



Recombinant Human Neurturin

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FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	100-083S
Size:	5 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	4902
Synonyms:	NRTN; NTN

Neurturin is a disulfide-linked homodimer neurotrophic factor structurally related to GDNF, Artemin, and Persephin. These proteins belong to the cysteine-knot family of growth factors that assume stable dimeric structures. Neurturin signals through a multicomponent receptor system, composed of RET and one of four GFR α ($\alpha 1$ - $\alpha 4$) receptors. Neurturin promotes the development and survival of sympathetic and sensory neurons by signaling through a receptor system composed of RET and GFR $\alpha 2$. The functional form of human Neurturin is a disulfide-linked homodimer, of two 11.8 kDa polypeptide monomers (204 total amino acid residues). