.0131%)  
p.Q294= (0.0131%)  
p.K2111E (0.0131%)  
p.A139V (0.0131%)  
p.T434M (0.0131%)  
p.I2550M (0.0131%)  
p.I3331T (0.0131%)  
p.S1064\* (0.0131%)  
p.E1441D (0.0131%)  
p.A1996G (0.0131%)  
p.T656S (0.0131%)  
p.H2074D (0.0131%)  
p.Y2624N (0.0131%)  
p.N623I (0.0131%)  
p.R7W (0.0131%)  
p.P161Q (0.0131%)  
p.R605Q (0.0131%)  
p.L519F (0.0131%)  
p.S384F (0.0131%)  
p.H1332Y (0.0131%)  
p.F3298C (0.0131%)  
p.F1219L (0.0131%)  
p.M3234I (0.0131%)  
p.G1849S (0.0131%)  
p.E504Q (0.0263%)  
p.V797= (0.0263%)  
p.L260= (0.0263%)  
p.H349R (0.0263%)  
p.R420C (0.0131%)  
p.H1240L (0.0131%)  
p.R401K (0.0131%)  
p.I831F (0.0131%)  
p.L828= (0.0131%)  
p.F911L (0.0131%)  
p.Q802H (0.0131%)  
p.L323= (0.0131%)  
p.G1343E (0.0131%)  
p.Y66= (0.0131%)  
p.K558Q (0.0131%)  
p.M581T (0.0131%)  
p.I8V (0.0131%)  
p.L454= (0.0131%)  
p.Q1265H (0.0131%)  
p.L51R (0.0131%)  
p.T814= (0.0131%)  
p.Y1117= (0.0131%)  
p.R113Q (0.0131%)  
p.P607Efs\*6 (0.0131%)  
p.D765N (0.0131%)  
p.V38L (0.0131%)  
p.L83= (0.0131%)  
p.E1194G (0.0131%)  
p.G12D (0.1051%)  
p.G13D (0.0657%)  
p.E127\* (0.0131%)  
p.R441C (0.0394%)  
p.G12C (0.0394%)  
p.G12V (0.0394%)  
p.G10R (0.0263%)  
p.G13C (0.0263%)  
p.W475R (0.0131%)  
p.W1013\* (0.0131%)  
p.R1579H (0.0131%)  
p.E1593\* (0.0131%)  
p.A1568V (0.0131%)  
p.R1061K (0.0131%)  
p.S322T (0.0131%)  
p.L527P (0.0131%)  
p.A1065= (0.0131%)  
p.N1638I (0.0131%)  
p.A339V (0.0131%)  
p.K171E (0.0131%)  
p.S17N (0.0131%)  
p.T920N (0.0131%)  
p.N595= (0.0131%)  
p.K1802\* (0.0131%)  
p.T159A (0.0131%)  
p.L949= (0.0131%)  
p.K902N (0.0131%)  
p.L465Q (0.0131%)  
p.G384= (0.0131%)  
p.S605N (0.0131%)  
p.V729I (0.0131%)  
p.N875T (0.0131%)  
p.T1553A (0.0131%)  
p.D1114G (0.0131%)  
p.A1977S (0.0131%)  
p.T70= (0.0131%)  
p.Q41R (0.0131%)  
p.N334= (0.0131%)  
p.A463S (0.0131%)  
p.D1372N (0.0131%)  
p.A2V (0.0131%)  
p.A531S (0.0131%)  
p.H735L (0.0131%)  
p.E1347= (0.0131%)  
p.A420T (0.0131%)  
p.V38I (0.0131%)  
p.R161G (0.0131%)  
p.L1213= (0.0131%)  
p.N695= (0.0131%)  
p.E873V (0.0131%)  
p.L105= (0.0131%)  
p.Q2283= (0.0131%)  
p.N1618S (0.0131%)  
p.Q809R (0.0131%)  
p.F117= (0.0131%)  
p.L1780Q (0.0131%)  
p.E371K (0.0131%)  
p.L601= (0.0131%)  
p.L632= (0.0131%)  
p.A1029S (0.0131%)  
p.L749= (0.0131%)  
p.V615= (0.0131%)  
p.Q1414E (0.0131%)  
p.A1807S (0.0131%)  
p.Q196= (0.0131%)  
p.P2154R (0.0131%)  
p.W475\* (0.0131%)  
p.V544M (0.0131%)  
p.V525I (0.0131%)  
p.D2168E (0.0131%)  
p.V111F (0.0131%)  
p.R15Q (0.0131%)  
p.T300I (0.0131%)  
p.T72R (0.0131%)  
p.L724V (0.0131%)  
p.S160Vfs\*2 (0.0131%)  
p.S160Rfs\*2 (0.0131%)  
p.R68M (0.0131%)  
p.R1511= (0.0131%)  
p.A395T (0.0394%)  
p.H1255L (0.0263%)  
p.Y642C (0.0263%)  
p.E356D (0.0263%)  
p.L1170= (0.0263%)  
p.I1190L (0.0131%)  
p.Q225= (0.0131%)  
p.T887I (0.0131%)  
p.N256= (0.0131%)  
p.G1145S (0.0131%)  
p.F964L (0.0131%)  
p.G502= (0.0131%)  
p.G2176D (0.0131%)  
p.R421G (0.0131%)  
p.K1774N (0.0131%)  
p.P143S (0.0131%)  
p.M2011I (0.0131%)  
p.A467= (0.0131%)  
p.H2075N (0.0131%)  
p.Q1590R (0.0131%)  
p.R1378= (0.0131%)  
p.H470= (0.0131%)  
p.L1206F (0.0131%)  
p.I501N (0.0131%)  
p.M703I (0.0131%)  
p.G759= (0.0131%)  
p.E512V (0.0131%)  
p.S635I (0.0131%)  
p.E497\* (0.0131%)  
p.E39Q (0.0131%)  
p.S257= (0.0131%)  
p.Q1691H (0.0131%)  
p.P1042S (0.0131%)  
p.G332Vfs\*37 (0.0131%)  
p.Q157= (0.0131%)  
p.M1595V (0.0131%)  
p.E122= (0.0131%)  
p.N797T (0.0131%)  
p.S137= (0.0131%)  
p.T225S (0.0131%)  
p.I2501F (0.0131%)  
p.Q795R (0.0131%)  
p.M135V (0.0131%)  
p.P1880T (0.0131%)  
p.K187R (0.0131%)  
p.E463= (0.0131%)  
p.E566\* (0.0131%)  
p.Y466= (0.0131%)  
p.S2215Y (0.0131%)  
p.K1568R (0.0131%)  
p.S2400T (0.0131%)  
p.M994I (0.0131%)  
p.K653N (0.0131%)  
p.L1972= (0.0131%)  
p.G652S (0.0131%)  
p.R1760\* (0.0131%)  
p.I2500N (0.0131%)  
p.V390G (0.0131%)  
p.I1326V (0.0131%)  
p.G1397= (0.0131%)  
p.T285= (0.0131%)  
p.Q965E (0.0131%)  
p.A1175= (0.0131%)  
p.A2377= (0.0131%)  
p.E1192\* (0.0131%)  
p.S1561G (0.0131%)  
p.P229Q (0.0131%)  
p.V2475= (0.0131%)  
p.F1038I (0.0131%)  
p.N1036S (0.0131%)  
p.D834\* (0.0131%)  
p.P381R (0.0131%)  
p.Q481H (0.0131%)  
p.E1591Q (0.0131%)  
p.Q2152= (0.0131%)  
p.R545P (0.0131%)  
p.F1805S (0.0131%)  
p.L2427R (0.0131%)  
p.F260S (0.0131%)  
p.A1351T (0.0131%)  
p.R1277Pfs\*2 (0.0131%)  
p.W1509R (0.0131%)  
p.F631S (0.0131%)  
p.D670H (0.0131%)  
p.T683Rfs\*28 (0.0131%)  
p.Y1414C (0.0131%)  
p.V2006F (0.0131%)  
p.S839L (0.0131%)  
p.L872Q (0.0131%)  
p.R50Xfs\*6 (0.0131%)  
p.R95\* (0.0131%)  
p.K9T (0.0263%)  
p.H243L (0.0263%)  
p.L1318= (0.0131%)  
p.S1048= (0.0131%)  
p.Q290L (0.0131%)  
p.P1277= (0.0131%)  
p.R126K (0.0131%)  
p.M412Cfs\*30 (0.0131%)  
p.M387Nfs\*24 (0.0131%)  
p.W79L (0.0131%)  
p.T1988N (0.0131%)  
p.A268= (0.0131%)  
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p.R431\* (0.0131%)  
p.I458T (0.0131%)  
p.D370Gfs\*5 (0.0131%)  
p.A48S (0.0131%)  
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p.I315S (0.0131%)  
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p.R255\* (0.0131%)  
p.A1782= (0.0131%)  
p.D369Y (0.0131%)  
p.D358Y (0.0131%)  
p.E93G (0.0131%)  
p.R469\_L470dup (0.0131%)  
p.M366V (0.0131%)  
p.M1889V (0.0131%)  
p.I292M (0.0131%)  
p.C91Y (0.0131%)  
p.Q124\* (0.0131%)  
p.I873M (0.0131%)  
p.S1432R (0.0131%)  
p.S199G (0.0131%)  
p.A3Sfs\*23 (0.0131%)  
p.T126I (0.0131%)  
p.G23R (0.0131%)  
p.G391\* (0.0131%)  
p.A89T (0.0131%)  
p.C30Y (0.0131%)  
p.Y411C (0.0131%)  
p.R438Efs\*19 (0.0131%)  
p.Y1944N (0.0131%)  
p.A316= (0.0394%)  
p.S44= (0.0263%)  
p.Q156\* (0.0263%)  
