



NLRP12 (NC_000019.9, GRCh37) - gDNA - 2025-04-02

tctttgggga ccatcatcct gcctaccgca aagtcctct catgccactc 54328519
ttgtgactga gagaacagaa aaaaaatagc agacctacgt gaggtcctta 54328469
ataattctcc ctgaggctgg gctcagtgcc tcatgcctgt aatcccagca 54328419
ctttggaagg ctgaggtggg cggatcgttt gagctcagga gttcaaggcc 54328369
agcctgggca acataagaag accttgtctc taccaaaaact acaaaaaactt 54328319
agctgggcat ggtggcgcac gtctgtggtc ccagctactt gagaggctga 54328269
ggtgggagaa tcgctggaac ctgggaggcg gaggttgacg tgagctgaga 54328219
tcacgccagt gaactctagc ctgggtggca gagtgagact ctgactcaaa 54328169
gaaaaaaaa aaaaaaaaaag ccagggacgg tggctcacac ctgtaatcct 54328119
agcactttgg aaggctgagg cgggtggatc acctgaggtc aggagttcga 54328069
gaccagcctg accaacatgg tgaaccctg tctcttctaa aaccacaaaa 54328019
attagctggg tgtggtgtcc ggcgcctgta atcccagcta ctcaagggaa 54327969
gctgaggtgg gagaatcgct tgaacctggg aggcagaggt tgcggtgagc 54327919
caagatcgca gagccagggc cacagagtaa gactctgtct caaaaaaaaa 54327869
aaaattctcc ctggaagagg cgcagtcgca gttttgataa tacactctac 54327819
cacacacact agtgaaatga ggaaaacaag aggaaagcgg aaagagagtg 54327769
actgttttgt caagagatcc aggaagagac agcagaagtg aaaatctttt 54327719
tcatcagcca agtggctcct cggatttctt aatctcccc cgaacttcct 54327669
cttctccacc cagaacagcc attggtgagt ggggcagggc aggagggaac 54327619
tgaagagtga gaaagcatta tttcagcaaa aggtctttcc tccttgtctc 54327569 **c.-140T>A**
TCCTCTCCAA CCACTGGCTC AGCCTCTCCG CCCGCTGCCT GTGAATGATG 54327519
CAATGGAAGG TGTGCTGGGG TCGCCCTGTG TCCCGTGCAT AGGAGCATCT 54327469

CAGCCTCCAG GTCCTCTCCT TTGGGGCTCA CGGCACCCCC ATGCTACGAA 54327419 c.-12C>T
CCGCAGGCAG GGACGGCCTC TGTCGCCTGT CCACCTACTT GGAAGAACTC 54327369
GAGGCTGTGG AACTGAAGAA GTTCAAGTTA TACCTGGGGA CCGCGACAGA 54327319
GCTGGGAGAA GGCAAGATCC CCTGGGGAAG CATGGAGAAG GCCGGTCCCC 54327269 G39V c.154G>A
TGGAAATGGC CCAGCTGCTC ATCACCCTACT TCGGGCCAGA GGAGGCCTGG 54327219 W70*
AGGTTGGCTC TCAGCACCTT TGAGCGGATA AACAGGAAGG ACCTGTGGGA 54327169
GAGAGGACAG AGAGAGGACC TGGTGAGGGg taaggaggtg gcggga_cagg 54327119 c.289+6G>C c.289+18C>T
caaggctaga atgccagccg ggtccagtga ctcataacctg taatctcagc 54327069
actttgggag gctgaagagg gcagatcact tgaggtgagg agttcaagac 54327019
cagtctggac aacatagtga ggctctgtct ctaccaaaaa taaaaaaaaat 54326969
tagccaggtg tgggtgtata cgtctgtgat cccagcttct caggaggctg 54326919
agtgaggagg atcacttgag accagaaggt cgaggctgcy gtgagctatg 54326869
atcctgccac tgcaccccag cctaggtgac agaacgagac cttgcctcaa 54326819
atatttaaaa tatatttttt taaaatatat atatttaaaa tatatgtttt 54326769
aaatataat tttaaataaa tatattttta aatataatatt ttaaataat 54326719
atntaaata tatattttaa acatatattt taaatatata tattttaaac 54326669
atatatttta aatataatatt taaaatatgt atataattat attattaaat 54326619
atatatttaa tatggtatat attatatata aatatagtat atatttatta 54326569
tataaatata ctatattata taaatatggt atattatata aatataatata 54326519
aataataaat attataatatt aaatatttaa tacatatatt attaaaataa 54326469
atatttaaaa tacatatata taaaatccct gagcctggga gatctggaat 54326419
ttatatatat atacacacac gtatatatat gtgtatatat gtgtatatat 54326369
atgtgtgtgt atatgtgtgt gtgtatatat attttaagag atgaggtagc 54326319
caggtgcagt ggctcacacc tataatccca gcactttggg aggccaaggc 54326269
gggtgggtca cctgaggtca ggaattcgag atcagctctgg ccaacatagc 54326219
aaaaccctgt ctctactaaa aatacaaaaa ttagccaggc gtggtggcac 54326169
acgcttatag tcccagctac atgggaggct gaggcaggag aatcgcttga 54326119
acctgagagg tggagattgc agtgagttga gattgcacca ctgtactcca 54326069

ggctgggtaa cagagtghaa ccccatctca aaaataaatt aagaaagaga 54326019
tgaggtatcc tttttttttt ttttttttaa gactgagtct cgctctgttg 54325969
cccaggctgg agtgcagtgg cgcaatctcc gctcactgca acctccgtct 54325919
cccaggttca agcaattttc tgcctcagca tcccagtag ctgagattac 54325869
aggtacctgc caccatgcct ggctaatttt ttgtatttgt attttttcta 54325819
gagacggggt ttcactatct tggccaggct ggtcttgaac ttctgacctc 54325769
gtgatccacc cacctcagcc tcccaaagtg ctgggattac gggcataagc 54325719
cactgtgccc ggccaagatg aggtgtcctt atgttgcccc ggctggtcct 54325669
gaactcctgg gctcaagcga gcttccacct tagcctccca aagtgtctggg 54325619
attacaggca tgaatgacca ctgcctggcc accaattccc ttttctttca 54325569
tactaatccc tgagcctggg agatctggaa ttctaattta cgtacacaca 54325519
catctatatc tatataaaaa tttcaacttt tagattcaag ggttacatgt 54325469
gcaggtttgt tacatgggta tattgagtga tgctgagatt cagagtaaga 54325419
ttgatcctat catgcaggta cttgaacata gtaatagtag ccaatggtga 54325369
gatttctccc cgccacgagt cccagtgctc tcttctccc atctttctgt 54325319
ccatgagaac ccaatgttta gcttccactt ataagtgaga acatgcagtc 54325269
tttggttttc tattcctgca ttagtttgtc ttggataatg gcctccagct 54325219
gctccatgt tactgcaaag aacatgattt tgttcttttt tatgactgtg 54325169
tacagaattc taatttcac cctttggtct ttgttcatgc tgtgttctgc 54325119
ctggaatatt ctccatcttc tttgcctgga aaagtattac ttactgaaac 54325069
cttgaagcca ctaccttctc taaagtaaag tatttactcc tcttcccca 54325019
ctccttctga ttctctgctc ccaccactct ggctggctca gaaacccac 54324969
ttctgtgctt ccttagcact cttggatttc tttttgttgt tgttgtttaa 54324919
acagagtctt gctctgtcgc ccaggctgga gtgcagtggc gcaatctcag 54324869
ctcactgcaa gctctacctc ctgggttcac gccattctcc tgcctcagcc 54324819
tcccagtag ctgggactgc aggtgcccgc caccatgcct ggctaatttt 54324769
ttgtattttt aatagagacg gggtttccct atgttagcca ggatggtctc 54324719
gatctcctga cctcatgatc cagccgtctc ggctcccaa agtgctgtga 54324669

