Top AA variants of thyroid cancer are (n=50):

Asia:  
p.V600E (97.6762%)  
p.Q61R (0.4101%)  
p.Q61K (0.1491%)  
p.M453T (0.1243%)  
p.K601E (0.1118%)  
p.G12S (0.0621%)  
p.G572R (0.0373%)  
p.T79I (0.0373%)  
p.T599= (0.0373%)  
p.A76V (0.0249%)  
p.T632I (0.0249%)  
p.T213I (0.0249%)  
p.W564\* (0.0249%)  
p.S77F (0.0249%)  
p.P693S (0.0249%)  
p.P78S (0.0124%)  
p.V550M (0.0124%)  
p.E718K (0.0124%)  
p.R137K (0.0124%)  
p.E671G (0.0124%)  
p.V582A (0.0124%)  
p.R492H (0.0124%)  
p.T60I (0.0124%)  
p.S75G (0.0124%)  
p.E134K (0.0124%)  
p.G773C (0.0124%)  
p.F631L (0.0124%)  
p.W85\* (0.0124%)  
p.Q324L (0.0124%)  
p.H751Y (0.0124%)  
p.A20S (0.0124%)  
p.Q809R (0.0124%)  
p.D525N (0.0124%)  
p.N466Y (0.0124%)  
p.K601\_W604del (0.0124%)  
p.T599R (0.0124%)  
p.T599\_V600insETT (0.0124%)  
p.A598\_T599insV (0.0124%)  
p.A598\_T599insKKIGDFGLA (0.0124%)  
p.G469R (0.0124%)  
p.V600\_K601delinsE (0.0124%)  
p.A66D (0.0124%)  
p.S75N (0.0124%)  
p.G514R (0.0124%)  
p.H446N (0.0124%)  
p.S686F (0.0124%)  
p.P218S (0.0124%)  
p.E638K (0.0124%)  
p.S644N (0.0124%)  
p.S281I (0.0124%)  
  
  
The world:  
p.V600E (65.7952%)  
p.K601E (0.2076%)  
p.S36A (0.0513%)  
p.V600\_K601delinsE (0.0513%)  
p.E26A (0.0231%)  
p.A598\_T599insV (0.0205%)  
p.T599I (0.0128%)  
p.Q359R (0.0103%)  
p.K601del (0.0103%)  
p.V600= (0.0077%)  
p.T599= (0.0077%)  
p.T599dup (0.0051%)  
p.A598V (0.0077%)  
p.H72Y (0.0051%)  
p.Q423H (0.0051%)  
p.D249Y (0.0051%)  
p.G189C (0.0051%)  
p.L406\* (0.0051%)  
p.L254M (0.0051%)  
p.A171S (0.0051%)  
p.G8C (0.0051%)  
p.R506G (0.0051%)  
p.Q636H (0.0051%)  
p.Q609\* (0.0051%)  
p.G469A (0.0051%)  
p.Q612\* (0.0051%)  
p.V459= (0.0051%)  
p.G643= (0.0026%)  
p.P334L (0.0026%)  
p.A598T (0.0026%)  
p.I300V (0.0026%)  
p.I592\_A598dup (0.0026%)  
p.G593D (0.0026%)  
p.G606= (0.0026%)  
p.I50M (0.0026%)  
p.I554T (0.0026%)  
p.L588F (0.0026%)  
p.N581S (0.0026%)  
p.P705Q (0.0026%)  
p.K601\_W604del (0.0026%)  
p.T599R (0.0026%)  
p.Q456= (0.0026%)  
p.T599\_V600insETT (0.0026%)  
p.A598\_T599insKKIGDFGLA (0.0026%)  
p.V487\_P492delinsA (0.0026%)  
p.A598\_T599insI (0.0026%)  
p.T599\_V600>IYI (0.0026%)  
p.V600R (0.0026%)  
p.D594\_T599dup (0.0026%)  
p.G469R (0.0026%)  
p.L441V (0.0026%)  
p.T599del (0.0026%)  
p.V600\_W604del (0.0026%)  
p.M918T (1.9633%)  
p.C634R (0.1538%)  
p.A883F (0.0666%)  
p.C634W (0.059%)  
p.D898\_E901del (0.0564%)  
p.C634Y (0.0564%)  
p.C630R (0.0461%)  
p.E632\_L633del (0.0436%)  
p.C620R (0.0282%)  
p.S891A (0.0205%)  
p.C618S (0.0205%)  
p.C634S (0.0179%)  
p.E884V (0.0154%)  
p.C618R (0.0154%)  
p.V804M (0.0103%)  
p.L629\_D631delinsH (0.0103%)  
p.E768D (0.0103%)  
p.A883S (0.0103%)  
p.C630G (0.0103%)  
p.C620W (0.0103%)  
p.D631\_L633delinsE (0.0103%)  
p.C630S (0.0077%)  
p.L629Q (0.0077%)  
p.C618Y (0.0077%)  
p.C611R (0.0077%)  
p.C634G (0.0077%)  
p.K666N (0.0077%)  
p.C634F (0.0077%)  
p.I364V (0.0051%)  
p.R99W (0.0051%)  
p.P20S (0.0051%)  
p.V292M (0.0051%)  
p.S1002R (0.0051%)  
p.A416D (0.0051%)  
p.F419C (0.0051%)  
p.A750V (0.0051%)  
p.C794R (0.0051%)  
p.E884K (0.0051%)  
p.A680T (0.0051%)  
p.S649L (0.0051%)  
p.G736R (0.0051%)  
p.Q781R (0.0051%)  
p.C630A (0.0051%)  
p.A513G (0.0051%)  
p.E632\_I638del (0.0051%)  
p.C620S (0.0051%)  
p.C611Y (0.0051%)  
p.Q681\* (0.0051%)  
p.A45= (0.0026%)  
p.L190= (0.0026%)  
p.C581F (0.0026%)  
p.A1105V (0.0026%)  
p.S891L (0.0026%)  
p.V276G (0.0026%)  
p.P320= (0.0026%)  
p.D631N (0.0026%)  
p.E480= (0.0026%)  
p.N579K (0.0026%)  
p.R833C (0.0026%)  
p.Q681Rfs\*50 (0.0026%)  
p.P679= (0.0026%)  
p.E921K (0.0026%)  
p.G911D (0.0026%)  
p.G514= (0.0026%)  
p.G568S (0.0026%)  
p.D925A (0.0026%)  
p.S904P (0.0026%)  
p.V945M (0.0026%)  
p.R297H (0.0026%)  
p.V591I (0.0026%)  
p.R677L (0.0026%)  
p.E615K (0.0026%)  
p.L16M (0.0026%)  
p.R908K (0.0026%)  
p.G911= (0.0026%)  
p.H661= (0.0026%)  
p.V738= (0.0026%)  
p.E713K (0.0026%)  
p.M674I (0.0026%)  
p.K808E (0.0026%)  
p.K821E (0.0026%)  
p.G727E (0.0026%)  
p.A919V (0.0026%)  
p.G751= (0.0026%)  
p.A750G (0.0026%)  
p.D627\_L633delinsE (0.0026%)  
p.C634= (0.0026%)  
p.S653C (0.0026%)  
p.P766M (0.0026%)  
p.C618G (0.0026%)  
p.V642I (0.0026%)  
p.F612\_C620del (0.0026%)  
p.C630\_D631>CDELCRTVIAAAVLFSFT (0.0026%)  
p.K666E (0.0026%)  
p.L633\_A639del (0.0026%)  
p.S922P (0.0026%)  
p.E901K (0.0026%)  
p.C634\_R635insPK (0.0026%)  
p.E632Sfs\*6 (0.0026%)  
p.A876V (0.0026%)  
p.P1088L (0.0026%)  
p.V509\_E511del (0.0026%)  
p.A793T (0.0026%)  
p.G894S (0.0026%)  
p.V778= (0.0026%)  
p.V648I (0.0026%)  
p.I602V (0.0026%)  
p.P766S (0.0026%)  
p.Q796R (0.0026%)  
p.M918L (0.0026%)  
p.A883T (0.0026%)  
p.C634A (0.0026%)  
p.Y752= (0.0026%)  
p.A883X (0.0026%)  
p.R417P (0.0026%)  
p.E632\_T636del (0.0026%)  
p.G592\_G607del (0.0026%)  
p.F924S (0.0026%)  
p.Y900\_S904>P (0.0026%)  
p.C634\_T636dup (0.0026%)  
p.E632\_C634delinsG (0.0026%)  
p.S1024F (0.0026%)  
p.T930M (0.0026%)  
p.V706A (0.0026%)  
p.E632\_C634del (0.0026%)  
p.(D898\_E902)delXXXX (0.0026%)  
p.E527\* (0.0026%)  
p.A883P (0.0026%)  
p.C634T (0.0026%)  
p.D631G (0.0026%)  
p.G748C (0.0026%)  
p.D898\_E902del (0.0026%)  
p.E632\_L633delinsV (0.0026%)  
p.Q61R (2.4555%)  
p.Q61K (0.6792%)  
p.G12V (0.1897%)  
p.G12D (0.1282%)  
p.G13R (0.1077%)  
p.G12C (0.0769%)  
p.G12S (0.0795%)  
p.G13D (0.0769%)  
p.Q61L (0.0641%)  
p.Q61H (0.0333%)  
p.Q61X (0.0308%)  
p.G13C (0.0128%)  
p.G13V (0.0103%)  
p.G13A (0.0103%)  
p.A18V (0.0077%)  
p.A66D (0.0026%)  
p.R102Q (0.0026%)  
p.Q61E (0.0026%)  
p.R248Q (0.0564%)  
p.R175H (0.0436%)  
p.R273H (0.0282%)  
p.R273C (0.0282%)  
p.R282W (0.0231%)  
p.R213\* (0.0231%)  
p.R248W (0.0231%)  
p.R280K (0.0179%)  
p.H214R (0.0179%)  
p.R337C (0.0154%)  
p.E285K (0.0179%)  
p.C135Y (0.0154%)  
p.G245S (0.0154%)  
p.Q192\* (0.0154%)  
p.R280T (0.0154%)  
p.R267W (0.0128%)  
p.Y220C (0.0128%)  
p.G245V (0.0128%)  
p.C124Y (0.0103%)  
p.R196\* (0.0103%)  
p.D281H (0.0103%)  
p.S183\* (0.0077%)  
p.R209Kfs\*6 (0.0103%)  
p.P72R (0.0103%)  
p.H193R (0.0103%)  
p.H179Y (0.0077%)  
p.R158H (0.0077%)  
p.R249G (0.0077%)  
p.K132N (0.0077%)  
p.Q331\* (0.0077%)  
p.S241C (0.0077%)  
p.M246I (0.0077%)  
p.M246T (0.0051%)  
p.C238Y (0.0077%)  
p.E287K (0.0077%)  
p.P177\_C182del (0.0077%)  
p.M237I (0.0077%)  
p.S241F (0.0077%)  
p.R342\* (0.0077%)  
p.P151H (0.0077%)  
p.E336\* (0.0077%)  
p.V274F (0.0077%)  
p.H193L (0.0077%)  
p.P152Rfs\*18 (0.0051%)  
p.C242Y (0.0051%)  
p.N310Tfs\*35 (0.0051%)  
p.Y236C (0.0051%)  
p.R249K (0.0051%)  
p.S166\* (0.0051%)  
p.E286K (0.0051%)  
p.L201\* (0.0026%)  
p.R202P (0.0026%)  
p.S261N (0.0051%)  
p.Q317\* (0.0051%)  
p.R282Q (0.0051%)  
p.R65Cfs\*79 (0.0051%)  
p.P153Afs\*28 (0.0051%)  
p.H214\_S215delinsQN (0.0051%)  
p.R213Q (0.0051%)  
p.H178Tfs\*69 (0.0051%)  
p.E258K (0.0051%)  
p.Y234\_M237del (0.0051%)  
p.E343\* (0.0051%)  
p.K132R (0.0051%)  
p.H115Afs\*34 (0.0051%)  
p.R249T (0.0051%)  
p.V272L (0.0051%)  
p.P191del (0.0051%)  
p.P71S (0.0051%)  
p.V172F (0.0051%)  
p.Q167\* (0.0051%)  
p.R273L (0.0051%)  
p.R282G (0.0051%)  
p.V157F (0.0051%)  
p.Q104\* (0.0051%)  
p.R283C (0.0051%)  
p.G245R (0.0051%)  
p.C277F (0.0051%)  
p.P250L (0.0051%)  
p.P278L (0.0051%)  
p.R283= (0.0051%)  
p.P27Lfs\*17 (0.0051%)  
p.E11K (0.0026%)  
p.T125= (0.0026%)  
p.S215N (0.0026%)  
p.S94\* (0.0026%)  
p.P64A (0.0026%)  
p.G293R (0.0026%)  
p.Y220N (0.0026%)  
p.S106R (0.0026%)  
p.E271K (0.0026%)  
p.H178P (0.0026%)  
p.R337H (0.0026%)  
p.S362Afs\*8 (0.0026%)  
p.W146\* (0.0026%)  
p.K351Cfs\*29 (0.0026%)  
p.R335Lfs\*9 (0.0026%)  
p.Y220H (0.0026%)  
p.G199Efs\*48 (0.0026%)  
p.E285\* (0.0026%)  
p.R273S (0.0026%)  
p.T170M (0.0026%)  
p.K139N (0.0026%)  
p.D148N (0.0026%)  
p.I254F (0.0026%)  
p.S215I (0.0026%)  
p.S90Lfs\*59 (0.0026%)  
p.P219L (0.0026%)  
p.P36= (0.0026%)  
p.P278T (0.0026%)  
p.Q317Afs\*19 (0.0026%)  
p.E51\* (0.0026%)  
p.V173M (0.0026%)  
p.C176S (0.0026%)  
p.P152L (0.0026%)  
p.E224\* (0.0026%)  
p.R290C (0.0026%)  
p.Y234C (0.0026%)  
p.R306\* (0.0026%)  
p.R342P (0.0026%)  
p.E198\* (0.0026%)  
p.D391Tfs\*31 (0.0026%)  
p.M340Ifs\*7 (0.0026%)  
p.S215G (0.0026%)  
p.E286D (0.0026%)  
p.G266V (0.0026%)  
p.K139E (0.0026%)  
p.H168P (0.0026%)  
p.P278S (0.0026%)  
p.D207G (0.0026%)  
p.P151T (0.0026%)  
p.G244S (0.0026%)  
p.H179R (0.0026%)  
p.T231Ffs\*15 (0.0026%)  
p.M246K (0.0026%)  
p.K120R (0.0026%)  
p.N239D (0.0026%)  
p.F134Lfs\*14 (0.0026%)  
p.P151= (0.0026%)  
p.C135= (0.0026%)  
p.Q16\* (0.0026%)  
p.V203L (0.0026%)  
p.L43\* (0.0026%)  
p.G266R (0.0026%)  
p.E271V (0.0026%)  
p.S149Pfs\*21 (0.0026%)  
p.E298\* (0.0026%)  
p.P278R (0.0026%)  
p.H179D (0.0026%)  
p.R110L (0.0026%)  
p.D393Rfs\*78 (0.0026%)  
p.I195T (0.0026%)  
p.N239T (0.0026%)  
p.P82S (0.0026%)  
p.R110P (0.0026%)  
p.G244V (0.0026%)  
p.I251L (0.0026%)  
p.E56\* (0.0026%)  
p.K321Nfs\*24 (0.0026%)  
p.T304Lfs\*41 (0.0026%)  
p.T312\_Y327del (0.0026%)  
p.C141Y (0.0026%)  
p.V172D (0.0026%)  
p.Y234\* (0.0026%)  
p.M246V (0.0026%)  
p.N288Efs\*14 (0.0026%)  
p.C176W (0.0026%)  
p.G245C (0.0026%)  
p.P85Hfs\*37 (0.0026%)  
p.R249S (0.0026%)  
p.R248L (0.0026%)  
p.R280G (0.0026%)  
p.G244R (0.0026%)  
p.E294\* (0.0026%)  
p.C275F (0.0026%)  
p.I195F (0.0026%)  
p.G105C (0.0026%)  
p.W91Gfs\*32 (0.0026%)  
p.K320\* (0.0026%)  
p.V274A (0.0026%)  
p.A159P (0.0026%)  
p.R181H (0.0026%)  
p.I232N (0.0026%)  
p.I255S (0.0026%)  
p.E198Wfs\*44 (0.0026%)  
p.E180\* (0.0026%)  
p.A276F (0.0026%)  
p.Q375\* (0.0026%)  
p.K291Nfs\*49 (0.0026%)  
p.A276D (0.0026%)  
p.F212fs\*4 (0.0026%)  
p.R267P (0.0026%)  
p.A159V (0.0026%)  
p.N30Kfs\*13 (0.0026%)  
p.E258G (0.0026%)  
p.P177R (0.0026%)  
p.M133T (0.0026%)  
p.S20Qfs\*24 (0.0026%)  
p.Y126C (0.0026%)  
p.C242Afs\*5 (0.0026%)  
p.S241fs\*7 (0.0026%)  
p.T125M (0.0026%)  
p.A189D (0.0026%)  
p.E221= (0.0026%)  
p.K292R (0.0026%)  
p.S127F (0.0026%)  
p.N239S (0.0026%)  
p.R213L (0.0026%)  
p.P151S (0.0026%)  
p.R209I (0.0026%)  
p.S149F (0.0026%)  
p.D208Afs\*39 (0.0026%)  
p.V216M (0.0026%)  
p.H214D (0.0026%)  
p.N268H (0.0026%)  
p.R175L (0.0026%)  
p.V272M (0.0026%)  
p.E171Gfs\*9 (0.0026%)  
p.D281V (0.0026%)  
p.G266E (0.0026%)  
p.T231A (0.0026%)  
p.A161T (0.0026%)  
p.A276T (0.0026%)  
p.H178D (0.0026%)  
p.T256= (0.0026%)  
p.G154V (0.0026%)  
p.R158L (0.0026%)  
p.N268S (0.0026%)  
p.G12R (0.0871%)  
p.G13S (0.0282%)  
p.G12A (0.0308%)  
p.Q61P (0.0128%)  
p.M72I (0.0103%)  
p.G180V (0.0077%)  
p.K117N (0.0077%)  
p.H27= (0.0051%)  
p.D33N (0.0051%)  
p.A83V (0.0026%)  
p.D69N (0.0026%)  
p.T58A (0.0026%)  
p.H94Y (0.0026%)  
p.G15S (0.0026%)  
p.Q22\* (0.0026%)  
p.V14= (0.0026%)  
p.S17G (0.0026%)  
p.A11\_G12dup (0.0026%)  
p.A11S (0.0026%)  
p.G13? (0.0026%)  
p.T632I (0.123%)  
p.M453T (0.1179%)  
p.D633Y (0.0513%)  
p.A623V (0.0513%)  
p.D619G (0.0436%)  
p.F631L (0.0384%)  
p.I568T (0.0359%)  
p.L629F (0.0333%)  
p.I630L (0.0333%)  
p.A623S (0.0308%)  
p.D633E (0.0282%)  
p.D633H (0.0256%)  
p.I486F (0.0231%)  
p.S281N (0.0205%)  
p.L512Q (0.0179%)  
p.L512R (0.0154%)  
p.S425I (0.0128%)  
p.T441P (0.0103%)  
p.S505N (0.0103%)  
p.S281T (0.0103%)  
p.V656F (0.0103%)  
p.T632A (0.0103%)  
p.P639S (0.0077%)  
p.I486M (0.0077%)  
p.G431S (0.0077%)  
p.V721F (0.0051%)  
p.M637I (0.0051%)  
p.D633A (0.0051%)  
p.V597L (0.0051%)  
p.I640V (0.0051%)  
p.I568F (0.0051%)  
p.C454\* (0.0051%)  
p.S281I (0.0051%)  
p.F631I (0.0051%)  
p.A623I (0.0051%)  
p.A428V (0.0051%)  
p.N187= (0.0026%)  
p.V205A (0.0026%)  
p.P749L (0.0026%)  
p.V558M (0.0026%)  
p.A121G (0.0026%)  
p.T620N (0.0026%)  
p.S191L (0.0026%)  
p.F631V (0.0026%)  
p.Y613\_K621del (0.0026%)  
p.V597F (0.0026%)  
p.I635V (0.0026%)  
p.A593N (0.0026%)  
p.D619del (0.0026%)  
p.D633N (0.0026%)  
p.A538T (0.0026%)  
p.F666L (0.0026%)  
p.M463V (0.0026%)  
p.L469= (0.0026%)  
p.P639A (0.0026%)  
p.A623F (0.0026%)  
p.F631C (0.0026%)  
p.I486N (0.0026%)  
p.S505R (0.0026%)  
p.D403del (0.0026%)  
p.A627V (0.0026%)  
p.L677V (0.0026%)  
p.I640K (0.0026%)  
p.E31Q (0.0103%)  
p.A146V (0.0077%)  
p.A59V (0.0051%)  
p.G60= (0.0051%)  
p.S65N (0.0026%)  
p.G60A (0.0026%)  
p.E63K (0.0026%)  
p.R164Q (0.0026%)  
p.H1047R (0.1%)  
p.E542K (0.0795%)  
p.E545K (0.0769%)  
p.H1047L (0.0256%)  
p.E81K (0.0154%)  
p.E545Q (0.0103%)  
p.A222V (0.0103%)  
p.E726K (0.0103%)  
p.M1043I (0.0103%)  
p.G1049S (0.0103%)  
p.K111E (0.0077%)  
p.G1049R (0.0077%)  
p.A400V (0.0026%)  
p.Q546K (0.0077%)  
p.T1025= (0.0026%)  
p.E545A (0.0077%)  
p.L1001I (0.0077%)  
p.E522K (0.0051%)  
p.Q958\* (0.0051%)  
p.A518G (0.0051%)  
p.S481I (0.0051%)  
p.N515K (0.0051%)  
p.H1060Y (0.0051%)  
p.I788V (0.0026%)  
p.T1025A (0.0026%)  
p.F1039L (0.0051%)  
p.I1062V (0.0051%)  
p.G1009E (0.0051%)  
p.T1031I (0.0051%)  
p.G1050D (0.0051%)  
p.E85K (0.0026%)  
p.E1034\* (0.0026%)  
p.Q546R (0.0026%)  
p.P449T (0.0026%)  
p.C420R (0.0026%)  
p.D538G (0.0026%)  
p.R310H (0.0026%)  
p.G118D (0.0026%)  
p.E674\* (0.0026%)  
p.P1011L (0.0026%)  
p.W1057\* (0.0026%)  
p.P57S (0.0026%)  
p.G914R (0.0026%)  
p.R115L (0.0026%)  
p.M1043V (0.0026%)  
p.E418K (0.0026%)  
p.R93W (0.0026%)  
p.D520N (0.0026%)  
p.S326F (0.0026%)  
p.C604R (0.0026%)  
p.L1067F (0.0026%)  
p.P539R (0.0026%)  
p.A533V (0.0026%)  
p.Q530R (0.0026%)  
p.H1048Sfs\*16 (0.0026%)  
p.G106S (0.0026%)  
p.E982G (0.0026%)  
p.G1007R (0.0026%)  
p.K1041N (0.0026%)  
p.S553N (0.0026%)  
p.D1056G (0.0026%)  
p.T1052I (0.0026%)  
p.D1018N (0.0026%)  
p.F1016L (0.0026%)  
p.K1030E (0.0026%)  
p.P1011S (0.0026%)  
p.F550S (0.0026%)  
p.N521S (0.0026%)  
p.H701P (0.0026%)  
p.C984Y (0.0026%)  
p.M1010I (0.0026%)  
p.G1007D (0.0026%)  
p.L1001H (0.0026%)  
p.H1060= (0.0026%)  
p.E982K (0.0026%)  
p.R886C (0.0256%)  
p.R284Q (0.0179%)  
p.A1685S (0.0154%)  
p.P860S (0.0154%)  
p.R909K (0.0154%)  
p.D348N (0.0154%)  
p.G892R (0.0128%)  
p.P377= (0.0128%)  
p.P309S (0.0128%)  
p.R904\* (0.0103%)  
p.W858L (0.0103%)  
p.S806= (0.0103%)  
p.Q755\* (0.0103%)  
p.T316S (0.0103%)  
p.C988F (0.0077%)  
p.G845E (0.0077%)  
p.N729D (0.0077%)  
p.I882= (0.0077%)  
p.S772L (0.0077%)  
p.I882T (0.0077%)  
p.P350= (0.0077%)  
p.V346= (0.0077%)  
p.Y816\* (0.0051%)  
p.R894Q (0.0051%)  
p.Q3989\* (0.0051%)  
p.K4659N (0.0051%)  
p.E1647\* (0.0051%)  
p.E2496\* (0.0051%)  
p.P4630H (0.0051%)  
p.K339N (0.0051%)  
p.A1361T (0.0051%)  
p.V4002F (0.0051%)  
p.W1682L (0.0051%)  
p.L1452I (0.0051%)  
p.H2489L (0.0051%)  
p.P986= (0.0051%)  
p.L921= (0.0051%)  
p.R1758C (0.0051%)  
p.R894W (0.0051%)  
p.R380L (0.0051%)  
p.M689I (0.0051%)  
p.K3604= (0.0026%)  
p.Y987\* (0.0026%)  
p.V919L (0.0026%)  
p.T852= (0.0026%)  
p.S730Y (0.0026%)  
p.S793= (0.0026%)  
p.S784= (0.0026%)  
p.R973G (0.0026%)  
p.S902= (0.0026%)  
p.C1114R (0.0026%)  
p.Y987H (0.0026%)  
p.S888T (0.0026%)  
p.V656I (0.0026%)  
p.R4595C (0.0026%)  
p.R4478\* (0.0026%)  
p.R909G (0.0026%)  
p.R4533\* (0.0026%)  
p.K3714Nfs\*10 (0.0026%)  
p.V1910= (0.0026%)  
p.V1160Cfs\*22 (0.0026%)  
p.D1319H (0.0026%)  
p.T2824Nfs\*9 (0.0026%)  
p.A314D (0.0026%)  
p.Q3591\* (0.0026%)  
p.D332N (0.0026%)  
p.S764F (0.0026%)  
p.I2781T (0.0026%)  
p.K3847N (0.0026%)  
p.Q1791\* (0.0026%)  
p.S1955F (0.0026%)  
p.H2006Y (0.0026%)  
p.S2184C (0.0026%)  
p.T3136Kfs\*16 (0.0026%)  
p.E765G (0.0026%)  
p.A927V (0.0026%)  
p.P309L (0.0026%)  
p.G315D (0.0026%)  
p.S888F (0.0026%)  
p.R284\* (0.0026%)  
p.R3507\* (0.0026%)  
p.S3213L (0.0026%)  
p.H365N (0.0026%)  
p.C391\* (0.0026%)  
p.P792S (0.0026%)  
p.Y2131N (0.0026%)  
p.C394S (0.0026%)  
p.A1899S (0.0026%)  
p.R45H (0.0154%)  
p.E87D (0.0154%)  
p.Q86R (0.0154%)  
p.E87K (0.0154%)  
p.T206= (0.0128%)  
p.P217= (0.0128%)  
p.P217A (0.0128%)  
p.A48S (0.0128%)  
p.I218V (0.0103%)  
p.R138Q (0.0103%)  
p.T187P (0.0103%)  
p.T187R (0.0103%)  
p.E222= (0.0077%)  
p.A114D (0.0077%)  
p.G80E (0.0077%)  
p.M4V (0.0077%)  
p.I322F (0.0077%)  
p.S95A (0.0077%)  
p.I166T (0.0051%)  
p.L254= (0.0051%)  
p.D53E (0.0051%)  
p.T202= (0.0051%)  
p.N90K (0.0051%)  
p.S129P (0.0051%)  
p.T104I (0.0051%)  
p.L105V (0.0051%)  
p.L105P (0.0051%)  
p.G107R (0.0051%)  
p.G103R (0.0051%)  
p.R106L (0.0051%)  
p.Q56R (0.0051%)  
p.R194\* (0.0051%)  
p.R89G (0.0051%)  
p.Q86E (0.0051%)  
p.Q78R (0.0051%)  
p.T323A (0.0051%)  
p.R243W (0.0051%)  
p.V255M (0.0051%)  
p.M331R (0.0051%)  
p.R99L (0.0051%)  
p.A48= (0.0051%)  
p.T214= (0.0051%)  
p.T211= (0.0051%)  
p.P208A (0.0051%)  
p.T202M (0.0051%)  
p.G80= (0.0051%)  
p.K292E (0.0051%)  
p.P291= (0.0051%)  
p.R226= (0.0026%)  
p.L180\* (0.0026%)  
p.G231S (0.0026%)  
p.L300P (0.0026%)  
p.D185E (0.0026%)  
p.R169H (0.0026%)  
