



NCSTN (NM_015331.3) - cDNA + Protein - 2025-04-03

AGCAGAGAGG CAAGATGGCT ACGGCAGGGG GTGGCTCTGG GGCTGACCCG 36
MetAla ThrAlaGlyG lyGlySerGl yAlaAspPro 12

GGAAGTCGGG GTCTCCTTCG CCTTCTGTCT TTCTGCGTCC TACTAGCAGG 86
GlySerArgG lyLeuLeuAr gLeuLeuSer PheCysValL euLeuAlaGl 29

TTTGTGCAGG GGAAACTCAG TGGAGAGGAA GATATATATC CCCTTAAATA 136 G33R
yLeuCysArg GlyAsnSerV alGluArgLy sIleTyrIle ProLeuAsnL 46

AAACAGCTCC CTGTGTTTCG CTGCTCAACG CCACTCATCA GATTGGCTGC 186
ysThrAlaPr oCysValArg LeuLeuAsnA laThrHisGl nIleGlyCys 62

CAGTCTTCAA TTAGTGGAGA CACAGGGGTT ATCCACGTAG TAGAGAAAGA 236 Thr70fsX18 V75I
GlnSerSerI leSerGlyAs pThrGlyVal ileHisValV alGluLysGl 79

GGAGGACCTA CAGTGGGTAT TGACTGATGG CCCCAACCCC CCTTACATGG 286 p.P73Lfs*15
uGluAspLeu GlnTrpValL euThrAspGl yProAsnPro ProTyrMetV 96

TTCTGCTGGA GAGCAAGCAT TTTACCAGGG ATTTAATGGA GAAGCTGAAA 336
alLeuLeuGl uSerLysHis PheThrArgA spLeuMetGl uLysLeuLys 112

GGGAGAACCA GCCGAATTGC TGGTCTTGCA GTGTCCTTGA CCAAGCCCAG 386 T115fs R117X R117Q

GlyArgThrS erArgIleAl aGlyLeuAla ValSerLeuT hrLysProSe 129

TCCTGCCTCA GGCTTCTCTC CTAGTGTAACA GTGCCCAAAT GATGGGTTTG 436

rProAlaSer GlyPheSerP roSerValGl nCysProAsn AspGlyPheG 146

GTGTTTACTC CAATTCCTAT GGGCCAGAGT TTGCTCACTG CAGAGAAATA 486 [I162Yfs*57](#)

lyValTyrSe rAsnSerTyr GlyProGluP heAlaHisCy sArgGluIle 162

CAGTGGAATT CGCTGGGCAA TGGTTTGGCT TATGAAGACT TTAGTTTCCC 536 [p.Gln163SerfsX39](#) [S166X](#)

GlnTrpAsnS erLeuGlyAs nGlyLeuAla TyrGluAspP heSerPhePr 179

CATCTTCTCT CTTGAAATG AAAATGAAAC CAAAGTCATC AAGCAGTGCT 586 [F181S](#) [D185N](#)

oIlePheLeu LeuGluAspG luAsnGluTh rLysValIle LysGlnCysT 196

ATCAAGATCA CAACCTGAGT CAGAATGGCT CAGCACCAAC CTTCCACTA 636 [P211R](#)

yrGlnAspHi sAsnLeuSer GlnAsnGlyS erAlaProTh rPheProLeu 212

TGTGCCATGC AGCTCTTTTC ACACATGCAT GCTGTCATCA GCACTGCCAC 686 [Q216P](#) [S219Ffs*31](#) [c.687insCC](#)

CysAlaMetG lnLeuPheSe rHisMetHis AlaValIleS erThrAlaTh 229

CTGCATGCGG CGCAGCTCCA TCCAAAGCAC CTTCAGCATC AACCCAGAAA 736

rCysMetArg ArgSerSerI leGlnSerTh rPheSerIle AsnProGluI 246

TCGTCTGTGA CCCCCTGTCT GATTACAATG TGTGGAGCAT GCTAAAGCCT 786

leValCysAs pProLeuSer AspTyrAsnV alTrpSerMe tLeuLysPro 262

ATAAATACAA CTGGGACATT AAAGCCTGAC GACAGGGTTG TGGTTGCTGC 836

IleAsnThrT hrGlyThrLe uLysProAsp AspArgValV alValAlaAl 279

CACCCGGCTG GATAGTCGTT CCTTTTTCTG GAATGTGGCC CCAGGGGCTG 886
aThrArgLeu AspSerArgS erPhePheTr pAsnValAla ProGlyAlaG 296

AAAGCGCAGT GGCTTCCTTT GTCACCCAGC TGGCTGCTGC TGAAGCTTTG 936 [c.887A>G](#)
luSerAlaVa lAlaSerPhe ValThrGlnL euAlaAlaAl aGluAlaLeu 312

CAAAAGGCAC CTGATGTGAC CACCCTGCCC CGCAATGTCA TGTTTGTCTT 986 [A315V](#)
GlnLysAlaP roAspValTh rThrLeuPro ArgAsnValM etPheValPh 329

CTTTCAAGGG GAAACTTTTG ACTACATTGG CAGCTCGAGG ATGGTCTACG 1036
ePheGlnGly GluThrPheA spTyrIleGl ySerSerArg MetValTyrA 346