ttacaggtgt gagccaccgt gccagccaa catgatttct tttattatat 54324619
cttctatctc ataaaataat cacaatgagc tgggtgcggt ggctcacgcc 54324569
tgtaatccca gcactttggg agattgaggt ggatggatca cctgaggtca 54324519
ggagtctcag acccagcctgg ccaacatggt gaaaccctgt ctctactaaa 54324469
aatacaaaaa aattagccgg gtgtgggtggc gggcgccagt aatccctgct 54324419
aatctagagg ctgagacagg agaactcactt gaaccaggc ggtggaggtt 54324369
gcagtgagcg aagattaagc cactgcactc cagcctgggt gacagagtaa 54324319
gactctgtct caaaaaaaaa aaaaaaaaa aaagaaaaaa tatgatttat 54324269
actcaggcat aagctcaaga gataatacat gcaaagtgtc taacacaatt 54324219
cagagcaggt agcaagtgtc cagcaaatat aggctattgc tgaagtggca 54324169
gagatggcac ttgagctgtg gaattgtttt tttaaaaata tttttatttt 54324119
ttacaaaaaa ttagctgggc gcagtgatgg ggcctgtag tcccagctac 54324069
tcaggaggct gaggcaggag aatggcgtga acctgggagg cagagcttgc 54324019
ggtgagctga gattgtgcca ctgcactcca gcctgggtga cagtgaaga 54323969
ctccgtctca aaaaaaaaa aaataattta ttttttagag atagggtctc 54323919
actatgttgc ccaggctaga ctcaaactcc tgggctgaag tgatccgcct 54323869
gcctcagcct cttgaacagc tggaaactaca ggtgtgcacc acagagcccc 54323819
at ttgagctg tggttttttg ttttgttttg tttctgagac agagtctcac 54323769
tctgtcgccc aggctggagt gcagtggcac aatcttggct cagtgaagc 54323719
tccgcctccc gggttccagt gattctcctg cctcagcctc ctgagtagct 54323669
gggactacag gtgcgtgcca ccacaccag ctaatttttg tatttttagt 54323619
agagacgggg tttcacctg ttggtcaggc tggctctgaa ctccaacct 54323569
caggtgatcc atccacctg gcctcccaa atgctggaat tacaggcgtg 54323519
agccactgca ccctgcttga gctgtggttt ttaatgtaat ttctcacctg 54323469
ttttctctac tgtgacatgg acgccttcaa aggcagaaaag agtcttgact 54323419
cccctgtgtg attctctgag attccagtgt ctggctgggg ctaggaaccg 54323369
agcaaacctt ggtgaacatt tgctgaatga gtaagcaagc cctgccaata 54323319
actggatata cacagtcact tctgcaaagc ttaatgactc gtcgttaatg 54323269

aggtgtgcc a gtagtagtgt gctgggaaac atctctgtaa aaaacaaagt 54323219
ctttaatgac tgaaaaaaac aaagacactt gttttagacc tttcttcctt 54323169
ccttccttcc ttcttttccc ttcttttccc tttccttccc tccttccttt 54323119
cttttctttt ctctccctct cctctctttt tctctttccc ttttctccac 54323069
caccaggag acggagggtg tggtagacca agatcccgcc actgcactcc 54323019
agcctggaca agaagagcaa aactccgtct taatatacat acatacatat 54322969
atatatacgt gtgtgtgtgt gtatatatat gtatacatat atatagtat 54322919
acatgtgtat atatatacgt atacatacat atatacgcgt atatacgtat 54322869
acatacatat atatgcgtat atacgtatac atacatacat acgcatatat 54322819
atacgtatac atacatacat atacgtatac atacacacat atatacacat 54322769
atgtatacat atatatacac atatgtatat acacacacac acacacacac 54322719
acacacatat atatatacat atatatacat atatatacat atatatacat 54322669
atattagcca ggcgtagtgg cacacgcctg taatcccagc tacttgggag 54322619
gctgaggcag gagaatcact tgaacccggg aggcgagggt tgcagtgagc 54322569
cgagatcacg ccactgcact ccagcctgga tgacaaaagc gagactccat 54322519
ctcaaaaaaa gaaaagaaag aaaaaagtat caatttactt acttgtcata 54322469
ttgtataatt atatctaaat ggaagtgtta catagttatt ttaagaaatg 54322419
gaaataatgt acaaatatag aatcaaaagt aaagtcccac ttttctccct 54322369
cttccgccta aatctctccc agcattgaca atgcataacc atttgccgag 54322319
cgttcttccc cggactgcat ccgtttagtc tactgagagg cagctcagcg 54322269
ttcccaagga gacagatgtc tagctttgct ctttctgtct gtgtgatgct 54322219
ggagaatcga tatgcccctg ggcctccatc tccatctgta aaacaagggc 54322169
atcaggcaag atcggcagtt ctcatgttac tgtgcgtaag agtctctcga 54322119
gacacttgtg gccaatgggg aatccaagac cctcaaccgg tgattctgaa 54322069
tcagcaggtc ttaggcaaca ggaatctgca ttttgatgtg gctggttctc 54322019
gcggcatgcc taggaaacac tgaggagaa catctctgag gcctttttca 54321969
gctgcaattt tcaagaatta cttttttat ttttattat ttattttttt 54321919
gagacggagt ctactctgt caccaggcc ggagtgcagt ggtgcgttct 54321869

cggctcactg caacctccgc ctccccgggtt caagcgattc tcctgcctca 54321819
gcctccccgag tacctgggac tacaggcacc cgccaccacg cccgggctaata 54321769
ttcgtattta tagtagagat ggggtttcac catattagcc aggatggtct 54321719
caatctcctg acctcatgat ccaccacact cagcctccca aaatggtggg 54321669
attacaggcg tgagccaccg cgctggcctg gattaccttt aaaaaaaaaa 54321619
aatgtggcca cacctataat cccagcactt tgggaggctg aggcaggcag 54321569
atcacttgag ccagaaagt tgagactggt ctaggcaaca tggcaaaacc 54321519
ccttctctac aaaattgacc aggcacagt gtgcatgcct gcagaccag 54321469
ctacctggga ggctgagat ggaggatcac ttaagcccag gaggtgaagg 54321419
ctgcagtgag ccaagatcat gccacactac tccagcctga gcaacagagc 54321369
aagaccctct ctcaaaaaa aaaaaaatt gccaaccagc tgcagtggct 54321319
catgcctgta atcccagcat gttggaggct gaggcacgtg aatcacttga 54321269
gactaggaat ttgacaacag cctggccaac atggtgaaac cctgtctcta 54321219
ctaaaaatac aaaaattagc tggctcgtgt tgtacatgcc tgtaatcca 54321169
gctactccgg aggctgaggc aggagaatca cttgaaccct ggaggcagag 54321119
gttgcagtga gccaacatca caccagcctg gacgacacag tgagactctg 54321069
tctcataaat aaataaata ataaatagt ctaaaataca caaaacatga 54321019
aatttgccct ctttttctt ttttcttga gatggaattt cactcttgtt 54320969
gcctaggctg gagtgcagt gcgcatctc ggctcactgc aacctctgcc 54320919
tcatgggttc aagcaattat cctgcctcag cctccaagt agctgggatt 54320869
acaggcatct gccaccacgc ccagctaatt tttgtatatt tagtagagat 54320819
ggggtttctc catgttggc agactggtct tgaactcctg acctcaggta 54320769
atccaccac cttggcctcc caaagtgcag ggattacagg catgagccac 54320719
cgcgcccagc ctctcttaa ccacttttct tttcttgaga tggagtctcg 54320669
ctccgtcacc aggctggagt gcaatgatgc gatgtcagca cacttcaacc 54320619
tctgactccc tggttcaagc gattctcctg cctcagcctc ccgagtagct 54320569
gggattacag gcacgcgcca ccatgcctgg ctcatTTTTG tatttttaat 54320519
agagacaagg tttcaccacg ttggttaaggc tagtctttaa ctctgacat 54320469

caggtaatcc cacctgcctc ggcctcccaa attgctggga ctacaggtgc 54320419
ctgccacccat gccagctaa tttttttttg tatttttagt agagacgggg 54320369
tttcaccgtg ttaccagga tggctcgcgat ctctgacct tgtgatccac 54320319
ccgccttggc ctcccaaagt gctgggatta caggcgtgag ccaccgcgcc 54320269
ctggccctct taaccatttt taagtgtgct gctgagtgtt gtacatttac 54320219
actgatgtgc attcaatctg cagaactctt catcttgcaa acaaaactcg 54320169
ataccatta aacaattccc tattttcccc tttcctctca atgataacct 54320119
tctccaatta aaaatttttg agtggccggg tgcahtagct cacgcctgta 54320069
atcccagcac tttgggaggc cgaggcaggc agatcacctg aggtcaggag 54320019
ttcaagacca gcctggccaa catggtcaaa ccgcatctct actaaaaata 54319969
caaaaattat ttttttgat ttttaccacc acctgctgg tcatgggtgc 54319919
ctgtagtccc agctactcgg gagactgagg caggagaatc acttaaacct 54319869
gggaggtgaa gattgtagtg agccgagatc gcgccactgc actccagcct 54319819
gggcgacaga gcgagactgt ctcaaataaa taaaaataaa taaataaaat 54319769
ggtgccagat gactgaatct accagagcca gcactgaaca gaggaaagac 54319719
aacagtttat tagtcacaca gactcacagg gaaggtgtcc ccatatgcca 54319669
agagggtcac atgaagctac agagactgtt ggggggggcg ggctgtgtag 54319619
taacaagagg gtgggtgccc tcctggctcc ttcaaaagga tgttctttgc 54319569
tttcatgaat catttcatgg actagcaacc agcagggagg tgaaaactta 54319519
tcagagtgag gaccagatgg ggtgccgctg gctcagctga tgggagaact 54319469
agccaggtgg gaagactttc tcatggagtg agagcaaagg aactcacact 54319419
taggactttg gggggccttc tgaggaccaa agatgccaaag gaaggactcg 54319369
atgtgtagaa tcttatgata tatccaaacg aaggcctttt ttgggctggg 54319319
cacgatggcc catacacta tttccaacac ttcaagaggc caaggtcgaa 54319269
agactgcttg aagctaggag ttccagacca gcctgggtaa catactgaga 54319219
cctaactctct accaaaaaaaa aaaaaaaaaa ttaaaatatt ttaagagac 54319169
agagtcgcca ggcgcagtgg ctcacgcctg taatcccagc actttgggag 54319119
cccgagttgg gtggatcacg aggtcaggag ttcaagacca gcctgacca 54319069

catggtgaaa ccctgtctct actaaaaata caaaataaat tatccgggcg 54319019
tggtgacaca tgcctgtagt cccagctact caggaggctg aggcaggaga 54318969
atcacttgaa cccgggaggc agaggttgca gtgagccaag attgtgccac 54318919
tgactccag cctgggcaac agagccagac tccgtctcga aaagaaaaaa 54318869
gaaaagataa tggatgagat gtggcccaga gctgacaagg gaggagtcca 54318819
gactgactca gaacttcca gtcaaaaaga ttggttggtg ccaggtgcag 54318769
tggctcacat ctgtaaacc agcactttgg gaggccaagg caggtggatc 54318719
acaaggtcag gagttcaaga ccagcctggc caacatagtg aaaccccgtc 54318669
tctactaaaa atacaaaaat tagccaggca ttgtggcgca cacctgtaat 54318619
gccagctact cgtgaggctg aggcaggaga atcgcttgaa ttcaggaggt 54318569
ggaggttgtg gtgagccgag atcatgccac tgcatccag cctgggcaac 54318519
agagcaagac tccgtctcaa aaaaaaaaaa aaaaaaaaaag actgattgga 54318469
tggatggagg tgccaatgac catgaggggg acccaggag gaggtgcgc 54318419
tacaaggaac aagggatgag ctatttcca cacacggcct atgcagtcac 54318369
tactgaacat tctgggggtg gggtgaccag ggagttatgc aggcatttcg 54318319
acgtaatcgc agctaatatg acgcgggtgt actagccaga tgcgtgctag 54318269
ctcatcttc acaatttctc ttccagATAC CCCACCTGGT GGCCCGTCCT 54318219
CACTTGGGAA CCAGTCAACA TGCCTTCTGG AAGTCTCTCT TGTCACTCCA 54318169
AGAAAAGgtg agcctcaagc catgtaccta catgtattca tctacacaga 54318119
gcagctgacc ccacggagtg taggccaacc acaaacgcgt gattgaggaa 54318069
ttcgtggggt ggattaatga caccatcaaa ggggcagttt cctcctgtgt 54318019
ttcaactcat caaccttcc acgtcagcat tttgtcctga cacgtgtcat 54317969
ctcctggctg aaagatggct accaaacct ctcatcacg caggggcaac 54317919
aaggaaggct aagaggccag gtacagtggc tcacgcctgt aatcccagca 54317869
ctttgggagg ccaaagcggg cagatcacct gaggtcagga gttcaagacc 54317819
agcccggaca acatggcaaa acccgtctc tactaaaaat acaaaattag 54317769
caggtgtgg tggagcatac ctgtagtccc agctactcag aggctgaggc 54317719
agaagaatca cttgaacctg ggaggtagag gttgcagtga gccaaagattg 54317669

caccactgca ctccagcctg ggcaacagag tgagactcca tctcttaaaa 54317619
aaaaagcaaa gaaaggaagg gtaaaggcct tcttcctccc tgttaccagt 54317569
cacatccacg taaccctactg gtcagtactg gggaatctgc ccattctcag 54317519
agcaaccact gacagagggg aacgagggta ctcatgactg atttagcaaa 54317469
accataattc atcctctgag gcttgtgaag gggcaggatt caccactcac 54317419
tcgagtcatg aatcagcatc caccaaccaa acagaatcag gtttgctggc 54317369
aggggaagaaa ccgggggtaca gtctgctggg tagacagcaa cactgttaac 54317319
aatgccacaa atgtttctgg ctatTTTTTT caaggggagc atgaaatgaa 54317269
tctagtctcc agctctacta aagtagaata agagtgggtt caccagctga 54317219
gcaagggtggc tcacgcctgt aatccctgca ctttgggagg ccaggctctg 54317169
agaccagcct gggcaacaag caagacccca tctctacaaa aaaaaacaaa 54317119
aaatcgaaca ttagctgggc atggaaactt gtgcctgtag atccagctac 54317069
tcaggaggct gaggtgggag gattagttga gcccaggagg ttgaagttgc 54317019
agtgagccaa ggtcacgcca ctgcactcca gcctgggggg agtgagaaag 54316969
accctgtctc aaaaaaaaaag gcgggagagg ggtacaaata ttgtatgatt 54316919
ccacttatct aaggcaccta gagtagtcaa attcagaggc ggaaagtaga 54316869
acagcagttg ccacgcccgg catggtggct cacgcctgta atcccagcac 54316819
tttagggaggc tcaggcgggc agatcatgag gtcaggagat cgagaccatc 54316769
ctggctaaca cggtgaaacc ttgtctctac taaaaataca aaaaaattag 54316719
ccaggcgtgg tggcaggcac ctgtagtctg agctacttgg gaggctgagg 54316669
caggagaatg gtgtgagcct gggaggcgga gcttgagta agccgaatcg 54316619
tgccgccgca ctccagccca ggtgacagag caagactctg tctcaaaaaa 54316569
aaaaaaaaaa aaaaagaaaa gaaaaaaaaa aaagaatagc agttgccagg 54316519
gagaggagaa attatgagtt aatatttaat ggatatggag tttctgttta 54316469
gaatgctgaa agcattctgg aaatagacat tggcggccag gcacagtggc 54316419
tcacgtctgt aattccagca ctttgagagg ccgaggcggg cagatcactt 54316369
gaggtcagga gttcgaaacc agcctggcca acatggtgaa actccgtctc 54316319
tactaaaaat acaaaaatca gctgggtgtg gtggcgagca cctgtaaadc 54316269

gagttactca ggagactgag gcaggagaat cacttgagcc tgggaggcgg 54316219
agtttgcagt gagcctagat catgccactg cactccagcc tgggggacag 54316169
agcaacactc tgtctcaaaa aaaaaaaaaa aaagagatat tgatgattgc 54316119
acaacatcgt gaacttagtg tcacagagtt gtacgcttta aagtggtaa 54316069
aatggtaaat tttatgtgta tgtcactata attaaaagta cacatatttg 54316019
ttttgaaaat tttagtatca aactcagatt ctttttttta agcttctctc 54315969
aggcagctat catgggcctc tgctggcatc caataccaag ggatgcattt 54315919
gtatccagac cagggtttct ccacattggc actgttggca tttcggggcc 54315869
agagcgttct ttgctatggg gtcgtcctgt ggttcctggg atgttgagca 54315819
gcacctctgg cctctatcca ctatgtggca gtagtacttt cccagttgta 54315769
acaaccaacc cacttgctcc gttgccaaat gtcccctggg gaactagggg 54315719
acacagtcac cccaattaag aacattgttc tagatTTTTT tttttttttt 54315669
ttgaggcaga gtctcacgct gtcgcccagg ctggagtgca gtggggcgat 54315619
ctcttacagg tgtgagccac tgcacttagc ccagggactg catttctaac 54315569
aagattgctg catgatatgt atgcgtctta aagttggaga agcacagcca 54315519
ggcatggtgg ttcattgcctg taatctcagc attttgctgg gctcaggcag 54315469
gaggattggt tgaggctagt agttgtagac cagcctggat aacacagcaa 54315419
gaccctgtct gtactgaaaa aaaaaaaaaag tttgagaagc actgctccca 54315369
agttttctgt gccccctttg ttttctcttt cttttgtttt tatagagaca 54315319
gggtctcact atgttgctcc ggctggtctc aaactcctga gttcaggcga 54315269
tcctcccacc tggacctccc aaagtgtctg gattacaggc gtgagccacc 54315219
gcacctggct tgtgccccct ttgaaaaaag gcagattcat gtctgcacta 54315169
tctggtaatg tacccttct ataaatcctt tgctgaaagt cactttgtgg 54315119
ggctggacac agtggctcat gcctctaadc ctagcacttt ggaaggccga 54315069
ggtgggcaga tcatgaggtc aagagatcga gaccatcctg gccaacatag 54315019
tgaaaccccg tctctactaa aaatacaaaa attagccagg cctggtggca 54314969
tgtgcctgta atcccagcta ctctggaggc tgagactgga gaatcacttg 54314919
aaccaggag gtggatgtg caggagcac accattgcac tccaagctgg 54314869

gcaacagagc gagactccat ctaaaaaaaaa aaaaaattag ccagtcttat 54314819
aacctagtct caaaacaaat aaattattht aattaaaaaa aatttttttt 54314769
tgagatggag tctggctctg ttgcccaggc tagagtgcag tggtgcgatc 54314719
tcagctcact gcaacctcca cctcaggggt tcaagtgatt ctcccatctc 54314669
agcctcctga gtagctggaa ctacaggcac acaccttctt tgagccacat 54314619
gaggagcgc t tacctcgtg aactcattag aggctgctga tgagtcttcc 54314569 [c.371-43C>T](#)
acaaaacctt cattcctctc ccctagATCC [CCAGGAAACC](#) [TACAGGGACT](#) 54314519 [Q126X](#)
[ATGTCCGCAG](#) [GAAATCCCG](#) [CTCATGGAAG](#) [ACCGCAATGC](#) [GCGCCTAGGG](#) 54314469 [D142N](#) [N144S](#) [R146H](#)
[GAATGTGTCA](#) [ACCTCAGCCA](#) [CCGGTACACC](#) [CGGCTCCTGC](#) [TGGTGAAGGA](#) 54314419
[GCACTCAAAC](#) [CCCATGCAGG](#) [TCCAGCAGCA](#) [GCTTCTGGAC](#) [ACAGGC](#)[CGGG](#) 54314369 [T179I](#) [R181W](#)
[GACACGCGAG](#) [GACCGTGGGA](#) [CACCAGGCTA](#) [GCCCCATCAA](#) [GATAGAGACC](#) 54314319
[CTCTTTGAGC](#) [CAGA](#)[CGAGGA](#) [GCGCCCCGAG](#) [CCAC](#)[CGCGCA](#) [CCGTGGTCAT](#) 54314269 [D203D](#) [P210L](#)
[GCAAGGC](#)[GCG](#) [GCAGGGATAG](#) [GCAAGTCCAT](#) [GCTGGCACAC](#) [AAGGTGATGC](#) 54314219 [A218T](#)
[TGGACTGGGC](#) [GGACGGGAAG](#) [CTCTTCCAAG](#) [GCAGATTTGA](#) [TTATCTCTTC](#) 54314169
[TACATCAA](#)[CT](#) [GCAGGGAGAT](#) [GAACCAGAGT](#) [GCCA](#)[CGGAAT](#) [GCAGCATGCA](#) 54314119 [N251K](#) [T260M](#)
[AGACCTCATC](#) [TTCAGCTGCT](#) [GGCC](#)[TGAGCC](#) [CAGCGCGCCT](#) [CTCCAGGAGC](#) 54314069 [P273P](#)
[TCATC](#)[CGAGT](#) [TC](#)[CGAGCGC](#) [CTCCTTTTCA](#) [TCATCGA](#)[CGG](#) [CTTCGATGAG](#) 54314019 [R284X](#) [P286L](#) [D294E](#) [G295fs](#)
[CTCAAGCCTT](#) [CTTTC](#)[CACGA](#) [TCCTCAGGGA](#) [CCCTGGTGCC](#) [TCTGCTGGGA](#) 54313969 [H304Y](#)
[GGAGAAACGG](#) [CC](#)[CACGGAGC](#) [TGCTTCTTAA](#) [CAGCTTAATT](#) [CG](#)[GAAGAAGC](#) 54313919 [P319R](#) [R329Q](#)
[TGCTCCCTGA](#) [GCTATCTTTG](#) [CTCATCA](#)[CCA](#) [CACGGCCCAC](#) [GGCTTTGGAG](#) 54313869 [T341I](#)
[AAGCTCCAC](#)[C](#) [GTC](#)[TGTGGA](#) [GCACCCAGG](#) [CATGTGGAGA](#) [TCCTGGGCTT](#) 54313819 [R352C](#)
[CTCTGAGGCA](#) [GAAA](#)[GGAAGG](#) [AATACTTCTA](#) [CAAGTATTTT](#) [CACAAATGCAG](#) 54313769 [c.1109G>A](#) [K371Nfs*20](#)
[AGCAGGCGGG](#) [CCAAGTCTTC](#) [AATTACGTGA](#) [GGGACAACGA](#) [GCCTCTCTTC](#) 54313719
[ACCATGTGCT](#) [T](#)[CGTCC](#)[CCCT](#) [GGTGTGCT](#)[GG](#) [GTGGTGTGTA](#) [CCTGCCTCCA](#) 54313669 [F402L](#) [P404L](#) [W408*](#)
[GCAGCAGCTG](#) [GAGGGTGGGG](#) [GGCTGTTGAG](#) [ACAGACGTCC](#) [AGGACCACCA](#) 54313619
[CTGCAGTGTA](#) [CATGCTCTAC](#) [C](#)[TGCTGAGTC](#) [TGATGCAACC](#) [CAAGCCGG](#)[GG](#) 54313569 [L439Q](#) [G448A](#)
[GCCCCGCGCC](#) [TCCAGCCCCC](#) [ACCCAACCAG](#) [AGAGGGTTGT](#) [GCTCCTTGGC](#) 54313519
[GGCAGATGGG](#) [CTCTGGAATC](#) [AGAAAATCCT](#) [ATTTGAGGAG](#) [CAGGACCTC](#)[C](#) 54313469 [R482W](#)

GGAAGCACGG CCTAGACGGG GAAGACGTCT CTGCCTTCCT CAACATGAAC 54313419
ATCTTCCAGA AGGACATCAA CTGTGAGAGG TACTACAGCT TCATCCACTT 54313369 [E507K](#) [Y509X](#)
GAGTTTCCAG GAATTCTTTG CAGCTATGTA CTATATCCTG GACGAGGGGG 54313319 [M524I](#)
AGGGCGGGGC AGGCCAGAC CAGGACGTGA CCAGGCTGTT GACCGAGTAC 54313269 [A549T](#)
[GCGTTTTCTG](#) AAAGGAGCTT CCTGGCACTC ACCAGCCGCT TCCTGTTTGG 54313219 [L558R](#)
ACTCCTGAAC GAGGAGACCA GGAGCCACCT GGAGAAGAGT CTCTGCTGGA 54313169 [T571S](#) [S578G](#) [W581X](#)
AGGTCTCGCC GCACATCAAG ATGGACCTGT TGCAGTGGAT CCAAAGCAAA 54313119 [H586Y](#) [L591M](#)
GCTCAGAGCG ACGGCTCCAC CCTGCAGCAG GGCTCCTTGG AGTTCTTCAG 54313069
CTGCTTGATC GAGATCCAGG AGGAGGAGTT TATCCAGCAG GCCTGAGCC 54313019 [A629D](#)
ACTTCCAGGT GATCGTGGTC AGCAACAATG CCTCCAAGAT GGAGCACATG 54312969 [I641T](#)
GTCTCCTCGT TCTGTCTGAA GCGCTGCAGG AGCGCCAGG TGCTGCACTT 54312919 [S651*](#)
GTATGGCGCC ACCTACAGCG CGGACGGGGA AGACCGCGCG AGGTGCTCCG 54312869
[CAGGAGCGCA](#) CACGCTGTTG GTGCAGCTGL aagtatccct ggggtatccc 54312819 [G683R](#) [c.2072+3insT](#)
ctggggctgc ttaggttcgt gtgttttttt tttttttttt tttttttgct 54312769
ctgttgcccta ggctggagta cactggcgtg acctcagctc actgcaacct 54312719
ccgcctcccg ggttcaagag attctcctgc ttcagcctcc caagtagctg 54312669
ggactacagg tgcacgccac cacgccacc taatttttgt atttttagta 54312619
gagacagggg ttcacatgt tggccagggg ggtctcgatc tcttgacctc 54312569
gtgatctgcc cgccttgcc tcccaaagtg ctgggattac aggcattgagc 54312519
cactgcaccc ggcccacgat tttttttttt tttttttttt aaactaagtc 54312469
tctcttggtc tcctaggctg gtgtgcagtg gcgcaatctt ggctcactgc 54312419
agcctctgcc tcccgggttc aagcgattct cctgcctcag cctcctgagt 54312369
agctgggatt acaggtgccc atcacatgc caggataatt tttgtatttt 54312319
tagtggagat ggggtttcgc tgtgttagcc aggctggtct tgaactcctg 54312269
acctcaagtg atccaccac cttggccttg aggttcatgc tcttaaccag 54312219
tgcctctcag ctgggggtga ttttgctctg acatttggcg atgtttggag 54312169
acacgttttt ggtggtcaca actgggaagc aaataaact actgacatct 54312119
agtggataaa ggccgggaat gctgcaaaca tcctacagta cacaggacag 54312069

tcctctggc cccaaagtgt caatagtgcc acaaagacta aacaacaccc 54312019
attgggacta aattgaggtc gatgtctggg agaatttatt caatcaacaa 54311969
atattactaa gtcccttttt cttgagagag tgtggctctg tcaccaaggc 54311919
tggagtgcag gggcacaatc tcagctcact gcaacctcca ccttgcgtgt 54311869
ctcagcctcc tgagcagctg ggaccacagg agtgtgccac cacaccagc 54311819
taatttttgt atttttttag tagagatggg gtgtcaccat gttggccagg 54311769
ctggtctcaa actctcggcc tcagcctccc aaagtgtggt gattataggt 54311719
gtgagccacc acaccagcc tctatatccc ttttatcggg ggaccaaca 54311669
atcttctgta gacagaagac tgtgtgaata agccaatggt cccaagagag 54311619
cacgcatcct aatgagaacg gagacagata ataaagaggg aaacaagtaa 54311569
accaactatc aatgattagg agcgtcagat agagccagggt gcagcctgga 54311519
caacatgatg agatccccat ctctaaaaat ataaaataaa ttagctggtc 54311469
atgatggtgc acacctgtag cccagcttc tcagtaggct gagtgaggag 54311419
gattgcttaa gcctgggagg tcaagcctac agtgagccat gatctacca 54311369
tgcactccag cctagacaac agggcaaggc cctctaaaaa aaaaaatgaa 54311319
aagatagcat gctttggccg gatgtggtgg ctcacgcctg taatcccagc 54311269
acttcaggag gttgaggcgg gcagatcacc tgaggtcagg agtacgagat 54311219
cagcctggcc aacacggtga aaccccatct ctactaaaaa tacaaaatta 54311169
actgggcgtg gtggctcatg cctgtaatcc cagctactct ggaggctgag 54311119
gcaggagaat cgcttgaacc caggaggcgg aggttgtggt gagctgagat 54311069
tgcgccattg cactccagcc tgggcaacaa gagcgaaact ccgtctcaa 54311019
aaaggatagc atgcttcata aacggtgaaa tgacatgcaa aggccatagt 54310969
tgtcaagcac cagtaacacc agagagtggc ctgtctttcc ttcaagcagA 54310919
CCAGAGAGGA CCGTTCTGCT GGACGCCTAC AGTGAACATC TGGCAGCGGC 54310869
CCTGTGCACC AATCCAAACC TGATAGAGCT GTCTCTGTAC CGAAATGCCC 54310819 [L710P](#) [N712S](#)
TGGGCAGCCG GGGGGTGAAAG CTGCTCTGTC AAGGACTCAG ACACCCCAAC 54310769 [G730R](#) [V730Glyfs*41](#) [K731Q](#) [N241S](#)
TGCAAACTTC AGAACCTGAG gtgagtgcag gctggtctgg gcgtttcagg 54310719
tggtcccccac cgtggcctct catggggatc agtcacaaaag gttctatcac 54310669 [c.2243+35C>T](#)

gggatggtgt attcgttggc tacggctgcc ataaaaaagt gtcacaaagc 54310619
caggtgccgt ggctcacgtc tgtaatccca gtatgttgac aggtgaaggc 54310569
gggcagatca cttgaggtca ggagtttgag accagcctgg ccaacatggc 54310519
aaaatgccat ctctacaaaa aatacaaaaa tcaggaggggt gtggtggcgg 54310469
gcgccctgtaa tcccagctgc ttgggaggct gaggcaggag aatcgcttga 54310419
acctgggagg cggaggttgc agtgagccgg gattgtgcca ctgcactcca 54310369
gcctgggtga tacggtgaga ctccatctca ggggggaaaa aagtgcctaaa 54310319
gactgggtgg cttcaccaca taaatctatt ttctcaaggc aggtgggggg 54310269
ctgctggaag tccaagacaa ggagtgggca ggttaagttc ttctgaggcc 54310219
tctgtcctgg gcctgcagat cactgccttc tgtcttcaca tggatcatcct 54310169
gctgtgtggg tctccaaatt tttttctttt ttttactttt ttttttttta 54310119
aatTTTTgag aactgatat gctctgtcac ccaggctgga gtgcagtggc 54310069
acaatcatgg ctactgcag cccaaactc ctggactcaa gcgatcctct 54310019
tgctccagca tcacgagtag ctgggaaaac aagcatgtgc aaccacacc 54309969
ggctaatttc tttttttttt tttttttttt tttttgagac ggagtcttgc 54309919
tttgtcacca ggctggagtg cagtagcgtg atctcggctc actgcaacct 54309869
ctgcctcctg ggttcaagcg attctcctgc ctccggcctcc tgagtagctg 54309819
ggactacagg caggtgccac catgcccagc taattttttg tatttttagt 54309769
agagacgggg tttcaccata ttagccagga tggctctcaat ctctaacctc 54309719
gtgatccacc cacctcggcc tcccaaagtg ctgggattac agactgagcc 54309669
accgtgccca gccacaccag gctaattttt gtatgttttg gagagatggg 54309619
gtttcaccat gctgcccata ctggtctcaa acttctggcc tcaagtgatc 54309569
ctccttcctc agcctcccta actgttgaga ttacaggtgt gagccactgt 54309519
gcctagccaa atttttttca tatgttattt tttgagatag tattgctctg 54309469
tagcctgggc tggagtgcag tgacatgatc tcgactcact gcaacctccg 54309419
cctcctgagt tcaagcaatt ctctgcctc agcctcctga ttagctggga 54309369
ttacaggggt gcatcaccac acccagctaa tttttgtgtt tatagtagaa 54309319
atggggtttc actgtgttgg ccaggctggt cataaactcc tgacctcagg 54309269

tgatccaccc acctcggcct cccaaagtgc tgagattaca ggcttgagcc 54309219
accgcacatg gccttgaatt tctttaaggg caacctttgt gaatgtattt 54309169
gactacaaaag catcaaaaaca ttttatattg ttcttggtgc ttttcttgac 54309119
aggtaaaatt tatcatatat aacatgatat tttgaaataa atatattggc 54309069
caggtatgat ggctcacgcc tgtaattcca gcactttggg aggcccagat 54309019
ggggaggatc acttgacca ggagttcaag accagcctgg ccaacatggt 54308969
gaaaccccat ctctactaaa aataccaaaa tgagccaggc atggtggcac 54308919
acgtctgtaa gccagctac tcaggaggcc aaggcaggag gattgcttca 54308869
accaggagg cagaggttgt ggtaagccaa aatcatgcca ctgctctcca 54308819
gcctgggtga cagagcgact ctgtctcaga aaaaaaaaaa aaagcaaaag 54308769
aaaataatcc acaaaactgg agcaaaagaa atgaccagct ctttctcct 54308719
ctttccacc ccagGCTGAA GAGGTGCCGC ATCTCCAGCT CAGCCTGCGA 54308669 [R753H](#)
GGACCTCTCT GCAGCTCTCA TAGCCAATAA GAATTTGACA AGGATGGATC 54308619
TCAGTGGCAA CGGCGTTGGA TTCCAGGCA TGATGCTGCT TTGCGAGGGC 54308569 [G787V](#)
CTGCGGCATC CCCAGTGCAG GCTGCAGATG ATTCAgtgag tctctatccc 54308519 [Q798Q](#)
cgggagcaac ttcttaagct cattgtctcc tggggcatga aatatcacia 54308469
aatgctggta atccccaaat ctccacctt aaatcagggc tggcccttaa 54308419
ccccatgacc taagaccctg gccctggact ctaggcactt tgggaagacct 54308369
gcttctgccc tcctctgact ccacactcaa ttctacatga tgaagagtcc 54308319
ctggggccat cccccacctc ttcttttttt ctcccagac ggggtcttgc 54308269
tatgttgccc aagttggggg gcagtgccac aatctcggct cactgcaacc 54308219
cccacttct gcgttcaagt gattctctg cctcaggctc ccaagtagct 54308169
gggattacag gcaccacca ccacaccag ctaacttttt tgtattttta 54308119
gtagagatgg ggtttcctca cgttggccag gctggtcttg aactcctgac 54308069
ctcaaatgat ccaccacct tggcctccca aagtgctgga attacaggtg 54308019
tgagccactg cactcgacct acaaaaattt ttttttttta attagccagg 54307969
tatgggcccag gagcgtggt tcacgtctat aatcccagca ctttgggagg 54307919
ccaaggcagg cggatcacct gaggtcagga gttcgagacc agcctggcca 54307869