p.A163= (0.0026%)  
p.N151K (0.0026%)  
p.A269= (0.0026%)  
p.V273= (0.0026%)  
p.A329= (0.0026%)  
p.W191G (0.0026%)  
p.E190D (0.0026%)  
p.I306V (0.0026%)  
p.A173T (0.0026%)  
p.T34= (0.0026%)  
p.A269V (0.0026%)  
p.V321M (0.0026%)  
p.A2= (0.0026%)  
p.I121M (0.0026%)  
p.V91= (0.0026%)  
p.A93T (0.0026%)  
p.V91L (0.0026%)  
p.D251Tfs\*46 (0.0026%)  
p.Q94H (0.0026%)  
p.T97I (0.0026%)  
p.Q94K (0.0026%)  
p.K210R (0.0026%)  
p.K210= (0.0026%)  
p.G199R (0.0026%)  
p.V49= (0.0026%)  
p.R30K (0.0026%)  
p.R130Q (0.0128%)  
p.R233\* (0.0128%)  
p.D268E (0.0103%)  
p.R335\* (0.0103%)  
p.T319\* (0.0103%)  
p.R130\* (0.0103%)  
p.Y177\* (0.0077%)  
p.L318F (0.0077%)  
p.S207I (0.0077%)  
p.R142Q (0.0077%)  
p.D268Y (0.0051%)  
p.K164Rfs\*3 (0.0026%)  
p.G132V (0.0026%)  
p.T319Xfs\*24 (0.0026%)  
p.Y76\* (0.0051%)  
p.S287\* (0.0051%)  
p.V166I (0.0051%)  
p.N323Mfs\*21 (0.0051%)  
p.W111\* (0.0051%)  
p.Y336Cfs\*18 (0.0026%)  
p.R15S (0.0026%)  
p.E201K (0.0026%)  
p.Q298\* (0.0026%)  
p.N49Yfs\*2 (0.0026%)  
p.Y16Lfs\*28 (0.0026%)  
p.F341L (0.0026%)  
p.V133Dfs\*45 (0.0026%)  
p.T319Kfs\*24 (0.0026%)  
p.Q97Hfs\*6 (0.0026%)  
p.D252V (0.0026%)  
p.K267Rfs\*9 (0.0026%)  
p.D24H (0.0026%)  
p.H93R (0.0026%)  
p.Y27N (0.0026%)  
p.S229\* (0.0026%)  
p.Q110\* (0.0026%)  
p.C136W (0.0026%)  
p.C71Vfs\*28 (0.0026%)  
p.R15K (0.0026%)  
p.L139\* (0.0026%)  
p.H93Q (0.0026%)  
p.A151D (0.0026%)  
p.P339S (0.0026%)  
p.F241Lfs\*15 (0.0026%)  
p.V255E (0.0026%)  
p.N323Kfs\*2 (0.0026%)  
p.E235\* (0.0026%)  
p.R234Q (0.0026%)  
p.R159K (0.0026%)  
p.Y68H (0.0026%)  
p.R189\* (0.0026%)  
p.C250Wfs\*2 (0.0026%)  
p.H196Rfs\*22 (0.0026%)  
p.T167I (0.0026%)  
p.D22Y (0.0026%)  
p.R161G (0.0026%)  
p.Y16Xfs\*14 (0.0026%)  
p.Y155C (0.0026%)  
p.I203V (0.0026%)  
p.A148E (0.0026%)  
p.K144\* (0.0026%)  
p.H118D (0.0026%)  
p.E150Rfs\*30 (0.0026%)  
p.I253\* (0.0026%)  
p.D268Vfs\*31 (0.0026%)  
p.G230R (0.0026%)  
p.C296Mfs\*2 (0.0026%)  
p.D162G (0.0026%)  
p.Y16\* (0.0026%)  
p.F145Vfs\*35 (0.0026%)  
p.F154S (0.0026%)  
p.G129R (0.0026%)  
p.D116G (0.0026%)  
p.C124S (0.0026%)  
p.K147R (0.0026%)  
p.L57S (0.0026%)  
p.E99K (0.0026%)  
p.I253N (0.0026%)  
p.E40Kfs\*14 (0.0026%)  
p.K254Rfs\*42 (0.0026%)  
p.T194P (0.0333%)  
p.T311P (0.0231%)  
p.T349P (0.0205%)  
p.R1627H (0.0103%)  
p.A426G (0.0051%)  
p.M2318T (0.0051%)  
p.V392A (0.0051%)  
p.C537S (0.0051%)  
p.E483K (0.0051%)  
p.A208S (0.0051%)  
p.V1324M (0.0051%)  
p.M2318V (0.0051%)  
p.G996V (0.0051%)  
p.T551S (0.0051%)  
p.A1338V (0.0051%)  
p.C440S (0.0051%)  
p.C904S (0.0051%)  
p.G785V (0.0051%)  
p.V53L (0.0051%)  
p.E159D (0.0051%)  
p.R1568M (0.0051%)  
p.L122M (0.0051%)  
p.A2101T (0.0051%)  
p.C117R (0.0051%)  
p.E1771K (0.0051%)  
p.D2442N (0.0051%)  
p.D909N (0.0051%)  
p.T906N (0.0051%)  
p.G2243S (0.0051%)  
p.G1177R (0.0051%)  
p.R176Q (0.0051%)  
p.S2290I (0.0051%)  
p.G583D (0.0051%)  
p.P547H (0.0051%)  
p.N735= (0.0026%)  
p.P1153H (0.0026%)  
p.A2425V (0.0026%)  
p.T588P (0.0026%)  
p.P649T (0.0026%)  
p.R938Q (0.0026%)  
p.G2430A (0.0026%)  
p.P1862Q (0.0026%)  
p.R912W (0.0026%)  
p.D1681N (0.0026%)  
p.R1982L (0.0026%)  
p.V1577M (0.0026%)  
p.A1643T (0.0026%)  
p.N755del (0.0026%)  
p.D1429Afs\*14 (0.0026%)  
p.G1091S (0.0026%)  
p.I908M (0.0026%)  
p.D1429Tfs\*14 (0.0026%)  
p.G230Efs\*26 (0.0026%)  
p.K1607Q (0.0026%)  
p.P1884Q (0.0026%)  
p.Q510dup (0.0154%)  
p.T2145I (0.0103%)  
p.E2220K (0.0103%)  
p.Q600\* (0.0051%)  
p.P1567L (0.0051%)  
p.K542\* (0.0051%)  
p.D401Y (0.0051%)  
p.Q599K (0.0051%)  
p.Q2151K (0.0051%)  
p.E1381V (0.0051%)  
p.T794P (0.0051%)  
p.L245P (0.0051%)  
p.A602V (0.0051%)  
p.S1518W (0.0051%)  
p.G2049E (0.0051%)  
p.A1759D (0.0051%)  
p.L254R (0.0051%)  
p.A1112D (0.0051%)  
p.D521Y (0.0051%)  
p.T784P (0.0051%)  
p.P1015T (0.0051%)  
p.S2054N (0.0051%)  
p.P1536S (0.0051%)  
p.I1628V (0.0051%)  
p.E170D (0.0051%)  
p.G1552D (0.0051%)  
p.V2056M (0.0051%)  
p.R1949\* (0.0051%)  
p.S1017N (0.0051%)  
p.P997T (0.0051%)  
p.Q427R (0.0051%)  
p.L2212\* (0.0051%)  
p.G2122E (0.0051%)  
p.R2445C (0.0051%)  
p.S2252G (0.0051%)  
p.C2168R (0.0051%)  
p.S1837\_G1839dup (0.0051%)  
p.G1179E (0.0051%)  
p.R1423H (0.0051%)  
p.S1845G (0.0051%)  
p.F1164S (0.0051%)  
p.A1421V (0.0051%)  
p.L1868= (0.0026%)  
p.N1658T (0.0026%)  
p.T905= (0.0026%)  
p.V1487G (0.0026%)  
p.Q498= (0.0026%)  
p.G781E (0.0026%)  
p.P1115= (0.0026%)  
p.R1993S (0.0026%)  
p.L1441Wfs\*52 (0.0026%)  
p.Q499= (0.0026%)  
p.L1643Q (0.0026%)  
p.A1958S (0.0026%)  
p.L167F (0.0103%)  
p.W308R (0.0077%)  
p.L572S (0.0051%)  
p.E1051K (0.0051%)  
p.Q2220K (0.0051%)  
p.D2597N (0.0051%)  
p.A1950S (0.0051%)  
p.C1674\* (0.0051%)  
p.L364F (0.0051%)  
p.L174I (0.0051%)  
p.I1547V (0.0051%)  
p.F1588L (0.0051%)  
p.Q2881K (0.0051%)  
p.L1295I (0.0051%)  
p.T2947A (0.0051%)  
p.T1880R (0.0026%)  
p.R457\* (0.0026%)  
p.L2738\* (0.0026%)  
p.T2654Ifs\*6 (0.0026%)  
p.R2832C (0.0026%)  
p.L2877F (0.0026%)  
p.R568I (0.0026%)  
p.Y2437S (0.0026%)  
p.I1581Nfs\*5 (0.0026%)  
p.L2307F (0.0026%)  
p.E1707Nfs\*7 (0.0026%)  
p.D2725H (0.0026%)  
p.E2493Q (0.0026%)  
p.S2859F (0.0026%)  
p.Y1124\* (0.0026%)  
p.R2993\* (0.0026%)  
p.E2164Q (0.0026%)  
p.E1612Q (0.0026%)  
p.G2694E (0.0026%)  
p.L1737F (0.0026%)  
p.Q1274E (0.0026%)  
p.N2435K (0.0026%)  
p.M779I (0.0026%)  
p.K2440E (0.0026%)  
p.R23\* (0.0026%)  
p.R2526G (0.0026%)  
p.C1873Y (0.0026%)  
p.L2312F (0.0026%)  
p.R2691S (0.0026%)  
p.D2448H (0.0026%)  
p.G2922V (0.0026%)  
p.T195Nfs\*9 (0.0026%)  
p.K331N (0.0026%)  
p.L2132V (0.0026%)  
p.L1910R (0.0026%)  
p.S1691R (0.0026%)  
p.Q2297\* (0.0026%)  
p.L804Xfs\*4 (0.0026%)  
p.S978Xfs\*12 (0.0026%)  
p.E2164G (0.0026%)  
p.S2408Rfs\*10 (0.0026%)  
p.M1714Afs\*6 (0.0026%)  
p.D2708N (0.0026%)  
p.W2845C (0.0026%)  
p.E343Ifs\*2 (0.0026%)  
p.D2721N (0.0026%)  
p.R19T (0.0026%)  
p.T2228I (0.0026%)  
p.Q2177\* (0.0026%)  
p.D2997G (0.0026%)  
p.Q2066\* (0.0026%)  
p.K573\* (0.0026%)  
p.L2452P (0.0026%)  
p.V410A (0.0026%)  
p.S1988I (0.0026%)  
p.H996R (0.0026%)  
p.P604S (0.0026%)  
p.L1392F (0.0128%)  
p.K1788R (0.0051%)  
p.T1336A (0.0051%)  
p.D1386G (0.0051%)  
p.N3836Y (0.0051%)  
p.Q1832R (0.0051%)  
p.R1271G (0.0051%)  
p.L2442P (0.0051%)  
p.A428E (0.0051%)  
p.M1377T (0.0051%)  
p.N3043D (0.0051%)  
p.Q2704H (0.0051%)  
p.T130S (0.0051%)  
p.G2406W (0.0051%)  
p.A4031V (0.0051%)  
p.Q1358R (0.0051%)  
p.R2785G (0.0051%)  
p.A3893S (0.0051%)  
p.V2003M (0.0051%)  
p.S3078I (0.0051%)  
p.K1277R (0.0051%)  
p.G4304R (0.0051%)  
p.V4301L (0.0051%)  
p.S3062F (0.0051%)  
p.W3985S (0.0051%)  
p.E1978D (0.0051%)  
p.V1960F (0.0051%)  
p.E3550= (0.0026%)  
p.G1001= (0.0026%)  
p.S1752= (0.0026%)  
p.W1665\* (0.0026%)  
p.D4156Y (0.0026%)  
p.M681K (0.0026%)  
p.D2941= (0.0026%)  
p.G2661V (0.0026%)  
p.P4587S (0.0026%)  
p.R4469T (0.0026%)  
p.M359I (0.0026%)  
p.N707S (0.0026%)  
p.T2238I (0.0026%)  
p.A3541T (0.0026%)  
p.D3467= (0.0026%)  
p.R3064\* (0.0026%)  
p.W1943\* (0.0026%)  
p.W3533G (0.0026%)  
p.A3523P (0.0026%)  
p.E109K (0.0026%)  
p.V2947= (0.0026%)  
p.C3867Y (0.0026%)  
p.T2656P (0.0026%)  
p.G759C (0.0026%)  
p.N2330fs\*2 (0.0026%)  
p.K49R (0.0231%)  
p.T40I (0.0205%)  
p.S45P (0.0128%)  
p.E1352\* (0.0103%)  
p.P44S (0.0103%)  
p.S37F (0.0103%)  
p.E55K (0.0077%)  
p.D58N (0.0077%)  
p.G154S (0.0051%)  
p.F4579L (0.0051%)  
p.G1959W (0.0051%)  
p.P4886L (0.0051%)  
p.G1959V (0.0051%)  
p.R4692W (0.0051%)  
p.V4639A (0.0051%)  
p.V4691F (0.0051%)  
p.A1716V (0.0051%)  
p.H1609Q (0.0051%)  
p.R2370C (0.0051%)  
p.L301H (0.0051%)  
p.Q3789E (0.0051%)  
p.S3781I (0.0051%)  
p.E53K (0.0051%)  
p.Q3913\* (0.0051%)  
p.T4602S (0.0051%)  
p.P52L (0.0051%)  
p.E54K (0.0051%)  
p.S47N (0.0051%)  
p.S45F (0.0051%)  
p.L347P (0.0051%)  
p.V22A (0.0051%)  
p.P44L (0.0051%)  
p.G4866= (0.0026%)  
p.H3011Q (0.0026%)  
p.G3013= (0.0026%)  
p.L3014= (0.0026%)  
p.P1106L (0.0026%)  
p.Q1435H (0.0026%)  
p.W4774\* (0.0026%)  
p.Y4867\* (0.0026%)  
p.E445= (0.0026%)  
p.V600L (0.0026%)  
p.T1708A (0.0026%)  
p.V600A (0.0026%)  
p.F599L (0.0026%)  
p.L2751= (0.0026%)  
p.P2752A (0.0026%)  
p.E5291K (0.0026%)  
p.Q3278= (0.0026%)  
p.L3906Q (0.0026%)  
p.A5187T (0.0026%)  
p.F2494Cfs\*12 (0.0026%)  
p.L4108P (0.0026%)  
p.A1390Gfs\*42 (0.0026%)  
p.E3181V (0.0026%)  
p.E3181\* (0.0026%)  
p.E3181L (0.0026%)  
p.L2610P (0.0026%)  
p.V3089Wfs\*30 (0.0026%)  
p.E3562D (0.0026%)  
p.E888K (0.0026%)  
p.K3573N (0.0026%)  
p.Q3460H (0.0026%)  
p.R4989W (0.0026%)  
p.W1469C (0.0026%)  
p.G1235Vfs\*95 (0.0026%)  
p.G2595W (0.0026%)  
p.R5179H (0.0026%)  
p.N2517Ifs\*26 (0.0026%)  
p.W1973\* (0.0026%)  
p.L3677= (0.0026%)  
p.Y30S (0.0026%)  
p.S33P (0.0026%)  
p.A525V (0.0026%)  
p.A43V (0.0026%)  
p.P903S (0.0026%)  
p.S715R (0.0026%)  
p.L4256R (0.0026%)  
p.L46V (0.0026%)  
p.G38D (0.0026%)  
p.T41S (0.0026%)  
p.Q4284\* (0.0026%)  
p.T42I (0.0026%)  
p.S33F (0.0026%)  
p.D17H (0.0026%)  
p.V57A (0.0026%)  
p.P602= (0.0026%)  
p.Y716C (0.0026%)  
p.G3230A (0.0026%)  
p.F961L (0.0026%)  
p.R2645\* (0.0026%)  
p.A20V (0.0026%)  
p.H36Y (0.0026%)  
p.P744T (0.0026%)  
p.S60F (0.0026%)  
p.D3061Qfs\*7 (0.0026%)  
p.P711L (0.0026%)  
p.C392Kfs\*9 (0.0026%)  
p.S2309T (0.0026%)  
p.S29P (0.0026%)  
p.D56N (0.0026%)  
p.E1527K (0.0026%)  
p.P2465S (0.0026%)  
p.T41I (0.0026%)  
p.A39T (0.0026%)  
p.K49E (0.0026%)  
p.R844H (0.0461%)  
p.Q870H (0.0256%)  
p.R844C (0.0205%)  
p.D448A (0.0179%)  
p.S142T (0.0103%)  
p.A478V (0.0103%)  
p.V2194Ffs\*5 (0.0103%)  
p.Q1062\* (0.0077%)  
p.D610Y (0.0051%)  
p.E582V (0.0051%)  
p.A61D (0.0051%)  
p.Y159C (0.0051%)  
p.P459R (0.0051%)  
p.Q1529\* (0.0051%)  
p.A513S (0.0051%)  
p.D430A (0.0051%)  
p.P119A (0.0051%)  
p.G1499R (0.0051%)  
p.I1307K (0.0051%)  
p.T267A (0.0051%)  
p.D1714Y (0.0051%)  
p.A208T (0.0051%)  
p.C520Yfs\*15 (0.0026%)  
p.E1317Q (0.0051%)  
p.T1556Nfs\*3 (0.0051%)  
p.E1309Dfs\*4 (0.0051%)  
p.Q886\* (0.0051%)  
p.Y486= (0.0026%)  
p.P1140= (0.0026%)  
p.T407= (0.0026%)  
p.P411= (0.0026%)  
p.A502D (0.0026%)  
p.P54H (0.0026%)  
p.S631\* (0.0026%)  
p.S2789I (0.0026%)  
p.R24\* (0.0026%)  
p.A1485T (0.0026%)  
p.E52K (0.0026%)  
p.E251Q (0.0026%)  
p.D460A (0.0026%)  
p.R564\* (0.0026%)  
p.L831S (0.0026%)  
p.E788A (0.0026%)  
p.K2553E (0.0026%)  
p.Q1338\* (0.0026%)  
p.G1339D (0.0026%)  
p.G2190E (0.0026%)  
p.Q593\* (0.0026%)  
p.G414A (0.0026%)  
p.P1442H (0.0026%)  
p.D1033N (0.0026%)  
p.R599H (0.0026%)  
p.V1390I (0.0026%)  
p.H1375Y (0.0026%)  
p.D442A (0.0026%)  
p.A247S (0.0026%)  
p.P1433L (0.0026%)  
p.Q541R (0.0026%)  
p.E662K (0.0026%)  
p.R1171Tfs\*8 (0.0026%)  
p.S982Rfs\*23 (0.0026%)  
p.R640W (0.0026%)  
p.G617R (0.0026%)  
p.G251R (0.0026%)  
p.S1042Vfs\*14 (0.0026%)  
p.S848F (0.0026%)  
p.H298Lfs\*28 (0.0026%)  
p.R4C (0.0026%)  
p.L308Wfs\*28 (0.0026%)  
p.R844S (0.0026%)  
p.E902Dfs\*3 (0.0026%)  
p.N728Ifs\*33 (0.0026%)  
p.K534Nfs\*15 (0.0026%)  
p.K1454Nfs\*3 (0.0026%)  
p.P1076Lfs\*50 (0.0026%)  
p.C607Xfs\*2 (0.0026%)  
p.C607Wfs\*3 (0.0026%)  
p.Y935\* (0.0026%)  
p.Q870K (0.0026%)  
p.I337= (0.0026%)  
p.Q870R (0.0026%)  
p.N810K (0.0026%)  
p.G857\* (0.0026%)  
p.S1346P (0.0026%)  
p.N641Mfs\*5 (0.0026%)  
p.E1536\* (0.0026%)  
p.S295Ifs\*10 (0.0026%)  
p.P450dup (0.0103%)  
p.G56D (0.0077%)  
p.G407D (0.0051%)  
p.T1053A (0.0051%)  
p.F230C (0.0051%)  
p.S413P (0.0051%)  
p.A338V (0.0051%)  
p.Y997H (0.0051%)  
p.G568R (0.0051%)  
p.L1063P (0.0051%)  
p.P428S (0.0051%)  
p.Q108K (0.0051%)  
p.P239T (0.0051%)  
p.S1088\* (0.0051%)  
p.Q958K (0.0051%)  
p.A1030E (0.0051%)  
p.A1384T (0.0051%)  
p.H91R (0.0051%)  
p.M380T (0.0051%)  
p.G1360V (0.0051%)  
p.G400E (0.0051%)  
p.Q846R (0.0051%)  
p.S48Y (0.0051%)  
p.G332A (0.0051%)  
p.A331G (0.0051%)  
p.G1480= (0.0026%)  
p.H1983= (0.0026%)  
p.G1824= (0.0026%)  
p.Q1530H (0.0026%)  
p.G357dup (0.0026%)  
p.P807S (0.0026%)  
p.E1835Q (0.0026%)  
p.Q126\_Q131del (0.0026%)  
p.P508S (0.0026%)  
p.G1159W (0.0026%)  
p.G308S (0.0026%)  
p.A347\_A350del (0.0026%)  
p.R1953H (0.0026%)  
p.G927A (0.0026%)  
p.S270F (0.0026%)  
p.G355\_G356insS (0.0026%)  
p.G319dup (0.0026%)  
p.N1128T (0.0026%)  
p.Q1675K (0.0026%)  
p.Q123\_Q131del (0.0026%)  
p.Q1400\* (0.0026%)  
p.D1741N (0.0026%)  
p.S369N (0.0026%)  
p.W1122C (0.0026%)  
p.R1534\* (0.0103%)  
p.Y2285Tfs\*5 (0.0103%)  
p.A3V (0.0077%)  
p.E318Kfs\*11 (0.0077%)  
p.K583E (0.0051%)  
p.Q786K (0.0051%)  
p.W2712\* (0.0051%)  
p.Q28\* (0.0051%)  
p.Q239R (0.0051%)  
p.T482K (0.0051%)  
p.P1323H (0.0051%)  
p.A2407T (0.0051%)  
p.R1870W (0.0051%)  
p.P22S (0.0051%)  
p.G629R (0.0051%)  
p.G1166S (0.0051%)  
p.Q1235\* (0.0051%)  
p.C147\* (0.0051%)  
p.F2714Vfs\*16 (0.0051%)  
p.L2711F (0.0026%)  
p.R192\* (0.0026%)  
p.A1125= (0.0026%)  
p.R262H (0.0026%)  
p.R2258\* (0.0026%)  
p.L1167Sfs\*22 (0.0026%)  
p.D254\_V266del (0.0026%)  
p.A2532V (0.0026%)  
p.T1052Nfs\*8 (0.0026%)  
p.L1511Efs\*17 (0.0026%)  
p.C167Qfs\*10 (0.0026%)  
p.Q2373\* (0.0026%)  
p.T586Sfs\*5 (0.0026%)  
p.Q236\* (0.0026%)  
p.K1568R (0.0026%)  
p.L1869\* (0.0026%)  
p.Q554H (0.0026%)  
p.S2523N (0.0026%)  
p.E775V (0.0026%)  
p.C709Vfs\*39 (0.0026%)  
p.A2818T (0.0026%)  
p.Q2266\* (0.0026%)  
p.L161\* (0.0026%)  
p.K1701R (0.0026%)  
p.D2632G (0.0026%)  
p.I1845Rfs\*13 (0.0026%)  
p.K1444E (0.0026%)  
p.Q347\* (0.0026%)  
p.G44C (0.0231%)  
p.K177N (0.0051%)  
p.I938F (0.0051%)  
p.Q426K (0.0051%)  
p.H731R (0.0051%)  
p.H1066N (0.0051%)  
p.V1439F (0.0051%)  
p.I1382T (0.0051%)  
p.S1602\* (0.0051%)  
p.L1235M (0.0051%)  
p.Q733\* (0.0051%)  
p.T37A (0.0051%)  
p.R1712Q (0.0051%)  
p.F1579L (0.0051%)  
p.Q1721K (0.0051%)  
p.S1793G (0.0051%)  
p.R1343H (0.0051%)  
p.P49H (0.0051%)  
p.N1576D (0.0051%)  
p.P1766H (0.0051%)  
p.H2116\_Q2119dup (0.0051%)  
p.E949V (0.0051%)  
p.Q2063\* (0.0026%)  
p.Q2068= (0.0026%)  
p.T2045= (0.0026%)  
p.Q2108= (0.0026%)  
p.Q2113= (0.0026%)  
p.Q2103= (0.0026%)  
p.Q2147= (0.0026%)  
p.H2116Q (0.0026%)  
p.G1397W (0.0026%)  
p.S745L (0.0026%)  
p.Q2112\_Q2113insH (0.0026%)  
p.V1439= (0.0026%)  
p.R108Q (0.0026%)  
p.V1061I (0.0026%)  
p.G1952E (0.0026%)  
p.I796Afs\*24 (0.0026%)  
p.Q2115del (0.0026%)  
p.D1571N (0.0026%)  
p.S912L (0.0026%)  
p.Q43P (0.0026%)  
p.Q2076del (0.0026%)  
p.R133K (0.0308%)  
p.R69W (0.0128%)  
p.H89N (0.0103%)  
p.S91T (0.0103%)  
p.T72R (0.0077%)  
p.I67M (0.0077%)  
p.G919D (0.0051%)  
p.H142N (0.0051%)  
p.Q3200\* (0.0051%)  
p.G735A (0.0051%)  
p.L1239Q (0.0051%)  
p.C1090Y (0.0051%)  
p.Q1734\* (0.0051%)  
p.C1237R (0.0051%)  
p.A3533V (0.0051%)  
p.Q2035R (0.0051%)  
p.C415Y (0.0051%)  
p.E1230D (0.0051%)  
p.A2054S (0.0051%)  
p.Y1071C (0.0051%)  
p.L1256P (0.0051%)  
p.R456Q (0.0051%)  
p.G3511C (0.0051%)  
p.A1182V (0.0051%)  
p.W446\* (0.0051%)  
p.G1127W (0.0051%)  
p.S3513G (0.0051%)  
p.L209P (0.0051%)  
p.G2874W (0.0051%)  
p.D1134E (0.0051%)  
p.H1270Q (0.0051%)  
p.M1287V (0.0051%)  
p.T459K (0.0051%)  
p.R386M (0.0051%)  
p.W478\* (0.0051%)  
p.G266D (0.0051%)  
p.P795= (0.0051%)  
p.Q1741del (0.0051%)  
p.R68W (0.0051%)  
p.K66Q (0.0051%)  
p.G3514A (0.0051%)  
p.Q3204dup (0.0051%)  
p.S3639L (0.0051%)  
p.P1392= (0.0026%)  
p.E460Q (0.0026%)  
p.Y991F (0.0026%)  
p.R3381Q (0.0026%)  
p.S72A (0.0026%)  
p.G3525\_G3527del (0.0026%)  
p.Q1733= (0.0026%)  
p.Q1740\_Q1741del (0.0026%)  
p.H822Q (0.0026%)  
p.L289= (0.0026%)  
p.S3177L (0.0026%)  
p.S2515\* (0.0026%)  
p.S3649= (0.0026%)  
p.L1573Ffs\*25 (0.0026%)  
p.R3429Vfs\*56 (0.0026%)  
p.Q1847\* (0.0026%)  
p.K1551E (0.0026%)  
p.H1571R (0.0026%)  
p.G1022D (0.0026%)  
p.S3585= (0.0026%)  
p.Y1366\* (0.0026%)  
p.L1787Qfs\*3 (0.0026%)  
p.Q2304R (0.0026%)  
p.P1595A (0.0026%)  
p.L2474R (0.0026%)  
p.V1881= (0.0026%)  
p.R2161W (0.0026%)  
p.A1214G (0.0026%)  
p.E475\* (0.0026%)  
p.A89= (0.0026%)  
p.P6Rfs\*27 (0.0154%)  
p.N46S (0.0103%)  
p.R5= (0.0051%)  
p.L1119F (0.0051%)  
p.A226V (0.0051%)  
p.C465W (0.0051%)  
p.K1894R (0.0051%)  
p.S614G (0.0051%)  
p.D1720E (0.0051%)  
p.R1889W (0.0051%)  
p.T2440A (0.0051%)  
p.R1911C (0.0051%)  
p.D1974G (0.0051%)  
p.Q1923K (0.0051%)  
p.A1771V (0.0051%)  
p.A23T (0.0051%)  
p.G1900C (0.0051%)  
p.T235S (0.0051%)  
p.C611F (0.0051%)  
p.D1327G (0.0051%)  
p.P67T (0.0051%)  
p.S2460P (0.0026%)  
p.M2459I (0.0026%)  
p.C19W (0.0026%)  
p.G1354R (0.0026%)  
p.E38K (0.0026%)  
p.P521H (0.0026%)  
p.A21T (0.0026%)  
p.F1209V (0.0026%)  
p.L1413H (0.0026%)  
p.P2303H (0.0026%)  
p.R1410S (0.0026%)  
p.R1895H (0.0026%)  
p.Q2364\* (0.0026%)  
p.S671T (0.0026%)  
p.R1341M (0.0026%)  
p.T281I (0.0026%)  
p.W290C (0.0026%)  
p.R1410H (0.0026%)  
p.D1921A (0.0026%)  
p.C227\* (0.0051%)  
p.A1257E (0.0051%)  
p.P685T (0.0051%)  
p.G269D (0.0051%)  
p.G671A (0.0051%)  
p.A306D (0.0051%)  
p.R1201S (0.0051%)  
p.G743D (0.0051%)  
p.T1330M (0.0051%)  
p.V1128I (0.0051%)  
p.A86V (0.0051%)  
p.S838N (0.0051%)  
p.Y480H (0.0051%)  
p.R1634H (0.0051%)  
p.R1639S (0.0051%)  
p.L830P (0.0051%)  
p.N275I (0.0051%)  
p.V806A (0.0051%)  
p.Q1178\* (0.0051%)  
p.N187Qfs\*2 (0.0051%)  
p.A77T (0.0051%)  
p.D1705N (0.0051%)  
p.L1624= (0.0026%)  
p.Y1593\* (0.0026%)  
p.P91L (0.0026%)  
p.F1510del (0.0026%)  
p.E1490Q (0.0026%)  
p.R98W (0.0026%)  
p.A1195V (0.0026%)  
p.G265C (0.0026%)  
p.K12= (0.0026%)  
p.Y480C (0.0026%)  
p.F1275Lfs\*46 (0.0026%)  
p.D1478V (0.0026%)  
p.C1587Y (0.0026%)  
p.K1382N (0.0051%)  
p.S1352G (0.0051%)  
p.G95C (0.0051%)  
p.L1653S (0.0051%)  
p.Q1066R (0.0051%)  
p.S998P (0.0051%)  
p.Y308H (0.0051%)  
p.S90G (0.0051%)  
p.Q605R (0.0051%)  
p.A612T (0.0051%)  
p.F1641Y (0.0051%)  
p.D1850Tfs\*33 (0.0051%)  
p.S1195G (0.0051%)  
p.Q1334del (0.0051%)  
p.S1791\* (0.0051%)  
p.S668C (0.0026%)  
p.T663S (0.0026%)  
p.Q172H (0.0026%)  
p.T1565P (0.0026%)  
p.S523P (0.0026%)  
p.N722Qfs\*95 (0.0026%)  
p.L1706I (0.0026%)  
p.L2259Wfs\*8 (0.0026%)  
p.T1164P (0.0026%)  
p.A339Lfs\*24 (0.0026%)  
p.R693\* (0.0026%)  
p.G1549D (0.0026%)  
p.Q1363\* (0.0026%)  
p.A1472V (0.0026%)  
p.P1878Hfs\*8 (0.0026%)  
p.S881\* (0.0026%)  
p.S2264L (0.0026%)  
p.S2249\* (0.0026%)  
p.P490S (0.0026%)  
p.H203Rfs\*196 (0.0026%)  
p.M1154L (0.0026%)  
p.M434V (0.0026%)  
p.Q372Afs\*28 (0.0026%)  
p.T1599I (0.0026%)  
p.Q393\* (0.0026%)  
p.G1926R (0.0026%)  
p.Q268\* (0.0026%)  
p.S232Afs\*126 (0.0026%)  
p.Q944\* (0.0026%)  
p.R710C (0.0026%)  
p.L2009F (0.0026%)  
p.P1758Hfs\*14 (0.0026%)  
p.R295H (0.0128%)  
p.K1454E (0.0103%)  
p.R171K (0.0103%)  
p.P526L (0.0103%)  
p.P155R (0.0103%)  
p.T2297A (0.0077%)  
p.R119H (0.0077%)  
p.E410V (0.0077%)  
p.G572R (0.0077%)  
p.R401Q (0.0077%)  
p.P218S (0.0077%)  
p.T79I (0.0077%)  
p.P693S (0.0077%)  
p.P2355H (0.0051%)  
p.W560\* (0.0051%)  
p.G2229= (0.0051%)  
p.Y162\* (0.0051%)  
p.E671V (0.0051%)  
p.T457S (0.0051%)  
p.D590G (0.0051%)  
p.R2995K (0.0051%)  
p.Y1367\* (0.0051%)  
p.L790P (0.0051%)  
p.M896V (0.0051%)  
p.A3841V (0.0051%)  
p.L1303R (0.0051%)  
p.G1936V (0.0051%)  
p.D719G (0.0051%)  
p.N3252D (0.0051%)  
p.S2902R (0.0051%)  
p.R2917S (0.0051%)  
p.A963V (0.0051%)  
p.T989N (0.0051%)  
p.M3500V (0.0051%)  
p.A363T (0.0051%)  
p.C2035S (0.0051%)  
p.G3R (0.0051%)  
p.G483S (0.0051%)  
p.S2339G (0.0051%)  
p.A1407V (0.0051%)  
p.Y956F (0.0051%)  
p.Q2451P (0.0051%)  
p.D301N (0.0051%)  
p.V920F (0.0051%)  
p.L1540P (0.0051%)  
p.A1468S (0.0051%)  
p.S1777C (0.0051%)  
p.V1142M (0.0051%)  
p.S653G (0.0051%)  
p.Q678K (0.0051%)  
p.R713H (0.0051%)  
p.A18D (0.0051%)  
p.A2037V (0.0051%)  
p.T1724A (0.0051%)  
p.D3852N (0.0051%)  
p.A522T (0.0051%)  
p.A3841T (0.0051%)  
p.V2925L (0.0051%)  
p.A989T (0.0051%)  
p.E812\* (0.0051%)  
p.A672D (0.0051%)  
p.R298W (0.0051%)  
p.P518T (0.0051%)  
p.P1330T (0.0051%)  
p.G7W (0.0051%)  
p.R171H (0.0051%)  
p.E1404G (0.0051%)  
p.V3226M (0.0051%)  
p.L2292= (0.0051%)  
p.R855G (0.0051%)  
p.R146G (0.0051%)  
p.E2103D (0.0051%)  
p.S1337G (0.0051%)  
p.G1262\* (0.0051%)  
p.K902R (0.0051%)  
p.A1751S (0.0051%)  
p.T402M (0.0051%)  
p.S2174Y (0.0051%)  
p.R1570Q (0.0051%)  
p.E2223G (0.0051%)  
p.T213I (0.0051%)  
p.W564\* (0.0051%)  
p.Q714\* (0.0051%)  
p.T636Vfs\*134 (0.0051%)  
p.W821\* (0.0051%)  
p.L602Sfs\*11 (0.0051%)  
p.H482R (0.0051%)  
p.L484= (0.0051%)  
p.S77F (0.0051%)  
p.Q350\* (0.0051%)  
p.L601Cfs\*12 (0.0051%)  
p.A76V (0.0051%)  
p.E132D (0.0051%)  
p.F1013I (0.0026%)  
p.S2247= (0.0026%)  
p.A1510= (0.0026%)  
p.N1396S (0.0026%)  
p.N3165T (0.0026%)  
p.H1598R (0.0026%)  
p.A724T (0.0026%)  
p.E1616= (0.0026%)  
p.A2328= (0.0026%)  
p.V1371I (0.0026%)  
p.T923= (0.0026%)  
p.D744= (0.0026%)  
p.T1583= (0.0026%)  
p.M630L (0.0026%)  
p.D860N (0.0026%)  
p.A3351= (0.0026%)  
p.A2257= (0.0026%)  
p.K529= (0.0026%)  
p.L2199= (0.0026%)  
p.R294C (0.0026%)  
p.R728W (0.0026%)  
p.A581T (0.0026%)  
p.G218S (0.0026%)  
p.L750Q (0.0026%)  
p.R2906C (0.0026%)  
p.A1883V (0.0026%)  
p.G1535S (0.0026%)  
p.P551H (0.0026%)  
p.S92R (0.0026%)  
p.H352N (0.0026%)  
p.P370T (0.0026%)  
p.R881C (0.0026%)  
p.R3299H (0.0026%)  
p.P1525L (0.0026%)  
p.P436S (0.0026%)  
p.R1308Q (0.0026%)  
p.R295\* (0.0026%)  
p.A526T (0.0026%)  
p.A1025T (0.0026%)  
p.E578del (0.0026%)  
p.G2204E (0.0026%)  
p.R831C (0.0026%)  
p.D777Ifs\*90 (0.0026%)  
p.E495\* (0.0026%)  
p.S75N (0.0026%)  
p.G514R (0.0026%)  
p.K275Sfs\*56 (0.0026%)  
p.R431C (0.0026%)  
p.Q2060K (0.0026%)  
p.E815\* (0.0026%)  
p.E2177Q (0.0026%)  
p.H446N (0.0026%)  
p.S686F (0.0026%)  
p.Q809R (0.0026%)  
p.E322\* (0.0026%)  
p.E638K (0.0026%)  
p.S644N (0.0026%)  
p.T436Sfs\*113 (0.0026%)  
p.S115Tfs\*84 (0.0026%)  
p.W821G (0.0026%)  
p.W821Dfs\*37 (0.0026%)  
p.P610Lfs\*159 (0.0026%)  
p.N466Y (0.0026%)  
p.Q822\* (0.0026%)  
p.A259G (0.0026%)  
p.M1649I (0.0026%)  
p.K601Nfs\*168 (0.0026%)  
p.D365N (0.0026%)  
p.D525N (0.0026%)  
p.G773C (0.0026%)  
p.A20S (0.0026%)  
p.R452M (0.0026%)  
p.V550M (0.0026%)  
p.E718K (0.0026%)  
p.L382P (0.0026%)  
p.A696Tfs\*41 (0.0026%)  
p.Q666\* (0.0026%)  
p.S619Afs\*150 (0.0026%)  
p.R137K (0.0026%)  
p.T2576P (0.0026%)  
p.Q832Rfs\*18 (0.0026%)  
p.E671G (0.0026%)  
p.V582A (0.0026%)  
p.I3105T (0.0026%)  
p.A39G (0.0026%)  
p.R492H (0.0026%)  
p.P78S (0.0026%)  
p.P748= (0.0026%)  
p.P336Afs\*30 (0.0026%)  
p.E1715Q (0.0026%)  
p.E800Rfs\*67 (0.0026%)  
p.S75G (0.0026%)  
p.A330V (0.0026%)  
p.S3592Y (0.0026%)  
p.I333T (0.0026%)  
p.E117\* (0.0026%)  
p.E2276K (0.0026%)  
p.W85\* (0.0026%)  
p.G1498R (0.0026%)  
p.C829W (0.0026%)  
p.K2069N (0.0026%)  
p.Y101Ifs\*90 (0.0026%)  
p.R2145\* (0.0026%)  
p.Q590\* (0.0026%)  
p.Q849R (0.0026%)  
p.D746Efs\*36 (0.0026%)  
p.S232L (0.0026%)  
p.Y680\* (0.0026%)  
p.R725Gfs\*46 (0.0026%)  
p.Q915\* (0.0026%)  
p.L1418= (0.0026%)  
p.S394= (0.0026%)  
p.P378= (0.0026%)  
p.E134K (0.0026%)  
p.T60I (0.0026%)  
p.H751Y (0.0026%)  
p.Q324L (0.0026%)  
p.E1637K (0.0077%)  
p.A1520T (0.0103%)  
p.L1460P (0.0103%)  
p.H508= (0.0051%)  
p.I459T (0.0051%)  
p.M1515I (0.0051%)  
p.E1361D (0.0051%)  
p.E2080V (0.0051%)  
p.Y1070H (0.0051%)  
p.Q499K (0.0051%)  
p.D500G (0.0051%)  
p.C1303R (0.0051%)  
p.L748P (0.0051%)  
p.V1323E (0.0051%)  
p.C2400F (0.0051%)  
p.R1154Q (0.0051%)  
p.A648S (0.0051%)  
p.A340T (0.0051%)  
p.R1080H (0.0051%)  
p.D2433E (0.0051%)  
p.T571M (0.0051%)  
p.M1083I (0.0051%)  
p.L1163P (0.0051%)  
p.L1343P (0.0051%)  
p.R1203H (0.0051%)  
p.R448H (0.0051%)  
p.Q1387K (0.0051%)  
p.Q347L (0.0051%)  
p.A480T (0.0051%)  
p.A293T (0.0051%)  
p.S312Y (0.0051%)  
p.F997L (0.0051%)  
p.P316H (0.0051%)  
p.H419R (0.0051%)  
p.L302P (0.0051%)  
p.A1577= (0.0026%)  
p.K1186E (0.0026%)  
p.A623T (0.0026%)  
p.A622= (0.0026%)  
p.A622D (0.0026%)  
p.S1851= (0.0026%)  
p.N999= (0.0026%)  
p.D479= (0.0026%)  
p.S1592= (0.0026%)  
p.V622M (0.0026%)  
p.F2108L (0.0026%)  
p.G1031S (0.0026%)  
p.P305Rfs\*21 (0.0026%)  
p.R1189L (0.0026%)  
p.T1264= (0.0026%)  
p.M113I (0.0026%)  
p.T1977R (0.0026%)  
p.E821K (0.0026%)  
p.F1234V (0.0026%)  
p.F1102L (0.0026%)  
p.R1077L (0.0026%)  
p.A2420V (0.0026%)  
p.P313L (0.0026%)  
p.T296S (0.0026%)  
p.P328L (0.0026%)  
p.I707T (0.0026%)  
p.I2500F (0.0026%)  
p.D1183H (0.0026%)  
p.Y1450D (0.0026%)  
p.R103Q (0.0026%)  
p.R1513C (0.0026%)  
p.K785M (0.0026%)  
p.S2215Y (0.0026%)  
p.Y1220D (0.0026%)  
p.I802T (0.0026%)  
p.K1219\* (0.0026%)  
p.E1496K (0.0026%)  
p.P930L (0.0026%)  
p.G21= (0.0026%)  
p.E1705K (0.0179%)  
p.L647Hfs\*10 (0.0128%)  
p.E1813K (0.0128%)  
p.E1813G (0.0128%)  
p.D1709G (0.0128%)  
p.E1813Q (0.0103%)  
p.I680T (0.0077%)  
p.Q504\* (0.0077%)  
p.K447R (0.0051%)  
p.S499R (0.0051%)  
p.R937C (0.0051%)  
p.K222N (0.0051%)  
p.M546T (0.0051%)  
p.K889R (0.0051%)  
p.C169Y (0.0051%)  
p.D224E (0.0051%)  
p.A234V (0.0051%)  
p.A11T (0.0051%)  
p.K1887R (0.0051%)  
p.E1705Q (0.0051%)  
p.W681\* (0.0051%)  
p.A1578V (0.0051%)  
p.E672\* (0.0051%)  
p.D1709N (0.0051%)  
p.L769Cfs\*41 (0.0051%)  
p.D1810H (0.0051%)  
p.E1813D (0.0051%)  
p.R579\* (0.0026%)  
p.P750S (0.0026%)  
p.S1282Lfs\*20 (0.0026%)  
p.R455\* (0.0026%)  
p.R251\* (0.0026%)  
p.Q702\* (0.0026%)  
p.Y728\* (0.0026%)  
p.R358\* (0.0026%)  
p.K63Ifs\*46 (0.0026%)  
p.R500T (0.0026%)  
p.N290Mfs\*11 (0.0026%)  
p.R758M (0.0026%)  
p.Q62\* (0.0026%)  
p.R467Q (0.0026%)  
p.M1402T (0.0026%)  
p.Y446\* (0.0026%)  
p.L797\* (0.0026%)  
p.Q84\* (0.0026%)  
p.P2Hfs\*43 (0.0026%)  
p.R552\* (0.0026%)  
p.M386I (0.0026%)  
p.W563\* (0.0026%)  
p.D68Efs\*37 (0.0026%)  
p.R1906S (0.0026%)  
p.Y1335\* (0.0026%)  
p.D1713Y (0.0026%)  
p.R798W (0.0026%)  
p.L512\* (0.0026%)  
p.E328K (0.0026%)  
p.Q766\* (0.0026%)  
p.S463fs\*? (0.0026%)  
p.P1210Tfs\*25 (0.0026%)  
p.Q121\* (0.0026%)  
p.P827S (0.0026%)  
p.V1773Sfs\*62 (0.0026%)  
p.E1705V (0.0026%)  
p.G1809R (0.0026%)  
p.G581Efs\*4 (0.0026%)  
p.D1810N (0.0026%)  
p.D1810Y (0.0026%)  
p.D1810V (0.0026%)  
p.Q1765L (0.0051%)  
p.F1703I (0.0051%)  
p.Q943R (0.0051%)  
p.P928T (0.0051%)  
p.G2220D (0.0051%)  
p.L2096I (0.0051%)  
p.Q1950P (0.0051%)  
p.S1940C (0.0051%)  
p.A644V (0.0051%)  
p.G591V (0.0051%)  
p.S602N (0.0051%)  
p.V2048M (0.0051%)  
p.K1595N (0.0051%)  
p.P1096Q (0.0051%)  
p.S1136Y (0.0051%)  
p.R1427W (0.0051%)  
p.Q1073\* (0.0051%)  
p.M866I (0.0026%)  
p.S868= (0.0026%)  
p.P1890= (0.0026%)  
p.P552L (0.0026%)  
p.R2190= (0.0026%)  
p.Q691\* (0.0026%)  
p.P1053L (0.0026%)  
p.Y1828\* (0.0026%)  
p.H67Qfs\*14 (0.0026%)  
p.S1761\* (0.0026%)  
p.M721I (0.0026%)  
p.R1103\* (0.0026%)  
p.T520A (0.0026%)  
p.P692H (0.0026%)  
p.S889L (0.0026%)  
p.A138D (0.0026%)  
p.Q125\* (0.0026%)  
p.Y659Tfs\*7 (0.0026%)  
p.W1502L (0.0026%)  
p.R1858Afs\*15 (0.0026%)  
p.D1651Afs\*8 (0.0026%)  
p.L673\* (0.0026%)  
p.E643G (0.0077%)  
p.D214G (0.0077%)  
p.E1443\* (0.0051%)  
p.K80\* (0.0051%)  
p.P1711S (0.0051%)  
p.C1242W (0.0051%)  
p.Q2156K (0.0051%)  
p.E440\* (0.0051%)  
p.M1571I (0.0051%)  
p.K982\* (0.0051%)  
p.E679\* (0.0051%)  
p.R1128G (0.0051%)  
p.E63\* (0.0051%)  
p.D972Y (0.0051%)  
p.C220F (0.0051%)  
p.V2132L (0.0051%)  
p.E1392D (0.0051%)  
p.P2298S (0.0051%)  
p.K1305R (0.0051%)  
p.L764F (0.0051%)  
p.E1323\* (0.0051%)  
p.D1199E (0.0051%)  
p.S2317L (0.0026%)  
p.H544N (0.0026%)  
p.E723Dfs\*9 (0.0026%)  
p.A940V (0.0026%)  
p.K299E (0.0026%)  
p.T1112I (0.0026%)  
p.K1066E (0.0026%)  
p.E1355G (0.0026%)  
p.E756\* (0.0103%)  
p.G175V (0.0051%)  
p.I705T (0.0051%)  
p.R635W (0.0051%)  
p.S770\* (0.0051%)  
p.Q402\* (0.0051%)  
p.R688L (0.0051%)  
p.L422= (0.0026%)  
p.P59Rfs\*13 (0.0026%)  
p.G762Afs\*17 (0.0026%)  
p.K589N (0.0026%)  
p.I470V (0.0026%)  
p.G699Afs\*6 (0.0026%)  
p.P307S (0.0026%)  
p.E854D (0.0026%)  
p.E863K (0.0026%)  
p.G550Efs\*101 (0.0026%)  
p.S837\* (0.0026%)  
p.D333V (0.0026%)  
p.L653S (0.0026%)  
p.G298E (0.0026%)  
p.F732V (0.0026%)  
p.G332V (0.0026%)  
p.W305Cfs\*11 (0.0026%)  
p.R882G (0.0026%)  
p.L411P (0.0026%)  
p.W581C (0.0026%)  
p.G332R (0.0026%)  
p.C517Lfs\*29 (0.0026%)  
p.F731Lfs\*3 (0.0026%)  
p.Q656\* (0.0026%)  
p.R736H (0.0026%)  
p.H355Qfs\*32 (0.0026%)  
p.W313\* (0.0026%)  
p.F752L (0.0026%)  
p.D438Efs\*213 (0.0026%)  
p.R736C (0.0026%)  
p.A410S (0.0026%)  
p.I539Rfs\*28 (0.0026%)  
p.I670Wfs\*31 (0.0026%)  
p.S878F (0.0026%)  
p.P195L (0.0026%)  
p.P536Q (0.0051%)  
p.R1331W (0.0051%)  
p.P251T (0.0051%)  
p.P837S (0.0051%)  
p.K949E (0.0051%)  
p.E513G (0.0051%)  
p.L912P (0.0051%)  
p.M905L (0.0051%)  
p.Q939H (0.0051%)  
p.P791Q (0.0051%)  
p.M928I (0.0051%)  
p.Q256P (0.0051%)  
p.D1052E (0.0051%)  
p.Q1311\* (0.0051%)  
p.Q775H (0.0051%)  
p.V480L (0.0051%)  
p.N560K (0.0051%)  
p.P536T (0.0051%)  
p.N534K (0.0051%)  
p.E462V (0.0051%)  
p.E1225K (0.0051%)  
p.M785I (0.0051%)  
p.D650= (0.0026%)  
p.R322= (0.0026%)  
p.Q762P (0.0026%)  
p.P985Hfs\*83 (0.0026%)  
p.E438K (0.0026%)  
p.K539N (0.0026%)  
p.R80\* (0.0179%)  
p.E69\* (0.0051%)  
p.R99= (0.0051%)  
p.A100T (0.0051%)  
p.D74A (0.0051%)  
p.W110\* (0.0051%)  
p.D108N (0.0051%)  
p.L63R (0.0026%)  
p.E120\* (0.0051%)  
p.L78Hfs\*41 (0.0051%)  
p.Y129\* (0.0051%)  
p.Y44\* (0.0051%)  
p.L113= (0.0026%)  
p.M53I (0.0026%)  
p.E61Gfs\*59 (0.0026%)  
p.I49T (0.0026%)  
p.A102V (0.0026%)  
p.N42H (0.0026%)  
p.Y44Lfs\*76 (0.0026%)  
p.P70Sfs\*51 (0.0026%)  
p.D74Pfs\*45 (0.0026%)  
p.C72Sfs\*45 (0.0026%)  
p.R22Pfs\*5 (0.0026%)  
p.E149K (0.0026%)  
p.L97R (0.0026%)  
p.D146N (0.0026%)  
p.E33\* (0.0026%)  
p.A60Rfs\*86 (0.0026%)  
p.P81L (0.0026%)  
p.D74N (0.0026%)  
p.P70Qfs\*49 (0.0026%)  
p.A100V (0.0026%)  
p.P13L (0.0077%)  
p.W396L (0.0051%)  
p.G635V (0.0051%)  
p.R414W (0.0051%)  
p.P1354H (0.0051%)  
p.D541N (0.0051%)  
p.E1611G (0.0051%)  
p.H102P (0.0051%)  
p.S2104Y (0.0051%)  
p.A625P (0.0051%)  
p.R12L (0.0051%)  
p.E394\* (0.0051%)  
p.R3889Q (0.0051%)  
p.N401K (0.0051%)  
p.Q597\* (0.0051%)  
p.V3804I (0.0051%)  
p.D1839E (0.0051%)  
p.M22V (0.0051%)  
p.H26Y (0.0051%)  
p.E301D (0.0051%)  
p.G38S (0.0051%)  
p.R198H (0.0051%)  
p.D190N (0.0051%)  
p.S97\_S98del (0.0051%)  
p.P653T (0.0051%)  
p.S92L (0.0051%)  
p.S94L (0.0051%)  
p.F9L (0.0051%)  
p.M3408I (0.0051%)  
p.T548Kfs\*17 (0.0051%)  
p.I3105Sfs\*3 (0.0026%)  
p.N3064S (0.0026%)  
p.N322D (0.0026%)  
p.G230A (0.0026%)  
p.P3301L (0.0026%)  
p.V2775F (0.0026%)  
p.R1101Q (0.0026%)  
p.K1235T (0.0026%)  
p.P598L (0.0026%)  
p.K1574R (0.0026%)  
p.N3797S (0.0026%)  
p.A89T (0.0026%)  
p.I3937N (0.0026%)  
p.R32\_V35del (0.0026%)  
p.N1656T (0.0026%)  
p.Q3624H (0.0026%)  
p.R1182H (0.0026%)  
p.K2782E (0.0026%)  
p.V3490L (0.0026%)  
p.D113N (0.0026%)  
p.D2721V (0.0026%)  
p.Q147\* (0.0026%)  
p.G150R (0.0128%)  
p.E526K (0.0103%)  
p.S172L (0.0077%)  
p.Y20S (0.0077%)  
p.L176= (0.0051%)  
p.E90K (0.0051%)  
p.A1204D (0.0051%)  
p.E1723\* (0.0051%)  
p.E537K (0.0051%)  
p.D539N (0.0051%)  
p.Q510K (0.0051%)  
p.E191K (0.0051%)  
p.R190\* (0.0051%)  
p.F149= (0.0026%)  
p.Q183= (0.0026%)  
p.G5V (0.0026%)  
p.A2258= (0.0026%)  
p.R1950C (0.0026%)  
p.T1135= (0.0026%)  
p.E624K (0.0026%)  
p.T1179I (0.0026%)  
p.D1391H (0.0026%)  
p.G162E (0.0026%)  
p.Q1868L (0.0026%)  
p.P2387S (0.0026%)  
p.I585= (0.0026%)  
p.Q800\* (0.0026%)  
p.S1394= (0.0026%)  
p.S955= (0.0026%)  
p.A2052V (0.0026%)  
p.T939S (0.0051%)  
p.A58G (0.0051%)  
p.D1267Y (0.0051%)  
p.G154\* (0.0051%)  
p.S1024L (0.0051%)  
p.N1933K (0.0051%)  
p.E837K (0.0051%)  
p.C1010S (0.0051%)  
p.K2302E (0.0051%)  
p.Q1683L (0.0051%)  
p.K1577N (0.0051%)  
p.V1255I (0.0051%)  
p.E2874G (0.0051%)  
p.P655T (0.0051%)  
p.I1024F (0.0051%)  
p.S2993L (0.0051%)  
p.S2978\* (0.0051%)  
p.K523\* (0.0051%)  
p.K2316R (0.0051%)  
p.V1701G (0.0051%)  
p.Q1430\* (0.0051%)  
p.G2593\* (0.0051%)  
p.N372H (0.0026%)  
p.T1557N (0.0026%)  
p.D420= (0.0026%)  
p.V2171= (0.0026%)  
p.H597= (0.0026%)  
p.A828E (0.0026%)  
p.A25V (0.0026%)  
p.E630K (0.0026%)  
p.Q1414\* (0.0026%)  
p.Q1396R (0.0026%)  
p.P1819S (0.0026%)  
p.K848N (0.0026%)  
p.P394H (0.0026%)  
p.D1420Y (0.0026%)  
p.I1831T (0.0026%)  
p.R710H (0.0026%)  
p.E744Q (0.0026%)  
p.N968Rfs\*9 (0.0026%)  
p.R1421Afs\*38 (0.0026%)  
p.D451G (0.0026%)  
p.E1694Q (0.0026%)  
p.E1544Q (0.0026%)  
p.Q864R (0.0026%)  
p.R1261G (0.0026%)  
p.L1377F (0.0026%)  
p.E3021G (0.0026%)  
p.Q430\* (0.0026%)  
p.G400Afs\*42 (0.0026%)  
p.S3L (0.0026%)  
p.A1204S (0.0026%)  
p.F1578L (0.0026%)  
p.Q1221\* (0.0026%)  
p.T868Nfs\*49 (0.0026%)  
p.E394K (0.0026%)  
p.M1745V (0.0026%)  
p.N1742\_S1744del (0.0026%)  
p.K1256Tfs\*20 (0.0026%)  
p.E1484Q (0.0026%)  
p.Q847\* (0.0026%)  
p.H2932Y (0.0026%)  
p.R1493Q (0.0026%)  
p.C1820R (0.0026%)  
p.A2738S (0.0026%)  
p.E1337\* (0.0026%)  
p.D3142G (0.0026%)  
p.W14L (0.0026%)  
p.H674Tfs\*66 (0.0026%)  
p.C925\* (0.0026%)  
p.Q1248\* (0.0026%)  
p.N289H (0.0026%)  
p.P602L (0.0026%)  
p.P814L (0.0026%)  
p.P711T (0.0026%)  
p.E924K (0.0103%)  
p.E884D (0.0077%)  
p.Q1318\* (0.0077%)  
p.G1392V (0.0051%)  
p.A1374T (0.0051%)  
p.I428V (0.0051%)  
p.E989\* (0.0051%)  
p.K1016N (0.0051%)  
p.Q869H (0.0051%)  
p.E922K (0.0051%)  
p.R921Q (0.0051%)  
p.E923K (0.0051%)  
p.L868V (0.0051%)  
p.S216F (0.0051%)  
p.C880Y (0.0051%)  
p.A1569T (0.0051%)  
p.Y1167Mfs\*26 (0.0051%)  
p.Q1031\* (0.0051%)  
p.Q1462\* (0.0051%)  
p.Q591\* (0.0051%)  
p.A1371G (0.0051%)  
p.Q1347\* (0.0026%)  
p.P978S (0.0026%)  
p.C405Vfs\*11 (0.0026%)  
p.E245K (0.0026%)  