p.G1242D (0.0131%)  
p.K508R (0.0131%)  
p.P213= (0.0131%)  
p.Y119H (0.0131%)  
p.Q301R (0.0131%)  
p.Q162Rfs\*63 (0.0131%)  
p.R563H (0.0131%)  
p.N812S (0.0131%)  
p.E1200= (0.0131%)  
p.Q456\* (0.0131%)  
p.Q280\* (0.0131%)  
p.Q253\* (0.0131%)  
p.S102P (0.0131%)  
p.E31Gfs\*41 (0.0131%)  
p.W202L (0.0131%)  
p.G270S (0.0131%)  
p.M411Ifs\*12 (0.0131%)  
p.S418Y (0.0131%)  
p.H305L (0.0131%)  
p.N413S (0.0131%)  
p.C1181F (0.0131%)  
p.F170V (0.0131%)  
p.K711\* (0.0131%)  
p.G45R (0.0131%)  
p.D34A (0.0131%)  
p.K637\* (0.0131%)  
p.L636= (0.0131%)  
p.R237C (0.0131%)  
p.V354Pfs\*43 (0.0131%)  
p.V438I (0.0131%)  
p.K437N (0.0131%)  
p.L539Q (0.0131%)  
p.A112T (0.0131%)  
p.E1000= (0.0131%)  
p.K741\* (0.0131%)  
p.H169Q (0.0131%)  
p.W196G (0.0131%)  
p.Q285\* (0.0131%)  
p.\*1402Sext\*8 (0.0131%)  
p.I342F (0.0131%)  
p.R530\* (0.0131%)  
p.P190Wfs\*4 (0.0131%)  
p.D184V (0.0131%)  
p.N355Y (0.0131%)  
p.L1273Ffs\*19 (0.0131%)  
p.K1343R (0.0131%)  
p.E1250G (0.0131%)  
p.F122\_E125delins\* (0.0131%)  
p.K453\* (0.0131%)  
p.L65\* (0.0131%)  
p.V332M (0.0131%)  
p.S850G (0.0131%)  
p.P182Lfs\*4 (0.0131%)  
p.G21= (0.0263%)  
p.D339= (0.0263%)  
p.A152V (0.0263%)  
p.Q357P (0.0263%)  
p.Q402= (0.0131%)  
p.L365P (0.0131%)  
p.G424S (0.0131%)  
p.H421Y (0.0131%)  
p.W934\* (0.0131%)  
p.Q2R (0.0131%)  
p.H176L (0.0131%)  
p.T1179= (0.0131%)  
p.D49H (0.0131%)  
p.R328C (0.0131%)  
p.Y453F (0.0131%)  
p.E465K (0.0131%)  
p.P30L (0.0131%)  
p.S580F (0.0131%)  
p.M157V (0.0131%)  
p.C394= (0.0131%)  
p.L289= (0.0131%)  
p.R134C (0.0131%)  
p.R179I (0.0131%)  
p.S411= (0.0131%)  
p.P202H (0.0131%)  
p.S587N (0.0131%)  
p.A76D (0.0131%)  
p.K531= (0.0131%)  
p.C61Y (0.0131%)  
p.L69V (0.0131%)  
p.K333E (0.0131%)  
p.G878R (0.0131%)  
p.I492L (0.0131%)  
p.I792F (0.0131%)  
p.G25V (0.0131%)  
p.Q22= (0.0131%)  
p.R614W (0.0131%)  
p.G512E (0.0131%)  
p.G436\* (0.0131%)  
p.S214I (0.0131%)  
p.K83N (0.0131%)  
p.L1410I (0.0131%)  
p.R210L (0.0131%)  
p.V1235= (0.0131%)  
p.R83Q (0.0131%)  
p.R386H (0.0131%)  
p.S409= (0.0131%)  
p.Y519C (0.0131%)  
p.A352= (0.0131%)  
p.T670N (0.0131%)  
p.L468V (0.0131%)  
p.M84K (0.0131%)  
p.A875T (0.0131%)  
p.A292S (0.0131%)  
p.N276S (0.0131%)  
p.R142\* (0.0131%)  
p.D1158G (0.0131%)  
p.Y714C (0.0131%)  
p.E911K (0.0131%)  
p.V197F (0.0131%)  
p.R142H (0.0131%)  
p.A70D (0.0131%)  
p.A679S (0.0131%)  
p.G196S (0.0131%)  
p.C63W (0.0131%)  
p.F435= (0.0131%)  
p.I164Qfs\*35 (0.0131%)  
p.K1137\* (0.0131%)  
p.P1027T (0.0131%)  
p.E322K (0.0394%)  
p.L997F (0.0263%)  
p.G942W (0.0263%)  
p.R309H (0.0263%)  
p.P567= (0.0263%)  
p.P271T (0.0263%)  
p.K256R (0.0263%)  
p.A1014\_S1016del (0.0131%)  
p.Q736= (0.0131%)  
p.K22= (0.0131%)  
p.G1512E (0.0131%)  
p.S172N (0.0131%)  
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p.G509D (0.0131%)  
p.R1536H (0.0131%)  
p.G1068R (0.0131%)  
p.G252D (0.0131%)  
p.L1699= (0.0131%)  
p.L1700= (0.0131%)  
p.S24C (0.0131%)  
p.D444H (0.0131%)  
p.A194V (0.0131%)  
p.S516N (0.0131%)  
p.E1567G (0.0131%)  
p.N679S (0.0131%)  
p.M1597T (0.0131%)  
p.L819R (0.0131%)  
p.R383H (0.0131%)  
p.H900R (0.0131%)  
p.H1577= (0.0131%)  
p.M1073I (0.0131%)  
p.P1225H (0.0131%)  
p.A1284Cfs\*3 (0.0131%)  
p.L1518F (0.0131%)  
p.Y717Ifs\*32 (0.0131%)  
p.S30I (0.0131%)  
p.T355I (0.0131%)  
p.H768R (0.0131%)  
p.T95= (0.0131%)  
p.E513K (0.0131%)  
p.N1082S (0.0131%)  
p.D1117V (0.0131%)  
p.G84D (0.0131%)  
p.R3Q (0.0131%)  
p.H732R (0.0131%)  
p.N606S (0.0131%)  
p.P636= (0.0131%)  
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p.A338G (0.0131%)  
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p.V264= (0.0131%)  
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p.L93F (0.0131%)  
p.N1186= (0.0131%)  
p.I307V (0.0131%)  
p.P589= (0.0131%)  
p.K1001M (0.0131%)  
p.K1001N (0.0131%)  
p.L819M (0.0131%)  
p.G368R (0.0131%)  
p.G579= (0.0131%)  
p.S1013G (0.0131%)  
p.A553V (0.0131%)  
p.D1003H (0.0131%)  
p.P752= (0.0131%)  
p.Q656H (0.0131%)  
p.V424= (0.0131%)  
p.H1092= (0.0131%)  
p.H793Y (0.0131%)  
p.R887\* (0.0131%)  
p.Y700F (0.0131%)  
p.R146H (0.0131%)  
p.I30= (0.0131%)  
p.T369A (0.0131%)  
p.E1411V (0.0131%)  
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p.I402V (0.0131%)  
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p.Y762H (0.0131%)  
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p.N848K (0.0131%)  
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p.R1041H (0.0131%)  
p.W493C (0.0131%)  
p.Y273N (0.0131%)  
p.V902= (0.0131%)  
p.R1457H (0.0131%)  
p.V550L (0.0657%)  
p.A320= (0.0131%)  
p.V550M (0.0657%)  
p.S799= (0.0131%)  
p.D286H (0.0263%)  
p.R356= (0.0263%)  
p.S377F (0.0263%)  
p.N900= (0.0131%)  
p.P161L (0.0131%)  
p.C58= (0.0131%)  
p.G1339D (0.0131%)  
p.S815N (0.0131%)  
p.V100I (0.0131%)  
p.P506S (0.0131%)  
p.R696S (0.0131%)  
p.V1582L (0.0131%)  
p.R761= (0.0131%)  
p.M202I (0.0131%)  
p.A464T (0.0131%)  
p.R437C (0.0131%)  
p.L548\* (0.0131%)  
p.P254A (0.0131%)  
p.E34= (0.0131%)  
p.C324= (0.0131%)  
p.N298Y (0.0131%)  
p.L661= (0.0131%)  
p.E1015\* (0.0131%)  
p.R196H (0.0131%)  
p.D658Y (0.0131%)  
p.T878A (0.0131%)  
p.A628= (0.0131%)  
p.E1623V (0.0131%)  
p.R854= (0.0131%)  
p.Q634K (0.0131%)  
p.E922Q (0.0131%)  
p.E376V (0.0131%)  
p.P143= (0.0131%)  
p.E4\* (0.0131%)  
p.V1277I (0.0131%)  
p.K637N (0.0131%)  
p.T440A (0.0131%)  
p.G23D (0.0131%)  
p.D132V (0.0131%)  
p.T38= (0.0131%)  
p.H1418D (0.0131%)  
p.S120L (0.0131%)  
p.R125G (0.0131%)  
p.L587= (0.0131%)  
p.R994S (0.0131%)  
p.L391H (0.0131%)  
p.H1026R (0.0131%)  
p.F133L (0.0131%)  
p.G489R (0.0131%)  
p.G898A (0.0131%)  
p.L1229H (0.0131%)  
p.S191C (0.0131%)  
p.Y536= (0.0131%)  
p.S237= (0.0131%)  
p.A188D (0.0131%)  
p.A188= (0.0131%)  
p.P246= (0.0131%)  
p.G464= (0.0131%)  
p.R950\* (0.0131%)  
p.C220F (0.0131%)  
p.R361Q (0.0131%)  
p.R18= (0.0131%)  
p.Q62\_Q80del (0.0131%)  
p.G953D (0.0131%)  
p.T919S (0.0131%)  
p.S438L (0.0131%)  
p.N177I (0.0131%)  
p.P208L (0.0131%)  
p.L467M (0.0131%)  
p.R797= (0.0131%)  
p.S32= (0.0131%)  
p.N321H (0.0131%)  
p.P420= (0.0131%)  
p.R481P (0.0131%)  
p.V228E (0.0131%)  
p.G496S (0.0131%)  
p.N196= (0.0131%)  
p.V1201G (0.0131%)  
p.P633A (0.0131%)  
p.S1114T (0.0131%)  
p.R918Pfs\*3 (0.0131%)  
p.L574= (0.0131%)  
p.V915A (0.0131%)  
p.S691C (0.0131%)  
p.R623S (0.0131%)  
p.G462C (0.0131%)  
p.T688A (0.0131%)  
p.K280E (0.0131%)  
p.M929V (0.0131%)  
p.D715H (0.0131%)  
p.A722= (0.0131%)  
p.T337S (0.0131%)  
p.I375V (0.0131%)  
p.R9L (0.0131%)  
p.D73H (0.0131%)  
p.L1168V (0.0131%)  
p.R1252C (0.0131%)  
p.A83V (0.0131%)  
p.N130I (0.0131%)  
p.I478= (0.0131%)  
p.E134D (0.0131%)  
p.N510H (0.0131%)  
p.Q410\* (0.0131%)  
p.C552R (0.0131%)  
p.T1367I (0.0131%)  
p.S591F (0.0131%)  
p.K307R (0.0131%)  
p.V888E (0.0131%)  
p.A412A (0.0131%)  
p.C602Y (0.0131%)  
p.V453E (0.0131%)  
p.I183V (0.0131%)  
p.G493V (0.0131%)  
p.N535K (0.0131%)  
p.C108= (0.0131%)  
p.I22V (0.0131%)  
p.G1028C (0.0131%)  
p.T110= (0.0131%)  
p.C552F (0.0131%)  
p.L57Q (0.0131%)  
p.Y481= (0.0131%)  
p.Q90H (0.0131%)  
p.I36V (0.0131%)  
p.Y136S (0.0131%)  
p.R661P (0.0131%)  
p.T1195S (0.0263%)  
p.H72N (0.0263%)  
p.D203E (0.0131%)  
p.S354N (0.0131%)  
p.N149S (0.0131%)  
p.R76= (0.0131%)  
p.A483V (0.0131%)  
p.Q1447= (0.0131%)  
p.A392T (0.0131%)  
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p.V298I (0.0131%)  
p.N215S (0.0131%)  
p.T105M (0.0131%)  
p.P116S (0.0131%)  
p.Y399N (0.0131%)  
p.E470= (0.0131%)  
p.A752= (0.0131%)  
p.A933P (0.0131%)  
p.S609= (0.0131%)  
p.H356L (0.0131%)  
p.A536= (0.0131%)  
p.H1256L (0.0131%)  
p.F696S (0.0131%)  
p.A108T (0.0131%)  
p.F130L (0.0131%)  
p.G372C (0.0131%)  
p.S232= (0.0131%)  
p.W437\* (0.0131%)  
p.S22I (0.0131%)  
p.H621Y (0.0131%)  
p.T1474A (0.0131%)  
p.R1910Q (0.0131%)  
p.S64T (0.0131%)  
p.V687L (0.0131%)  
p.A30V (0.0131%)  
p.P328= (0.0131%)  
p.Q78L (0.0131%)  
p.Q483L (0.0131%)  
p.T489= (0.0131%)  
p.D1875N (0.0131%)  
p.R679H (0.0131%)  
p.Y501C (0.0131%)  
p.W54R (0.0131%)  
p.A478V (0.0131%)  
p.D291Y (0.0131%)  
p.L466F (0.0131%)  
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p.T561N (0.0131%)  
p.Y793C (0.0131%)  
p.S111C (0.0131%)  
p.S509= (0.0131%)  
p.V243= (0.0131%)  
p.Q1552H (0.0131%)  
p.K39E (0.0131%)  
p.N106D (0.0131%)  
p.S615= (0.0131%)  
p.E1843D (0.0131%)  
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p.A113= (0.0131%)  
p.R163W (0.0131%)  
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p.K183E (0.0131%)  
p.Y1111N (0.0131%)  
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p.P492H (0.0131%)  
p.S472G (0.0131%)  
p.K1262R (0.0131%)  
p.M1268I (0.0131%)  
p.D164Y (0.0263%)  
p.S212A (0.0131%)  
p.V321E (0.0131%)  
p.G820V (0.0263%)  
p.E427\* (0.0263%)  
p.G613S (0.0131%)  
p.G397= (0.0131%)  
p.T20I (0.0131%)  
p.G662S (0.0131%)  
p.A623V (0.0131%)  
p.Q994\* (0.0131%)  
p.P264S (0.0131%)  
p.N250S (0.0131%)  
p.Q1113\* (0.0131%)  
p.A973T (0.0131%)  
p.Q1540K (0.0131%)  
p.L306= (0.0131%)  
p.P534S (0.0131%)  
p.D167G (0.0131%)  
p.K700N (0.0131%)  
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p.R283H (0.0131%)  
p.S463= (0.0131%)  
p.H864= (0.0131%)  
p.E785\* (0.0131%)  
p.L169M (0.0131%)  
p.F321= (0.0131%)  
p.M460V (0.0131%)  
p.Y859F (0.0131%)  
p.P420R (0.0131%)  
p.T82A (0.0131%)  
p.E107D (0.0131%)  
p.E108\* (0.0131%)  
p.M250L (0.0131%)  
p.N540D (0.0131%)  
p.T1078= (0.0131%)  
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p.Q1196L (0.0131%)  
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p.Q577\* (0.0131%)  
p.Y475C (0.0131%)  
p.E200= (0.0131%)  
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p.E166D (0.0131%)  
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p.Q704H (0.0131%)  
p.Q116P (0.0131%)  
p.S1027N (0.0131%)  
p.L1020= (0.0131%)  
p.T346M (0.0131%)  
p.R81S (0.0131%)  
p.G329Dfs\*42 (0.0131%)  
p.V120A (0.0131%)  
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p.V194= (0.0131%)  
p.M63L (0.0131%)  
p.R526K (0.0131%)  
p.A29T (0.0131%)  
p.G13V (0.0131%)  
p.L489Afs\*19 (0.0131%)  
p.E166\* (0.0131%)  
p.R645T (0.0131%)  
p.D232G (0.0131%)  
p.I640V (0.0131%)  
p.S435P (0.0131%)  
p.C162F (0.0131%)  
p.K419E (0.0131%)  
p.D324G (0.0131%)  
p.M16K (0.0131%)  
p.W214\* (0.0131%)  
p.E251\* (0.0131%)  
p.L339F (0.0131%)  
p.Q319H (0.0131%)  
p.L408\* (0.0131%)  
p.K256E (0.0131%)  
p.A149P (0.0131%)  
p.A238V (0.0131%)  
p.R132C (0.1182%)  
p.I1316V (0.0131%)  
p.M935I (0.0131%)  
p.R132G (0.0394%)  
p.V71I (0.0263%)  
p.L7= (0.0131%)  
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p.G457S (0.0131%)  
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p.A1325T (0.0131%)  
p.R171= (0.0131%)  
p.P382S (0.0131%)  
p.E423= (0.0131%)  
p.P217L (0.0131%)  
p.T103Dfs\*61 (0.0131%)  
p.G282D (0.0131%)  
p.G629R (0.0131%)  
p.G995R (0.0131%)  
p.D653Y (0.0131%)  
p.E473K (0.0131%)  
p.R153C (0.0131%)  
p.V265M (0.0131%)  
p.C98= (0.0131%)  
p.L503V (0.0131%)  
p.G257D (0.0131%)  
p.K34T (0.0131%)  
p.C747S (0.0131%)  
p.W313C (0.0131%)  
p.W313L (0.0131%)  
p.I6= (0.0131%)  
p.C672Y (0.0131%)  
p.G1492R (0.0131%)  
p.N905T (0.0131%)  
p.G417A (0.0131%)  
p.K1170E (0.0131%)  
p.A1629T (0.0131%)  
p.R331G (0.0131%)  
p.E545Q (0.0131%)  
p.A484T (0.0131%)  
p.N830T (0.0131%)  
p.I741V (0.0131%)  
p.K464Q (0.0131%)  
p.R961K (0.0131%)  
p.L639= (0.0131%)  
p.C537F (0.0131%)  
p.Q556K (0.0131%)  
p.M182V (0.0131%)  
p.L1385= (0.0131%)  
p.G537S (0.0131%)  
p.Q198P (0.0131%)  
p.R364Q (0.0131%)  
p.E1225A (0.0131%)  
p.R248\* (0.0131%)  
p.A339D (0.0131%)  
p.S590= (0.0131%)  
p.T645= (0.0131%)  
p.V714L (0.0131%)  
p.R48L (0.0131%)  
p.N613Y (0.0131%)  
p.T705K (0.0131%)  
p.C297S (0.0131%)  
p.V8L (0.0131%)  
p.P291H (0.0131%)  
p.G104= (0.0131%)  
p.R379H (0.0131%)  
p.A192E (0.0131%)  
p.H705= (0.0131%)  
p.W1410\* (0.0131%)  
p.S163F (0.0131%)  
p.S327F (0.0131%)  
p.N171T (0.0131%)  
p.L1042V (0.0131%)  
p.R999C (0.0131%)  
p.M949V (0.0131%)  
p.K935\* (0.0131%)  
p.R132L (0.0131%)  
p.V493A (0.0131%)  
p.G387D (0.0131%)  
p.C1789Y (0.0131%)  
p.A89= (0.0131%)  
p.I408M (0.0131%)  
p.R803S (0.0131%)  
p.Q894H (0.0131%)  
p.L409R (0.0131%)  
p.H257= (0.0131%)  
p.E507D (0.0131%)  
p.F752V (0.0131%)  
p.L353V (0.0131%)  
p.G208V (0.0131%)  
p.R132S (0.0131%)  
p.G731D (0.0131%)  
p.P9= (0.0131%)  
p.R273Sfs\*27 (0.0131%)  
p.K64E (0.0131%)  
p.A675G (0.0131%)  
p.M658V (0.0131%)  
p.A778V (0.0131%)  
p.G2250E (0.0131%)  
p.G236R (0.0131%)  
p.G8V (0.0131%)  
p.S382N (0.0131%)  
p.Q877= (0.0131%)  
p.A618T (0.0131%)  
p.V1044M (0.0131%)  
p.N41I (0.0131%)  
p.N678D (0.0131%)  
p.E1748A (0.0131%)  
p.R134W (0.0131%)  
p.Y39\* (0.0131%)  
p.I490V (0.0131%)  
p.E1698K (0.0131%)  
p.Q157H (0.0131%)  
p.G34C (0.0131%)  
p.\*1442Yext\*9 (0.0131%)  
p.A331V (0.0131%)  
p.D1827G (0.0131%)  
p.S440= (0.0131%)  
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p.E1182V (0.0131%)  
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p.S1034C (0.0131%)  
p.L768V (0.0131%)  
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p.H147Y (0.0131%)  
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p.M199I (0.0131%)  
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p.G697S (0.0131%)  
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p.E184V (0.0131%)  
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p.P503= (0.0131%)  
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p.D25G (0.0263%)  
p.K575M (0.0263%)  
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p.S297N (0.0131%)  
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p.G1100S (0.0131%)  
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p.G60E (0.0131%)  
p.Q322= (0.0131%)  
p.G615R (0.0131%)  
p.L544= (0.0131%)  
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p.G528E (0.0131%)  
p.G74= (0.0131%)  
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p.T1153S (0.0131%)  
p.A275V (0.0131%)  
p.P608H (0.0131%)  
p.R948C (0.0131%)  
p.A72V (0.0131%)  
p.K564R (0.0131%)  
p.L316= (0.0131%)  
p.G221R (0.0131%)  
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p.S913A (0.0131%)  
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p.R214I (0.0131%)  
p.S488T (0.0131%)  
p.R247S (0.0131%)  
p.E33D (0.0131%)  
p.P655S (0.0131%)  
p.G820= (0.0131%)  
p.L575= (0.0131%)  
p.R651Q (0.0131%)  
p.K834= (0.0131%)  
p.N604S (0.0131%)  
p.T245= (0.0131%)  
p.R1106W (0.0131%)  
p.A585S (0.0131%)  
p.A32= (0.0131%)  
p.A165= (0.0131%)  
p.F414= (0.0131%)  
p.R322H (0.0131%)  
p.S409G (0.0131%)  
p.Q1088\* (0.0131%)  
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p.F268L (0.0131%)  
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p.S585P (0.0131%)  
p.G748S (0.0131%)  
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p.P777= (0.0131%)  
p.E300D (0.0131%)  
p.G349R (0.0131%)  
p.A541P (0.0131%)  
p.D258Ifs\*19 (0.0131%)  
p.G1025E (0.0131%)  
p.Y75C (0.0131%)  
p.A3= (0.0131%)  
p.Y455\* (0.0131%)  
p.E504\* (0.0131%)  
p.E454= (0.0131%)  
p.P286R (0.0131%)  
p.S826L (0.0131%)  
p.N647I (0.0131%)  
p.V106I (0.0131%)  
p.D744= (0.0131%)  
p.K267T (0.0131%)  
p.G1101R (0.0131%)  
p.E1069\* (0.0131%)  
p.R1042W (0.0131%)  
p.S1397= (0.0131%)  
p.Q980= (0.0131%)  
p.D469A (0.0131%)  
p.S59F (0.0131%)  
p.E206V (0.0131%)  
p.K1358Dfs\*2 (0.0394%)  
p.K666T (0.0263%)  
p.V1229E (0.0263%)  
p.S22W (0.0263%)  
p.E247G (0.0263%)  
p.K741N (0.0263%)  
p.F127C (0.0131%)  
p.Q493K (0.0131%)  
p.P19= (0.0131%)  
p.G964D (0.0131%)  
p.N1270S (0.0131%)  
p.H442Y (0.0131%)  
p.H442Ffs\*58 (0.0131%)  
p.H442Tfs\*61 (0.0131%)  
p.A433G (0.0131%)  
p.Y366F (0.0131%)  
p.R722L (0.0131%)  
p.D279V (0.0131%)  
p.V613M (0.0131%)  
p.G643D (0.0131%)  
p.T749M (0.0131%)  
p.W85R (0.0131%)  
p.S466= (0.0131%)  
p.L464= (0.0131%)  
p.A574S (0.0131%)  
p.K543= (0.0131%)  
p.I165F (0.0131%)  
p.T484A (0.0131%)  
p.N524= (0.0131%)  
p.K305= (0.0131%)  
p.I1219V (0.0131%)  
p.I668F (0.0131%)  
p.L473V (0.0131%)  
p.R771C (0.0131%)  
p.R485Efs\*39 (0.0131%)  
p.M399L (0.0131%)  
p.E863A (0.0131%)  
p.D409G (0.0131%)  
p.T1253A (0.0131%)  
p.I186= (0.0131%)  
p.G1022R (0.0131%)  
p.P144L (0.0131%)  
p.I725V (0.0131%)  
p.Y492C (0.0131%)  
p.D321V (0.0131%)  
p.V1425= (0.0131%)  
p.W655\* (0.0131%)  
p.Y72F (0.0131%)  
p.A42G (0.0131%)  
p.T460A (0.0131%)  
p.Q1603K (0.0131%)  
p.A88S (0.0131%)  
p.S857P (0.0131%)  
p.L712I (0.0131%)  
p.A1226= (0.0131%)  
p.G20= (0.0131%)  
p.V658A (0.0131%)  
p.N186S (0.0131%)  
p.A527T (0.0131%)  
p.L1690V (0.0131%)  
p.N551K (0.0131%)  
p.D279G (0.0131%)  
p.N158= (0.0131%)  
p.E226\* (0.0131%)  
p.E10Q (0.0131%)  
p.M736I (0.0131%)  
p.E154Q (0.0131%)  
p.P42= (0.0131%)  
p.K741Q (0.0131%)  
p.E161= (0.0131%)  