acacggagaa acacccccgtc tctactaaaa atgcaaaaact tagctgggcg 54307819
tgggtggcaca cacctgtagc ccagcctgta gtcccagcta ctcgagactg 54307769
aggatgaaa atcacttgaa cccaggaggt ggaggttgcg gtgaggcaag 54307719
atcacgccac tgtactccag cctgggtgac agaatgaggt tctacctcaa 54307669
aaaaaaaaaa aaacaaaaaa acccaaaaaa aacaaaaaac aaacaaacaa 54307619
aaaaaattag gcaggtgtgg tgggtgcacac atgtattccc agttactcag 54307569
gaggctgagg caggaggatc acgggagcct ggaggtcgag gcttcagcga 54307519
gttgatatca ctccactgaa cttcacctg ggtgacagag caacaacctg 54307469
ttcctaaata ataaaataac aggctggagc atgagtgatc acgacataga 54307419
aaagcaagat ggcgtcccct tcaacctctc cttcctccca agGTTGAGGA 54307369
AGTGTCTAGCT GGAGTCCGGG GCTTGTCTCAGG AGATGGCTTC TGTGCTCGGC 54307319 L823L(C>A) L823L(C>T)
ACCAACCCAC ATCTGGTTGA GTTGGACCTG ACAGGAAATG CACTGGAGGA 54307269 A121T E840Q
TTTGGGCCTG AGGTTACTAT GCCAGGGACT GAGGCACCCA GTCTGCAGAC 54307219
TACGGACTTT GTGgtgagtt cttcctgggg tcaactataa taaaatggca 54307169
aatctcttca tattgaatga tggataaaaa atgcatccac aggtcgggcg 54307119
cagtggctca cgcctgtaat cccggcactt tgggaggcca aagagggcag 54307069
atcatctgag gtcaggagtt cgagaccagc ctggccaaca cggtgaaacc 54307019
ccctctctac taaagataca aaaattagct ggatgtggtg gcacacgcct 54306969
gtaatcacag ctactcaggg ggctgaggca ggaggatcac ttgaacctga 54306919
gaggcggaag ttgcagtgag ctgagatcac gtcactgcac tccagccacg 54306869
gtgacagagt gagactccat ctcaaaaaac aaagtagaat agtggctgcc 54306819
aaggcctaga acaggaagaa atggggagtt accgtttaac gggagcagag 54306769
gttccatttc ggaagatgaa aaagttccag agatgggccg ggtgcggtag 54306719
ttcacgcctg taatcccagc actttgggag gccgaggtgg gcagatcacc 54306669
tgaggtctgg agttcgagac cagcctgacc aacatggaga agccccgtct 54306619
ctactaaaat acaaaattag ccaggcgtgg tggcacatgc ctataatccc 54306569
aactactcgg gaggctgagg caggagaatc acttgaactt gggaggcggga 54306519
ggttggtggtg agccaacact gtgtcattgc actccagcct ggacaacaaa 54306469

aacgaaactc cgtctcaaaa aaaaaaaaaag ttccagagat ggatagcagt 54306419
gatgatttcc cagtagcgtg aaactacttc atgccactga gccacagtca 54306369
gccctctgtg tccacgggtt ctgcattcgt gaatttcatc aaccatggat 54306319
caaaaatatt cagaagggca gggcgcgggtg gctcacagct gtaatcacia 54306269
ccctctggaa ggccaaggca ggagaatggc ttgagtgcag gagctcaaga 54306219
gcagcctggg aaccagtgag acttcatctc tacaaaaaat aaacataatt 54306169
agctgggggtg ggtgggatgt gtctggagtc ccagctattc aggagcctcg 54306119
gaggccaagg ctgcagtgag ctgtgatcaa gccactgtac cccagactgg 54306069
gtgacagggg gagaccctgt ccctaataaa ataaaaagta aatttaattg 54306019
tggtaaaata catgcaacat aaaatgtacc atcttccccca gttttctttt 54305969
ttttttttga gacagagtct tgctctgtcg cccaggctgg agtgcagtgg 54305919
tgtgatctct gctcactgca agctccgcct cccgggttca caccattctc 54305869
ctgcctcgac ctccctagta gctgggacta caggcgcctg ccaccacgct 54305819
tggctaattt tttgtatttt tagtagagac ggggtttcac cgtgttagcc 54305769
aggatggtct cgatctcctg acctcgtgac ccgccccct cagccccga 54305719
aagtgctggg attacaggcg tgagccacca tgccccggccg cattctattt 54305669
atttttaata gtaggcatcc taatgggtat gagatgctat cttatcgtgg 54305619
ttttcatttg tatttccccca atgattattg agattgagca tcttttcagg 54305569
tgctttttgg ccatttgtac accttccttg aagaaatgtg tattcaagcc 54305519
ttttgctcat ttatttttat ttattattta tttatttgag atggagtcc 54305469
actcttggtg cccaggctgg agtgcaatgg cgtgatctca gctcacggca 54305419
acctccgcct cctgggttca agtgattctc ctgcctcagc ctcccaagta 54305369
gctgggatta caggcatgcg ccaccacgcc cagctaattt tttgtattta 54305319
gtagagacgg ggtttcacca tgtagccag gatggtctcc atctcccaac 54305269
ctcaggtgat ccaccatct cagcctcccc aagtgcctgag attacaggca 54305219
tgagccactg tgcccagtct aattttgtat tattagtaga gagggggttt 54305169
ctccatggtg gtcaggctgg tctcaaacctc ccgacctcag gtgatctgcc 54305119
agcctcggcc tcccaaagtg ctgggattac aggcgtgagc caccaggccg 54305069

ggcccttttg cccattttta aattagattg tctgaaaatg cactactggt 54305019
aagattgggg gcctagggcg agtggctcac gcctgtaatt ccagtccttt 54304969
gggaggctga ggcaggcata tcacccatgg tcaggagttc gagaccaccc 54304919
tagccaacat ggcgagaaac cctgtctcta ctaaaaatac aaaaactaac 54304869
taggcgtgat gccacacgct tgtagtccca gcgattcagg aggctgaggc 54304819
aggagaatcg cttgaacatg ggaggaggag gatgcagctg agccgagatt 54304769
gcaccactgc attccagcct gggcaacaga gtgggactct gtctcaaaaa 54304719
aaaaaaaaaa aaaaaagaaa aagaaaggaa agcctccata atgcttggtg 54304669
aattggactt tgtgcagGCT GAAGATCTGC CGCCTCACTG CTGCTGCCTG 54304619
TGACGAGCTG GCCTCAACTC TCAGTGTGAA CCAGAGCCTG AGAGAGCTGG 54304569
ACCTGAGCCT GAATGAGCTG GGGGACCTCG GGGTGCTGCT GCTGTGTGAG 54304519 [V901L](#)
GGCCTCAGGC ATCCCACGTG CAAGCTCCAG ACCCTGCGgt gagtcccgtt 54304469 [L918L](#) [2756+2T>A](#)
ttgctcacca cgctaggagt cccaatccat gaacgcagcc ctctcacctg 54304419
ggaccacgga ggccaggttg tctctgctcc taaactctag ctactacatc 54304369
agcctttttt tttttttttt gagactccca agtagctgag attacaggcg 54304319
cccgccacca agcccagcta attttttgta ttttttagtag agacagggtt 54304269
tcatcatggt agcaggatgg tctcgatcta ctgacctcat gatctgcctg 54304219
ccttggcctc ccaaagtgct gggattacag gcttgagcca ctgcacccag 54304169
cctacatcag ccttttttaa aggatttttc tggccgggca tggaggctga 54304119
caccttaatt ccagcacttt tgggaggccg aggtgggagg atcacctgag 54304069
gtggggaatt cgagaccagc ctgaccaaca tgtagaaaca ccccatctgt 54304019
actaaaaata caaaagtagc caggcatggt ggtgcatgcc tataatgcca 54303969
gctactcgcg aggctgaggc aggagaatcc gttgaacccg ggagggtgaa 54303919
gttgctgtga gctgagatgg agccattgca ctccagtctg ggcaacaaga 54303869
gcgaaactcc gtctcaaaaa aaaaaagggg gggggttttc tgacgcacgg 54303819
ccctttgcac aagcaattct tattccctgg catgccttct gctctctgtc 54303769
ccctctttgc ctggagaagt tcaatttttc ttctgaacac tctttacttt 54303719
gtattttgag acagggtctt gctctgtcac cagtgtgga gtggagtgg 54303669