p.V1649L (0.0026%)  
p.L1230V (0.0026%)  
p.H27Tfs\*31 (0.0026%)  
p.R95Afs\*16 (0.0026%)  
p.M713I (0.0026%)  
p.D157H (0.0026%)  
p.L119P (0.0026%)  
p.S705G (0.0026%)  
p.G166V (0.0026%)  
p.G166R (0.0026%)  
p.V702Hfs\*4 (0.0026%)  
p.S1491L (0.0026%)  
p.Q1041\* (0.0026%)  
p.I1242\* (0.0026%)  
p.S1610C (0.0026%)  
p.R710Q (0.0026%)  
p.P1599L (0.0026%)  
p.D1300N (0.0026%)  
p.C711S (0.0026%)  
p.E1295K (0.0026%)  
p.R1769\* (0.0026%)  
p.M586I (0.0026%)  
p.E602Q (0.0026%)  
p.Q1404\* (0.0026%)  
p.D411N (0.0026%)  
p.S383\* (0.0026%)  
p.Y611D (0.0026%)  
p.C553Wfs\*3 (0.0026%)  
p.E74= (0.0026%)  
p.G1190\* (0.0026%)  
p.Q1039\* (0.0026%)  
p.Q1575\* (0.0026%)  
p.Q830\* (0.0026%)  
p.N1340Tfs\*5 (0.0026%)  
p.P955Qfs\*8 (0.0026%)  
p.G727Rfs\*5 (0.0026%)  
p.I416V (0.0026%)  
p.S785\* (0.0026%)  
p.K238Rfs\*4 (0.0026%)  
p.R378W (0.0051%)  
p.E917G (0.0051%)  
p.R108W (0.0051%)  
p.S98C (0.0051%)  
p.Q1553R (0.0051%)  
p.S1518N (0.0051%)  
p.V1057L (0.0051%)  
p.S809I (0.0051%)  
p.R828G (0.0051%)  
p.R68L (0.0051%)  
p.L931R (0.0051%)  
p.Q387R (0.0051%)  
p.A882V (0.0051%)  
p.W1032R (0.0051%)  
p.G170R (0.0051%)  
p.G871W (0.0051%)  
p.R943\* (0.0026%)  
p.P145Q (0.0026%)  
p.G529V (0.0026%)  
p.V826M (0.0026%)  
p.E386Q (0.0026%)  
p.T1184A (0.0026%)  
p.S456T (0.0026%)  
p.T286R (0.0026%)  
p.D407E (0.0026%)  
p.P231S (0.0026%)  
p.K1114R (0.0026%)  
p.G496R (0.0026%)  
p.L1311R (0.0026%)  
p.L57Q (0.0103%)  
p.Q39R (0.0103%)  
p.Q58L (0.0103%)  
p.H1030P (0.0103%)  
p.A815V (0.0051%)  
p.G940S (0.0051%)  
p.R775H (0.0051%)  
p.Y826H (0.0051%)  
p.P1292S (0.0051%)  
p.P869T (0.0051%)  
p.L575P (0.0051%)  
p.C425Y (0.0051%)  
p.Q60L (0.0051%)  
p.R401L (0.0051%)  
p.F1341S (0.0051%)  
p.Q39H (0.0051%)  
p.L56Q (0.0051%)  
p.G533R (0.0051%)  
p.G922= (0.0051%)  
p.K1079N (0.0051%)  
p.A29E (0.0051%)  
p.Q799E (0.0051%)  
p.A646D (0.0051%)  
p.G1184E (0.0051%)  
p.G351\* (0.0051%)  
p.T533K (0.0026%)  
p.L272F (0.0026%)  
p.P1029= (0.0026%)  
p.Q500= (0.0026%)  
p.Q78\_Q80del (0.0026%)  
p.R753Q (0.0026%)  
p.G628\* (0.0026%)  
p.G473dup (0.0026%)  
p.H415Y (0.0026%)  
p.D551H (0.0026%)  
p.E663Q (0.0026%)  
p.G471\_G473del (0.0026%)  
p.Q80dup (0.0026%)  
p.S260I (0.0026%)  
p.Q76\_Q80dup (0.0026%)  
p.G464\_G473del (0.0026%)  
p.G1202E (0.0026%)  
p.T686= (0.0026%)  
p.E155\* (0.0026%)  
p.M887V (0.0026%)  
p.I407L (0.0026%)  
p.G473del (0.0026%)  
p.Q80del (0.0026%)  
p.D1203H (0.0026%)  
p.G468\_G473del (0.0026%)  
p.E81\_R85del (0.0026%)  
p.G468Afs\*11 (0.0026%)  
p.S495Tfs\*15 (0.0026%)  
p.G1201E (0.0026%)  
p.L1198F (0.0026%)  
p.R521Gfs\*43 (0.0077%)  
p.W476\* (0.0051%)  
p.L288P (0.0051%)  
p.A469V (0.0051%)  
p.P498Rfs\*66 (0.0051%)  
p.W126Afs\*23 (0.0051%)  
p.Q171\* (0.0051%)  
p.D423= (0.0026%)  
p.K522Sfs\*42 (0.0026%)  
p.I365M (0.0026%)  
p.I85Yfs\*32 (0.0026%)  
p.P497Efs\*34 (0.0026%)  
p.E26K (0.0026%)  
p.E184K (0.0026%)  
p.S142P (0.0026%)  
p.P298Gfs\*73 (0.0026%)  
p.T526S (0.0026%)  
p.F421L (0.0026%)  
p.M592\* (0.0026%)  
p.E341\* (0.0026%)  
p.Q398\* (0.0026%)  
p.F23C (0.0026%)  
p.K427Nfs\*23 (0.0026%)  
p.V352D (0.0026%)  
p.R92H (0.0026%)  
p.Q64\* (0.0026%)  
p.I85Sfs\*33 (0.0026%)  
p.Y106Cfs\*5 (0.0026%)  
p.W441\* (0.0026%)  
p.K501= (0.0026%)  
p.T215Sfs\*13 (0.0026%)  
p.E731\* (0.0128%)  
p.S679A (0.0128%)  
p.G71V (0.0103%)  
p.A266E (0.0051%)  
p.P187S (0.0051%)  
p.Q1100H (0.0051%)  
p.R951Q (0.0051%)  
p.R1034C (0.0051%)  
p.A184T (0.0051%)  
p.N115D (0.0051%)  
p.P27S (0.0051%)  
p.D1038Y (0.0051%)  
p.V267I (0.0051%)  
p.P373S (0.0051%)  
p.A207D (0.0051%)  
p.L601Q (0.0051%)  
p.G220V (0.0051%)  
p.A157T (0.0051%)  
p.T724M (0.0051%)  
p.A733T (0.0051%)  
p.R691C (0.0051%)  
p.S77I (0.0051%)  
p.F37L (0.0051%)  
p.T767I (0.0051%)  
p.L786P (0.0026%)  
p.V212A (0.0051%)  
p.T225I (0.0026%)  
p.Q130\* (0.0026%)  
p.N653Mfs\*32 (0.0026%)  
p.P349A (0.0026%)  
p.I577T (0.0026%)  
p.D848N (0.0026%)  
p.D444A (0.0026%)  
p.E569Ifs\*2 (0.0026%)  
p.G250Efs\*4 (0.0026%)  
p.L994= (0.0026%)  
p.L360F (0.0026%)  
p.T726K (0.0026%)  
p.E441del (0.0026%)  
p.Q402K (0.0026%)  
p.E48\* (0.0026%)  
p.R470H (0.0026%)  
p.R383L (0.0026%)  
p.T644= (0.0026%)  
p.A50G (0.0026%)  
p.S602L (0.0026%)  
p.Q861R (0.0026%)  
p.E17K (0.1025%)  
p.S267N (0.0103%)  
p.S1822P (0.0051%)  
p.A1928V (0.0051%)  
p.L2306I (0.0051%)  
p.Q2307H (0.0051%)  
p.L2070I (0.0051%)  
p.E2354D (0.0051%)  
p.C2336S (0.0051%)  
p.V1245L (0.0051%)  
p.L1040F (0.0051%)  
p.R1503Q (0.0051%)  
p.V1041A (0.0051%)  
p.Q1286\* (0.0051%)  
p.A880T (0.0051%)  
p.L52R (0.0051%)  
p.Q750\* (0.0051%)  
p.R2425Q (0.0026%)  
p.K1160E (0.0026%)  
p.D32N (0.0026%)  
p.Y2097Mfs\*19 (0.0026%)  
p.E2378Q (0.0026%)  
p.G882Efs\*57 (0.0026%)  
p.D108= (0.0026%)  
p.N231K (0.0026%)  
p.E133D (0.0026%)  
p.Q1414E (0.0026%)  
p.D323G (0.0026%)  
p.D221N (0.0026%)  
p.E797K (0.0026%)  
p.D323N (0.0026%)  
p.G16E (0.0026%)  
p.G840V (0.0026%)  
p.L537= (0.0026%)  
p.L1013V (0.0026%)  
p.D122N (0.0051%)  
p.P697Q (0.0051%)  
p.P784H (0.0051%)  
p.P530S (0.0051%)  
p.R365Q (0.0051%)  
p.A685S (0.0051%)  
p.C180S (0.0051%)  
p.C185Y (0.0051%)  
p.A506V (0.0051%)  
p.E536K (0.0051%)  
p.S768C (0.0051%)  
p.S187C (0.0051%)  
p.R368S (0.0051%)  
p.K790N (0.0051%)  
p.P271= (0.0051%)  
p.P787S (0.0051%)  
p.K511M (0.0051%)  
p.E452G (0.0026%)  
p.E452D (0.0026%)  
p.P756= (0.0026%)  
p.V573G (0.0026%)  
p.L171= (0.0026%)  
p.H846= (0.0026%)  
p.T870P (0.0282%)  
p.T866P (0.0205%)  
p.Q744K (0.0103%)  
p.T3246P (0.0103%)  
p.C360R (0.0103%)  
p.A3248P (0.0077%)  
p.E3490= (0.0051%)  
p.G749= (0.0051%)  
p.V295M (0.0051%)  
p.R3311H (0.0051%)  
p.D67G (0.0051%)  
p.F1278S (0.0051%)  
p.Q940H (0.0051%)  
p.G757S (0.0051%)  
p.G753D (0.0051%)  
p.E997G (0.0051%)  
p.M44I (0.0051%)  
p.G4967A (0.0051%)  
p.F3315L (0.0051%)  
p.H3293Q (0.0051%)  
p.A921D (0.0051%)  
p.V1025M (0.0051%)  
p.R2116K (0.0051%)  
p.P937S (0.0051%)  
p.V1445L (0.0051%)  
p.W603\* (0.0051%)  
p.R693Q (0.0051%)  
p.A1909V (0.0051%)  
p.H741Q (0.0051%)  
p.Q1521\* (0.0051%)  
p.G1113V (0.0051%)  
p.S720I (0.0051%)  
p.W729L (0.0051%)  
p.G733V (0.0051%)  
p.A385T (0.0051%)  
p.L4295I (0.0051%)  
p.A4161E (0.0051%)  
p.C4235Y (0.0051%)  
p.L1238H (0.0051%)  
p.A516V (0.0051%)  
p.Y179C (0.0051%)  
p.A1055V (0.0051%)  
p.R187Q (0.0051%)  
p.K1123E (0.0051%)  
p.V1020E (0.0051%)  
p.H3575N (0.0051%)  
p.P3249H (0.0051%)  
p.C1052F (0.0051%)  
p.S1842I (0.0051%)  
p.R1034H (0.0051%)  
p.A3225D (0.0051%)  
p.P3659= (0.0051%)  
p.G825S (0.0051%)  
p.W868R (0.0051%)  
p.F877L (0.0051%)  
p.R1264T (0.0051%)  
p.T866= (0.0026%)  
p.I494F (0.0026%)  
p.Q4323R (0.0026%)  
p.T4698P (0.0026%)  
p.N2360D (0.0026%)  
p.V1022G (0.0026%)  
p.Q2136= (0.0026%)  
p.A1550= (0.0026%)  
p.L1091P (0.0026%)  
p.S995C (0.0026%)  
p.P871= (0.0026%)  
p.M792I (0.0026%)  
p.R3312H (0.0026%)  
p.T2207S (0.0026%)  
p.R4287G (0.0026%)  
p.A962P (0.0026%)  
p.A1830S (0.0026%)  
p.G1980\* (0.0026%)  
p.P3247= (0.0026%)  
p.T787= (0.0026%)  
p.S2392= (0.0026%)  
p.P1971H (0.0026%)  
p.G3511= (0.0026%)  
p.P185= (0.0026%)  
p.T3246Hfs\*21 (0.0026%)  
p.N1856S (0.0026%)  
p.L1209\* (0.0026%)  
p.R724Q (0.0026%)  
p.R30Q (0.0026%)  
p.F1233Sfs\*12 (0.0026%)  
p.H3460Mfs\*77 (0.0026%)  
p.L2156V (0.0026%)  
p.G1135W (0.0026%)  
p.L1956= (0.0026%)  
p.L4627V (0.0026%)  
p.L2181= (0.0026%)  
p.L789V (0.0026%)  
p.D24N (0.0026%)  
p.Q4364Kfs\*10 (0.0026%)  
p.G2241E (0.0026%)  
p.E1970K (0.0026%)  
p.Q2386H (0.0026%)  
p.T1080K (0.0026%)  
p.P1020H (0.0026%)  
p.I1685= (0.0026%)  
p.E212K (0.0026%)  
p.K1999R (0.0026%)  
p.G184R (0.0026%)  
p.V193A (0.0026%)  
p.R1265\* (0.0026%)  
p.Q3450\* (0.0026%)  
p.R232M (0.0026%)  
p.I4089= (0.0026%)  
p.S324\* (0.0026%)  
p.D1274Y (0.0026%)  
p.F254L (0.0026%)  
p.P683L (0.0026%)  
p.Q577\* (0.0077%)  
p.Q212\* (0.0077%)  
p.L825Q (0.0051%)  
p.T388M (0.0051%)  
p.R1197G (0.0051%)  
p.H591Y (0.0051%)  
p.K1189N (0.0051%)  
p.K1179E (0.0051%)  
p.M686T (0.0051%)  
p.V1171A (0.0051%)  
p.M282I (0.0051%)  
p.Q382H (0.0051%)  
p.Q1272R (0.0051%)  
p.M1289I (0.0051%)  
p.L839P (0.0051%)  
p.S1213\* (0.0051%)  
p.Q529R (0.0051%)  
p.A818V (0.0051%)  
p.K389N (0.0051%)  
p.R213M (0.0051%)  
p.H289Y (0.0051%)  
p.V635L (0.0051%)  
p.S899C (0.0051%)  
p.S373L (0.0051%)  
p.S563\* (0.0051%)  
p.K618M (0.0051%)  
p.R1407W (0.0051%)  
p.E1260D (0.0051%)  
p.L234I (0.0051%)  
p.V1614A (0.0051%)  
p.L436M (0.0051%)  
p.K1058N (0.0051%)  
p.V1103L (0.0051%)  
p.P644H (0.0051%)  
p.F603I (0.0051%)  
p.S288\* (0.0051%)  
p.Q453\* (0.0051%)  
p.E362D (0.0026%)  
p.V1338G (0.0026%)  
p.Q550dup (0.0026%)  
p.S806\* (0.0026%)  
p.G585Afs\*100 (0.0026%)  
p.E129\* (0.0026%)  
p.P1826S (0.0026%)  
p.K579N (0.0026%)  
p.Q548\_Q550del (0.0026%)  
p.Q319\* (0.0026%)  
p.E247\* (0.0026%)  
p.E103Q (0.0026%)  
p.L117Yfs\*6 (0.0026%)  
p.T71Sfs\*14 (0.0026%)  
p.Y66Ifs\*15 (0.0026%)  
p.Y66\_T67del (0.0026%)  
p.C51\* (0.0026%)  
p.L49Ffs\*37 (0.0026%)  
p.F118Sfs\*5 (0.0026%)  
p.S87\* (0.0026%)  
p.E530\* (0.0026%)  
p.Q533= (0.0026%)  
p.E335\* (0.0026%)  
p.F1126C (0.0026%)  
p.Q362\* (0.0026%)  
p.V146I (0.0026%)  
p.Q407\* (0.0026%)  
p.E32\* (0.0026%)  
p.K228Rfs\*23 (0.0026%)  
p.K543\* (0.0026%)  
p.Q549\_Q550del (0.0026%)  
p.L858R (0.0179%)  
p.E746\_A750del (0.0103%)  
p.R2Q (0.0051%)  
p.A859T (0.0051%)  
p.R521K (0.0026%)  
p.H145N (0.0026%)  
p.R705K (0.0026%)  
p.D1168Y (0.0026%)  
p.N153S (0.0026%)  
p.R836G (0.0026%)  
p.S752P (0.0026%)  
p.P373Q (0.0026%)  
p.P848L (0.0026%)  
p.I759V (0.0026%)  
p.P741H (0.0026%)  
p.R776H (0.0026%)  
p.R451C (0.0026%)  
p.V834M (0.0026%)  
p.G322C (0.0026%)  
p.G735S (0.0026%)  
p.S695G (0.0026%)  
p.A419S (0.0103%)  
p.A664V (0.0051%)  
p.A283S (0.0051%)  
p.G35C (0.0051%)  
p.T559M (0.0051%)  
p.A494D (0.0051%)  
p.I254= (0.0051%)  
p.F519L (0.0051%)  
p.N347D (0.0051%)  
p.P602H (0.0051%)  
p.V412A (0.0051%)  
p.A676T (0.0051%)  
p.A576V (0.0051%)  
p.A564V (0.0051%)  
p.A440Pfs\*192 (0.0051%)  
p.S615A (0.0026%)  
p.H626Tfs\*6 (0.0026%)  
p.S620F (0.0026%)  
p.F346Qfs\*17 (0.0026%)  
p.S723C (0.0026%)  
p.F236Lfs\*6 (0.0026%)  
p.E469Q (0.0026%)  
p.T1179P (0.0103%)  
p.K551N (0.0077%)  
p.S572N (0.0077%)  
p.D630G (0.0077%)  
p.A589T (0.0051%)  
p.E542V (0.0051%)  
p.P1045S (0.0051%)  
p.A595T (0.0051%)  
p.T85A (0.0051%)  
p.A1658T (0.0051%)  
p.E1755\* (0.0051%)  
p.C179Y (0.0051%)  
p.N494S (0.0051%)  
p.G1048V (0.0051%)  
p.W626L (0.0051%)  
p.L140M (0.0051%)  
p.Q452P (0.0051%)  
p.E401D (0.0051%)  
p.L484P (0.0051%)  
p.R377H (0.0051%)  
p.Q310K (0.0051%)  
p.A147T (0.0051%)  
p.Q1853R (0.0051%)  
p.S431Y (0.0051%)  
p.D29N (0.0051%)  
p.E1536D (0.0051%)  
p.D870G (0.0051%)  
p.Q585R (0.0051%)  
p.R377C (0.0051%)  
p.P551T (0.0051%)  
p.E1857G (0.0051%)  
p.L722Q (0.0051%)  
p.S428C (0.0051%)  
p.N52D (0.0051%)  
p.L601F (0.0051%)  
p.N484D (0.0051%)  
p.C817S (0.0051%)  
p.T478P (0.0051%)  
p.H1606L (0.0051%)  
p.V243F (0.0051%)  
p.S252\* (0.0051%)  
p.G1207W (0.0051%)  
p.E1754\* (0.0051%)  
p.N1476K (0.0051%)  
p.L1134P (0.0051%)  
p.L561P (0.0051%)  
p.D1739N (0.0051%)  
p.A12S (0.0051%)  
p.K1580N (0.0051%)  
p.L1587P (0.0051%)  
p.G225E (0.0051%)  
p.F159I (0.0051%)  
p.L1748R (0.0051%)  
p.G741R (0.0051%)  
p.S356Y (0.0051%)  
p.R348S (0.0051%)  
p.L197M (0.0051%)  
p.A1743T (0.0051%)  
p.S1222P (0.0051%)  
p.P1119L (0.0051%)  
p.E1486G (0.0051%)  
p.I210F (0.0051%)  
p.A65E (0.0051%)  
p.E479V (0.0051%)  
p.E408\* (0.0051%)  
p.L134M (0.0051%)  
p.E444\* (0.0051%)  
p.E1978\* (0.0051%)  
p.R419H (0.0051%)  
p.V332F (0.0051%)  
p.R320L (0.0051%)  
p.P1249A (0.0051%)  
p.T1242P (0.0051%)  
p.E149\* (0.0026%)  
p.P1394= (0.0026%)  
p.A588= (0.0026%)  
p.G854= (0.0026%)  
p.H566= (0.0026%)  
p.G158= (0.0026%)  
p.A1241T (0.0026%)  
p.A278P (0.0026%)  
p.S683= (0.0026%)  
p.K78E (0.0026%)  
p.M1548I (0.0026%)  
p.E188K (0.0026%)  
p.R873H (0.0026%)  
p.S1062F (0.0026%)  
p.G906C (0.0026%)  
p.G948\* (0.0026%)  
p.C518Yfs\*8 (0.0026%)  
p.Y33H (0.0026%)  
p.G349= (0.0026%)  
p.P1463T (0.0026%)  
p.K860Nfs\*16 (0.0026%)  
p.P47= (0.0026%)  
p.D1269Y (0.0026%)  
p.Q217\* (0.0026%)  
p.R71L (0.0026%)  
p.E54Q (0.0026%)  
p.R681W (0.0026%)  
p.A984D (0.0026%)  
p.I207N (0.0026%)  
p.E667Q (0.0026%)  
p.G333S (0.0026%)  
p.E858Q (0.0026%)  
p.K61Sfs\*7 (0.0026%)  
p.L291Cfs\*26 (0.0026%)  
p.K989R (0.0026%)  
p.R260Q (0.0026%)  
p.D389G (0.0026%)  
p.I194Mfs\*36 (0.0026%)  
p.P412S (0.0026%)  
p.M161I (0.0026%)  
p.V764I (0.0026%)  
p.A1367V (0.0026%)  
p.R261W (0.0026%)  
p.R483S (0.0026%)  
p.F1253C (0.0026%)  
p.G379D (0.0026%)  
p.G477S (0.0026%)  
p.G430S (0.0026%)  
p.Q530\* (0.0026%)  
p.E593K (0.0026%)  
p.D579N (0.0026%)  
p.G393D (0.0282%)  
p.V224M (0.0103%)  
p.R338\* (0.0103%)  
p.R321W (0.0077%)  
p.L618= (0.0077%)  
p.Q4366H (0.0051%)  
p.A1674D (0.0051%)  
p.R65I (0.0051%)  
p.E2036\* (0.0051%)  
p.R943H (0.0051%)  
p.A1480V (0.0051%)  
p.S204N (0.0051%)  
p.P446S (0.0051%)  
p.A242V (0.0051%)  
p.E1598\* (0.0051%)  
p.R1863Q (0.0051%)  
p.Q788\* (0.0051%)  
p.N283D (0.0051%)  
p.D276G (0.0051%)  
p.S1026R (0.0051%)  
p.L2091I (0.0051%)  
p.Q1662L (0.0051%)  
p.Q310R (0.0051%)  
p.E1590G (0.0051%)  
p.E3391\* (0.0051%)  
p.T1079A (0.0051%)  
p.G1970E (0.0051%)  
p.E83G (0.0051%)  
p.K382\* (0.0051%)  
p.D3796Y (0.0051%)  
p.K1674N (0.0051%)  
p.V863L (0.0051%)  
p.A47E (0.0051%)  
p.D110G (0.0051%)  
p.A200S (0.0051%)  
p.Q1637\* (0.0051%)  
p.T718N (0.0051%)  
p.Q233R (0.0051%)  
p.A95V (0.0051%)  
p.L684P (0.0051%)  
p.H265Y (0.0051%)  
p.Q1655R (0.0051%)  
p.S601G (0.0051%)  
p.D1065Y (0.0051%)  
p.Q1602R (0.0051%)  
p.Q1951L (0.0051%)  
p.K1028N (0.0051%)  
p.S205G (0.0051%)  
p.R1576L (0.0051%)  
p.D3414G (0.0051%)  
p.R211K (0.0051%)  
p.G646Wfs\*12 (0.0026%)  
p.Q773\* (0.0051%)  
p.V722I (0.0051%)  
p.S1253= (0.0026%)  
p.K162= (0.0026%)  
p.S4367= (0.0026%)  
p.L235Q (0.0026%)  
p.T1846I (0.0026%)  
p.Q161K (0.0026%)  
p.T439I (0.0026%)  
p.Y939S (0.0026%)  
p.D757Y (0.0026%)  
p.Q522L (0.0026%)  
p.G390V (0.0026%)  
p.L1887= (0.0026%)  
p.A512V (0.0026%)  
p.K944N (0.0026%)  
p.E3723D (0.0026%)  
p.R548H (0.0026%)  
p.T4014M (0.0026%)  
p.A57Lfs\*90 (0.0026%)  
p.Y624F (0.0026%)  
p.T2942I (0.0026%)  
p.L1132Ffs\*4 (0.0026%)  
p.I2016\_L2017insPG (0.0026%)  
p.N2018Y (0.0026%)  
p.Q39Sfs\*108 (0.0026%)  
p.K984N (0.0026%)  
p.G645Vfs\*58 (0.0026%)  
p.E960K (0.0026%)  
p.T1750A (0.0026%)  
p.I1003V (0.0026%)  
p.S4375L (0.0026%)  
p.E1124Q (0.0026%)  
p.A3050T (0.0026%)  
p.A611T (0.0026%)  
p.F1025L (0.0026%)  
p.F152L (0.0026%)  
p.K2139Sfs\*8 (0.0026%)  
p.D793H (0.0026%)  
p.C527Y (0.0026%)  
p.L513Q (0.0026%)  
p.L513I (0.0026%)  
p.H630Pfs\*4 (0.0026%)  
p.W523Lfs\*3 (0.0026%)  
p.K462Rfs\*7 (0.0026%)  
p.R2247Q (0.0026%)  
p.E3637D (0.0026%)  
p.P4306T (0.0026%)  
p.H217P (0.0026%)  
p.K2764Rfs\*31 (0.0026%)  
p.Y72Tfs\*34 (0.0026%)  
p.R3665Q (0.0026%)  
p.T1749A (0.0026%)  
p.E513\* (0.0026%)  
p.S1014F (0.0026%)  
p.D863E (0.0026%)  
p.G54V (0.0026%)  
p.R596Gfs\*107 (0.0026%)  
p.Q39Pfs\*13 (0.0026%)  
p.T880Nfs\*2 (0.0026%)  
p.R69\* (0.0026%)  
p.E1201\* (0.0026%)  
p.P2162Q (0.0026%)  
p.F367C (0.0026%)  
p.E842K (0.0026%)  
p.S1275T (0.0026%)  
p.P3701Qfs\*19 (0.0026%)  
p.L643V (0.0026%)  
p.G742= (0.0026%)  
p.S1238\* (0.0026%)  
p.I910R (0.0026%)  
p.L329\_V332del (0.0026%)  
p.T216P (0.0026%)  
p.G1299D (0.0026%)  
p.A164G (0.0026%)  
p.P1259A (0.0026%)  
p.L775\* (0.0026%)  
p.L1824I (0.0026%)  
p.M1406L (0.0026%)  
p.A611Cfs\*14 (0.0026%)  
p.R370W (0.0026%)  
p.V912I (0.0026%)  
p.W334\* (0.0026%)  
p.S1381F (0.0026%)  
p.I211V (0.0026%)  
p.D855\* (0.0026%)  
p.G939A (0.0128%)  
p.V333L (0.0077%)  
p.V1660G (0.0077%)  
p.N1621I (0.0051%)  
p.R75W (0.0051%)  
p.S1199R (0.0051%)  
p.G214A (0.0051%)  
p.D1504G (0.0051%)  
p.R170L (0.0051%)  
p.N489Y (0.0051%)  
p.A1623S (0.0051%)  
p.S494\* (0.0051%)  
p.C1330Y (0.0051%)  
p.A851E (0.0051%)  
p.L633M (0.0051%)  
p.L849P (0.0051%)  
p.S1312G (0.0051%)  
p.N702Y (0.0051%)  
p.L516F (0.0051%)  
p.V684M (0.0051%)  
p.P85Q (0.0051%)  
p.G47V (0.0051%)  
p.S431N (0.0051%)  
p.A1548T (0.0051%)  
p.D953E (0.0051%)  
p.F502L (0.0051%)  
p.H1280N (0.0051%)  
p.A534S (0.0051%)  
p.K845E (0.0051%)  
p.V659M (0.0051%)  
p.Q938H (0.0051%)  
p.S1581A (0.0051%)  
p.Q1335K (0.0051%)  
p.L719F (0.0051%)  
p.I1147F (0.0051%)  
p.A877E (0.0051%)  
p.T238I (0.0051%)  
p.R576H (0.0051%)  
p.R17C (0.0051%)  
p.S12F (0.0051%)  
p.S959G (0.0026%)  
p.S466I (0.0026%)  
p.A465G (0.0026%)  
p.L960R (0.0026%)  
p.L958= (0.0026%)  
p.D464A (0.0026%)  
p.L960F (0.0026%)  
p.D415= (0.0026%)  
p.S687R (0.0026%)  
p.A878= (0.0026%)  
p.S231= (0.0026%)  
p.T371P (0.0026%)  
p.K232Q (0.0026%)  
p.R181Q (0.0026%)  
p.P434= (0.0026%)  
p.V1009I (0.0026%)  
p.V223G (0.0026%)  
p.A877V (0.0026%)  
p.S538L (0.0026%)  
p.E1107Q (0.0026%)  
p.Q1228\* (0.0026%)  
p.R379L (0.0026%)  
p.S843Pfs\*10 (0.0026%)  
p.Q990H (0.0026%)  
p.P960L (0.0026%)  
p.G697= (0.0026%)  
p.Q1142E (0.0026%)  
p.R688\* (0.0026%)  
p.G1682Rfs\*4 (0.0026%)  
p.L998= (0.0026%)  
p.L189Cfs\*64 (0.0026%)  
p.S595C (0.0026%)  
p.Q929Rfs\*16 (0.0026%)  
p.Q1130\* (0.0026%)  
p.S310\* (0.0026%)  
p.V692M (0.0026%)  
p.D50G (0.0026%)  
p.E1693\* (0.0026%)  
p.K1419N (0.0026%)  
p.D1440N (0.0026%)  
p.S1169Qfs\*53 (0.0026%)  
p.S700I (0.0026%)  
p.Y609\* (0.0026%)  
p.L568Q (0.0026%)  
p.D515N (0.0026%)  
p.Q1372\* (0.0026%)  
p.F1250L (0.0026%)  
p.R228Q (0.0026%)  
p.T1010I (0.0205%)  
p.E1212K (0.0128%)  
p.T1017K (0.0128%)  
p.M1213I (0.0103%)  
p.K1013= (0.0103%)  
p.L271F (0.0103%)  
p.S527G (0.0077%)  
p.E407\* (0.0051%)  
p.V271A (0.0051%)  
p.M1213K (0.0051%)  
p.L455I (0.0051%)  
p.R6H (0.0051%)  
p.N1156I (0.0051%)  
p.E1168D (0.0051%)  
p.A1183D (0.0051%)  
p.F262L (0.0051%)  
p.P654T (0.0051%)  
p.R6S (0.0051%)  
p.S111F (0.0051%)  
p.T251M (0.0051%)  
p.G1169W (0.0051%)  
p.D449E (0.0051%)  
p.A541D (0.0051%)  
p.A692V (0.0051%)  
p.K923E (0.0051%)  
p.E1016K (0.0051%)  
p.Q255\* (0.0051%)  
p.E35D (0.0051%)  
p.E168D (0.0051%)  
p.H97N (0.0051%)  
p.T340A (0.0051%)  
p.A592T (0.0051%)  
p.H632= (0.0026%)  
p.K871Nfs\*4 (0.0026%)  
p.A408E (0.0026%)  
p.R1188I (0.0026%)  
p.R1022= (0.0026%)  
p.S323G (0.0026%)  
p.E302\* (0.0026%)  
p.V1377I (0.0026%)  
p.E1190Q (0.0026%)  
p.H1112Y (0.0026%)  
p.R21K (0.0026%)  
p.D370N (0.0026%)  
p.E1396Q (0.0026%)  
p.A286\_T287del (0.0026%)  
p.F434C (0.0026%)  
p.V617F (0.0103%)  
p.A500V (0.0051%)  
p.R638H (0.0051%)  
p.H272R (0.0051%)  
p.Q806\* (0.0051%)  
p.S550G (0.0051%)  
p.V1394L (0.0051%)  
p.R1392L (0.0051%)  
p.K346N (0.0051%)  
p.L1398P (0.0051%)  
p.L983F (0.0051%)  
p.A500D (0.0051%)  
p.I703N (0.0051%)  
p.K945N (0.0051%)  
p.T475A (0.0051%)  
p.G1358D (0.0051%)  
p.L453S (0.0051%)  
p.R270H (0.0051%)  
p.Q457\* (0.0051%)  
p.L314V (0.0051%)  
p.L1432M (0.0051%)  
p.T734P (0.0051%)  
p.M238I (0.0051%)  
p.G402D (0.0051%)  
p.F292L (0.0051%)  
p.P319H (0.0051%)  
p.N87K (0.0051%)  
p.M661I (0.0051%)  
p.C645F (0.0051%)  
p.G276C (0.0051%)  
p.E310D (0.0051%)  
p.R468C (0.0051%)  
p.C498Y (0.0051%)  
p.D185G (0.0051%)  
p.G1347C (0.0026%)  
p.S227Ifs\*33 (0.0026%)  
p.R881W (0.0026%)  
p.R328C (0.0026%)  
p.Q10Rfs\*15 (0.0026%)  
p.R1063H (0.0026%)  
p.R68C (0.0026%)  
p.E846D (0.0026%)  
p.E946Q (0.0026%)  
p.H608Y (0.0026%)  
p.S104C (0.0026%)  
p.K70= (0.0026%)  
p.Q885Pfs\*7 (0.0026%)  
p.V101= (0.0026%)  
p.P493S (0.0026%)  
p.W123\* (0.0026%)  
p.G1216W (0.0026%)  
p.H891Q (0.0026%)  
p.S1068I (0.0026%)  
p.Q1199R (0.0026%)  
p.R122= (0.0026%)  
p.R426Dfs\*12 (0.0026%)  
p.H338Y (0.0026%)  
p.K89Xfs\*12 (0.0026%)  
p.R133W (0.0026%)  
p.Q596= (0.0154%)  
p.Q604= (0.0103%)  
p.R291C (0.0077%)  
p.K374N (0.0077%)  
p.A149T (0.0051%)  
p.E1273V (0.0051%)  
p.R565C (0.0051%)  
p.A6S (0.0051%)  
p.Q75K (0.0051%)  
p.P690T (0.0051%)  
p.D902N (0.0051%)  
p.T626N (0.0051%)  
p.A236T (0.0051%)  
p.V72M (0.0051%)  
p.R763W (0.0051%)  
p.Q640H (0.0051%)  
p.V923I (0.0051%)  
p.K44E (0.0051%)  
p.S167N (0.0051%)  
p.E1292\* (0.0051%)  
p.E30V (0.0051%)  
p.A53V (0.0051%)  
p.A263V (0.0051%)  
p.V257A (0.0051%)  
p.Q36\* (0.0051%)  
p.Q136L (0.0051%)  
p.T298K (0.0051%)  
p.R742L (0.0051%)  
p.Q428H (0.0051%)  
p.E82V (0.0051%)  
p.W284\* (0.0051%)  
p.E144G (0.0051%)  
p.E179\* (0.0051%)  
p.D1364G (0.0051%)  
p.Q621\* (0.0051%)  
p.G771S (0.0051%)  
p.Y606H (0.0051%)  
p.Q176H (0.0051%)  
p.R120M (0.0051%)  
p.Q607= (0.0051%)  
p.Q611= (0.0051%)  
p.A798P (0.0051%)  
p.Y215C (0.0051%)  
p.R496H (0.0051%)  
p.S466= (0.0026%)  
p.T587= (0.0026%)  
p.G168= (0.0026%)  
p.P297= (0.0026%)  
p.Q657= (0.0026%)  
p.Q654= (0.0026%)  
p.Y368S (0.0026%)  
p.N764K (0.0026%)  
p.M695T (0.0026%)  
p.Q591= (0.0026%)  
p.T9S (0.0026%)  
p.Q590P (0.0026%)  
p.Q590H (0.0026%)  
p.Q619\_Q621del (0.0026%)  
p.Q609= (0.0026%)  
p.N800= (0.0026%)  
p.K1130N (0.0026%)  
p.P727Q (0.0026%)  
p.A466T (0.0026%)  
p.H447L (0.0026%)  
p.G1011\* (0.0026%)  
p.Q311\* (0.0026%)  
p.D493H (0.0026%)  
p.R361H (0.0026%)  
p.Y434\* (0.0026%)  
p.V644= (0.0026%)  
p.P658= (0.0026%)  
p.T222S (0.0026%)  
p.V354L (0.0026%)  
p.K106E (0.0026%)  
p.Q256L (0.0026%)  
p.G252R (0.0026%)  
p.N797= (0.0026%)  
p.D494= (0.0026%)  
p.P550S (0.0026%)  
p.F339S (0.0026%)  
p.M331T (0.0026%)  
p.R97H (0.0026%)  
p.R31\* (0.0026%)  
p.G984A (0.0026%)  
p.V128M (0.0026%)  
p.I314N (0.0026%)  
p.A226T (0.0026%)  
p.N263S (0.0026%)  
p.I527V (0.0026%)  
p.H317Q (0.0026%)  
p.V304Cfs\*4 (0.0026%)  
p.L308= (0.0026%)  
p.C324Y (0.0026%)  
p.S432G (0.0026%)  
p.P203L (0.0026%)  
p.V653G (0.0333%)  
p.V178I (0.0256%)  
p.G70D (0.0154%)  
p.V71I (0.0077%)  
p.L202Q (0.0051%)  
p.V80A (0.0051%)  
p.S519I (0.0051%)  
p.R844W (0.0051%)  
p.T619Sfs\*72 (0.0051%)  
p.K952N (0.0051%)  
p.G624S (0.0051%)  
p.T400M (0.0051%)  
p.R732M (0.0051%)  
p.S292P (0.0051%)  
p.V535A (0.0051%)  
p.V422M (0.0051%)  
p.A636T (0.0051%)  
p.V296I (0.0051%)  
p.R522L (0.0051%)  
p.P119L (0.0051%)  
p.R676C (0.0051%)  
p.R653G (0.0051%)  
p.E665D (0.0051%)  
p.L32F (0.0051%)  
p.E365D (0.0051%)  
p.H1756N (0.0051%)  
p.A1014T (0.0051%)  
p.G2S (0.0051%)  
p.L29Q (0.0051%)  
p.P256L (0.0051%)  
p.A134D (0.0051%)  
p.Q1548del (0.0026%)  
p.H924R (0.0026%)  
p.P1066= (0.0026%)  
p.L435M (0.0026%)  
p.A421= (0.0026%)  
p.R487M (0.0026%)  
p.I1762V (0.0026%)  
p.H890Q (0.0026%)  
p.R1146H (0.0026%)  
p.A713= (0.0026%)  
p.S444del (0.0026%)  
p.N149D (0.0026%)  
p.S708= (0.0026%)  
p.G321\* (0.0026%)  
p.R237S (0.0026%)  
p.N767D (0.0026%)  
p.P30Rfs\*3 (0.0026%)  
p.E769K (0.0026%)  
p.P363L (0.0026%)  
p.Q1542\* (0.0026%)  
p.L1329Q (0.0026%)  
p.K611= (0.0026%)  
p.T145M (0.0026%)  
p.L791= (0.0026%)  
p.T390I (0.0026%)  
p.E259Tfs\*27 (0.0026%)  
p.L879H (0.0026%)  
p.H1416Q (0.0026%)  
p.K1720Nfs\*25 (0.0026%)  
p.D1376E (0.0026%)  
p.R686T (0.0026%)  
p.G578= (0.0026%)  
p.G365= (0.0026%)  
p.Q810\* (0.0026%)  
p.D182= (0.0026%)  
p.Q1539\* (0.0026%)  
p.H1077R (0.0026%)  
p.A706T (0.0026%)  
p.H1904R (0.0026%)  
p.Q674\* (0.0026%)  
p.V485E (0.0026%)  
p.L699F (0.0026%)  
p.S620\_A621del (0.0026%)  
p.N145K (0.0026%)  
p.M1260Qfs\*26 (0.0026%)  
p.I340M (0.0026%)  
p.R132L (0.0026%)  
p.R132H (0.0026%)  
p.G123R (0.0026%)  
p.I130M (0.0026%)  
p.T400= (0.0026%)  
p.H133Q (0.0026%)  
p.Y183C (0.0026%)  
p.A604P (0.0103%)  
p.I238T (0.0103%)  
p.D237N (0.0077%)  
p.A602P (0.0051%)  
p.T573M (0.0051%)  
p.S347P (0.0051%)  
p.L1554P (0.0051%)  
p.V537L (0.0051%)  
p.S1019N (0.0051%)  
p.L1495P (0.0051%)  
p.R1037C (0.0051%)  
p.G215A (0.0051%)  
p.R384W (0.0051%)  
p.A2339S (0.0051%)  
p.R1037H (0.0051%)  
p.A377D (0.0051%)  
p.V640L (0.0051%)  
p.R56G (0.0051%)  
p.A600G (0.0051%)  
p.R393\* (0.0051%)  
p.A2324V (0.0051%)  
p.L140P (0.0051%)  
p.A380V (0.0051%)  
p.E46Q (0.0051%)  
p.G694C (0.0051%)  
p.A397G (0.0051%)  
p.A1542V (0.0051%)  
p.A1068D (0.0051%)  
p.L606P (0.0051%)  
p.S354G (0.0051%)  
p.S1374G (0.0051%)  
p.K611R (0.0051%)  
p.A637= (0.0051%)  
p.A241T (0.0051%)  
p.P281Rfs\*6 (0.0051%)  
p.Q2277\* (0.0051%)  
p.E503D (0.0051%)  
p.K84\* (0.0051%)  
p.D631E (0.0026%)  
p.P651= (0.0026%)  
p.R2040\* (0.0026%)  
p.D509G (0.0026%)  
p.S2382Lfs\*29 (0.0026%)  
p.G251C (0.0026%)  
p.Q220\* (0.0026%)  
p.F354L (0.0026%)  
p.R1708\* (0.0026%)  
p.S1350\* (0.0026%)  
p.S314C (0.0026%)  
p.E1412Vfs\*19 (0.0026%)  
p.Y2296Ifs\*13 (0.0026%)  
p.G196R (0.0026%)  
p.G2211Yfs\*32 (0.0026%)  
p.R1625C (0.0026%)  
p.P1470T (0.0026%)  
p.D1397H (0.0026%)  
p.E130\* (0.0026%)  
p.C1471\* (0.0026%)  
p.Q2292E (0.0026%)  
p.N94\* (0.0026%)  
p.N90Tfs\*6 (0.0026%)  
p.H1586D (0.0026%)  
p.A381T (0.0026%)  
p.R1620C (0.0026%)  
p.E1138D (0.0026%)  
p.P486S (0.0026%)  
p.P221L (0.0026%)  
p.G512C (0.0026%)  
p.K1163R (0.0026%)  
p.G1690R (0.0026%)  
p.L1376F (0.0026%)  
p.N405S (0.0077%)  
p.S102L (0.0077%)  
p.F608Lfs\*21 (0.0077%)  
p.E1359G (0.0051%)  
p.K75N (0.0051%)  
p.R1165W (0.0051%)  
p.S561N (0.0051%)  
p.E94K (0.0051%)  
p.L386I (0.0051%)  
p.I179V (0.0051%)  
p.S781T (0.0051%)  
p.E495G (0.0051%)  
p.E232G (0.0051%)  
p.E234D (0.0051%)  
p.Q573H (0.0051%)  
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p.P879L (0.0051%)  
p.P1758H (0.0051%)  
p.A115T (0.0051%)  
p.E1954G (0.0051%)  
p.L1763P (0.0051%)  
p.S456N (0.0051%)  
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p.G8R (0.0051%)  
p.Y108H (0.0051%)  
p.D383Y (0.0051%)  
p.H1056L (0.0051%)  
p.E787G (0.0051%)  
p.Q755R (0.0051%)  
p.E437\* (0.0051%)  
p.E423V (0.0051%)  
p.M505I (0.0051%)  
p.L627R (0.0051%)  
p.E575D (0.0051%)  
p.K313Q (0.0051%)  
p.H660N (0.0051%)  
p.S1114T (0.0051%)  
p.L41Q (0.0051%)  
p.R794L (0.0051%)  
p.Q467K (0.0051%)  
p.S671P (0.0051%)  
p.Q64H (0.0051%)  
p.L249P (0.0051%)  
p.S126I (0.0051%)  
p.K144Q (0.0051%)  
p.L416M (0.0051%)  
p.A809D (0.0051%)  
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p.S578R (0.0051%)  
p.N129D (0.0051%)  
p.L459I (0.0051%)  
p.Y425= (0.0051%)  
p.L98Vfs\*13 (0.0051%)  
p.S263I (0.0051%)  
p.Q270H (0.0051%)  
p.H300N (0.0051%)  
p.L698H (0.0051%)  
p.R2085Pfs\*38 (0.0051%)  
p.A95P (0.0051%)  
p.Q638\* (0.0051%)  
p.I450V (0.0026%)  
p.T688= (0.0026%)  
p.C607F (0.0026%)  
p.T162P (0.0026%)  
p.T582S (0.0026%)  
p.G486W (0.0026%)  
p.G436= (0.0026%)  
p.T467= (0.0026%)  
p.C1234G (0.0026%)  
p.S1043del (0.0026%)  
p.V379= (0.0026%)  
p.E1522D (0.0026%)  
p.K871N (0.0026%)  
p.G298\* (0.0026%)  
p.S1039G (0.0026%)  
p.S1038R (0.0026%)  
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p.D1002V (0.0026%)  
p.C74\* (0.0026%)  
p.S422C (0.0026%)  
p.E768K (0.0026%)  
p.S487C (0.0026%)  
p.L897V (0.0026%)  
p.Q765\* (0.0026%)  
p.S1274Ifs\*17 (0.0026%)  
p.R48Vfs\*93 (0.0026%)  
p.G713D (0.0026%)  
p.R105Q (0.0026%)  
p.A1203P (0.0026%)  
p.R599T (0.0026%)  
p.I482V (0.0026%)  
p.R318\* (0.0026%)  
p.M507V (0.0026%)  
p.T387I (0.0026%)  
p.G1016R (0.0026%)  
p.R900K (0.0026%)  
p.K768E (0.0026%)  
p.L357\_R365del (0.0026%)  
p.C629Afs\*16 (0.0026%)  
p.L249V (0.0026%)  
p.W1219C (0.0026%)  
p.H74R (0.0026%)  
p.G103C (0.0026%)  
p.N596I (0.0026%)  
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p.K498Q (0.0051%)  
p.A239V (0.0051%)  
p.Q1099E (0.0051%)  
p.G278D (0.0051%)  
p.V5M (0.0051%)  
p.Q613R (0.0051%)  
p.Q259\* (0.0051%)  
p.P942T (0.0051%)  
p.W733R (0.0051%)  
p.V847E (0.0051%)  
p.P1278L (0.0051%)  
p.P76S (0.0051%)  
p.D15N (0.0051%)  
p.P235H (0.0051%)  
p.V829A (0.0051%)  
p.L496Q (0.0051%)  
p.D864G (0.0051%)  
p.A664T (0.0051%)  
p.Y226N (0.0051%)  
p.V908L (0.0051%)  
p.G1181C (0.0051%)  
p.A36V (0.0051%)  
p.L1198I (0.0051%)  
p.D954V (0.0051%)  
p.P964L (0.0051%)  
p.T347M (0.0051%)  
p.P39L (0.0051%)  
p.V58M (0.0051%)  
p.P1149H (0.0051%)  
p.R87H (0.0051%)  
p.G109D (0.0051%)  
p.R255I (0.0051%)  
p.V142A (0.0051%)  
p.G445D (0.0051%)  
p.I943L (0.0051%)  
p.G109S (0.0051%)  
p.R571W (0.0051%)  
p.V783A (0.0051%)  
p.P221T (0.0051%)  
p.G44S (0.0051%)  
p.F227S (0.0051%)  
p.A367P (0.0051%)  
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p.A792V (0.0051%)  
p.C59F (0.0051%)  
p.S101G (0.0051%)  
p.V9G (0.0026%)  
p.S148= (0.0026%)  
p.G551= (0.0026%)  
p.N294= (0.0026%)  
p.E492G (0.0026%)  
p.V365= (0.0026%)  
p.L1284I (0.0026%)  
p.K1283N (0.0026%)  
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p.A320T (0.0026%)  
p.A735V (0.0026%)  
p.C311= (0.0026%)  
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p.G297S (0.0026%)  
p.S667F (0.0026%)  
p.V1090M (0.0026%)  
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p.G880A (0.0026%)  
p.V617L (0.0026%)  
p.F1191C (0.0026%)  
p.G450S (0.0026%)  
p.R504W (0.0026%)  
p.K205M (0.0026%)  
p.Y1316Lfs\*9 (0.0026%)  
p.T778M (0.0026%)  
p.T570M (0.0026%)  
p.P55L (0.0026%)  
p.R1303H (0.0026%)  
p.V1444Ffs\*2 (0.0026%)  
p.E1176V (0.0026%)  
p.T1223S (0.0026%)  
p.V134G (0.0461%)  
p.L62P (0.0077%)  
p.P305S (0.0077%)  
p.T1682I (0.0051%)  
p.A238V (0.0051%)  
p.Q122L (0.0051%)  
p.P351Q (0.0051%)  
p.E556K (0.0051%)  
p.P532L (0.0051%)  
p.L560I (0.0051%)  
p.T740I (0.0051%)  
p.V539M (0.0051%)  
p.R780K (0.0051%)  
p.Q1346K (0.0051%)  
p.K381Q (0.0051%)  
p.L224P (0.0051%)  
p.Q101R (0.0051%)  
p.T1254I (0.0051%)  
p.P198L (0.0051%)  
p.D240N (0.0051%)  
p.E535D (0.0051%)  
p.G270R (0.0051%)  
p.S289L (0.0051%)  
p.E2273K (0.0051%)  
p.A1704P (0.0051%)  
p.Q1150K (0.0051%)  
p.S561C (0.0051%)  
p.S246P (0.0051%)  
p.A1419V (0.0051%)  
p.T118I (0.0051%)  
p.S263G (0.0051%)  
p.G827D (0.0051%)  
p.A102S (0.0051%)  
p.Q923K (0.0051%)  
p.M227V (0.0051%)  
p.D149A (0.0051%)  
p.F152S (0.0051%)  
p.K55N (0.0051%)  
p.Y205F (0.0051%)  
p.L197F (0.0051%)  
p.P1922L (0.0051%)  
p.N226= (0.0026%)  
p.K1117Q (0.0026%)  
p.K1117M (0.0026%)  
p.A496= (0.0026%)  
p.I232T (0.0026%)  
p.L54= (0.0026%)  
p.R630W (0.0026%)  
p.R153L (0.0026%)  
p.I763M (0.0026%)  
p.R10Q (0.0026%)  
p.M170I (0.0026%)  
p.G2352= (0.0026%)  
p.K193E (0.0026%)  
p.E1970D (0.0026%)  
p.P161L (0.0026%)  
p.C117Y (0.0026%)  
p.L189I (0.0026%)  
p.L197P (0.0026%)  
p.N294T (0.0026%)  
p.T1262R (0.0026%)  
p.L1178P (0.0026%)  
p.R735C (0.0026%)  
p.V530A (0.0026%)  
p.Y101\* (0.0231%)  
p.N106I (0.0103%)  
p.P1450= (0.0103%)  
p.G743V (0.0103%)  
p.A257T (0.0103%)  
p.G216E (0.0051%)  
p.R1336L (0.0051%)  
p.Q1409\* (0.0051%)  
p.G239W (0.0051%)  
p.S341P (0.0051%)  
p.C754F (0.0051%)  
p.A732S (0.0051%)  
p.S130L (0.0051%)  
p.R443L (0.0051%)  
p.L310I (0.0051%)  
p.Q30\* (0.0051%)  
p.L384P (0.0051%)  
p.C686S (0.0051%)  
p.S348G (0.0051%)  
p.G642V (0.0051%)  
p.D575V (0.0051%)  
p.K108R (0.0051%)  
p.R371L (0.0051%)  
p.R787C (0.0051%)  
p.R1256H (0.0051%)  
p.S421L (0.0051%)  
p.R1311S (0.0051%)  
p.K573E (0.0051%)  
p.P1135R (0.0051%)  
p.V269E (0.0051%)  
p.P643A (0.0051%)  
p.S128P (0.0051%)  
p.Q584K (0.0051%)  
p.Q238\* (0.0051%)  
p.K61N (0.0051%)  
p.R1336H (0.0051%)  
p.G248V (0.0051%)  
p.M210I (0.0051%)  
p.C57Y (0.0051%)  
p.C224\* (0.0051%)  
p.P161S (0.0051%)  
p.G1472D (0.0051%)  
p.G114E (0.0051%)  
p.T646P (0.0051%)  
p.M782K (0.0051%)  
p.V786I (0.0051%)  
p.P215Q (0.0051%)  
p.A223T (0.0051%)  
p.R133H (0.0051%)  
p.Q874H (0.0051%)  
p.P35Q (0.0051%)  
p.A492T (0.0051%)  
p.E406\* (0.0051%)  
p.Y579C (0.0051%)  
p.T157A (0.0051%)  
p.A123V (0.0051%)  
p.N137K (0.0051%)  
p.V121L (0.0051%)  
p.Q365K (0.0051%)  
p.R488G (0.0051%)  
p.K378N (0.0051%)  
p.S284I (0.0051%)  
p.Q26L (0.0051%)  
p.C803W (0.0051%)  
p.H713N (0.0051%)  
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p.R733S (0.0051%)  
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p.T96S (0.0051%)  
p.S188N (0.0051%)  
p.G720R (0.0051%)  
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p.G388R (0.0051%)  
p.R327C (0.0051%)  
p.Q75R (0.0051%)  
p.T942S (0.0051%)  
p.S388F (0.0051%)  
p.E323K (0.0051%)  
p.R1720Q (0.0051%)  
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p.Y356S (0.0026%)  
p.P769= (0.0026%)  
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p.R234= (0.0026%)  
p.R1064= (0.0026%)  
p.A232= (0.0026%)  
p.D1372G (0.0026%)  
p.R691I (0.0026%)  
p.R206H (0.0026%)  
p.F645L (0.0026%)  
p.S230= (0.0026%)  
p.A117= (0.0026%)  
p.T85M (0.0026%)  
p.R603Q (0.0026%)  
p.R435C (0.0026%)  
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p.G677C (0.0026%)  
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p.R677T (0.0026%)  
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p.V344I (0.0026%)  
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p.G817V (0.0026%)  
p.T763A (0.0026%)  
p.R260S (0.0026%)  
p.L1726V (0.0026%)  
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p.K443E (0.0026%)  
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p.V1206L (0.0026%)  
p.L666I (0.0026%)  
p.R1772Q (0.0026%)  
p.A5dup (0.0026%)  
p.S1049\* (0.0026%)  
p.S1426C (0.0026%)  
p.G576S (0.0026%)  
p.Q701H (0.0026%)  
p.Q156\* (0.0026%)  
p.S1120= (0.0026%)  
p.L1354V (0.0026%)  
p.E1076\* (0.0026%)  
p.T533= (0.0026%)  
p.G25D (0.0026%)  
p.G732D (0.0026%)  
p.W1173L (0.0026%)  
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p.C183= (0.0026%)  
p.P996= (0.0026%)  
p.L147= (0.0026%)  
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p.N891Y (0.0026%)  
p.R71G (0.0026%)  
p.G1311\* (0.0026%)  
p.E1079\* (0.0026%)  
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p.L701Q (0.0077%)  
p.P379S (0.0077%)  
p.L822= (0.0051%)  
p.E436G (0.0051%)  
p.H161Y (0.0051%)  
p.C508Y (0.0051%)  
p.M1114V (0.0051%)  
p.Q445\* (0.0051%)  
p.Y768\* (0.0051%)  
p.T1137I (0.0051%)  
p.Q1067H (0.0051%)  
p.A104V (0.0051%)  
p.G2381V (0.0051%)  
p.R1020H (0.0051%)  
p.S258I (0.0051%)  
p.R2726\* (0.0051%)  
p.S139I (0.0051%)  
p.R66G (0.0051%)  
p.S538R (0.0051%)  
p.A298T (0.0051%)  
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p.G1706V (0.0051%)  
p.R316L (0.0051%)  
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p.T2032N (0.0051%)  
p.G759\* (0.0051%)  
p.V2473L (0.0051%)  
p.A46S (0.0051%)  
p.A96V (0.0051%)  
p.G408\* (0.0051%)  
p.T1134A (0.0051%)  
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p.E627\* (0.0051%)  
p.C298Y (0.0051%)  
p.Q365\* (0.0051%)  
p.S419I (0.0051%)  
p.Q481R (0.0051%)  
p.A158E (0.0051%)  
p.L344F (0.0051%)  
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p.M1503K (0.0051%)  
p.A443T (0.0051%)  
p.S1876Y (0.0051%)  
p.M1998I (0.0051%)  
p.Y61C (0.0051%)  
p.L702F (0.0051%)  
p.G55D (0.0051%)  
p.C1586R (0.0051%)  
p.A374V (0.0051%)  
p.T372P (0.0051%)  
p.W2157\* (0.0051%)  
p.S260= (0.0026%)  
p.L867= (0.0026%)  
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p.G2301= (0.0026%)  
p.K541E (0.0026%)  
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p.D510= (0.0026%)  
p.S512G (0.0026%)  
p.S511= (0.0026%)  
p.G857A (0.0026%)  
p.A2452T (0.0026%)  
p.T179M (0.0026%)  
p.R459H (0.0026%)  
p.W887\* (0.0026%)  
p.R214= (0.0026%)  
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p.Y562C (0.0026%)  
p.Q1883H (0.0026%)  
p.G805S (0.0026%)  
p.N2450Kfs\*2 (0.0026%)  
p.S597C (0.0026%)  
p.H311= (0.0026%)  
p.K513R (0.0026%)  
p.L1048V (0.0026%)  
p.S642L (0.0026%)  
p.E943K (0.0026%)  
p.V1368= (0.0026%)  
p.N1350S (0.0026%)  
p.N1488S (0.0026%)  
p.A2300V (0.0026%)  
p.S69L (0.0026%)  
p.E2614K (0.0026%)  
p.R937Q (0.0026%)  
p.A187T (0.0026%)  
p.T494= (0.0026%)  
p.S46I (0.0026%)  
p.P241L (0.0026%)  
p.K412E (0.0026%)  
p.N79Rfs\*25 (0.0026%)  
p.L2418F (0.0026%)  
p.A1768V (0.0026%)  
p.W46\* (0.0051%)  
p.V183G (0.0103%)  
p.A138V (0.0103%)  
p.P10L (0.0103%)  
p.G203= (0.0051%)  
p.A629= (0.0051%)  
p.G747E (0.0051%)  
p.G1066V (0.0051%)  
p.C380S (0.0051%)  
p.D665E (0.0051%)  
p.L1089M (0.0051%)  
p.Q182\* (0.0051%)  
p.R608W (0.0051%)  
p.A1124T (0.0051%)  
p.V1455M (0.0051%)  
p.S199R (0.0051%)  
p.K1754\* (0.0051%)  
p.D340Y (0.0051%)  
p.S317G (0.0051%)  
p.H2236R (0.0051%)  
p.T2239S (0.0051%)  
p.A545T (0.0051%)  
p.Q219\* (0.0051%)  
p.A100E (0.0051%)  
p.Y82H (0.0051%)  
p.S1205Y (0.0051%)  
p.Q982H (0.0051%)  
p.L866M (0.0051%)  
p.H837Q (0.0051%)  
p.T51N (0.0051%)  
p.Q843H (0.0051%)  
p.E344G (0.0051%)  
p.C940R (0.0051%)  
p.D1531Y (0.0051%)  
p.R433C (0.0051%)  
p.E602\* (0.0051%)  
p.H129Q (0.0051%)  
p.R1483Q (0.0051%)  
p.A180V (0.0051%)  
p.V241L (0.0051%)  
p.E345D (0.0051%)  
p.P316Q (0.0051%)  
p.P123T (0.0051%)  
p.L22P (0.0051%)  
p.G126W (0.0051%)  
p.Q505H (0.0051%)  
p.Q261H (0.0051%)  
p.M1083T (0.0051%)  
p.V98A (0.0051%)  
p.C41R (0.0051%)  
p.E1826K (0.0051%)  
p.N599K (0.0051%)  
p.K1024N (0.0051%)  
p.L72P (0.0051%)  
p.R601W (0.0051%)  
p.C396Y (0.0051%)  
p.E325V (0.0051%)  
p.P1297Q (0.0051%)  
p.G404C (0.0051%)  
p.E295V (0.0051%)  
p.V448I (0.0051%)  
p.Q1503K (0.0051%)  
p.A347V (0.0051%)  
p.R1162K (0.0051%)  
p.E581K (0.0051%)  
p.N1128Y (0.0051%)  
p.R1127G (0.0051%)  
p.P150T (0.0051%)  
p.K544E (0.0051%)  
p.L63H (0.0051%)  
p.L25M (0.0051%)  
p.S1196R (0.0051%)  
p.P560L (0.0051%)  
p.K627N (0.0051%)  
p.E572\* (0.0051%)  
p.R1162W (0.0051%)  
p.R53C (0.0051%)  
p.E755G (0.0051%)  
p.Q52H (0.0051%)  
p.L126Q (0.0051%)  
p.N796S (0.0051%)  
p.R765L (0.0051%)  
p.A160T (0.0051%)  
p.V1094Rfs\*17 (0.0051%)  
p.Q548\* (0.0051%)  
p.L2538V (0.0026%)  
p.A2304V (0.0026%)  
p.S467F (0.0026%)  
p.P357S (0.0026%)  
p.R5L (0.0026%)  
p.P77A (0.0026%)  
p.R1340S (0.0026%)  
p.S384T (0.0026%)  
p.Q630= (0.0026%)  
p.I161= (0.0026%)  
p.P516= (0.0026%)  
p.T515= (0.0026%)  
p.P33= (0.0026%)  
p.A1130V (0.0026%)  
p.Q1432= (0.0026%)  
p.T336P (0.0026%)  
p.E1688G (0.0026%)  
p.G545S (0.0026%)  
p.K546E (0.0026%)  
p.E136\* (0.0026%)  
p.R1036M (0.0026%)  
p.Q970K (0.0026%)  
p.D1243Y (0.0026%)  
p.V205= (0.0026%)  
p.T1542= (0.0026%)  
p.L406M (0.0026%)  
p.P339= (0.0026%)  
p.V715M (0.0026%)  
p.L118I (0.0026%)  
p.E992D (0.0026%)  
p.P803S (0.0026%)  
p.F464L (0.0026%)  
p.D426N (0.0026%)  
p.R2436I (0.0026%)  
p.H179N (0.0026%)  
p.P16Q (0.0026%)  
p.A593T (0.0026%)  
p.S396L (0.0026%)  
p.T354M (0.0026%)  
p.E607K (0.0026%)  
p.H374Y (0.0026%)  
p.Q509\* (0.0026%)  
p.P695Q (0.0026%)  
p.S270G (0.0026%)  
p.Q672R (0.0026%)  
p.A8= (0.0026%)  
p.R1319W (0.0026%)  
p.K261R (0.0026%)  
p.R583H (0.0026%)  
p.S256N (0.0026%)  
p.W1907R (0.0026%)  
p.K390Nfs\*2 (0.0026%)  
p.K548\* (0.0026%)  
p.E626K (0.0026%)  
p.A107= (0.0026%)  
p.D162A (0.0026%)  
p.E818\* (0.0026%)  
p.Y552= (0.0026%)  
p.I1100M (0.0026%)  
p.N881S (0.0026%)  
p.V1492G (0.0026%)  
p.A2329V (0.0026%)  
p.F208L (0.0282%)  
p.G236E (0.0103%)  
p.P13Q (0.0077%)  
p.D185A (0.0077%)  
p.E513V (0.0051%)  
p.V74A (0.0051%)  
p.G16W (0.0051%)  
p.K416E (0.0051%)  
p.G1139V (0.0051%)  
p.G27R (0.0051%)  
p.A657V (0.0051%)  
p.P684Q (0.0051%)  
p.R524L (0.0051%)  
p.A201V (0.0051%)  
p.N802S (0.0051%)  
p.P1671T (0.0051%)  
p.L353I (0.0051%)  
p.P592S (0.0051%)  
p.E314\* (0.0051%)  
p.P138H (0.0051%)  
p.R79H (0.0051%)  
p.I122T (0.0051%)  
p.R220C (0.0051%)  
p.K206R (0.0051%)  
p.S190P (0.0051%)  
p.Q635K (0.0051%)  
p.R1559L (0.0051%)  
p.G554D (0.0051%)  
p.L276P (0.0051%)  
p.A195V (0.0051%)  
p.E492\* (0.0051%)  
p.A657E (0.0051%)  
p.S207L (0.0051%)  
p.G34S (0.0051%)  
p.C58\* (0.0051%)  
p.A226E (0.0051%)  
p.R60L (0.0051%)  
p.S1574T (0.0051%)  
p.Y23\* (0.0051%)  
p.Y224H (0.0051%)  
p.I554V (0.0051%)  
p.A259T (0.0051%)  
p.P503L (0.0051%)  
p.A5V (0.0051%)  
p.P570T (0.0051%)  
p.S251G (0.0051%)  
p.E44= (0.0051%)  
p.T293A (0.0051%)  
p.T319I (0.0051%)  
p.L816R (0.0051%)  
p.C306R (0.0051%)  
p.G104D (0.0051%)  
p.L99F (0.0051%)  
p.I1123M (0.0026%)  
p.T766= (0.0026%)  
p.S92P (0.0026%)  
p.N19K (0.0026%)  
p.L1043= (0.0026%)  
p.E150D (0.0026%)  
p.V682A (0.0026%)  
p.T170P (0.0026%)  
p.L226= (0.0026%)  
p.K385M (0.0026%)  
p.S246= (0.0026%)  
p.P307= (0.0026%)  
p.V767Wfs\*76 (0.0026%)  
p.R97Q (0.0026%)  
p.V756I (0.0026%)  
p.P211= (0.0026%)  
p.R32G (0.0026%)  
p.H108= (0.0026%)  
p.S92F (0.0026%)  
p.S424N (0.0026%)  
p.D1441N (0.0026%)  
p.C857\_T858dup (0.0026%)  
p.L878V (0.0026%)  
p.R180Q (0.0026%)  
p.E95Q (0.0026%)  
p.N78Y (0.0026%)  
p.D137H (0.0026%)  
p.G1118S (0.0026%)  
p.H1135Y (0.0026%)  
p.S35L (0.0026%)  
p.E1475Q (0.0026%)  
p.H186Q (0.0026%)  
p.K537M (0.0026%)  
p.T273S (0.0026%)  
p.P274A (0.0026%)  
p.D339H (0.0026%)  
p.E507D (0.0026%)  
p.P647T (0.0026%)  
p.P97S (0.0026%)  
p.T576Qfs\*33 (0.0026%)  
p.C320\* (0.0026%)  
p.N229S (0.0026%)  
p.V130F (0.0026%)  
p.R167Q (0.0026%)  
p.L23dup (0.0026%)  
p.L434F (0.0026%)  
p.Y433\* (0.0026%)  
p.S638F (0.0026%)  
p.N2116S (0.0026%)  
p.S471F (0.0026%)  
p.I1429T (0.0026%)  
p.E52\* (0.0026%)  
p.L534= (0.0026%)  
p.D255N (0.0026%)  
p.L198Xfs\*4 (0.0026%)  
p.R525K (0.0026%)  
p.L505I (0.0026%)  
p.A273S (0.0026%)  
p.S1927A (0.0026%)  
p.G1124Pfs\*116 (0.0026%)  
p.P59Rfs\*8 (0.0026%)  
p.P403S (0.0026%)  
p.F76del (0.0026%)  
p.P25L (0.0026%)  
p.P81S (0.0026%)  
p.V767Gfs\*76 (0.0026%)  
p.N78I (0.0026%)  
p.S24A (0.0128%)  
p.S1178P (0.0128%)  
p.S423Y (0.0103%)  
p.P84T (0.0077%)  
p.E2133K (0.0051%)  
p.H1659Y (0.0051%)  
p.I690F (0.0051%)  
p.P1222T (0.0051%)  
p.E196G (0.0051%)  
p.M822I (0.0051%)  
p.E688\* (0.0051%)  
p.R651W (0.0051%)  
p.R181M (0.0051%)  
p.L10F (0.0051%)  
p.V1508I (0.0051%)  
p.L285P (0.0051%)  
p.G770V (0.0051%)  
p.W61L (0.0051%)  
p.A411S (0.0051%)  
p.P842T (0.0051%)  
p.Q278\* (0.0051%)  
p.S935I (0.0051%)  
p.P893S (0.0051%)  
p.A1411V (0.0051%)  
p.I1403T (0.0051%)  
p.E595G (0.0051%)  
p.C1091\* (0.0051%)  
p.R1089Q (0.0051%)  
p.A2S (0.0051%)  
p.E44G (0.0051%)  
p.K192N (0.0051%)  
p.D206G (0.0051%)  
p.R378L (0.0051%)  
p.L858M (0.0051%)  
p.G418\* (0.0051%)  
p.R890\* (0.0051%)  
p.D1844Y (0.0051%)  
p.R1494C (0.0051%)  
p.A837T (0.0051%)  
p.D2056Y (0.0051%)  
p.G294R (0.0051%)  
p.D1179E (0.0051%)  
p.L215I (0.0051%)  
p.Q1053R (0.0051%)  
p.L585Q (0.0051%)  
p.D409E (0.0051%)  
p.S728R (0.0051%)  
p.R201S (0.0051%)  
p.C456F (0.0051%)  
p.N1109I (0.0051%)  
p.E1204G (0.0051%)  
p.A61V (0.0051%)  
p.P29L (0.0051%)  
p.N190K (0.0051%)  
p.L773P (0.0051%)  
p.Q30H (0.0051%)  
p.S118A (0.0051%)  
p.G1928S (0.0051%)  
p.Y409C (0.0051%)  
p.L479I (0.0051%)  
p.P296H (0.0051%)  
p.V840A (0.0051%)  
p.E490K (0.0051%)  
p.I357T (0.0051%)  
p.W373\* (0.0051%)  
p.P362T (0.0051%)  
p.H157N (0.0051%)  
p.K1388\* (0.0051%)  
p.S422A (0.0051%)  
p.C24F (0.0051%)  
p.T284P (0.0051%)  
p.P338H (0.0051%)  
p.L42M (0.0051%)  
p.R120C (0.0051%)  
p.P1170H (0.0051%)  
p.A114S (0.0051%)  
p.V118F (0.0051%)  
p.E94\* (0.0051%)  
p.Q460K (0.0051%)  
p.Q248K (0.0051%)  
p.I670M (0.0051%)  
p.D262E (0.0051%)  
p.F302C (0.0051%)  
p.P1096S (0.0051%)  
p.R1934Sfs\*138 (0.0051%)  
p.E1134G (0.0051%)  
p.G20D (0.0051%)  
p.K136\* (0.0051%)  
p.R434H (0.0051%)  
p.I1054K (0.0051%)  
p.Q93\* (0.0051%)  
p.E51K (0.0051%)  
p.R1141H (0.0026%)  
p.D103= (0.0026%)  
p.R456= (0.0026%)  
p.V407G (0.0026%)  
p.P474H (0.0026%)  
p.P70L (0.0026%)  
p.Q67H (0.0026%)  
p.K33= (0.0026%)  
p.D520Y (0.0026%)  
p.D787\_D788dup (0.0026%)  
p.P95R (0.0026%)  
p.A1523P (0.0026%)  
p.G224= (0.0026%)  
p.C60= (0.0026%)  
p.D670E (0.0026%)  
p.G191C (0.0026%)  
p.P66= (0.0026%)  
p.P882= (0.0026%)  
p.D67N (0.0026%)  
p.P2367Q (0.0026%)  
p.C1779G (0.0026%)  
p.G1532S (0.0026%)  
p.N345Tfs\*8 (0.0026%)  
p.L1225M (0.0026%)  
p.T677K (0.0026%)  
p.E732Q (0.0026%)  
p.Q989K (0.0026%)  
p.A1090T (0.0026%)  
p.W1115\* (0.0026%)  
p.A7= (0.0026%)  
p.Q145\* (0.0026%)  
p.R57T (0.0026%)  
p.S289C (0.0026%)  
p.Q273E (0.0026%)  
p.N626I (0.0026%)  
p.E312K (0.0026%)  
p.E636K (0.0026%)  
p.H768R (0.0026%)  
p.A690T (0.0026%)  
p.I1601V (0.0026%)  
p.S233W (0.0026%)  
p.G148C (0.0026%)  
p.G114A (0.0026%)  
p.Q58H (0.0026%)  
p.V864G (0.0026%)  
p.Q1137\* (0.0026%)  
p.R106\* (0.0026%)  
p.Q435\* (0.0026%)  
p.M121V (0.0026%)  
p.R1022\* (0.0026%)  
p.P212L (0.0026%)  
p.Y1446H (0.0026%)  
p.I99\_K104del (0.0026%)  
p.A2200D (0.0026%)  
p.D433N (0.0026%)  
p.S75P (0.0026%)  
p.L1065= (0.0026%)  
p.V44A (0.0026%)  
p.E19K (0.0026%)  
p.E759K (0.0026%)  
p.I220M (0.0026%)  
p.E99del (0.0026%)  
p.Q225E (0.0026%)  
p.Q1740\* (0.0026%)  
p.R1627Q (0.0026%)  
p.G752E (0.0026%)  
p.R1136Q (0.0026%)  
p.R594Q (0.0026%)  
p.L911V (0.0026%)  
p.G465R (0.0026%)  
p.A61T (0.0026%)  
p.M1285T (0.0026%)  
p.L42Gfs\*16 (0.0026%)  
p.R812H (0.0026%)  
p.R79Mfs\*48 (0.0026%)  
p.R443S (0.0026%)  
p.T7I (0.0026%)  
p.M876L (0.0026%)  
p.E355G (0.0026%)  
p.H108R (0.0026%)  
p.0 (0.0026%)  
p.R961Q (0.0026%)  
p.K533Tfs\*2 (0.0026%)  
p.L116F (0.0026%)  
p.G38\* (0.0026%)  
p.N126K (0.0026%)  
p.M559I (0.0026%)  
p.A72T (0.0026%)  
p.K700E (0.0026%)  
p.R79G (0.0026%)  
p.P207S (0.0103%)  
p.P402= (0.0077%)  
p.A251V (0.0077%)  
p.P479\_A480dup (0.0077%)  
p.A326V (0.0051%)  
p.E395\* (0.0051%)  
p.G550C (0.0051%)  
p.P429T (0.0051%)  
p.F172I (0.0051%)  
p.R448C (0.0051%)  
p.E363D (0.0051%)  
p.L483H (0.0051%)  
p.Q397H (0.0051%)  
p.T222A (0.0051%)  
p.D1192Y (0.0051%)  
p.E731K (0.0051%)  
p.A1187D (0.0051%)  
p.P290S (0.0051%)  
p.P544T (0.0051%)  
p.C145Y (0.0051%)  
p.A321T (0.0051%)  
p.A314T (0.0051%)  
p.L239P (0.0051%)  
p.P155S (0.0051%)  
p.S630I (0.0051%)  
p.P113L (0.0051%)  
p.A356S (0.0051%)  
p.I633F (0.0051%)  
p.S796R (0.0051%)  
p.N151Y (0.0051%)  
p.P579S (0.0051%)  
p.G420C (0.0051%)  
p.Q589R (0.0051%)  
p.P199A (0.0051%)  
p.V572L (0.0051%)  
p.G41C (0.0051%)  
p.F1248S (0.0051%)  
p.Q358\* (0.0051%)  
p.R478P (0.0051%)  
p.L157Ffs\*17 (0.0051%)  
p.E219K (0.0051%)  
p.C128Y (0.0051%)  
p.S708L (0.0051%)  
p.S169N (0.0051%)  
p.S293\* (0.0051%)  
p.L688= (0.0026%)  
p.Q35= (0.0026%)  
p.G115= (0.0026%)  
p.G363S (0.0026%)  
p.L382M (0.0026%)  
p.L773M (0.0026%)  
p.A324V (0.0026%)  
p.S308= (0.0026%)  
p.G721S (0.0026%)  
p.P267A (0.0026%)  
p.P479= (0.0026%)  
p.Q58del (0.0026%)  
p.P210= (0.0026%)  
p.Y777\* (0.0026%)  
p.Q55= (0.0026%)  
p.T586R (0.0026%)  
p.L374= (0.0026%)  
p.E392\* (0.0026%)  
p.A684V (0.0026%)  
p.K45N (0.0026%)  
p.L381= (0.0026%)  
p.P25Qfs\*51 (0.0026%)  
p.M384I (0.0026%)  
p.L696F (0.0026%)  
p.R777C (0.0026%)  
p.S1029= (0.0026%)  
p.P306= (0.0026%)  
p.D376E (0.0026%)  
p.S102Hfs\*68 (0.0026%)  
p.P392Rfs\*100 (0.0026%)  
p.R77W (0.0026%)  
p.A388T (0.0026%)  
p.Q524R (0.0026%)  
p.S956\* (0.0026%)  
p.R386H (0.0026%)  
p.D106H (0.0026%)  
p.R802S (0.0026%)  
p.R149\* (0.0026%)  
p.C626S (0.0103%)  
p.P133T (0.0077%)  
p.R478Q (0.0051%)  
p.E238Q (0.0051%)  
p.R1108W (0.0051%)  
p.T724A (0.0051%)  
p.V375L (0.0051%)  
p.K426N (0.0051%)  
p.Q1470\* (0.0051%)  
p.D432E (0.0051%)  
p.E712K (0.0051%)  
p.C252F (0.0051%)  
p.K506E (0.0051%)  
p.A24T (0.0051%)  
p.P117H (0.0051%)  
p.P706L (0.0051%)  
p.G461W (0.0051%)  
p.A298V (0.0051%)  
p.V200L (0.0051%)  
p.C310S (0.0051%)  
p.A715V (0.0051%)  
p.K619E (0.0051%)  
p.G198W (0.0051%)  
p.C47F (0.0051%)  
p.Q94L (0.0051%)  
p.T196S (0.0051%)  
p.K417R (0.0051%)  
p.N360D (0.0051%)  
p.Q1072R (0.0051%)  
p.W35\* (0.0051%)  
p.G102A (0.0051%)  
p.D23E (0.0051%)  
p.P435S (0.0051%)  
p.L471= (0.0051%)  
p.Y176C (0.0051%)  
p.V4G (0.0051%)  
p.S349= (0.0026%)  
p.A852S (0.0026%)  
p.R357I (0.0026%)  
p.V935L (0.0026%)  
p.A852= (0.0026%)  
p.P851R (0.0026%)  
p.S12\* (0.0026%)  
p.L850F (0.0026%)  
p.S247= (0.0026%)  
p.T487del (0.0026%)  
p.G254E (0.0026%)  
p.S512F (0.0026%)  
p.R441Q (0.0026%)  
p.S403G (0.0026%)  
p.I220V (0.0026%)  
p.R224Q (0.0026%)  
p.G592= (0.0026%)  
p.F179= (0.0026%)  
p.S52\* (0.0026%)  
p.H359Y (0.0026%)  
p.R465C (0.0026%)  
p.T333I (0.0026%)  
p.L443F (0.0026%)  
p.E71Q (0.0026%)  
p.P233S (0.0026%)  
p.R170Vfs\*6 (0.0026%)  
p.A574V (0.0026%)  
p.R465H (0.0026%)  
p.L494\* (0.0026%)  
p.S426\* (0.0026%)  
p.R386= (0.0026%)  
p.S576P (0.0026%)  
p.K1162Q (0.0026%)  
p.Q188R (0.0103%)  
p.A7S (0.0103%)  
p.P65L (0.0051%)  
p.S1175I (0.0051%)  
p.A626T (0.0051%)  
p.L62H (0.0051%)  
p.A548T (0.0051%)  
p.P62Q (0.0051%)  
p.S216I (0.0051%)  
p.E2V (0.0051%)  
p.M2078I (0.0051%)  
p.D112E (0.0051%)  
p.D9Y (0.0051%)  
p.E2073G (0.0051%)  
p.Q34H (0.0051%)  
p.G1497\* (0.0051%)  
p.E234\* (0.0051%)  
p.Q124R (0.0051%)  
p.S309L (0.0051%)  
p.S874R (0.0051%)  
p.M125V (0.0051%)  
p.E372\* (0.0051%)  
p.D300Y (0.0051%)  
p.Y273\* (0.0051%)  
p.N426D (0.0051%)  
p.K291M (0.0051%)  
p.R306P (0.0051%)  
p.A379T (0.0051%)  
p.G353E (0.0051%)  
p.L507P (0.0051%)  
p.E10Q (0.0051%)  
p.L454Q (0.0051%)  
p.A131D (0.0051%)  
p.V407L (0.0051%)  
p.P766Q (0.0051%)  
p.T418I (0.0051%)  
p.Q724\* (0.0051%)  
p.E225G (0.0051%)  
p.A276S (0.0051%)  
p.A173V (0.0051%)  
p.E344\* (0.0051%)  
p.A455E (0.0051%)  
p.M1100I (0.0051%)  
p.G578E (0.0051%)  
p.P355Q (0.0051%)  
p.Q460H (0.0051%)  
p.A409D (0.0051%)  
p.G176V (0.0051%)  
p.A358V (0.0051%)  
p.P80S (0.0051%)  
p.G355D (0.0051%)  
p.A67S (0.0051%)  
p.W2249L (0.0051%)  
p.Q400L (0.0051%)  
p.A27T (0.0051%)  
p.A300T (0.0051%)  
p.K176R (0.0051%)  
p.S381I (0.0051%)  
p.P404L (0.0051%)  
p.Q425\* (0.0051%)  
p.R168H (0.0051%)  
p.L248Q (0.0051%)  
p.T113A (0.0051%)  
p.P47H (0.0051%)  
p.P12L (0.0051%)  
p.R609\* (0.0051%)  
p.K53\* (0.0051%)  
p.A48T (0.0051%)  
p.T659N (0.0051%)  
p.L137M (0.0051%)  
p.N165K (0.0051%)  
p.A641D (0.0051%)  
p.G1186V (0.0051%)  
p.P317T (0.0051%)  
p.E1187\* (0.0051%)  
p.R511Q (0.0051%)  
p.R209C (0.0051%)  
p.G154D (0.0051%)  
p.P766L (0.0051%)  
p.D2142E (0.0051%)  
p.V1168I (0.0051%)  
p.M456V (0.0051%)  
p.R17Afs\*38 (0.0051%)  
p.R459L (0.0051%)  
p.L93P (0.0051%)  
p.G80S (0.0051%)  
p.S482N (0.0051%)  
p.P456Q (0.0051%)  
p.S412L (0.0051%)  
p.S619= (0.0026%)  
p.A661V (0.0026%)  
p.A352= (0.0026%)  
p.P92= (0.0026%)  
p.S5= (0.0026%)  
p.G474C (0.0026%)  
p.N698= (0.0026%)  
p.S461R (0.0026%)  
p.L252Q (0.0026%)  
p.S461N (0.0026%)  
p.Q473L (0.0026%)  
p.S422Y (0.0026%)  
p.G652R (0.0026%)  
p.G1140= (0.0026%)  
p.V420= (0.0026%)  
p.A607= (0.0026%)  
p.P234= (0.0026%)  
p.D581= (0.0026%)  
p.V5= (0.0026%)  