p.N626H (0.0131%)  
p.T575P (0.0131%)  
p.A275= (0.0131%)  
p.R763= (0.0131%)  
p.D1054Y (0.0131%)  
p.F385L (0.0131%)  
p.G670D (0.0131%)  
p.V576A (0.0131%)  
p.M223I (0.0131%)  
p.C925F (0.0131%)  
p.V1138L (0.0131%)  
p.K145\* (0.0131%)  
p.R324P (0.0131%)  
p.A711V (0.0131%)  
p.P1359H (0.0131%)  
p.C652Y (0.0131%)  
p.R516= (0.0131%)  
p.E45G (0.0131%)  
p.P695S (0.0131%)  
p.V910F (0.0131%)  
p.R782S (0.0131%)  
p.G8= (0.0131%)  
p.E1023G (0.0131%)  
p.P812S (0.0131%)  
p.K412T (0.0131%)  
p.R739G (0.0131%)  
p.N265= (0.0131%)  
p.R686P (0.0131%)  
p.A312S (0.0131%)  
p.E549D (0.0131%)  
p.Q1016L (0.0131%)  
p.H417R (0.0131%)  
p.R127= (0.0131%)  
p.D277E (0.0131%)  
p.E909\* (0.0131%)  
p.A277S (0.0131%)  
p.S307L (0.0131%)  
p.E67Q (0.0131%)  
p.V618G (0.0131%)  
p.E473D (0.0131%)  
p.T305P (0.0131%)  
p.V407= (0.0131%)  
p.I1565M (0.0131%)  
p.G48R (0.0131%)  
p.Q496K (0.0131%)  
p.E313G (0.0131%)  
p.I427T (0.0131%)  
p.A1157T (0.0131%)  
p.L456Q (0.0131%)  
p.E638= (0.0131%)  
p.S729N (0.0131%)  
p.T602= (0.0131%)  
p.I798L (0.0131%)  
p.P99S (0.0131%)  
p.I174V (0.0131%)  
p.S320P (0.0131%)  
p.K666N (0.0131%)  
p.W542\* (0.0131%)  
p.E566K (0.0131%)  
p.D462N (0.0131%)  
p.Y791N (0.0131%)  
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p.A2040S (0.0131%)  
p.T124N (0.0131%)  
p.P1932S (0.0131%)  
p.E699K (0.0131%)  
p.V42I (0.0131%)  
p.Y623C (0.0131%)  
p.V247L (0.0263%)  
p.I207V (0.0131%)  
p.R56W (0.0131%)  
p.V246= (0.0131%)  
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p.K1573T (0.0263%)  
p.E378D (0.0263%)  
p.R114H (0.0263%)  
p.A713= (0.0131%)  
p.G783E (0.0131%)  
p.S611N (0.0131%)  
p.V806I (0.0131%)  
p.A975= (0.0131%)  
p.P335R (0.0131%)  
p.D757N (0.0131%)  
p.W63\* (0.0131%)  
p.R369Q (0.0131%)  
p.G24= (0.0131%)  
p.M669I (0.0131%)  
p.Q44L (0.0131%)  
p.A704T (0.0131%)  
p.P277= (0.0131%)  
p.A354T (0.0131%)  
p.S110L (0.0131%)  
p.R556C (0.0131%)  
p.R220= (0.0131%)  
p.P467= (0.0131%)  
p.V639Cfs\*6 (0.0131%)  
p.P992L (0.0131%)  
p.L780Q (0.0131%)  
p.T1351= (0.0131%)  
p.F848V (0.0131%)  
p.P1411Q (0.0131%)  
p.L213P (0.0131%)  
p.P1648Q (0.0131%)  
p.R974L (0.0131%)  
p.N367Qfs\*113 (0.0131%)  
p.D152V (0.0131%)  
p.R486Q (0.0131%)  
p.E498G (0.0131%)  
p.Y1350F (0.0131%)  
p.Y563F (0.0131%)  
p.G1027= (0.0131%)  
p.D72Y (0.0131%)  
p.D1147V (0.0131%)  
p.R252\* (0.0131%)  
p.K122R (0.0131%)  
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p.G420V (0.0131%)  
p.T417I (0.0131%)  
p.A828= (0.0131%)  
p.H56N (0.0131%)  
p.Q55H (0.0131%)  
p.A1184P (0.0131%)  
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p.Y1105C (0.0131%)  
p.Y275= (0.0131%)  
p.N459S (0.0131%)  
p.A641S (0.0131%)  
p.T419A (0.0131%)  
p.K182\* (0.0131%)  
p.T225= (0.0131%)  
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p.P496= (0.0131%)  
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p.Q8= (0.0131%)  
p.S1868= (0.0131%)  
p.G180S (0.0131%)  
p.P552Q (0.0131%)  
p.D201Y (0.0131%)  
p.A324T (0.0131%)  
p.L793Pfs\*31 (0.0131%)  
p.W37\* (0.0131%)  
p.E1040K (0.0131%)  
p.Y204C (0.0131%)  
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p.E902= (0.0131%)  
p.N762I (0.0131%)  
p.I419T (0.0131%)  
p.S142T (0.0131%)  
p.I938V (0.0131%)  
p.P117T (0.0131%)  
p.L356= (0.0131%)  
p.R60G (0.0131%)  
p.D202N (0.0131%)  
p.L812P (0.0131%)  
p.R517= (0.0131%)  
p.L75P (0.0131%)  
p.G76Vfs\*28 (0.0131%)  
p.Q72H (0.0131%)  
p.D295N (0.0131%)  
p.Q869E (0.0131%)  
p.S301L (0.0131%)  
p.E31A (0.0131%)  
p.Y1159F (0.0131%)  
p.D1592= (0.0131%)  
p.K190\* (0.0131%)  
p.C630R (0.0131%)  
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p.Q663L (0.0131%)  
p.Y769C (0.0131%)  
p.F1052= (0.0131%)  
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p.H135R (0.0131%)  
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p.R172K (0.0131%)  
p.Q1301H (0.0131%)  
p.W1218\* (0.0131%)  
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p.E689Rfs\*3 (0.0131%)  
p.C544Y (0.0131%)  
p.V1056G (0.0131%)  
p.S480G (0.0131%)  
p.Y143\_D145delinsN\*IH (0.0131%)  
p.R154K (0.0131%)  
p.P125= (0.0131%)  
p.K114\* (0.0131%)  
p.D1158Gfs\*9 (0.0131%)  
p.R718= (0.0131%)  
p.S398= (0.0131%)  
p.F270S (0.0131%)  
p.G57R (0.0131%)  
p.R2017\* (0.0131%)  
p.Q61L (0.092%)  
p.T66I (0.0394%)  
p.Q61K (0.0394%)  
p.T659I (0.0263%)  
p.S446\* (0.0263%)  
p.T213= (0.0131%)  
p.E44= (0.0131%)  
p.A962P (0.0131%)  
p.R302K (0.0131%)  
p.K1302= (0.0131%)  
p.V477= (0.0131%)  
p.R561Q (0.0131%)  
p.E1319A (0.0131%)  
p.Q309L (0.0131%)  
p.R320C (0.0131%)  
p.L247Q (0.0131%)  
p.Q762= (0.0131%)  
p.Y810= (0.0131%)  
p.M459V (0.0131%)  
p.E189D (0.0131%)  
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p.M673V (0.0131%)  
p.L1121= (0.0131%)  
p.N85S (0.0131%)  
p.E1126K (0.0131%)  
p.P304= (0.0131%)  
p.E137= (0.0131%)  
p.A83G (0.0131%)  
p.L885P (0.0131%)  
p.E158V (0.0131%)  
p.P140= (0.0131%)  
p.L1149= (0.0131%)  
p.S704Y (0.0131%)  
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p.R98M (0.0131%)  
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p.S292T (0.0131%)  
p.R562Q (0.0131%)  
p.R784= (0.0131%)  
p.H407N (0.0131%)  
p.E268D (0.0131%)  
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p.G429R (0.0131%)  
p.G505A (0.0131%)  
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p.R1100Q (0.0131%)  
p.I344V (0.0131%)  
p.D25= (0.0131%)  
p.Q1052L (0.0131%)  
p.W457S (0.0131%)  
p.T196S (0.0131%)  
p.G170V (0.0131%)  
p.L474P (0.0131%)  
p.R207= (0.0131%)  
p.H208N (0.0131%)  
p.Y295C (0.0131%)  
p.I815V (0.0131%)  
p.A127T (0.0131%)  