ATATGGAGAA GGGCAAGTTT CCCGTGCAGT TAGAGAATGT TGACTCATT 1086
spMetGluLy sGlyLysPhe ProValGlnL euGluAsnVa lAspSerPhe 362

GTGGAGCTGG GACAGGTGGC CTTAAGAACT TCATTAGAGC TTTGGATGCA 1136 [c.1125+1G>A](#)
ValGluLeuG lyGlnValAl aLeuArgThr SerLeuGluL euTrpMetHi 379

CACAGATCCT GTTTCTCAGA AAAATGAGTC TGTACGGAAC CAGGTGGAGG 1186 [D381Sfs*7](#)
sThrAspPro ValSerGlnL ysAsnGluSe rValArgAsn GlnValGluA 396

ATCTCCTGGC CACATTGGAG AAGAGTGGTG CTGGTGTCCC TGCTGTCATC 1236
spLeuLeuAl aThrLeuGlu LysSerGlyA laGlyValPr oAlaValIle 412

CTCAGGAGGC CAAATCAGTC CCAGCCTCTC CCACCATCTT CCCTGCAGCG 1286 [Q420X](#)
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ATTTCTTCGA GCTCGAAACA TCTCTGGCGT TGTTCGGCT GACCACTCTG 1336 [p.Arg434X](#)

gPheLeuArg AlaArgAsnI leSerGlyVa lValLeuAla AspHisSerG 446

GTGCCTTCCA TAACAAATAT TACCAGAGTA TTTACGACAC TGCTGAGAAC 1386

lyAlaPheHi sAsnLysTyr TyrGlnSerI leTyrAspTh rAlaGluAsn 462

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GCTGATCCCC AAACGGTTAC CCGCCTGCTC TATGGGTTCC TGATTAAAGC 1586

AlaAspProG lnThrValTh rArgLeuLeu TyrGlyPheL euIleLysAl 529

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euGlyAspGl yProLeuGln HisTyrIleA laValSerSe rProThrAsn 562

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ThrThrTyrV alValGlnTy rAlaLeuAla AsnLeuThrG lyThrValVa 579

CAACCTCACC CGAGAGCAGT GCCAGGATCC AAGTAAAGTC CCAAGTGAAA 1786 [E584DfsX44](#) [c.1768A>G](#)

lAsnLeuThr ArgGluGlnC ysGlnAspPr oSerLysVal ProSerGluA 596

ACAAGGATCT GTATGAGTAC TCATGGGTCC AGGGCCCTTT GCATTCTAAT 1836 [c.1799delTG](#)

snLysAspLe uTyrGluTyr SerTrpValG lnGlyProLe uHisSerAsn 612

GAGACGGACC GACTCCCCCG GTGTGTGCGT TCTACTGCAC GATTAGCCAG 1886

GluThrAspA rgLeuProAr gCysValArg SerThrAlaA rgLeuAlaAr 629

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gAlaLeuSer ProAlaPheG luLeuSerGl nTrpSerSer ThrGluTyrS 646

CTACATGGAC TGAGAGCCGC TGGAAAGATA TCCGTGCCCCG GATATTTCTC 1986

erThrTrpTh rGluSerArg TrpLysAspI leArgAlaAr gIlePheLeu 662

ATCGCCAGCA AAGAGCTTGA GTTGATCACC CTGACAGTGG GCTTCGGCAT 2036

IleAlaSerL ysGluLeuGl uLeuIleThr LeuThrValG lyPheGlyIl 679

CCTCATCTTC TCCCTCATCG TCACCTACTG CATCAATGCC AAAGCTGATG 2086

eLeuIlePhe SerLeuIleV alThrTyrCy sIleAsnAla LysAlaAspV 696

TCCTTTTCAT TGCTCCCCGG GAGCCAGGAG CTGTGTCATA **CTG**AGGAGGA *6

alLeuPheIl eAlaProArg GluProGlyA laValSerTy rStop

CCCCAGCTTT TCTTGCCAGC TCAGCAGTTC ACTTCCTAGA GCATCTGTCC *56

CACTGGGACA CAACCACTAA TTTGTCACTG GAACCTCCCT GGGCCTGTCT *106

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CCCATTTC TCTTCCTTCT CTACTCATGC CAGATTTTGG GATTACAAAT *256

AGAAGCTTCT TGCTCCTGTT TAACTCCCTA GTTACCCACC CTAATTTGCC *306
CTTCAGGACC CTTCTACTTT TTCCTTCCTG CCCTGTACCT CTCTCTGCTC *356
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TCTCTGGGCT GAGCCTACTG TCTCCTTCCC ACTGTCCTTT CTCCAGGCC *506
TCAGATGGCA CATTAGGGTG GCGTGCTGC GGGTGGGTAT CCCACCTCCA *556
GCCCACAGTG CTCAGTTGTA CTTTTTATTA AGCTGTAATA TCTATTTTTG *606
TTTTTGTCTT TTCCTTTAT TCTTTTTGTA AATATATATA TAATGAGTTT *656
CATTAAAATA GATTATCCCA CA

NCSTN (NM_015331.3) - cDNA + Protein - 2025-04-03