p.R62= (0.0026%)  
p.L312= (0.0026%)  
p.S251P (0.0026%)  
p.P197H (0.0026%)  
p.L496= (0.0026%)  
p.Q341Rfs\*30 (0.0026%)  
p.L165= (0.0026%)  
p.A140V (0.0026%)  
p.L621Dfs\*18 (0.0026%)  
p.E490Kfs\*2 (0.0026%)  
p.P466Q (0.0026%)  
p.R482\* (0.0026%)  
p.S153G (0.0026%)  
p.I141\_H154del (0.0026%)  
p.A37S (0.0026%)  
p.R246= (0.0026%)  
p.L382Afs\*3 (0.0026%)  
p.Y773C (0.0026%)  
p.V164Dfs\*5 (0.0026%)  
p.Y204Vfs\*3 (0.0026%)  
p.P235Q (0.0026%)  
p.S1080\* (0.0026%)  
p.L161= (0.0026%)  
p.Q1045\* (0.0026%)  
p.S919Afs\*25 (0.0026%)  
p.S459Y (0.0026%)  
p.F1088Sfs\*2 (0.0026%)  
p.E305K (0.0026%)  
p.R121\* (0.0026%)  
p.L486V (0.0026%)  
p.G483Rfs\*17 (0.0026%)  
p.T189Pfs\*54 (0.0026%)  
p.V316= (0.0026%)  
p.M1144I (0.0026%)  
p.V274Cfs\*23 (0.0026%)  
p.I196= (0.0026%)  
p.S1000\* (0.0026%)  
p.V1140L (0.0026%)  
p.G78V (0.0026%)  
p.L19Rfs\*33 (0.0026%)  
p.R785= (0.0026%)  
p.R594W (0.0026%)  
p.W186\* (0.0026%)  
p.G1072C (0.0026%)  
p.T565N (0.0026%)  
p.P131= (0.0026%)  
p.A1261T (0.0026%)  
p.G225Afs\*16 (0.0026%)  
p.E599Q (0.0026%)  
p.E591= (0.0026%)  
p.D290G (0.0026%)  
p.P805= (0.0026%)  
p.G86E (0.0103%)  
p.M174I (0.0103%)  
p.R277C (0.0103%)  
p.L273P (0.0077%)  
p.S778C (0.0077%)  
p.L711= (0.0077%)  
p.S542P (0.0051%)  
p.S981R (0.0051%)  
p.S246G (0.0051%)  
p.E306\* (0.0051%)  
p.K43E (0.0051%)  
p.R992H (0.0051%)  
p.T341R (0.0051%)  
p.L459R (0.0051%)  
p.R345Q (0.0051%)  
p.E1090\* (0.0051%)  
p.V49M (0.0051%)  
p.D990G (0.0051%)  
p.D76Y (0.0051%)  
p.V825L (0.0051%)  
p.R405H (0.0051%)  
p.V511I (0.0051%)  
p.N1203I (0.0051%)  
p.S535Y (0.0051%)  
p.R28I (0.0051%)  
p.D11G (0.0051%)  
p.P157R (0.0051%)  
p.S778G (0.0051%)  
p.M104I (0.0051%)  
p.E528D (0.0051%)  
p.G46E (0.0051%)  
p.E507\* (0.0051%)  
p.S345G (0.0051%)  
p.S1683N (0.0051%)  
p.E173K (0.0051%)  
p.N172K (0.0051%)  
p.C528R (0.0051%)  
p.S1697C (0.0051%)  
p.K1684N (0.0051%)  
p.N407K (0.0051%)  
p.R92L (0.0051%)  
p.P516S (0.0051%)  
p.R713W (0.0051%)  
p.E89D (0.0051%)  
p.H54L (0.0051%)  
p.L303M (0.0051%)  
p.G166S (0.0051%)  
p.G713= (0.0051%)  
p.R719H (0.0051%)  
p.V99= (0.0051%)  
p.P1254S (0.0051%)  
p.L53R (0.0051%)  
p.P470T (0.0026%)  
p.G1062= (0.0026%)  
p.S433Y (0.0026%)  
p.P95A (0.0026%)  
p.E580= (0.0026%)  
p.T321= (0.0026%)  
p.P442= (0.0026%)  
p.E469del (0.0026%)  
p.S666= (0.0026%)  
p.L138= (0.0026%)  
p.T239= (0.0026%)  
p.R47H (0.0026%)  
p.R1155L (0.0026%)  
p.V370L (0.0026%)  
p.V374= (0.0026%)  
p.Q24\* (0.0026%)  
p.W94\* (0.0026%)  
p.K937R (0.0026%)  
p.V114D (0.0026%)  
p.D1257Sfs\*16 (0.0026%)  
p.K265N (0.0026%)  
p.C217F (0.0026%)  
p.M435I (0.0026%)  
p.R337L (0.0026%)  
p.R143Q (0.0026%)  
p.D873G (0.0026%)  
p.A763T (0.0026%)  
p.P152S (0.0026%)  
p.S1105C (0.0026%)  
p.L56Cfs\*39 (0.0026%)  
p.R412Q (0.0026%)  
p.V331I (0.0026%)  
p.P685H (0.0026%)  
p.G245\* (0.0026%)  
p.Q57Sfs\*38 (0.0026%)  
p.R270\* (0.0026%)  
p.I4V (0.0026%)  
p.Y1705\* (0.0026%)  
p.G37\_G44del (0.0026%)  
p.I675T (0.0026%)  
p.V842I (0.0026%)  
p.L120R (0.0026%)  
p.F356L (0.0026%)  
p.P548= (0.0026%)  
p.V1307L (0.0026%)  
p.S31= (0.0026%)  
p.E251D (0.0128%)  
p.E109\* (0.0051%)  
p.L174= (0.0077%)  
p.T103A (0.0051%)  
p.N590D (0.0051%)  
p.K88N (0.0051%)  
p.W616C (0.0051%)  
p.Q1096K (0.0051%)  
p.P325S (0.0051%)  
p.K576R (0.0051%)  
p.P718A (0.0051%)  
p.D47G (0.0051%)  
p.A766T (0.0051%)  
p.Q594\* (0.0051%)  
p.E238V (0.0051%)  
p.S180R (0.0051%)  
p.S1070I (0.0051%)  
p.A44T (0.0051%)  
p.K495N (0.0051%)  
p.I426M (0.0051%)  
p.N903I (0.0051%)  
p.A531V (0.0051%)  
p.Q55R (0.0051%)  
p.P381S (0.0051%)  
p.S173N (0.0051%)  
p.L117S (0.0051%)  
p.L110P (0.0051%)  
p.V156L (0.0051%)  
p.C66Y (0.0051%)  
p.R652K (0.0051%)  
p.S340L (0.0051%)  
p.N19T (0.0051%)  
p.A134T (0.0051%)  
p.G101D (0.0051%)  
p.V640D (0.0051%)  
p.A162V (0.0051%)  
p.T416N (0.0051%)  
p.P837Q (0.0051%)  
p.H427P (0.0051%)  
p.A413S (0.0051%)  
p.N302D (0.0051%)  
p.R246Q (0.0051%)  
p.E6\* (0.0051%)  
p.S184N (0.0051%)  
p.T546N (0.0051%)  
p.L83S (0.0051%)  
p.S3T (0.0051%)  
p.A562E (0.0051%)  
p.P1568H (0.0051%)  
p.D927E (0.0051%)  
p.L295R (0.0051%)  
p.C367\* (0.0051%)  
p.A669T (0.0051%)  
p.M558T (0.0051%)  
p.T90A (0.0051%)  
p.A166V (0.0051%)  
p.L20P (0.0051%)  
p.P1524T (0.0051%)  
p.R214W (0.0051%)  
p.A481V (0.0051%)  
p.P1568L (0.0051%)  
p.V338G (0.0051%)  
p.Q18R (0.0051%)  
p.Q1565\* (0.0051%)  
p.S23N (0.0051%)  
p.D285V (0.0051%)  
p.S157= (0.0051%)  
p.S710F (0.0026%)  
p.E185Q (0.0026%)  
p.T15S (0.0026%)  
p.E14G (0.0026%)  
p.S34G (0.0026%)  
p.S149T (0.0026%)  
p.E14K (0.0026%)  
p.S178= (0.0026%)  
p.E1466D (0.0026%)  
p.M470R (0.0026%)  
p.T869K (0.0026%)  
p.S167= (0.0026%)  
p.P5= (0.0026%)  
p.H517N (0.0026%)  
p.D34Afs\*5 (0.0026%)  
p.R215W (0.0026%)  
p.M475L (0.0026%)  
p.P440= (0.0026%)  
p.D581H (0.0026%)  
p.P161A (0.0026%)  
p.A923T (0.0026%)  
p.P828R (0.0026%)  
p.S129\* (0.0026%)  
p.D97E (0.0026%)  
p.V140M (0.0026%)  
p.G343V (0.0026%)  
p.L656= (0.0026%)  
p.E728D (0.0026%)  
p.E446D (0.0026%)  
p.M28I (0.0026%)  
p.R462C (0.0026%)  
p.G131S (0.0026%)  
p.T606= (0.0026%)  
p.R660I (0.0026%)  
p.E141\* (0.0026%)  
p.A748G (0.0026%)  
p.K593N (0.0026%)  
p.E685D (0.0026%)  
p.D61V (0.0026%)  
p.W885\* (0.0026%)  
p.S426F (0.0026%)  
p.L797F (0.0154%)  
p.E451\* (0.0077%)  
p.P108L (0.0077%)  
p.V211L (0.0051%)  
p.S289N (0.0051%)  
p.A425T (0.0051%)  
p.Q214R (0.0051%)  
p.Q1391K (0.0051%)  
p.S293G (0.0051%)  
p.P418T (0.0051%)  
p.Q8\* (0.0051%)  
p.V35L (0.0051%)  
p.V8M (0.0051%)  
p.L184R (0.0051%)  
p.P186A (0.0051%)  
p.E1015\* (0.0051%)  
p.P268T (0.0051%)  
p.H4330N (0.0051%)  
p.R142S (0.0051%)  
p.G93V (0.0051%)  
p.T355K (0.0051%)  
p.M36I (0.0051%)  
p.E980D (0.0051%)  
p.P238T (0.0051%)  
p.G825C (0.0051%)  
p.G307C (0.0051%)  
p.A7V (0.0051%)  
p.S763L (0.0051%)  
p.D90Y (0.0051%)  
p.A1296S (0.0051%)  
p.S95\* (0.0051%)  
p.M201I (0.0051%)  
p.C163Y (0.0051%)  
p.R21S (0.0051%)  
p.A450V (0.0051%)  
p.G445V (0.0051%)  
p.P181T (0.0051%)  
p.K422R (0.0051%)  
p.N359K (0.0051%)  
p.G445\* (0.0051%)  
p.L162M (0.0051%)  
p.G158V (0.0051%)  
p.L202H (0.0051%)  
p.K189N (0.0051%)  
p.L28P (0.0051%)  
p.C93Y (0.0051%)  
p.E230G (0.0051%)  
p.E290K (0.0051%)  
p.G139D (0.0051%)  
p.T229A (0.0051%)  
p.A52V (0.0051%)  
p.F1153L (0.0051%)  
p.W1036C (0.0051%)  
p.W304G (0.0051%)  
p.S87P (0.0051%)  
p.A139S (0.0051%)  
p.H37Y (0.0051%)  
p.P169H (0.0051%)  
p.Q415K (0.0051%)  
p.D341N (0.0051%)  
p.P114L (0.0051%)  
p.G60V (0.0051%)  
p.E148K (0.0051%)  
p.A235D (0.0051%)  
p.L227F (0.0051%)  
p.C681F (0.0051%)  
p.C205Y (0.0051%)  
p.R123C (0.0051%)  
p.Y475\* (0.0051%)  
p.K860I (0.0051%)  
p.A638S (0.0051%)  
p.R240H (0.0051%)  
p.R214G (0.0051%)  
p.Q820L (0.0051%)  
p.N48K (0.0051%)  
p.T798A (0.0051%)  
p.Q127R (0.0051%)  
p.R50L (0.0051%)  
p.W76L (0.0051%)  
p.V476M (0.0051%)  
p.T1951I (0.0051%)  
p.H112P (0.0051%)  
p.A42P (0.0051%)  
p.Q41\* (0.0051%)  
p.P145L (0.0051%)  
p.R40H (0.0051%)  
p.I164M (0.0051%)  
p.A273V (0.0051%)  
p.N1523S (0.0051%)  
p.S98R (0.0051%)  
p.A704= (0.0026%)  
p.Q1293Gfs\*19 (0.0026%)  
p.D151= (0.0026%)  
p.N2195= (0.0026%)  
p.S2746\* (0.0026%)  
p.D842Y (0.0026%)  
p.R3522Q (0.0026%)  
p.K134\* (0.0026%)  
p.Q52\* (0.0026%)  
p.D473V (0.0026%)  
p.S474R (0.0026%)  
p.S474I (0.0026%)  
p.P803= (0.0026%)  
p.T620= (0.0026%)  
p.V419G (0.0026%)  
p.R226W (0.0026%)  
p.L270= (0.0026%)  
p.G2273W (0.0026%)  
p.T660= (0.0026%)  
p.P239Qfs\*43 (0.0026%)  
p.R131\* (0.0026%)  
p.S303\* (0.0026%)  
p.H168Y (0.0026%)  
p.S500F (0.0026%)  
p.S4483I (0.0026%)  
p.G135W (0.0026%)  
p.P299T (0.0026%)  
p.S256F (0.0026%)  
p.A49T (0.0026%)  
p.E472Q (0.0026%)  
p.L691V (0.0026%)  
p.T112I (0.0026%)  
p.Q75E (0.0026%)  
p.C736F (0.0026%)  
p.Q586\* (0.0026%)  
p.P128R (0.0026%)  
p.P617R (0.0026%)  
p.K86N (0.0026%)  
p.G76E (0.0026%)  
p.Q506= (0.0026%)  
p.Q1188\* (0.0026%)  
p.R557Q (0.0026%)  
p.R544K (0.0026%)  
p.R225H (0.0026%)  
p.R183Q (0.0026%)  
p.M291K (0.0026%)  
p.P221A (0.0026%)  
p.E472K (0.0026%)  
p.G273E (0.0026%)  
p.V806= (0.0026%)  
p.P574H (0.0026%)  
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p.M223V (0.0026%)  
p.K266R (0.0026%)  
p.K255N (0.0026%)  
p.R584I (0.0026%)  
p.H265D (0.0026%)  
p.R182W (0.0026%)  
p.P184L (0.0026%)  
p.W383\* (0.0026%)  
p.G214R (0.0026%)  
p.A285V (0.0026%)  
p.S362F (0.0026%)  
p.S531= (0.0026%)  
p.L2261= (0.0026%)  
p.Q733K (0.0128%)  
p.G313= (0.0077%)  
p.R172S (0.0077%)  
p.H131R (0.0051%)  
p.N620K (0.0051%)  
p.V111I (0.0051%)  
p.T211N (0.0051%)  
p.N881K (0.0051%)  
p.G442C (0.0051%)  
p.Y80H (0.0051%)  
p.P213S (0.0051%)  
p.A396S (0.0051%)  
p.C12R (0.0051%)  
p.A458T (0.0051%)  
p.R507\* (0.0051%)  
p.F779I (0.0051%)  
p.R841K (0.0051%)  
p.H274N (0.0051%)  
p.R1004L (0.0051%)  
p.A1384D (0.0051%)  
p.A196T (0.0051%)  
p.R37H (0.0051%)  
p.F1519L (0.0051%)  
p.N970S (0.0051%)  
p.G1064D (0.0051%)  
p.G230D (0.0051%)  
p.M219L (0.0051%)  
p.P514L (0.0051%)  
p.K1539\* (0.0051%)  
p.Q270\* (0.0051%)  
p.R482K (0.0051%)  
p.C381S (0.0051%)  
p.G310D (0.0051%)  
p.K228R (0.0051%)  
p.S88Y (0.0051%)  
p.A2T (0.0051%)  
p.N1154K (0.0051%)  
p.H734N (0.0051%)  
p.A14P (0.0051%)  
p.R230M (0.0051%)  
p.T13P (0.0051%)  
p.G205V (0.0051%)  
p.Q296K (0.0051%)  
p.A1363E (0.0051%)  
p.H586P (0.0051%)  
p.H323Y (0.0051%)  
p.H786R (0.0051%)  
p.V230I (0.0051%)  
p.G591S (0.0051%)  
p.T736A (0.0051%)  
p.D382E (0.0051%)  
p.R5W (0.0051%)  
p.N867K (0.0051%)  
p.D870N (0.0051%)  
p.S262I (0.0051%)  
p.A212T (0.0051%)  
p.E988\* (0.0051%)  
p.A178D (0.0051%)  
p.P1098T (0.0051%)  
p.R229W (0.0051%)  
p.H265Q (0.0051%)  
p.A719S (0.0051%)  
p.A74V (0.0051%)  
p.M284K (0.0051%)  
p.V184L (0.0051%)  
p.T174K (0.0051%)  
p.Q46\* (0.0051%)  
p.Y765\* (0.0051%)  
p.N706K (0.0051%)  
p.C265\* (0.0051%)  
p.R228\* (0.0051%)  
p.R272W (0.0051%)  
p.T235M (0.0051%)  
p.P562H (0.0051%)  
p.M218I (0.0051%)  
p.T641= (0.0051%)  
p.C1341Y (0.0051%)  
p.A383V (0.0051%)  
p.R432G (0.0051%)  
p.R287C (0.0051%)  
p.D460Y (0.0051%)  
p.Q1129H (0.0051%)  
p.S332= (0.0026%)  
p.D642H (0.0026%)  
p.S297N (0.0026%)  
p.P457L (0.0026%)  
p.G517V (0.0026%)  
p.L794= (0.0026%)  
p.H1202Q (0.0026%)  
p.S259A (0.0026%)  
p.K292T (0.0026%)  
p.P289H (0.0026%)  
p.Y1323\* (0.0026%)  
p.Y627S (0.0026%)  
p.T554P (0.0026%)  
p.R14W (0.0026%)  
p.K751Q (0.0026%)  
p.D312N (0.0026%)  
p.K272N (0.0026%)  
p.G233S (0.0026%)  
p.M702I (0.0026%)  
p.T205= (0.0026%)  
p.P42Rfs\*54 (0.0026%)  
p.H148Y (0.0026%)  
p.P24Rfs\*72 (0.0026%)  
p.L361\* (0.0026%)  
p.T435M (0.0026%)  
p.A200Gfs\*10 (0.0026%)  
p.P279T (0.0026%)  
p.G430W (0.0026%)  
p.S138L (0.0026%)  
p.T688M (0.0026%)  
p.R799W (0.0026%)  
p.T749M (0.0026%)  
p.Q1406E (0.0026%)  
p.K627M (0.0026%)  
p.E178K (0.0026%)  
p.S785N (0.0026%)  
p.F536I (0.0026%)  
p.R10L (0.0026%)  
p.E7\* (0.0026%)  
p.R95Q (0.0026%)  
p.Y41= (0.0026%)  
p.M220V (0.0026%)  
p.N678S (0.0026%)  
p.C622R (0.0026%)  
p.P464L (0.0026%)  
p.S1101= (0.0026%)  
p.L220= (0.0026%)  
p.P229A (0.0026%)  
p.G143= (0.0026%)  
p.I78T (0.0026%)  
p.L294= (0.0026%)  
p.V196M (0.0026%)  
p.K324N (0.0256%)  
p.E218fs\*4 (0.0128%)  
p.A301Dfs\*20 (0.0128%)  
p.A174V (0.0077%)  
p.H1398Q (0.0051%)  
p.L465F (0.0051%)  
p.A1107V (0.0051%)  
p.V625F (0.0051%)  
p.D1002A (0.0051%)  
p.M406I (0.0051%)  
p.Q120\* (0.0051%)  
p.Q417H (0.0051%)  
p.F404L (0.0051%)  
p.H405N (0.0051%)  
p.V629A (0.0051%)  
p.E1059V (0.0051%)  
p.G259V (0.0051%)  
p.A36T (0.0051%)  
p.L535F (0.0051%)  
p.P493T (0.0051%)  
p.P42L (0.0051%)  
p.Y101H (0.0051%)  
p.P121Q (0.0051%)  
p.A767V (0.0051%)  
p.M389I (0.0051%)  
p.P53T (0.0051%)  
p.S165P (0.0051%)  
p.G208D (0.0051%)  
p.Q158\* (0.0051%)  
p.G440S (0.0051%)  
p.Q420K (0.0051%)  
p.V37A (0.0051%)  
p.R380\* (0.0051%)  
p.K10R (0.0051%)  
p.A177P (0.0051%)  
p.H179P (0.0051%)  
p.W260R (0.0051%)  
p.E274D (0.0051%)  
p.I150S (0.0051%)  
p.H411Q (0.0051%)  
p.A913V (0.0051%)  
p.A58T (0.0051%)  
p.I417K (0.0051%)  
p.P496S (0.0051%)  
p.T159P (0.0051%)  
p.P339L (0.0051%)  
p.R161K (0.0051%)  
p.A142T (0.0051%)  
p.T56I (0.0051%)  
p.T811N (0.0051%)  
p.N288K (0.0051%)  
p.T227M (0.0051%)  
p.A617T (0.0051%)  
p.A658D (0.0051%)  
p.V921I (0.0051%)  
p.G134R (0.0051%)  
p.Q148\* (0.0051%)  
p.S502P (0.0051%)  
p.E245G (0.0051%)  
p.Q190\* (0.0051%)  
p.P881T (0.0051%)  
p.P140L (0.0051%)  
p.W159L (0.0051%)  
p.I560V (0.0051%)  
p.K20T (0.0051%)  
p.Q74H (0.0051%)  
p.A151V (0.0051%)  
p.P117L (0.0051%)  
p.S238R (0.0051%)  
p.A43E (0.0051%)  
p.T808N (0.0051%)  
p.E633K (0.0051%)  
p.K188R (0.0051%)  
p.Q171K (0.0051%)  
p.Y376H (0.0051%)  
p.G501A (0.0026%)  
p.E587= (0.0026%)  
p.P396S (0.0026%)  
p.S920= (0.0026%)  
p.R103= (0.0026%)  
p.D546E (0.0026%)  
p.A341E (0.0026%)  
p.V543= (0.0026%)  
p.D546V (0.0026%)  
p.L252M (0.0026%)  
p.D7G (0.0026%)  
p.S279G (0.0026%)  
p.T189= (0.0026%)  
p.F1382V (0.0026%)  
p.D203E (0.0026%)  
p.A100Gfs\*233 (0.0026%)  
p.R687= (0.0026%)  
p.H698N (0.0026%)  
p.M452I (0.0026%)  
p.K1650N (0.0026%)  
p.E1862Sfs\*112 (0.0026%)  
p.R549L (0.0026%)  
p.Q771P (0.0026%)  
p.R250Q (0.0026%)  
p.M370I (0.0026%)  
p.P563H (0.0026%)  
p.F396L (0.0026%)  
p.W78L (0.0026%)  
p.D507A (0.0026%)  
p.P168Sfs\*21 (0.0026%)  
p.K506Sfs\*9 (0.0026%)  
p.W285L (0.0026%)  
p.R464C (0.0026%)  
p.D602H (0.0026%)  
p.R302\* (0.0026%)  
p.S435N (0.0026%)  
p.S507F (0.0026%)  
p.R392Lfs\*32 (0.0026%)  
p.N455D (0.0026%)  
p.K41N (0.0026%)  
p.N45I (0.0026%)  
p.G364V (0.0026%)  
p.I116Nfs\*6 (0.0026%)  
p.L1528Q (0.0026%)  
p.G205E (0.0026%)  
p.V1117D (0.0026%)  
p.P714= (0.0026%)  
p.D324N (0.0026%)  
p.W872R (0.0026%)  
p.A663= (0.0026%)  
p.R1010H (0.0026%)  
p.R4L (0.0026%)  
p.G694D (0.0026%)  
p.Y629F (0.0026%)  
p.S278F (0.0026%)  
p.W372C (0.0026%)  
p.G58D (0.0026%)  
p.A680V (0.0026%)  
p.V220Gfs\*6 (0.0026%)  
p.R387Q (0.0026%)  
p.R216W (0.0077%)  
p.R338C (0.0077%)  
p.C494Y (0.0051%)  
p.S117R (0.0051%)  
p.R491Q (0.0051%)  
p.Q383R (0.0051%)  
p.G674\* (0.0051%)  
p.K515R (0.0051%)  
p.E464D (0.0051%)  
p.S606G (0.0051%)  
p.V127F (0.0051%)  
p.N578D (0.0051%)  
p.K16R (0.0051%)  
p.E199K (0.0051%)  
p.K47N (0.0051%)  
p.D516E (0.0051%)  
p.E375\* (0.0051%)  
p.G102R (0.0051%)  
p.L617V (0.0051%)  
p.K172E (0.0051%)  
p.T1968K (0.0051%)  
p.S122I (0.0051%)  
p.E318D (0.0051%)  
p.Q206K (0.0051%)  
p.A103V (0.0051%)  
p.D126Y (0.0051%)  
p.P241T (0.0051%)  
p.Y602H (0.0051%)  
p.K505R (0.0051%)  
p.E192G (0.0051%)  
p.S606I (0.0051%)  
p.A252S (0.0051%)  
p.P170H (0.0051%)  
p.C534F (0.0051%)  
p.M24I (0.0051%)  
p.R110I (0.0051%)  
p.F156I (0.0051%)  
p.K14N (0.0051%)  
p.G85V (0.0051%)  
p.L309I (0.0051%)  
p.E338\* (0.0051%)  
p.Q203K (0.0051%)  
p.L638M (0.0051%)  
p.A153S (0.0051%)  
p.Y312C (0.0051%)  
p.A569T (0.0051%)  
p.K47R (0.0051%)  
p.Q747K (0.0051%)  
p.G322\* (0.0051%)  
p.S323I (0.0051%)  
p.T93A (0.0051%)  
p.S299R (0.0051%)  
p.S175G (0.0051%)  
p.N55I (0.0051%)  
p.W629C (0.0051%)  
p.G164\* (0.0051%)  
p.A1741D (0.0051%)  
p.K50N (0.0051%)  
p.W1038L (0.0051%)  
p.R90Q (0.0051%)  
p.I233V (0.0051%)  
p.Y661S (0.0051%)  
p.P419T (0.0051%)  
p.Y116C (0.0051%)  
p.E89\* (0.0051%)  
p.C829F (0.0051%)  
p.V147I (0.0051%)  
p.W170\* (0.0051%)  
p.H624N (0.0051%)  
p.F482L (0.0051%)  
p.P248S (0.0051%)  
p.D381Y (0.0051%)  
p.Q1686R (0.0051%)  
p.L274M (0.0051%)  
p.L153F (0.0051%)  
p.P560Q (0.0051%)  
p.G164R (0.0051%)  
p.L294M (0.0051%)  
p.T184I (0.0051%)  
p.G318C (0.0051%)  
p.H122P (0.0051%)  
p.E956Kfs\*6 (0.0051%)  
p.K776T (0.0026%)  
p.P994= (0.0026%)  
p.K686R (0.0026%)  
p.K14R (0.0026%)  
p.A89D (0.0026%)  
p.Y815N (0.0026%)  
p.P24S (0.0026%)  
p.D185H (0.0026%)  
p.I822M (0.0026%)  
p.I239= (0.0026%)  
p.L324I (0.0026%)  
p.E586\* (0.0026%)  
p.P1693= (0.0026%)  
p.T444Lfs\*6 (0.0026%)  
p.E170del (0.0026%)  
p.N152Ifs\*15 (0.0026%)  
p.L138M (0.0026%)  
p.G115S (0.0026%)  
p.R912H (0.0026%)  
p.T171S (0.0026%)  
p.P864S (0.0026%)  
p.D574V (0.0026%)  
p.N1629S (0.0026%)  
p.R385L (0.0026%)  
p.S332F (0.0026%)  
p.L359\_P365del (0.0026%)  
p.D314H (0.0026%)  
p.V383G (0.0026%)  
p.D622N (0.0026%)  
p.V724M (0.0026%)  
p.A73= (0.0026%)  
p.G2027R (0.0026%)  
p.I1189F (0.0026%)  
p.L1119Ifs\*20 (0.0026%)  
p.P378R (0.0026%)  
p.A36= (0.0026%)  
p.D154E (0.0026%)  
p.D930V (0.0026%)  
p.S1186L (0.0026%)  
p.V492G (0.0026%)  
p.Q652E (0.0026%)  
p.M420I (0.0026%)  
p.E365\_T366del (0.0026%)  
p.P360= (0.0026%)  
p.V139I (0.0026%)  
p.R381G (0.0026%)  
p.Q486R (0.0026%)  
p.S1215G (0.0026%)  
p.K196I (0.0026%)  
p.V332G (0.0026%)  
p.G268Efs\*32 (0.0026%)  