p.I1363V (0.0131%)  
p.K1974\* (0.0131%)  
p.G387= (0.0131%)  
p.K838E (0.0131%)  
p.S298N (0.0131%)  
p.V1008L (0.0131%)  
p.A609S (0.0131%)  
p.A25G (0.0131%)  
p.V75= (0.0131%)  
p.Q1286= (0.0131%)  
p.H1417R (0.0131%)  
p.A1467Ifs\*27 (0.0131%)  
p.D77= (0.0131%)  
p.S92P (0.0131%)  
p.E63\* (0.0131%)  
p.E1394V (0.0131%)  
p.N708Kfs\*22 (0.0131%)  
p.K402E (0.0131%)  
p.A284V (0.0131%)  
p.G15V (0.0131%)  
p.M786I (0.0131%)  
p.G250R (0.0131%)  
p.L756H (0.0131%)  
p.S382P (0.0131%)  
p.T456S (0.0131%)  
p.R715W (0.0131%)  
p.G912E (0.0131%)  
p.P165T (0.0131%)  
p.C217Y (0.0131%)  
p.S1250\* (0.0131%)  
p.A1025T (0.0131%)  
p.S334C (0.0131%)  
p.G21R (0.0131%)  
p.Y296= (0.0131%)  
p.K1208M (0.0131%)  
p.H216Y (0.0263%)  
p.T624M (0.0131%)  
p.N405T (0.0263%)  
p.Q540= (0.0263%)  
p.V340I (0.0263%)  
p.T164= (0.0263%)  
p.I580V (0.0131%)  
p.E176V (0.0131%)  
p.S14L (0.0131%)  
p.G229D (0.0131%)  
p.P958= (0.0131%)  
p.M852I (0.0131%)  
p.Y844C (0.0131%)  
p.A1191= (0.0131%)  
p.E169G (0.0131%)  
p.D775V (0.0131%)  
p.E786V (0.0131%)  
p.W330Lfs\*18 (0.0131%)  
p.I119V (0.0131%)  
p.R567= (0.0131%)  
p.V1289M (0.0131%)  
p.P164S (0.0131%)  
p.F293L (0.0131%)  
p.Y44C (0.0131%)  
p.S72C (0.0131%)  
p.P336= (0.0131%)  
p.L222M (0.0131%)  
p.V436F (0.0131%)  
p.R1153G (0.0131%)  
p.D476V (0.0131%)  
p.D956V (0.0131%)  
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p.H1728R (0.0131%)  
p.T154= (0.0131%)  
p.W110R (0.0131%)  
p.R645= (0.0131%)  
p.I402F (0.0131%)  
p.K416E (0.0131%)  
p.K252N (0.0131%)  
p.E416G (0.0131%)  
p.S1046= (0.0131%)  
p.T81= (0.0131%)  
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p.M657V (0.0131%)  
p.P971L (0.0131%)  
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p.R205= (0.0131%)  
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p.P271Q (0.0131%)  
p.Q356\* (0.0131%)  
p.Y267= (0.0131%)  
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p.G12= (0.0131%)  
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p.P65Q (0.0131%)  
p.C127= (0.0131%)  
p.V367F (0.0131%)  
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p.M678V (0.0131%)  
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p.T745Ifs\*10 (0.0131%)  
p.Q535= (0.0131%)  
p.A164V (0.0131%)  
p.E78D (0.0131%)  
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p.A337= (0.0131%)  
p.C648F (0.0131%)  
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p.G519E (0.0131%)  
p.L105\* (0.0131%)  
p.R90\* (0.0131%)  
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p.T162= (0.0131%)  
p.R424C (0.0131%)  
p.W422\* (0.0131%)  
p.S730W (0.0131%)  
p.K157\* (0.0131%)  
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p.R609L (0.0131%)  
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p.K72\* (0.0131%)  
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p.S623Y (0.0131%)  
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p.V621D (0.0131%)  
p.H620Rfs\*9 (0.0131%)  
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p.P281= (0.0131%)  
p.K338\* (0.0131%)  
p.S819G (0.0131%)  
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p.F316= (0.0131%)  
p.C494F (0.0131%)  
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p.S327G (0.0131%)  
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p.P345= (0.0131%)  
p.R55= (0.0131%)  
p.P281Rfs\*6 (0.0131%)  
p.Q341K (0.0131%)  
p.E288\_T289ins\* (0.0131%)  
p.P215= (0.0131%)  
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p.F354L (0.0131%)  
p.Y279C (0.0263%)  
p.R5= (0.0263%)  
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p.P326H (0.0131%)  
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p.G549V (0.0131%)  
p.N380T (0.0131%)  
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p.H876R (0.0131%)  
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p.T470= (0.0131%)  
p.R429T (0.0131%)  
p.E665D (0.0131%)  
p.C584= (0.0131%)  
p.I351V (0.0131%)  
p.D376= (0.0131%)  
p.V280Sfs\*10 (0.0131%)  
p.S1007F (0.0131%)  
p.S257C (0.0131%)  
p.V254= (0.0131%)  
p.S200Y (0.0131%)  
p.A132= (0.0131%)  
p.S151N (0.0131%)  
p.R200C (0.0131%)  
p.H283N (0.0131%)  
p.A230V (0.0131%)  
p.V273F (0.0131%)  
p.F924L (0.0131%)  
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p.A336T (0.0131%)  
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p.A205= (0.0131%)  
p.P433S (0.0131%)  
p.K57N (0.0131%)  
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p.L1835= (0.0131%)  
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p.D230H (0.0131%)  
p.E170\* (0.0131%)  
p.P530L (0.0131%)  
p.R923K (0.0131%)  
p.V469Ffs\*28 (0.1182%)  
p.D312G (0.0131%)  
p.V1128I (0.0263%)  
p.E226Rfs\*7 (0.0263%)  
p.H878Y (0.0263%)  
p.Q284= (0.0131%)  
p.G624= (0.0131%)  
p.L457= (0.0131%)  
p.E396= (0.0131%)  
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p.V268A (0.0131%)  
p.S739G (0.0131%)  
p.S116C (0.0131%)  
p.A559V (0.0131%)  
p.Q237R (0.0131%)  
p.H758R (0.0131%)  
p.E810K (0.0131%)  
p.R460= (0.0131%)  
p.M538V (0.0131%)  
p.Q842L (0.0131%)  
p.V117F (0.0131%)  
p.G67Afs\*63 (0.0131%)  
p.K516= (0.0131%)  
p.N530= (0.0131%)  
p.D314E (0.0131%)  
p.P1074L (0.0131%)  
p.L646M (0.0131%)  
p.P645= (0.0131%)  
p.H67= (0.0131%)  
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p.L637= (0.0131%)  
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p.E267= (0.0131%)  
p.D272V (0.0131%)  
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p.R677Q (0.0131%)  
p.N159D (0.0131%)  
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p.R217S (0.0131%)  
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p.E648D (0.0131%)  
p.K131R (0.0131%)  
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p.S1085N (0.0131%)  
p.S144C (0.0131%)  
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p.G506A (0.0131%)  
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p.S171= (0.0131%)  
p.L860R (0.0131%)  
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p.T793= (0.0131%)  
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p.G496= (0.0131%)  
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p.F116L (0.0131%)  
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p.N666S (0.0131%)  
p.G598\* (0.0131%)  
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p.E447\* (0.0131%)  
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p.P251S (0.0131%)  
p.E40\* (0.0131%)  
p.N158D (0.0131%)  
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p.E582Q (0.0131%)  
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p.P175L (0.0131%)  
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p.E403\* (0.0131%)  
p.V846L (0.0131%)  
p.G112V (0.0131%)  
p.L931= (0.0131%)  
p.A116S (0.0131%)  
p.K8\* (0.0131%)  
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p.E894A (0.0131%)  
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p.SY\*663delext\*? (0.0131%)  
p.A228V (0.0131%)  
p.Y89\* (0.0131%)  
p.N455H (0.0131%)  
p.S38F (0.0131%)  
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p.I73S (0.0131%)  
p.F164S (0.0131%)  
p.P405T (0.0131%)  
p.E279V (0.0131%)  
p.T372N (0.0131%)  
p.Y64N (0.0131%)  
p.V282F (0.0131%)  
p.T62Sfs\*59 (0.0131%)  
p.E402\* (0.0131%)  
p.A307V (0.0131%)  
p.S1067A (0.0131%)  
p.F12L (0.0131%)  
p.T256I (0.0263%)  
p.E378\* (0.0263%)  
p.S77= (0.0131%)  
p.A87V (0.0131%)  
p.G298D (0.0131%)  
p.C203Y (0.0131%)  
p.T370I (0.0131%)  
p.A283= (0.0131%)  
p.R467G (0.0131%)  
p.Y327C (0.0131%)  
p.M35L (0.0131%)  
p.N343K (0.0131%)  
p.R197Q (0.0131%)  
p.K122I (0.0131%)  
p.T207= (0.0131%)  
p.N566T (0.0131%)  
p.R246K (0.0131%)  
p.A174S (0.0131%)  
p.V78F (0.0131%)  
p.G821V (0.0131%)  
p.Q32H (0.0131%)  
p.P810S (0.0131%)  
p.Q250L (0.0131%)  
p.L1096P (0.0131%)  
p.R331\* (0.0131%)  
p.P133= (0.0131%)  
p.F18Y (0.0131%)  
p.M457L (0.0131%)  
p.Q201P (0.0131%)  
p.A62= (0.0131%)  
p.Q1092Afs\*61 (0.0131%)  
p.D492V (0.0131%)  
p.P124= (0.0131%)  
p.S314I (0.0131%)  
p.R260G (0.0131%)  
p.R70= (0.0131%)  
p.E197V (0.0131%)  
p.G40R (0.0131%)  
p.P2L (0.0131%)  
p.A357T (0.0131%)  
p.I155T (0.0131%)  
p.R23C (0.0131%)  
p.H132Y (0.0131%)  
p.Y157C (0.0131%)  
p.L76= (0.0131%)  
p.C25\* (0.0131%)  
p.P8= (0.0131%)  
p.Y82C (0.0131%)  
p.Y618Tfs\*62 (0.0131%)  
p.R177Q (0.0131%)  
p.R167Q (0.0131%)  
p.G18= (0.0131%)  
p.K32R (0.0131%)  
p.F1115L (0.0131%)  
p.Q470H (0.0131%)  
p.I245T (0.0131%)  
p.F136L (0.0131%)  
p.A461S (0.0131%)  
p.R23H (0.0131%)  
p.G54W (0.0131%)  
p.N60S (0.0131%)  
p.L356Q (0.0131%)  
p.D472V (0.0131%)  
p.G328V (0.0131%)  
p.E67V (0.0131%)  
p.R849H (0.0131%)  
p.H1081Y (0.0131%)  
p.G58V (0.0131%)  
p.K16Efs\*9 (0.0131%)  
p.P570T (0.0131%)  
p.N289K (0.0131%)  
p.D69N (0.0131%)  
p.V359A (0.0131%)  
p.Q281\* (0.0131%)  
p.R435= (0.0131%)  
p.P170= (0.0131%)  
p.W257C (0.0131%)  
p.E1332\* (0.0131%)  
p.E111\* (0.0131%)  
p.W63L (0.0131%)  
p.D31Mfs\*19 (0.0131%)  
p.A90T (0.0131%)  
p.E102\* (0.0131%)  
p.S195= (0.0131%)  
p.D508Vfs\*12 (0.0131%)  
p.G43D (0.0131%)  
p.M83I (0.0131%)  
p.A197= (0.0131%)  
p.P146= (0.0394%)  
p.L141V (0.0263%)  
p.G448R (0.0131%)  
p.P130L (0.0263%)  
p.G147E (0.0131%)  
p.R733K (0.0131%)  
p.P218S (0.0131%)  
p.S454= (0.0131%)  
p.K390= (0.0131%)  
p.P421S (0.0131%)  
p.G469D (0.0131%)  
p.E17= (0.0131%)  
p.S512F (0.0131%)  
p.E77G (0.0131%)  
p.G103D (0.0131%)  
p.R17del (0.0131%)  
p.E259\* (0.0131%)  
p.W299\* (0.0131%)  
p.E328Lfs\*2 (0.0131%)  
p.F150= (0.0131%)  
p.G430C (0.0131%)  
p.N111I (0.0131%)  
p.V36= (0.0131%)  
p.A124S (0.0131%)  
p.R486= (0.0131%)  
p.Q502\* (0.0131%)  
p.V167A (0.0131%)  
p.E490\* (0.0131%)  
p.S73F (0.0131%)  
p.M150L (0.0131%)  
p.M7T (0.0131%)  
p.T452= (0.0131%)  
p.P48= (0.0131%)  
p.F105L (0.0131%)  
p.A202G (0.0131%)  
p.A204S (0.0131%)  
p.V203= (0.0131%)  
p.T383= (0.0131%)  
p.S238Y (0.0131%)  
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p.A82S (0.0131%)  
p.P139= (0.0131%)  
p.L65F (0.0131%)  
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p.G283D (0.0131%)  
p.E240D (0.0131%)  
p.N546S (0.0131%)  
p.P159A (0.0131%)  
p.G179= (0.0131%)  
p.G295V (0.0131%)  
p.R520L (0.0131%)  
p.R365Q (0.0131%)  
p.G289E (0.0131%)  
p.E328D (0.0131%)  
p.G39E (0.0131%)  
p.R190H (0.0131%)  
p.R405H (0.0131%)  
p.C294Y (0.0131%)  
p.P200S (0.0131%)  
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p.A90S (0.0131%)  
p.M512I (0.0131%)  
p.N675S (0.0131%)  
p.S372Y (0.0131%)  
p.G358V (0.0131%)  
p.E206K (0.0131%)  
p.G31Ffs\*9 (0.0131%)  
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p.V384D (0.0131%)  
p.T286I (0.0131%)  
p.R223L (0.0131%)  
p.L653= (0.0131%)  
p.V154A (0.0131%)  
p.R555\* (0.0131%)  
p.D101E (0.0131%)  
p.L333= (0.0263%)  
p.P293S (0.0131%)  
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p.A82V (0.0131%)  
p.P403L (0.0131%)  
p.G496E (0.0131%)  
p.G211D (0.0131%)  
p.A193T (0.0131%)  
p.A50E (0.0131%)  
p.G460R (0.0131%)  
p.G224= (0.0131%)  
p.I400V (0.0131%)  
p.P240= (0.0131%)  
p.Y80= (0.0131%)  
p.R225= (0.0131%)  
p.D46H (0.0131%)  
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p.M323V (0.0131%)  
p.K151= (0.0131%)  
p.I322F (0.0131%)  
p.E236V (0.0131%)  
p.Y359H (0.0131%)  
p.A292V (0.0131%)  