gtgatcatag cccgacatcc tgggctgaag ccatcctccc aactcagcct 54303619
cctgagtagc tgggactgca agcgcgatgcc accacagatg gctaattttt 54303569
actttttttt tgagacgagt cttgccctgt cgcccaggct ggagtgcggt 54303519
ggcgcgatct cagcttactg cgagctccac ctcccgggtt cacaccattc 54303469
tcctgcctca gcctcccag tagctgggac taaaggtgcc cgccaccatg 54303419
cccggctaatt ttttaaaaac attttttttag tagagatggg gtttcaccgt 54303369
gttagccagg atggtctctc tctcctgacc tcatgatcca cctgcctcgg 54303319
cctcccaaag tgctgggatt acaggcgtga gccactgcgc ctggccaatt 54303269
tttatttatt ttttgtaggg acaaggtctc gatttgttgc ctaggctggt 54303219
gtcaaactcc tggccttagg agatcctctg gccttggcct tccaaagtgc 54303169
tgggattaca ggtgtgacct actacacca gctggacacc ctttctaatac 54303119
cctagctaaa atctgggttc ctagatttat gatcctatgt gacctcatac 54303069
ttccccctca gcatcattta ttgaaatctg aaggcaggat gcggtggctc 54303019
acacctgtaa tcttagcact ttgggaggcc aagggtgggag aatgacctga 54302969
ggtcaggagt tcaagactag cctggccaac atggtgaaac cccgtctcta 54302919
ctaaaaatat aaaaattagc caggcatggt ggcggacgcc tgatatccag 54302869
gtactcagga ggctgaggca gaagaattgc ttgaaccgg gagccggagg 54302819
ttgcagttag ctgagatttt gccactgcac tccagcctgg atgacagagc 54302769
gagattccat ctcaaaaaaa aaaaagaaaa atttgtaatt tgtgtatatg 54302719
tgtgtgtggt ggcatccac aagcatagga gctatgcca ctgtatctcc 54302669
tagtgactag tataagacgt gggtagaagt gctcaaaaaa cacactttgt 54302619
gtattttttt tatcaaggca ccagcaaaaa acaaaaaaca aaaaatcaca 54302569
cacgcggctg ggcgcgggtg ctcatgcctg taaaccagc actttgggag 54302519
gctgaggcgg gtggatcacg aggtcaagag atggagacca tcctggccaa 54302469
ctggtgaaac cccgtctcta ctaaaaatac aaaaattagc tgggcgtggt 54302419
ggtgtgcacc tgtagtcaca gctactcagg aggctgaggc agaagaatca 54302369
cttgaacca ggaggcggag gttgcagtga gccaagatca cgccactgca 54302319
ctccagcctg ggcgacattg caagactctg tctcaaaaaa aaaaaaaaaa 54302269

aaaatttgta gataggaggc tgaggcgggt ggatcaccta aggtcaggag 54302219
ttcgaaacca gcctgaccaa catggtgaaa ccccgcttgt actaaaaata 54302169
caaaaattag ccgggcatgt tgccacatgc ctgtaatccc atctacttgg 54302119
gagactgagg caggagaatc gcttgagctt gtgagggtgga ggttgcatgt 54302069
agccgagatt gcaccattgc actccagcct ggacaacaag agggaaacgc 54302019
catcgcaaaa agaaaaaaaa tttttttttg tacagacaag ttattggttg 54301969
tccagactgg tcacaaactc ctgacctcaa aaaaccctcc agcctcaagc 54301919
ctcccaagat gctgggatga caggcatgag ccagggcacc tggcctgatt 54301869
cttagttgct tccttctgtt ctcttattcc tcccttcctc tcatcttcct 54301819
acttctgtcg tctttttctt tttgtctctc aagggtagag attgagtctg 54301769
tcctctgtc tgcaaccagc acagggcttg gcacagggcc ctcccagcag 54301719
atthtgcagg agaatgcct cccactccgc cctagcatcc tgtctttgca 54301669 [c.2757-1G>T](#)
[gGTTGGGCAT](#) [CTGCCGGCTG](#) [GGCTCTGCCG](#) [CCTGTGAGGG](#) [TCTTCTGTG](#) 54301619 [A928A](#) [A930T](#)
[GTGCTCCAGG](#) [CCA~~A~~CCACAA](#) [CCTC~~C~~GGGAG](#) [CTGGACTTGA](#) [GTTTCAACGA](#) 54301569 [N940S](#) [R944R](#)
[CCTGGGAGAC](#) [TGG~~G~~GCCTGT](#) [G~~G~~TGCTGGC](#) [TGAGGGGCTG](#) [CAACATCCCG](#) 54301519 [G957S](#) [W959*](#)
[CCTGCAGACT](#) [CCAGAACTG](#) [TG](#)gtgagcat cggggagtga cggggtggca 54301469
gtggtcacgt ttggacagt gaagcgcctt ctcatcctc atttttctat 54301419
ttatgaacta tcctgcttca ctacaaaaga ttcaggtagc aagaagagag 54301369
gtggaaagaa aagacaggaa gtctctctga acttattctg atttgggggt 54301319
gctacccgac ttaaaattht aaaaacttaa ggccaggcgc gatggcgcac 54301269
gcctgtaatc ccagcacttt gggaagccga ggtgggtgga tcacctgagg 54301219
tcaggagttc aagaccagcc taacacggtg aaaccctgtc tctactaaat 54301169
acaaaaaaaa tagccgggcc tgggtggcaca tgccctgtaat ccgagctact 54301119
tgaggaggctg agacaggaga atcgcttgta cctgggaagt agaggtttca 54301069
gtgagccgag atcatgccat tgcactccag cctgggcaac aagagtgaaa 54301019
ctctgtctca aaaaaaaaaa aaattaaaat ttaaaaatta caaaagaggc 54300969
tgggcacggt agcttaatgc ctgcaatccc agcactttgg gaggccgagg 54300919
cgggtggatc acctgaggtc aggagtccga gaccagcctg gccaaaacgg 54300869

tgaaacacca ttctacaaaa atacaaaaat taaccagtg tggtagcgca 54300819
tgcctgtaat cccagctact cgggaggttg aggcaggaga atgacttgaa 54300769
cctgggagggc gagattacag tgagctgaga tcatgccact gccctccagc 54300719
ctgggtgata gagcaagact ctgtctcaaa aataataatt caggccgggc 54300669
acagtggtctc atgcctgtaa tcccagcact ttgggagtcc aaggcggaca 54300619
gatcatgagg tcaggagttt gagaccagcc tggccaacat ggccatctct 54300569
attaagaata caaaaattag cctggcgtgg tggtaggtgt ctgtaatccc 54300519
agctacacag gaggctgagg caggagaatc acttgaacc caggagtgga 54300469
ggttgcatg agcggagatc acaccattgc actccagcct aggtgccaga 54300419
gaaagactcc atctcgagaa aaaaaataa taattcaatc tggtagctctg 54300369
taaattccaa tcaaatgtta attgtgactt tctccctcac ctttctgcca 54300319
ggccagctgt agccctaata tgaaggactt agaattggat gaggcatcat 54300269
ctagtttatt tgggattttt ttttttttta aaacagggtc tccctgtcac 54300219
cctggagtgc agtggcacga tcttggctca ctgcaacctc cacctcccgg 54300169
gttcaagcaa ttctgcctc agcctcccga gtagctggga ttacaggcat 54300119
gcgccaccac cccggctaata tttgtatttt tagtagagac ggggtttctc 54300069
atgttggtca ggctggctct gaactcccga cctcagggtga tctgcctgcc 54300019
tcggcctccc aaagtgctgg aattacaggc gtgagccacc acgcccggcc 54299969
taaccagat aattttttaa aatgtttcag aggctgggcg tagtggctca 54299919
cgcctataat cccagcactt tgggaggcca aggttggtgg atcacttgag 54299869
gtcaggagtt tgagaccagt ctggccaaca tggtagaatc ccctctccac 54299819
taaagatata aaaattacgg ccgggcacag tggctcatgc ctgtaatccc 54299769
agcactttgg gaggctgagg cgggaggtc acgaggtcaa gagattgaga 54299719
ccattctggc caacaaggtg aaaccctctc tctactaata caacaattag 54299669
ttgggtgtgg tggctctcgc ctgtagtccc agctgctggg gaggctgagg 54299619
caggagaatc acttgaacc cgggagcaga ggttgcatg agccgagatc 54299569
atgccacagc actccagcat gggcaacaga gggagactcc atctcaaaca 54299519
aaacaaaaat aaaaggatac aaaaattagc catgctaatt ggtggtggtg 54299469