p.D42N (0.0026%)  
p.R387W (0.0026%)  
p.E31G (0.0026%)  
p.E1162K (0.0026%)  
p.V428= (0.0026%)  
p.D457N (0.0026%)  
p.K296N (0.0026%)  
p.E631\* (0.0026%)  
p.P119S (0.0103%)  
p.S169L (0.0103%)  
p.D81N (0.0103%)  
p.Q1020K (0.0051%)  
p.V240A (0.0051%)  
p.L58F (0.0051%)  
p.G84D (0.0051%)  
p.R1457Q (0.0051%)  
p.E239G (0.0051%)  
p.Q322\* (0.0051%)  
p.D70Y (0.0051%)  
p.R833S (0.0051%)  
p.P66L (0.0051%)  
p.A315S (0.0051%)  
p.P27A (0.0051%)  
p.G309D (0.0051%)  
p.S347I (0.0051%)  
p.S42R (0.0051%)  
p.T310A (0.0051%)  
p.L637I (0.0051%)  
p.E326\* (0.0051%)  
p.L121P (0.0051%)  
p.A152S (0.0051%)  
p.G315\* (0.0051%)  
p.Q255K (0.0051%)  
p.E154D (0.0051%)  
p.G25V (0.0051%)  
p.G143D (0.0051%)  
p.E334K (0.0051%)  
p.E189K (0.0051%)  
p.P86S (0.0051%)  
p.A41S (0.0051%)  
p.N52K (0.0051%)  
p.Y226C (0.0051%)  
p.Q193H (0.0051%)  
p.G10\* (0.0051%)  
p.G145D (0.0051%)  
p.A616S (0.0051%)  
p.Q116R (0.0051%)  
p.L412P (0.0051%)  
p.F528S (0.0051%)  
p.F166Y (0.0051%)  
p.A2V (0.0051%)  
p.D250Y (0.0051%)  
p.Q272H (0.0051%)  
p.L942P (0.0051%)  
p.P232Q (0.0051%)  
p.N141T (0.0051%)  
p.E138G (0.0051%)  
p.D317E (0.0051%)  
p.L519S (0.0051%)  
p.T32P (0.0051%)  
p.Q493\* (0.0051%)  
p.P7L (0.0051%)  
p.S824T (0.0051%)  
p.F24I (0.0051%)  
p.Q1022R (0.0051%)  
p.S844P (0.0051%)  
p.G241D (0.0051%)  
p.V192A (0.0051%)  
p.P322R (0.0051%)  
p.R250C (0.0051%)  
p.S504G (0.0051%)  
p.C306Y (0.0051%)  
p.G39D (0.0051%)  
p.I726T (0.0051%)  
p.M387I (0.0051%)  
p.S483N (0.0051%)  
p.E456D (0.0051%)  
p.I651M (0.0051%)  
p.N168S (0.0051%)  
p.I96M (0.0051%)  
p.E129Q (0.0051%)  
p.P1062T (0.0051%)  
p.Y370= (0.0026%)  
p.K530N (0.0026%)  
p.Q508H (0.0026%)  
p.P353T (0.0026%)  
p.V230= (0.0026%)  
p.K128R (0.0026%)  
p.P187= (0.0026%)  
p.A372V (0.0026%)  
p.N392= (0.0026%)  
p.P1208= (0.0026%)  
p.S754L (0.0026%)  
p.K1569Rfs\*2 (0.0026%)  
p.E31D (0.0026%)  
p.D28N (0.0026%)  
p.H431N (0.0026%)  
p.T193M (0.0026%)  
p.R37Q (0.0026%)  
p.T291I (0.0026%)  
p.P812L (0.0026%)  
p.P116T (0.0026%)  
p.E356K (0.0026%)  
p.G34D (0.0026%)  
p.T494A (0.0026%)  
p.P463C (0.0026%)  
p.W582\* (0.0026%)  
p.L576F (0.0026%)  
p.G565R (0.0026%)  
p.K353del (0.0026%)  
p.I302Cfs\*293 (0.0026%)  
p.D501E (0.0026%)  
p.S44= (0.0026%)  
p.L129V (0.0026%)  
p.V162I (0.0026%)  
p.S877C (0.0026%)  
p.R423H (0.0026%)  
p.N83Tfs\*12 (0.0026%)  
p.D361H (0.0026%)  
p.F355I (0.0026%)  
p.D361E (0.0026%)  
p.Q31\* (0.0026%)  
p.Q283\* (0.0026%)  
p.R34G (0.0026%)  
p.G31del (0.0026%)  
p.P359A (0.0026%)  
p.G31A (0.0026%)  
p.D470Rfs\*6 (0.0026%)  
p.G31V (0.0026%)  
p.P930= (0.0026%)  
p.V293= (0.0026%)  
p.D470N (0.0026%)  
p.T211I (0.0026%)  
p.W16\* (0.0026%)  
p.N326= (0.0026%)  
p.R806Q (0.0026%)  
p.T80R (0.0026%)  
p.W24G (0.0026%)  
p.A268V (0.0026%)  
p.I17T (0.0026%)  
p.P109L (0.0077%)  
p.L148I (0.0051%)  
p.P54Q (0.0051%)  
p.P49A (0.0051%)  
p.H195N (0.0051%)  
p.K100N (0.0051%)  
p.F16S (0.0051%)  
p.E136G (0.0051%)  
p.E44Q (0.0051%)  
p.L723M (0.0051%)  
p.K102E (0.0051%)  
p.G247V (0.0051%)  
p.P199H (0.0051%)  
p.C197S (0.0051%)  
p.S146= (0.0051%)  
p.A751V (0.0051%)  
p.T431I (0.0051%)  
p.S562I (0.0051%)  
p.G52S (0.0051%)  
p.E331V (0.0051%)  
p.A318T (0.0051%)  
p.P214T (0.0051%)  
p.S645G (0.0051%)  
p.Y102H (0.0051%)  
p.K52R (0.0051%)  
p.P504H (0.0051%)  
p.D201Y (0.0051%)  
p.R157\* (0.0051%)  
p.H793Y (0.0051%)  
p.P99S (0.0051%)  
p.A257D (0.0051%)  
p.V777I (0.0051%)  
p.A193V (0.0051%)  
p.P174T (0.0051%)  
p.A218E (0.0051%)  
p.R160S (0.0051%)  
p.R148G (0.0051%)  
p.Y38F (0.0051%)  
p.R98L (0.0051%)  
p.Q272K (0.0051%)  
p.Q662K (0.0051%)  
p.K198E (0.0051%)  
p.M267V (0.0051%)  
p.R278C (0.0051%)  
p.C383Y (0.0051%)  
p.L221P (0.0051%)  
p.R202Q (0.0051%)  
p.G368D (0.0051%)  
p.M255I (0.0051%)  
p.R80C (0.0051%)  
p.G367A (0.0051%)  
p.Q89K (0.0051%)  
p.R220H (0.0051%)  
p.A169D (0.0051%)  
p.C779F (0.0051%)  
p.A648V (0.0051%)  
p.P97H (0.0051%)  
p.A235S (0.0051%)  
p.G252\* (0.0051%)  
p.D658E (0.0051%)  
p.L80M (0.0051%)  
p.M255K (0.0051%)  
p.G286A (0.0051%)  
p.V42M (0.0051%)  
p.R30L (0.0051%)  
p.Y212N (0.0051%)  
p.I55T (0.0051%)  
p.N12K (0.0051%)  
p.R15Gfs\*27 (0.0051%)  
p.A2406T (0.0051%)  
p.L421F (0.0051%)  
p.V138I (0.0026%)  
p.N119= (0.0026%)  
p.C23F (0.0026%)  
p.S22= (0.0026%)  
p.L418M (0.0026%)  
p.S111= (0.0026%)  
p.V1950G (0.0026%)  
p.T420= (0.0026%)  
p.H35Y (0.0026%)  
p.V1950= (0.0026%)  
p.R418= (0.0026%)  
p.M64L (0.0026%)  
p.M64T (0.0026%)  
p.E137K (0.0026%)  
p.G99C (0.0026%)  
p.T63= (0.0026%)  
p.T63S (0.0026%)  
p.L954R (0.0026%)  
p.M590I (0.0026%)  
p.Y401\* (0.0026%)  
p.L172M (0.0026%)  
p.L491Q (0.0026%)  
p.F127C (0.0026%)  
p.K283E (0.0026%)  
p.V109G (0.0026%)  
p.L6W (0.0026%)  
p.A97D (0.0026%)  
p.G456= (0.0026%)  
p.P466= (0.0026%)  
p.H195\_P196dup (0.0026%)  
p.G473S (0.0026%)  
p.Y201C (0.0026%)  
p.K132Rfs\*2 (0.0026%)  
p.D145N (0.0026%)  
p.L369\* (0.0026%)  
p.L1460\* (0.0026%)  
p.V627A (0.0026%)  
p.R668G (0.0026%)  
p.L49V (0.0026%)  
p.T647P (0.0026%)  
p.L453V (0.0026%)  
p.G103S (0.0026%)  
p.P518S (0.0026%)  
p.S776A (0.0026%)  
p.A72V (0.0026%)  
p.A549T (0.0026%)  
p.G35E (0.0026%)  
p.K415R (0.0026%)  
p.G415R (0.0026%)  
p.T647I (0.0026%)  
p.S846C (0.0026%)  
p.E86\* (0.0026%)  
p.G59R (0.0026%)  
p.R406W (0.0026%)  
p.S476F (0.0026%)  
p.E162Q (0.0026%)  
p.I56M (0.0026%)  
p.L80V (0.0026%)  
p.Y457\* (0.0026%)  
p.L421R (0.0026%)  
p.Q376H (0.0026%)  
p.G72A (0.0026%)  
p.P361L (0.0026%)  
p.G777V (0.0026%)  
p.L1820M (0.0026%)  
p.E49D (0.0026%)  
p.R745= (0.0026%)  
p.R291T (0.0026%)  
p.S1833= (0.0026%)  
p.S923N (0.0026%)  
p.Q125R (0.0026%)  
p.S89T (0.0026%)  
p.R267M (0.0026%)  
p.S296F (0.0026%)  
p.L193= (0.0026%)  
p.V2291I (0.0026%)  
p.L154R (0.0026%)  
p.G124= (0.0026%)  
p.C101= (0.0026%)  
p.L378\_T381del (0.0026%)  
p.S2037L (0.0026%)  
p.D560N (0.0026%)  
p.A377V (0.0026%)  
p.A102E (0.0026%)  
p.N69Y (0.0026%)  
p.N308D (0.0026%)  
p.D159Y (0.0026%)  
p.L337V (0.0026%)  
p.E999Q (0.0026%)  
p.E118D (0.0026%)  
p.L214\_H215delinsF (0.0026%)  
p.S360G (0.0026%)  
p.D3119G (0.0026%)  
p.L1012P (0.0026%)  
p.S34F (0.0077%)  
p.D172= (0.0051%)  
p.P525Q (0.0051%)  
p.P105L (0.0051%)  
p.P21S (0.0051%)  
p.R172W (0.0051%)  
p.I202M (0.0051%)  
p.K220R (0.0051%)  
p.K377N (0.0051%)  
p.N252S (0.0051%)  
p.S414T (0.0051%)  
p.Q146\* (0.0051%)  
p.R344\* (0.0051%)  
p.I417T (0.0051%)  
p.Q251R (0.0051%)  
p.R202M (0.0051%)  
p.A128T (0.0051%)  
p.A357T (0.0051%)  
p.C74R (0.0051%)  
p.L417Q (0.0051%)  
p.D466G (0.0051%)  
p.Q202H (0.0051%)  
p.Q24R (0.0051%)  
p.L284P (0.0051%)  
p.S219I (0.0051%)  
p.G23A (0.0051%)  
p.P80L (0.0051%)  
p.A909T (0.0051%)  
p.L147P (0.0051%)  
p.S120R (0.0051%)  
p.P455T (0.0051%)  
p.D97Y (0.0051%)  
p.R225L (0.0051%)  
p.E75K (0.0051%)  
p.R126H (0.0051%)  
p.N135K (0.0051%)  
p.R294S (0.0051%)  
p.E310G (0.0051%)  
p.Q177K (0.0051%)  
p.R293Q (0.0051%)  
p.G400D (0.0051%)  
p.M120K (0.0051%)  
p.N367K (0.0051%)  
p.S34C (0.0051%)  
p.I186T (0.0051%)  
p.R4H (0.0051%)  
p.V45I (0.0051%)  
p.S180Y (0.0051%)  
p.R120L (0.0051%)  
p.K1279E (0.0051%)  
p.P118T (0.0051%)  
p.H500R (0.0051%)  
p.L161H (0.0051%)  
p.C227Y (0.0051%)  
p.P61S (0.0051%)  
p.M584I (0.0051%)  
p.S109L (0.0051%)  
p.C265S (0.0026%)  
p.T255M (0.0026%)  
p.A237E (0.0026%)  
p.Q236= (0.0026%)  
p.I106= (0.0026%)  
p.H985R (0.0026%)  
p.E23G (0.0026%)  
p.P264L (0.0026%)  
p.G49= (0.0026%)  
p.V100F (0.0026%)  
p.V184F (0.0026%)  
p.N636= (0.0026%)  
p.L350F (0.0026%)  
p.R522S (0.0026%)  
p.T395P (0.0026%)  
p.D330E (0.0026%)  
p.P155T (0.0026%)  
p.V257G (0.0026%)  
p.S134= (0.0026%)  
p.Q210H (0.0026%)  
p.R190H (0.0026%)  
p.A53D (0.0026%)  
p.L542Afs\*69 (0.0026%)  
p.E83Q (0.0026%)  
p.P73T (0.0026%)  
p.P308T (0.0026%)  
p.S127P (0.0026%)  
p.P403= (0.0026%)  
p.G54W (0.0026%)  
p.K65T (0.0026%)  
p.M99I (0.0026%)  
p.L168F (0.0026%)  
p.T283A (0.0026%)  
p.P284R (0.0026%)  
p.Q454Tfs\*45 (0.0026%)  
p.A10= (0.0026%)  
p.P12S (0.0026%)  
p.V291M (0.0026%)  
p.R180K (0.0026%)  
p.Q141R (0.0026%)  
p.R179L (0.0026%)  
p.G93C (0.0026%)  
p.R419= (0.0026%)  
p.R234C (0.0026%)  
p.A47T (0.0026%)  
p.R22Q (0.0026%)  
p.D355Y (0.0026%)  
p.S220C (0.0026%)  
p.V1249= (0.0026%)  
p.R109H (0.0026%)  
p.P23Qfs\*62 (0.0026%)  
p.N612= (0.0026%)  
p.L141Q (0.0026%)  
p.H280Ifs\*10 (0.0026%)  
p.R194S (0.0026%)  
p.R58Xfs\*? (0.0051%)  
p.L19Q (0.0103%)  
p.A121T (0.0051%)  
p.A154S (0.0051%)  
p.E228V (0.0051%)  
p.R55S (0.0051%)  
p.A3E (0.0051%)  
p.I14M (0.0051%)  
p.T806N (0.0051%)  
p.Y700\* (0.0051%)  
p.P408T (0.0051%)  
p.E118G (0.0051%)  
p.Q102\* (0.0051%)  
p.V94L (0.0051%)  
p.A45V (0.0051%)  
p.T21N (0.0051%)  
p.A187S (0.0051%)  
p.Q50K (0.0051%)  
p.S130R (0.0051%)  
p.G228C (0.0051%)  
p.R325L (0.0051%)  
p.E251\* (0.0051%)  
p.P163L (0.0051%)  
p.T143S (0.0051%)  
p.Q316L (0.0051%)  
p.H111N (0.0051%)  
p.L221I (0.0051%)  
p.K121\* (0.0051%)  
p.R412S (0.0051%)  
p.P168H (0.0051%)  
p.W470\* (0.0051%)  
p.F85L (0.0051%)  
p.D114Y (0.0051%)  
p.G250C (0.0051%)  
p.D326Y (0.0051%)  
p.S144I (0.0051%)  
p.R30W (0.0051%)  
p.P48S (0.0051%)  
p.E228G (0.0051%)  
p.A51T (0.0051%)  
p.T515N (0.0051%)  
p.Q99L (0.0051%)  
p.R184L (0.0051%)  
p.A18S (0.0051%)  
p.K42R (0.0051%)  
p.N124Y (0.0051%)  
p.A460T (0.0051%)  
p.D404Y (0.0051%)  
p.C411S (0.0051%)  
p.R332H (0.0051%)  
p.R161W (0.0051%)  
p.D266Y (0.0051%)  
p.R114H (0.0051%)  
p.A270T (0.0051%)  
p.L299R (0.0051%)  
p.A947V (0.0051%)  
p.P5S (0.0051%)  
p.L129S (0.0051%)  
p.L120S (0.0051%)  
p.N111I (0.0051%)  
p.P320A (0.0051%)  
p.P12A (0.0051%)  
p.A16V (0.0051%)  
p.Y444del (0.0051%)  
p.T154= (0.0026%)  
p.P246= (0.0026%)  
p.I212L (0.0026%)  
p.Q216K (0.0026%)  
p.D565Y (0.0026%)  
p.R535= (0.0026%)  
p.G310A (0.0026%)  
p.H46= (0.0026%)  
p.P293= (0.0026%)  
p.K315N (0.0026%)  
p.G273= (0.0026%)  
p.C12\* (0.0026%)  
p.P669= (0.0026%)  
p.R563L (0.0026%)  
p.P495Rfs\*120 (0.0026%)  
p.Y275= (0.0026%)  
p.R559Q (0.0026%)  
p.G50C (0.0026%)  
p.W77C (0.0026%)  
p.P283L (0.0026%)  
p.R992Q (0.0026%)  
p.S578T (0.0026%)  
p.V940M (0.0026%)  
p.K557N (0.0026%)  
p.Q601E (0.0026%)  
p.P29R (0.0026%)  
p.P93L (0.0026%)  
p.R746\* (0.0026%)  
p.V412M (0.0026%)  
p.I458T (0.0026%)  
p.R553H (0.0026%)  
p.W493Lfs\*7 (0.0026%)  
p.P29S (0.0026%)  
p.R242= (0.0026%)  
p.P29T (0.0026%)  
p.S824Efs\*43 (0.0026%)  
p.F347S (0.0026%)  
p.Q1129= (0.0026%)  
p.A39E (0.0026%)  
p.T846= (0.0026%)  
p.S259F (0.0026%)  
p.R359Q (0.0026%)  
p.N402Ifs\*9 (0.0026%)  
p.P1272S (0.0026%)  
p.I451M (0.0026%)  
p.D11N (0.0026%)  
p.E397Q (0.0026%)  
p.L96\_E100del (0.0026%)  
p.N372T (0.0026%)  
p.A178V (0.0026%)  
p.K395R (0.0026%)  
p.Y163H (0.0026%)  
p.N196S (0.0026%)  
p.L421= (0.0026%)  
p.P547S (0.0026%)  
p.P682R (0.0026%)  
p.T278= (0.0026%)  
p.E392Q (0.0026%)  
p.R19\* (0.0026%)  
p.P214L (0.0026%)  
p.L101= (0.0026%)  
p.E332\* (0.0026%)  
p.D247G (0.0026%)  
p.N477S (0.0026%)  
p.Y223= (0.0026%)  
p.T141= (0.0026%)  
p.N9S (0.0026%)  
p.R381W (0.0026%)  
p.V266= (0.0026%)  
p.V43L (0.0103%)  
p.A68= (0.0077%)  
p.E13Rfs\*4 (0.0077%)  
p.F12L (0.0051%)  
p.V26F (0.0051%)  
p.A625D (0.0051%)  
p.L539P (0.0051%)  
p.D221Y (0.0051%)  
p.Q260\* (0.0051%)  
p.I96T (0.0051%)  
p.A58V (0.0051%)  
p.G274D (0.0051%)  
p.E214D (0.0051%)  
p.I490M (0.0051%)  
p.Y129H (0.0051%)  
p.Q147H (0.0051%)  
p.V6G (0.0051%)  
p.G140C (0.0051%)  
p.A330T (0.0051%)  
p.G84V (0.0051%)  
p.G42S (0.0051%)  
p.L73F (0.0051%)  
p.E342\* (0.0051%)  
p.A136S (0.0051%)  
p.Q134K (0.0051%)  
p.V255L (0.0051%)  
p.E391K (0.0051%)  
p.L296I (0.0051%)  
p.R113L (0.0051%)  
p.K474\* (0.0051%)  
p.Y272F (0.0051%)  
p.R26L (0.0051%)  
p.E135G (0.0051%)  
p.R195C (0.0051%)  
p.L270V (0.0051%)  
p.P62L (0.0026%)  
p.T264P (0.0026%)  
p.P118= (0.0026%)  
p.L44= (0.0026%)  
p.K15E (0.0026%)  
p.L210= (0.0026%)  
p.S12= (0.0026%)  
p.F62Y (0.0026%)  
p.R267= (0.0026%)  
p.N267= (0.0026%)  
p.S119= (0.0026%)  
p.R153W (0.0026%)  
p.A14= (0.0026%)  
p.L61= (0.0026%)  
p.P98L (0.0026%)  
p.K62E (0.0026%)  
p.Q356K (0.0026%)  
p.A331D (0.0026%)  
p.Q542= (0.0026%)  
p.P103Qfs\*163 (0.0026%)  
p.D455Y (0.0026%)  
p.E23\* (0.0026%)  
p.N145Y (0.0026%)  
p.C39S (0.0026%)  
p.D157V (0.0026%)  
p.V273G (0.0026%)  
p.Q338Rfs\*26 (0.0026%)  
p.S322C (0.0026%)  
p.I224T (0.0026%)  
p.A327V (0.0026%)  
p.G179= (0.0026%)  
p.S132I (0.0026%)  
p.Q136R (0.0026%)  
p.V101M (0.0026%)  
p.T95= (0.0103%)  
p.P399T (0.0051%)  
p.V1203I (0.0051%)  
p.P105H (0.0051%)  
p.C189R (0.0051%)  
p.F88S (0.0051%)  
p.F45= (0.0051%)  
p.L42S (0.0051%)  
p.P328Q (0.0051%)  
p.Y307\* (0.0051%)  
p.L207Q (0.0051%)  
p.W169\* (0.0051%)  
p.A537D (0.0051%)  
p.Q38\* (0.0051%)  
p.S290R (0.0051%)  
p.R332S (0.0051%)  
p.T507N (0.0051%)  
p.S43I (0.0051%)  
p.L313P (0.0051%)  
p.L226M (0.0051%)  
p.C119R (0.0051%)  
p.E30\* (0.0051%)  
p.A143T (0.0051%)  
p.T59S (0.0051%)  
p.R122I (0.0051%)  
p.R216M (0.0051%)  
p.F29L (0.0051%)  
p.R15L (0.0051%)  
p.A233S (0.0051%)  
p.S347Y (0.0051%)  
p.H56Y (0.0051%)  
p.G191D (0.0051%)  
p.D1067V (0.0051%)  
p.S270A (0.0026%)  
p.R313S (0.0026%)  
p.Y43= (0.0026%)  
p.P241= (0.0026%)  
p.L525\* (0.0026%)  
p.R313I (0.0026%)  
p.P22T (0.0026%)  
p.G17S (0.0026%)  
p.K17R (0.0026%)  
p.A494P (0.0026%)  
p.V241I (0.0026%)  
p.T352P (0.0026%)  
p.T142= (0.0026%)  
p.A207= (0.0026%)  
p.P68T (0.0026%)  
p.R180C (0.0026%)  
p.R235Q (0.0026%)  
p.R202H (0.0026%)  
p.L152= (0.0026%)  
p.L547= (0.0026%)  
p.P319L (0.0026%)  
p.R454Q (0.0026%)  
p.A220S (0.0026%)  
p.G72V (0.0026%)  
p.D173del (0.0026%)  
p.R267S (0.0026%)  
p.P325Q (0.0026%)  
p.A10S (0.0026%)  
p.A9V (0.0026%)  
p.S390N (0.0026%)  
p.K124R (0.0026%)  
p.A7dup (0.0026%)  
p.L104F (0.0026%)  
p.S447\_R448dup (0.0026%)  
p.C192Y (0.0026%)  
p.P259T (0.0026%)  
p.?fs (0.0026%)  
p.D1067Y (0.0026%)  
p.A107T (0.0026%)  
p.S110= (0.0026%)  
p.D164Gfs\*140 (0.0026%)  
p.S366= (0.0026%)  
p.T74A (0.0026%)  
p.L121F (0.0026%)  
p.G393= (0.0026%)  
p.S245T (0.0026%)  
p.P14L (0.0026%)  
p.V934M (0.0026%)  
p.N190S (0.0026%)  
p.E99\* (0.0026%)  
p.G240S (0.0026%)  
p.W166\* (0.0026%)  
p.H133N (0.0051%)  
p.T282K (0.0051%)  
p.D386G (0.0051%)  
p.D550Y (0.0051%)  
p.S29T (0.0051%)  
p.A153T (0.0051%)  
p.Q51\* (0.0051%)  
p.F322V (0.0051%)  
p.Y406C (0.0051%)  
p.Q36R (0.0051%)  
p.C168\* (0.0051%)  
p.P193S (0.0051%)  
p.L54P (0.0051%)  
p.W44\* (0.0051%)  
p.H467Y (0.0051%)  
p.V475L (0.0051%)  
p.P134R (0.0051%)  
p.S74R (0.0051%)  
p.K336E (0.0051%)  
p.M129I (0.0051%)  
p.V257F (0.0051%)  
p.T212N (0.0051%)  
p.N592D (0.0051%)  
p.T190M (0.0051%)  
p.T451M (0.0051%)  
p.G35W (0.0051%)  
p.V269M (0.0051%)  
p.Q262H (0.0051%)  
p.G82S (0.0051%)  
p.R422H (0.0051%)  
p.C212F (0.0051%)  
p.C140Y (0.0051%)  
p.P510A (0.0026%)  
p.F350L (0.0026%)  
p.G150E (0.0026%)  
p.S352I (0.0026%)  
p.V346G (0.0026%)  
p.L16= (0.0026%)  
p.D118Y (0.0026%)  
p.H41Qfs\*27 (0.0026%)  
p.T390A (0.0026%)  
p.E219\* (0.0026%)  
p.H240N (0.0026%)  
p.H81Y (0.0026%)  
p.S232C (0.0026%)  
p.L394V (0.0026%)  
p.E73K (0.0026%)  
p.I703M (0.0026%)  
p.C429= (0.0026%)  
p.E47K (0.0026%)  
p.V16M (0.0026%)  
p.S167F (0.0026%)  
p.G483W (0.0026%)  
p.A715T (0.0026%)  
p.L190V (0.0026%)  
p.R418L (0.0026%)  
p.P279= (0.0026%)  
p.P94R (0.0026%)  
p.E611K (0.0026%)  
p.Q33L (0.0051%)  
p.L860F (0.0051%)  
p.A384S (0.0051%)  
p.D206E (0.0051%)  
p.H317N (0.0051%)  
p.G15W (0.0051%)  
p.P4L (0.0051%)  
p.D224H (0.0051%)  
p.V145L (0.0051%)  
p.P458T (0.0026%)  
p.R47W (0.0026%)  
p.P99H (0.0026%)  
p.G301W (0.0026%)  
p.I73T (0.0026%)  
p.G14V (0.0026%)  
p.N194S (0.0026%)  
p.E87= (0.0026%)  
p.P457S (0.0026%)  
p.R22C (0.0026%)  
p.T556= (0.0026%)  
p.L195Sfs\*112 (0.0026%)  
p.T146A (0.0026%)  
p.K77\_H79del (0.0026%)  
p.S212R (0.0026%)  
p.S387\* (0.0026%)  
p.Y64C (0.0051%)  
p.S103G (0.0051%)  
p.E35\* (0.0051%)  
p.P758H (0.0051%)  
p.Q117R (0.0051%)  
p.K39Q (0.0051%)  
p.S178I (0.0051%)  
p.N296D (0.0051%)  
p.Q10\* (0.0051%)  
p.A120P (0.0051%)  
p.Q13H (0.0051%)  
p.Q1492H (0.0026%)  
p.G131= (0.0026%)  
p.S261Rfs\*19 (0.0026%)  
p.T1463P (0.0026%)  
p.Q396\* (0.0026%)  
p.R157= (0.0026%)  
p.F79I (0.0026%)  
p.P375L (0.0026%)  
p.P282= (0.0026%)  
p.T145S (0.0026%)  
p.I230= (0.0026%)  
p.A3= (0.0026%)  
p.L8= (0.0026%)  
p.G64C (0.0026%)  
p.L132= (0.0026%)  
p.T37I (0.0026%)  
p.A328T (0.0026%)  
p.S17L (0.0026%)  
p.P331H (0.0026%)  
p.S284= (0.0026%)  
p.D101= (0.0026%)  
p.N103T (0.0026%)  
p.E278K (0.0026%)  
p.D140Afs\*12 (0.0026%)  
p.L334= (0.0026%)  
p.L348P (0.0026%)  
p.E523\* (0.0026%)