p.R706L (0.0131%)  
p.R247H (0.0131%)  
p.A82= (0.0131%)  
p.P325Q (0.0131%)  
p.D128Y (0.0131%)  
p.P244L (0.0131%)  
p.L345R (0.0131%)  
p.A131V (0.0131%)  
p.R394L (0.0131%)  
p.K417N (0.0131%)  
p.G365V (0.0131%)  
p.F32L (0.0131%)  
p.G22E (0.0131%)  
p.T60M (0.0131%)  
p.H269= (0.0131%)  
p.P197Rfs\*47 (0.0131%)  
p.A465= (0.0131%)  
p.F75L (0.0131%)  
p.E360D (0.0131%)  
p.Q366\* (0.0131%)  
p.I214F (0.0131%)  
p.S376G (0.0131%)  
p.E300G (0.0131%)  
p.Q126E (0.0131%)  
p.G288S (0.0131%)  
p.K263E (0.0131%)  
p.N542S (0.0131%)  
p.R363K (0.0131%)  
p.G398= (0.0131%)  
p.A135= (0.0131%)  
p.S240L (0.0131%)  
p.G296D (0.0131%)  
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p.G320R (0.0131%)  
p.T124= (0.0131%)  
p.F117L (0.0131%)  
p.L74M (0.0131%)  
p.N449= (0.0131%)  
p.G507A (0.0131%)  
p.I284S (0.0131%)  
p.N194S (0.0131%)  
p.D78V (0.0131%)  
p.S64W (0.0131%)  
p.R225\* (0.0131%)  
p.A160= (0.0131%)  
p.E242= (0.0263%)  
p.G213E (0.0131%)  
p.I228N (0.0131%)  
p.Q214H (0.0131%)  
p.W239\* (0.0131%)  
p.E300Rfs\*3 (0.0131%)  
p.P15= (0.0131%)  
p.Y447Lfs\*51 (0.0131%)  
p.G133R (0.0131%)  
p.A173= (0.0131%)  
p.C272Y (0.0131%)  
p.L231F (0.0131%)  
p.G180= (0.0131%)  
p.G13\* (0.0131%)  
p.E443G (0.0131%)  
p.P118= (0.0131%)  
p.R134H (0.0131%)  
p.K71N (0.0131%)  
p.V547I (0.0131%)  
p.G353= (0.0131%)  
p.A434S (0.0131%)  
p.I154V (0.0131%)  
p.P308T (0.0131%)  
p.D205Y (0.0131%)  
p.G36A (0.0131%)  
p.P108= (0.0131%)  
p.I238M (0.0131%)  
p.I372V (0.0131%)  
p.Q304Kfs\*21 (0.0131%)  
p.L153= (0.0131%)  
p.L283F (0.0131%)  
p.E41D (0.0131%)  
p.T507S (0.0131%)  
p.E64\* (0.0131%)  
p.Q347R (0.0131%)  
p.G100V (0.0131%)  
p.V197I (0.0131%)  
p.N19K (0.0131%)  
p.M12V (0.0131%)  
p.T190A (0.0131%)  
p.L430F (0.0131%)  
p.C49G (0.0131%)  
p.D60N (0.0131%)  
p.Q200\* (0.0131%)  
p.S168I (0.0131%)  
p.M68V (0.0131%)  
p.G5C (0.0131%)  
p.D677G (0.0131%)  
p.T394A (0.0131%)  
p.T17S (0.0131%)  
p.Q219E (0.0131%)  
p.A120E (0.0131%)  
p.I170V (0.0131%)  
p.C218W (0.0131%)  
p.T272S (0.0131%)  
p.Q234H (0.0131%)  
p.P212A (0.0131%)  
p.D322V (0.0131%)  
p.L84Q (0.0131%)  
p.T25S (0.0263%)  
p.P58Lfs\*21 (0.0131%)  
p.A83T (0.0131%)  
p.S401Y (0.0131%)  
p.P9L (0.0131%)  
p.R282= (0.0131%)  
p.S775N (0.0131%)  
p.R372K (0.0131%)  
p.R258C (0.0131%)  
p.G87R (0.0131%)  
p.T558I (0.0131%)  
p.G235D (0.0131%)  
p.R30\* (0.0131%)  
p.D52N (0.0131%)  
p.R313K (0.0131%)  
p.V436M (0.0131%)  
p.V127A (0.0131%)  
p.Y67H (0.0131%)  
p.S548= (0.0131%)  
p.C68= (0.0131%)  
p.G255C (0.0131%)  
p.S55L (0.0131%)  
p.R210= (0.0131%)  
p.A454T (0.0131%)  
p.A205V (0.0131%)  
p.D60G (0.0131%)  
p.L552P (0.0131%)  
p.P96= (0.0131%)  
p.S305\* (0.0131%)  
p.K233E (0.0131%)  
p.Y670= (0.0131%)  
p.E95K (0.0131%)  
p.K392Q (0.0131%)  
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p.S218R (0.0131%)  
p.R27H (0.0131%)  
p.P48T (0.0131%)  
p.S284\* (0.0131%)  
p.E61G (0.0131%)  
p.A180T (0.0131%)  
p.Y126= (0.0131%)  
p.R408W (0.0131%)  
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p.R69= (0.0131%)  
p.Y629F (0.0131%)  
p.Y283= (0.0131%)  
p.K10R (0.0131%)  
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p.S6F (0.0131%)  
p.S184N (0.0131%)  
p.Q321R (0.0131%)  
p.E127D (0.0131%)  
p.S41= (0.0131%)  
p.V172= (0.0131%)  
p.Y15C (0.0131%)  
p.R32S (0.0131%)  
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p.A234T (0.0131%)  
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p.H444Y (0.0131%)  
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p.V580= (0.0131%)  
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p.R571K (0.0131%)  
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p.R443T (0.0131%)  
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p.L41= (0.0131%)  
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p.G438= (0.0131%)  
p.C44= (0.0131%)  
p.A72T (0.0131%)  
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p.I111T (0.0131%)  
p.I363L (0.0131%)  
p.P123= (0.0131%)  
p.R309= (0.0131%)  
p.K283\* (0.0131%)  
p.N102Y (0.0131%)  
p.R214G (0.0131%)  
p.S121C (0.0131%)  
p.I226F (0.0131%)  
p.Y33C (0.0131%)  
p.F174Y (0.0131%)  
p.G635= (0.0131%)  
p.G159C (0.0131%)  
p.Q219= (0.0131%)  
p.D59V (0.0131%)  
p.Q28\* (0.0131%)  
p.L168M (0.0131%)  
p.D220E (0.0131%)  
p.R135\* (0.0131%)  
p.E19\* (0.0131%)  
p.K94N (0.0131%)  
p.A59E (0.0131%)  
p.P116= (0.0131%)  
p.Q205\* (0.0131%)  
p.H27= (0.0131%)  
p.R217W (0.0131%)  
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p.L62F (0.0131%)  
p.R293W (0.0131%)  
p.C161S (0.0131%)  
p.T264= (0.0131%)  
p.G16R (0.0131%)  
p.Q316E (0.0131%)  
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p.G211R (0.0131%)  
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p.V44M (0.0131%)  
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p.Q107L (0.0131%)  
p.D55V (0.0131%)  
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p.P42H (0.0131%)  
p.K250R (0.0131%)  
p.E118\* (0.0131%)  
p.A255= (0.0131%)  
p.A35= (0.0131%)  
p.P155R (0.0131%)  
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p.I20= (0.0131%)  
p.A256= (0.0131%)  
p.G352V (0.0131%)  
p.L47M (0.0131%)  
p.W302\* (0.0131%)  
p.A15T (0.0131%)  
p.Y42\* (0.0131%)  
p.D225E (0.0131%)  
p.F140L (0.0131%)  
p.R170H (0.0131%)  
p.D163= (0.0131%)  
p.W529\* (0.0131%)  
p.N292H (0.0131%)  
p.A84V (0.0131%)  
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p.R117G (0.0131%)  
p.I117T (0.0131%)  
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p.G123S (0.0131%)  
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