cacacctgta atcccagcta ctcaggaggc tgaggcagga gaatcgcttg 54299419
aacctgggag gcggaggttg cagtgaacag aaatctcacc actgtactcc 54299369
agcctgggag acagggtgag aactgcctc cgaataacat aagtagcccc 54299319
tggtgttacc ttaaccaact ccttatcttc accagGCTGG ATAGCTGTGG 54299269 [D978H](#) [S979G](#)
CCTCACAGCC AAGGCTTGTG AGAATCTTTA CTTCACCCCTG GGGATCAACC 54299219 [I996I](#)
AGACCTTGAC CGACCTTTAC CTGACCAACA ACGCCCTAGG GGACACAGGT 54299169 [c.3025G>T](#)
GTCCGACTGC TTTGCAAGCG GCTGAGCCAT CCTGGCTGCA AACTCCGAGT 54299119 [R1016X](#) [R1030*](#)
CCTCTGgtga gggatgatga ccagttcttt ctggaggagg ctggacattg 54299069
ggctgggagc atgagggtag ataagctgga tggacaaata cgttatgcac 54299019
tggtgatatgc aattaggggg catacagatg aggccacata ttagctatgt 54298969 [c.3098+99G>A](#)
catctactgg ctgtgtgacc ttggataatt tccttgtctg aggccgggcg 54298919
cggtaggctca cacctataat cccagcactt tgggaggccg aggcgggtgg 54298869
atcacgaggt caggagatcg agaccatcct ggctaaaatg gcgaaacccc 54298819
gtctctaata aaaacacaaa aaattagccg ggcgtggtgg cgggagcctg 54298769
tagtcccagc tactcaggag gctgaggcag gagaatggcg tgaacccggg 54298719
aggtggagct tgcagtgacc caagatcaca ccaactgcact ccagcctggg 54298669
tgacagagtg agactccatc tcaaaaaaaaa aaaatttcct tgtctgttga 54298619
aggggacat cgtggctcac caattgcatt ggaggtcact gtgattcgag 54298569
tgagaatcta gaattactct gcctgggttc aaactccaat tgcttttttt 54298519
ttggacagga tcttgctgtg gccaggctg gagtgcagtg atgcaatcaa 54298469
agtttaggct ggggtgcagg gatggcgcct gtaatcccag tactttgaca 54298419
ggctgagtta ggaaaattgc tttctttaca cacacacaca cacacacaca 54298369
cacacacgca cacaccaggt atgggtggc acacctctaa tcaaagctac 54298319
tcagggggct gaggtgggag gatcctttga gctcaggagt tcaaggctgc 54298269
agtgaacat gattacgcca ctgggtgacc cagcaggaac ttgtctcaag 54298219
aaaaaaaaagg ccaaggcagg caaatcactt gaggcagga gttcaagacc 54298169
agcctggcca acatagcaaa accacatctc tactaaaaat acaaaaactt 54298119
acggctggga gcgggtggct ctatgcaaaa attagccagg catggtggca 54298069

cgtgactgta atcccagcta cttgggaggc taaggcagga gaatcgcttg 54298019
aagccaggag gcggagggtg cagtgagctg agatcatgcc actgcactct 54297969
agcctgggca acagagcaag actccatctt ggggaaagaa aaaaaaatg 54297919
gagaacatag ttgcatcttc ataaggctat gataaattat gaattggcca 54297869
ggtgtggtgg ctcacacctg taatcccagc actttgggag gccgaggtgg 54297819
gcggatcacg aggttaggag actaggacca tcctggctaa cacgggtgaa 54297769
accttgtctc tactaaaaat acaaaaaatt agccgggctg ggtggtgggc 54297719
gcctgtagtc ccagctactg gggaggctga ggaggagaa tcgcttgaac 54297669
ctgggaggtg gaggttgacg tgagctgaga ttgcaccact gcactccagc 54297619
ctgggtgaca gaatgagact gtgtctcaa aaaaaaaaaa ttatgcagtt 54297569
aacacagctt ggggacttgc atgtagcatg tagtaagcct actttccagc 54297519
agcgttgggt ggaatttctg gaggatcatg gaattatctt accacggtag 54297469
tgcacaatag atacttaagg cttattaatt gaatgccaca gtagt_aact 54297419 [c.3099-33A>G](#)
ggaataatat caactcttgt gtccacagGT TATTTGGGAT GGACCTGAAT 54297369 [W1033*](#)
AAAATGACC ACAGTAGGTT GGCAGCGCTT CGAGTAACAA AACCTTATTT 54297319 [T1043A](#)
GGACATTTGGC TGC TGAATGG TCCTATCTGC TGGCTCTCCC CTGAGATCTG 54297269
GACAGAGGAA GATGGGAGGG TGCTCATCAC CCCCCAGCA TAATGATCAG 54297219
CCTCCTTCCT AGAGACAGAC TCATGCAGAT TGAGATCAAA AGTCCCTCTG 54297169
CTTGGGATCA AATTAATGTT TGACAGAGCT GGCCAGGCGT GGTGGCTCAT 54297119
GTATGTAATC CTAGCAC TTC GAGAGCCGA GGCAGGTGGA TCACGAGGTC 54297069
AGGAGTTTGA GATTAGCCTG GCCAAGATGG TGAAACCCTG TCTCTACTAA 54297019
AAATAAAAAA AAATTAGCCA GGCA tgggtgg cgggcacctg tagtcccage 54296969
tactcaggag gctgaggcag gagaatcgct tgaacccggg aggtggaggt 54296919
tgcagtgagc cgagatcgcg ccactgcact ccagcctggg cgacagagtg 54296869
ggactccatc tcaaaaaaaaa aaaaaaaaaa agtttgacgg agctttaagg 54296819
gatgaccaac taagagaggt ttgatggccc ctaacaggag gggtaaactc 54296769
caacaggggc caggtgcggt gtctcacgcc tgtaaccccc gtactttcaa 54296719
aggtggaggc aagatgggtt gcttaagtct aggagttaga gaccagccta 54296669

agcaacatag caagactcca ctgttactaa ttagccaact actattaatt 54296619
agtacaatta attaccagc agtagcagca catgcctgta gtcccagcta 54296569
ctctggggac tgaggtggga agatcgcttg agcccaggag gtcgaggctg 54296519
cagtgagctg tcattgcatc actgcgcccc agcctgggca acagagggag 54296469
acggtgaaaa atggccagta ggggccctca gaggccaccc agccctgcca 54296419
agccctggct gcatcggaac atagtaatat ttgagctctg ggggtgggtgc 54296369
cactgccatc tagtggacga cactaggaat gcatgccaac atccagcaag 54296319
gaatgcacag gacaaagcac ttggtccaaa ggcaaattgt gccaaagtga 54296269
ggaaagccta ttctcaaagc tcacaggata catggggcaa ctcagcattt 54296219
gggaagagac tggatgcaa gctaaccctc agaatgcttg ttatgccaac 54296169
agccctgatc ctcccttgct ggaggggata atgtctgaaa tcttaacgtg 54296119
gcaggcatgt caggatggcc cctgcctgg aattcactgg gcctgcca 54296069
gaactgacac ctacaaggcc acgtgtaggc tggccataac ctattataca 54296019
ctgtgctttc aacaaaaata ccgc

***NLRP12* (NC_000019.9, GRCh37) - gDNA - 2025-04-02**

