



RELA (NC_000011.9, GRCh37) - gDNA - 2026-05-25

ccctgcagtg gagcatcctc ctttggggat gaggcctggg gtgggggtgc 65431338
gtcagcccca gcctccacac ggacgcgcct tgggcttggg cttgggggag 65431288
ctacctgcac tgtgggggtca catgacagaa ttagtggtca gccctagctg 65431238
gaggtccagg gcaaacacag gcgggggcag ggggggtgggg ggtcgtgagc 65431188
ctgctgattc aagtgtccct gtgggtcccg caccttctga gacacaagcg 65431138
ccaggcttca gagacgaggc tccgggattt acccctgggg gcctcctget 65431088
cccacagccg atgagagccg gcagtttggc tgtatcgtaa gctggcgctt 65431038
tagctggaga gggacgagcc ctcgccagc tccgagcgg gagggcctca 65430988
gtcgtcccat ccgggctgta ggctccgcaa agctcttgat gcactgtcag 65430938
gctgggaggt ccggcgcctc ccattccccc acagccgcat ctagattggg 65430888
gtgggtagga cattttaacg tgcttctgag acagccacca ccgaaaggca 65430838
cctttagcgg ttaggaaacc cgcgcggagt tcaaccaccc ggctctctcg 65430788
gagcagaagg cccggtcggg cttttccctg cgcggggcgg gcggccgcag 65430738
cccagtagcc ctggctttgc tccagaccgg gccagagtg acatcaccaa 65430688
actccgccga tcggcgggag ggggccctga aatcccctaa aaacaaagt 65430638
agtaatcggc ggaccaccc tccaggcggg gccgggaccc gggagctagc 65430588
cgagccaccg ggcacgccag cctctctctc ctccggcagg cgcgcacttg 65430538
gccccgacct ccggcagcgg ctgtgcgtgc agcctctctg tcctccgcgc 65430488
ggcgtgcact tgctcccggc ccctgcgcgg ggccggcggcg gggcagcgcg 65430438
caggcgcggc cggattccgg gcagtgacgc gacggcgggc cgcgcggcgc 65430388
ATTTCCGCCT CTGGCGAATG GCTCGTCTGT AGTGCACGCC GCGGGCCCAG 65430338
CTGCGACCCC GGCCCCGCC CCGGGACCCC GGCCATGGAC Ggtgaggtcg 65430288 **E3***

ccctctgacc ccgcggggtg gcatcgccgg ggccgccgcg gctgtggcgg 65430238
gagccccgcg gccgctttcc gcccttccct gcgcccacgg gcgctgcgca 65430188
gggagcggtc ggctgcccgg atggtggcgc ggggcggggc aggcggggag 65430138
gggtctgact cagtttcccc tctgggtgga ggggggtggcc cttgactcag 65430088
catcctccct ggggtgggga gcagagggaa ccttgactca gtttccctcc 65430038
acaccgtcca tgggggcagc tctggcttcg tttccctatt aggggagaac 65429988
gcatctgatt cagtttcctc tctggagga ggtggggcgt gccctccctc 65429938
aattttcctt aagaaagtac aacaggccct gattcagctt ccctctggag 65429888
aagaaggatt ccttaccocg ttttccctca agaagcaggt gtttctggtt 65429838
cctttcctcc accccttagt ttcaccgcag gttctagga gcaggtcctg 65429788
actcagttcc cctgggaggg agcctggctt ctcctctccg tggagagcag 65429738
attcctcctt gtgagaatgg gcattgggtg tgtgctgacc ctgatctccc 65429688
tcccctttca gAACTGTTCC CCCTCATCTT CCCGGCAGgt aagtggcccc 65429638
cgcggcggtc ggggaggtgc tccctggggt agggcagtg gggcagccgc 65429588
ctaagggggc tgcggtgtcc cctggcagAG CCAGCCCAGG CCTCTGGCCC 65429538
CTATGTGGAG ATCATTGAGC AGCCCAAGCA GCGGGGCATG CGCTCCGCT 65429488
ACAAGTGC GA GGGGCGCTCC GCGGGCAGCA TCCCAGGCGA GAGGAGCACA 65429438
GATACCACCA AGACCCACCC CACCATCAAG gtcagcactg cgccaggggtg 65429388
tgcggggaag ggactgtgga accccagccc tctgtgtttg ggagtcaggt 65429338
ttggatgtct gggcctctgt actttggaca gATCAATGGC TACACAGGAC 65429288
CAGGGACAGT GCGCATCTCC CTGGTCACCA AGGACCTCC TCACCGGCCT 65429238
CACCCCACG AGCTTG TAGG AAAGGACTGC CGGGATGGCT TCTATGAGGC 65429188
TGAGCTCTGC CCGGACCGCT GCATCCACAG gtgaggtccc tgcaggctag 65429138
gaggcccagc atgaggggac aggaggcggg ctatgaagta gccgctacag 65429088
tgttactcct ttctggacct agggcagaat tcctcactcc ttgccctgac 65429038
tcagctctgc aagtaaactg cttttgtcct gaaattatct atttgtacgt 65428988
ttactctagc agatgagttc caggggatac ggatgggtcc ctaatcactt 65428938
ctgaattcct gaccctgta gctggaagga caagtccctc agagtcacgt 65428888

ctcttgtttg aggaagaaaa ccattgaacc agcactctcc cctggagttg 65428838
acattgcagt tgacagagac aggctgtaaa aaaatataca ggccgggcat 65428788
agtggctcat gcttataatc ctagcacttc gggaggccaa ggcaggaaga 65428738
tctcttgagc ctaggaattc aagactagcc aaggcaacat agtgagaccc 65428688
catgtctaca aaaaataaga aattagctgg gtatggtggc atg'gcctat 65428638
agtcccaggg aggctgaggt gggaggatcg cctgagccca ggaggtcact 65428588
gctgcggcaa gctatgattg caccactgca cttgggtggc agggcgatac 65428538
cttgtctttt tttttttttt ttttttttta agaaagagtc ttgctctgtc 65428488
cccagactgg agtgcagtgg cgcgatctca gctcactgca acctccacct 65428438
tccgggttca tgccattctc ctgcctcagc ttcccgaata gctgggacta 65428388
caggtgcctg ccaccacgcc tggctaattt tttgtatttt ttagtagaga 65428338
cagggtttca ccgtgttagc caggatggtc tcaatctcct gacctgtga 65428288
tctgcctgtc ttggcctccc aaagtgctgg gattacaggc ttgagccacc 65428238
gcacccggcc cgacactgtg tctcttaaaa ataaataaat acacagataa 65428188
ataaacaagg tgctgtcaga gtaacagttt cagtcctgaa aataaaacga 65428138
ggcatagga tagaaggata acctgggggtg ggggagttag gggagctggt 65428088
gtgtgatgac tttagattgg gaggtcaggg aaggcctccc tcagctaaga 65428038
cttgaatggt gagaaggagg agagaagtag gaaaagaaca ttccaagccg 65427988
accaaacaag tgcaaaggcc ttgaggtggg aatgagtgtc ctgtgtttag 65427938
agagtggaaa aggagccccg gtggctgtaa gcaggagcc cacagggagg 65427888
ctggcagggg caggggcacg gaggtgcttg tcagctgagt gaagggacag 65427838
ggttcgttgc agcacagtag gaagccactg gagagggtta ggcattggagc 65427788
gatgatctag ggggtggcag agtaggaagg agcaggctgg gcaaggcagg 65427738
aaggtctggg ctctgtgaga gacagtggga cagacgactg ggggcgctca 65427688
gTTTCCAGAA CCTGGGAATC CAGTGTGTGA AGAAGCGGGA CCTGGAGCAG 65427638
GCTATCAGTC AGCGCATCCA GACCAACAAC AACCCCTTCC AAGgtgaggg 65427588
caaacctgcc tgccacacc gcaccctctg tcaccctccc cagcccgcct 65427538
ttcctgcatc tcctcactg gccaaagacac agtaaagctg gaatcttgg 65427488

gcccattcag tactctccca ctttaccact gggaaactga gtcccaggag 65427438
gggacatgac attcaggcca cagtggagtc agtgctgggt tctgcctcct 65427388
ctaggacttg tgtttcacac acgcaccagc ggccctccca gcgcagagct 65427338
ccctgcccc actgatagca cctatatccc cacttcccct gctctcctga 65427288
tcgcctgttt tcttggcagT TCCTATAGAA GAGCAGCGTG GGGACTACGA 65427238
CCTGAATGCT GTGCGGCTCT GCTTCCAGGT GACAGTGCGG GACCCATCAG 65427188
GCAGGCCCCCT CCGCCTGCCG CCTGTCCTTT CTCATCCCAT CTTTGACAAT 65427138
Cgtgagtagc gagggagacg caggaagggg agagggtggg cctgaatagg 65427088 [c.559+1G>A](#)
aggaaggggg ttggggtgag tgtggcctgc aagaggcgct ctggcttcat 65427038
tcaatcatct tgcgtatttg tctactcttc tctgcccagc tctttgttgg 65426988
ctggggagag agggcaaaga agaccagag ctgtccttga ggtgtagctc 65426938
tggcctggca ggaagtctag cagagagtct gatgggagat gggcattttc 65426888
agtatttgtt gatgagaagg tgggtgtgcc acaactgcga taatgactct 65426838
aggaatgaa ctcccaggaa caagatagtg ttcgagaatg atgattcagt 65426788
gatggaagcc cacagatgaa ttgggctgac tgatcagctg cagtctttag 65426738
ttaagtaacc agcaggatga atggaaataa aacgaatctg gagccccaag 65426688
gatgggaaac caggataaac tgggggtcag gaggggaagg ctcatgcca 65426638
agggtgggtat ggactggcct taaagattgc tttggtcagg tggagaaaga 65426588
gtgtgatcag attggcacc actggactat aagctccggg agagcagaga 65426538
ggtttgggtt ttgtgtgtgg tcgtattctt gcttagatca gtgttgagtg 65426488
cacagtaggc aaatacttgt tgaatcggtt ggggtgagga gctaataaga 65426438
aggctctgact ttggctacaa aggtgtaggt ggcaagctct gggcaacctt 65426388
gactctgggc tgggcagggg agttgcatct cctgcaggcc accctgggga 65426338
cctctcgtgg ctcaggatcat cctcccttgt tttcactgcc tcagGTGCCC 65426288
CCAACACTGC CGAGCTCAAG ATCTGCCGAG TGAACCGAAA CTCTGGCAGC 65426238
TGCCCTCGGTG GGGATGAGAT CTTCTACTG TGTGACAAGG TGCAGAAAGg 65426188
tatacatcag gaggcagggg tgggctcttg ggagcaaggg gtgaagctga 65426138
gcagagaagt ggagtgtcag gtaactggct ttggatactt cctcctgtgc 65426088

ctcgggggcc tcaggtgggc cgaagggtga tgtatcagaa gacaagcatc 65426038
agaagttgag ggggagacca tggagggtta gacacactga cccacactgc 65425988
caccgcatct cctgcagAGG ACATTGAGGT GTATTTTCACG GGACCAGGCT 65425938
GGGAGGCCCG AGGCTCCTTT TCGCAAGCTG ATGTGCACCG ACAAGTGGCC 65425888 [R246*](#) [I250Y](#)
[ATTGTGTTCC](#) GGACCCCTCC CTACGCAGAC CCCAGCCTGC AGGCTCCTGT 65425838
GCGTGTCTCC ATGCAGCTGC GCGCGCCTTC CGACCGGGAG CTCAGTGAGC 65425788
CCATGGAATT CCAGTACCTG CCAGATACAG gtacacagct ggggtggcag 65425738 [D291N](#)
catcagggca gctgggctct gtgccgtgag agagaggcca agactgcatg 65425688
tctggggctg tggttgaggg ccagaagctg gagtcagagc ttgggatcca 65425638
agaaactgga atccatttct tgcctcattt aataataatg atacctcaga 65425588
cattgagcta gtactacaca tctgcccta ttccaggcac ttcactggat 65425538
tacctgattt taatctcatg acccttttga agtaggagat agtgtccaac 65425488
ttgcctgggt tcacgtggct agtaagtagc agagtctagc agagtcagcg 65425438
ttggaacca ggccatctgg cttcaggatc cttttgccac actggttgtc 65425388
ttgtcactac catacagccc agccacattt tggtcgaggt ttgagtgccc 65425338
acttgggtacc agggcctgtg ccaggatttg tgaatacaaaa aatgagtaa 65425288
gacatgctcc ctgcccttca gagtctcagt cacttgagga agacaaatgt 65425238
gcaaaacaga tccttaagtc acggaatgac atgtgaaatg gaggtgtgcg 65425188
cagagaagca cgggggcaca gtggcctccg gggagctgga gacagctgca 65425138
tggagaaggt ggcatgaag ctggagaaaag acacagaagt gtgttctcca 65425088
ggcaggtggc ccagcacctg gaaggggaagg ggtgttggca actgcacggc 65425038
ctattcaggg ccaccttcgt ggtttgagct gatgttgggc agtgagcagg 65424988
ctcagagatt ggagggcctg gttaagctga aggcctctaa gcagagaggt 65424938
gacaggagca gatttgaag ttgactcagg aggccacgtg tagaagatca 65424888
gagacagaca gactcaaagc agggaggcca ttctggaaat gttgctgtag 65424838
tccaggaaga gaagatgcyg cacaacctt acagaaggaa tagcagagca 65424788
agatcacatc tccaccactg tcctcagtta cccttcagcc ctgcagccgt 65424738
tttgcgtctt acagaccaag ctcagtctca cctcaggacc tgtgtctagc 65424688

tggtgcctct gcttgaatg cccaaggttt taatgcaagt ggctcatgcc 65424638
agtccttccc tgacctctaa attagccctt ccctctacat ttagactgtc 65424588
ctgacctcac ttccagtatt gttacatcac catatcgtcc ctggaccacc 65424538
gtcacttgag attttctggg ttggttttgt ttgtttgttt gagacagagt 65424488
ctcactcttg tcgcccaggc tggagtgcag tggtgcaatc tcggctcact 65424438
gcaacctcca cctcccgggt tcaagtgatt ctccctgcct cagcctcccg 65424388
agtagctggg actacaggcg cccgccacca catccggcta attttttcta 65424338
tttttagtag agacggggtt ttcacatgt tggccagggt ggtctcgatc 65424288
tcttgacctc gtgatccacc cgcctcgacc tcccaaagtg ctgggattac 65424238
aggcgtgagc caccacgcct ggccgagatt ttctggtttg tatatatgat 65424188
tgtgtccctc tactttttc actaggatgc caactttttg ggagcagaca 65424138
ccttggtggtc atactcacgg ccacatcccc agtgtctaga agggaggctg 65424088
gcacatagta ggtgcttgat aaatatatgt caagtactg gcggggagtg 65424038
agagaaaaga agataatcat tccaaggttt ctacttttgg tgacagggca 65423988
gatggcggat ggtcagggaa tgcaggagaa agaacctagt ttttgagga 65423938
tgatgaggtt gtctttgaat tgatggaatt gaagtgtctt ggagctactg 65423888
aaataccact gtaattagaa agacagttct gaaagctctg actaaaatat 65423838
gaaaccatta gagataagaa taagagtctc tgctgaagtc ttaaggcagt 65423788
tgtgcctcag ctgccccaga gtgccaagaa attctcgcca ggctgggtg 65423738
gaggctgaca atgagccagg atgtgagcag tgcaggaagg tgtgagctgg 65423688
aggctggggc cccccaggtc tcctctttgc ccagagcatg gccctgtac 65423638
tcggcctcac catgtggtct tagaggggca gattcagcca acagaggcct 65423588
ccaaaagctg tgggattctc agaactgctg agtgtcacac atcccttctc 65423538
attggcagag aaggttggga gaatgggtct tgggaaagcc tggctcctcc 65423488
ccttcctcct gagggacctt tgagagcgtc ggggaccac ctgaggagag 65423438
caagtccac ttctcccct tactttccca gACGATCGTC ACCGGATTGA 65423388 [R295H](#)
GGAGAAACGT AAAAGGACAT ATGAGACCTT CAAGAGCATC ATGAAGAAGA 65423338
GTCCTTTCAG CGgtgagatg gggactggga aagccagaga ggaaggcagc 65423288

gggcagggag gggacaccct ggggctgaga actgacctag cccttgcct 65423238
acagGACCCA CCGACCCCCG GCTCCACCT CGACGCATTG CTGTGCCTTC 65423188 [c.959-1G>A](#) [P321A](#) [R329*](#) [R330H](#)
CCGCAGCTCA GCTTCTGTCC CCAAGCCAGg taaggatttc cttttgtccc 65423138
actggaacga caggttcagc tctgttcagc tgaggagcag tggagatgaa 65423088
gactcctggg cccattaca gacctactga atcagaggct ttgaaaggat 65423038
ggcgcaggaa ccagcgactt cctgggatgc taatgcacac tgaagcctgg 65422988
gaaccaccgt gccacttaa ttctatatg ggtatcttgg gaatcagaag 65422938
ttaaaaatgc agaatctctg ctctcatctc tcacttgaat tgggggaaca 65422888
aaaatcacct ctaaattagc aagatgtgtg tgcctgtgcg aggctcaaaa 65422838
actgacaagc tctgcacttc aggccgctgc tcacttgggtg ctccatgggc 65422788
tcattgcctc tcaggactta gtttttcagc tgtaaactga ggagtccagc 65422738
ttatctctcc aagtgtccct tcctctaaaa ggctggaaga gtttcgtggg 65422688
cttgagtagt cagggaggac tccaagggtg aggtgtggct agaactggac 65422638
cctacaggct gggtcagatg gggtaagagg aaggagatag ggtgttgga 65422588
gtgactccct agagaggat tgagcctgag caccatgaag aggggctggg 65422538
gtacagagga cggggtggat ctctagggct ttctctgacc cctgcctctc 65422488
tgtctctctc ctccagCACC CCAGCCCTAT CCCTTTACGT CATCCCTGAG 65422438 [c.1034-1G>A](#) [Q347*](#) [p.Y349*](#)
CACCATCAAC TATGATGAGT TTCCACCAT GGTGTTTCCT TCTGGGCAGA 65422388
TCAGCCAGGC CTCGGCCTTG GCCCGGCC CTCCCAAGT CCTGCCCAG 65422338 [Q375Pfs*66](#) [Q385*](#) [Q389*](#)
GCTCCAGCCC CTGCCCTGC TCCAGCCATG GTATCAGCTC TGGCCAGGC 65422288
CCCAGCCCCT GTCCCAGTCC TAGCCCCAGG CCCTCCTCAG GCTGTGGCCC 65422238 [V410Sfs*4](#)
CACCTGCCCC CAAGCCCACC CAGGCTGGGG AAGGAACGCT GTCAGAGGCC 65422188 [p.Thr435fs](#) [E438Rfs*9](#)
CTGCTGCAGC TGCAGTTTGA TGATGAAGAC CTGGGGGCCT TGCTTGGCAA 65422138
CAGCACAGAC CCAGCTGTGT TCACAGACCT GGCATCCGTC GACAACTCCG 65422088 [T464Rfs*26](#) [p.\(Asp465ThrfsTer14\)](#) [p.E473Rfs*18](#)
AGTTTCAGCA GCTGCTGAAC CAGGGCATACT CTGTGGCCCC CCACACAACT 65422038 [H487Tfs*7](#)
GAGCCCATGC TGATGGAGTA CCCTGAGGCT ATAACTCGCC TAGTGACAGG 65421988 [p.\(Glu495SerfsTer6\)](#)
GGCCAGAGG CCCCCGACC CAGCTCCTGC TCCACTGGGG GCCCGGGGC 65421938 [D512N](#)
TCCCAATGG CCTCCTTCA GGAGATGAAG ACTTCTCTC CATTGCGGAC 65421888

ATGGACTTCT CAGCCCTGCT GAGTCAGATC AGCTCCTAAG GGGGTGACGC 65421838
CTGCCCTCCC CAGAGCACTG GGTTCAGGG GATTGAAGCC CTCCAAAAGC 65421788
ACTTACGGAT TCTGGTGGGG TGTGTTCCAA CTGCCCCCAA CTTTGTGGAT 65421738
GTCTTCCTTG GAGGGGGGAG CCATATTTTA TTCTTTTATT GTCAGTATCT 65421688
GTATCTCTCT CTCTTTTTGG AGGTGCTTAA GCAGAAGCAT TAACTTCTCT 65421638
GGAAAGGGGG GAGCTGGGGA AACTCAAAC TTTCCCCTGT CCTGATGGTC 65421588
AGCTCCCTTC TCTGTAGGGA ACTCTGGGT CCCCATCCC CATCCTCCAG 65421538
CTTCTGGTAC TCTCCTAGAG ACAGAAGCAG GCTGGAGGTA AGGCCTTTGA 65421488
GCCCACAAAG CTTTATCAAG TGTCTTCCAT CATGGATTCA TTACAGCTTA 65421438
ATCAAAATAA CGCCCCAGAT ACCAGCCCC TGTATGGCACT GGCATTGTCC 65421388
CTGTGCCTAA CACCAGCGTT TGAGGGGCTG GCCTTCCTGC CCTACAGAGG 65421338
TCTCTGCCGG CTCTTTCCTT GCTCAACCAT GGCTGAAGGA AACCAGTGCA 65421288
ACAGCACTGG CTCTCTCCAG GATCCAGAAG GGGTTTGGTC TGGGACTTCC 65421238
TTGCTCTCCC TCTTCTCAAG TGCCTTAATA GTAGGGTAAG TTGTTAAGAG 65421188
TGGGGGAGAG CAGGCTGGCA GCTCTCCAGT CAGGAGGCAT AGTTTTTACT 65421138
GAACAATCAA AGCACTTGGA CTCTTGCTCT TTCTACTCTG AACTAATAAA 65421088
TCTGTTGCCA AGCTGGctag agatccgctt tttttcagca aacactgagc 65421038
acacattttg ctagtcacat caggccagac attggtggtg gagagctggg 65420988
tgaatgcgtg cactgtcctc tgagagcttg cagtctgaga atgcccttgg 65420938
aaaccccgag ttaccgtcca gtggatgaaa acgggcagct aaggcaagag 65420888
tcctagcaca ctgagagcct agtagagccc gctggctgtg gggatggagc 65420838
agtttcagga gtcttccaag aggccccatt agctccaggt cttagatcag 65420788
ctgagagtgg atgtcaaaga gggactagcc agcgtcagag gtaagagaaa 65420738
cgatgttcga aagatgtgat ggggccaat tccttgggtg gccagggag 65420688
tgtgtgcttc tcttggggaa tgtgtggtgc caggtaaaga tctaccggc 65420638
ccaccgatgc tttgatactc tgttctggga ggaacggtga aatcttcaat 65420588
ccacagcctc aggaagccaa aacaaaggcc cagccgcagc ccacaagggc 65420538
tacagctgga cgtacttccg ctttgcccca gcgcaagcgc agcagcaaaa 65420488

agcgcctggcc ggcgtgggcc cccttctcga ctgcgcaggc gcacaaggag 65420438
cccgcagcaa ccggaggccg ggtccagcgt ctggggaaaa tccccgccga 65420388
ggccgatggc gtcttcgttt gggcttcgca ccgtcgcggg aggacaatag 65420338
caggggaaaa ggagttatcg tcagcgggac gcgtcccaaa attcagcgag 65420288
tctcctagga acagaaaagg ccctgggtgc aggctccgac gggcggcgcc 65420238
ggcgagacgg caggccaatt ccgtcgagga agtggcgttt tccacggggc 65420188
tccggctccg gggggcgcc cagggcgccg gcttggagcg agggcgggcc 65420138
tcggcggaac tcccacgcga ggggcggagc ccgggctcgc ggtggccagg 65420088
tcaggacccg ggcgaa

RELA (NC_000011.9, GRCh37) - gDNA - 2026-05-25

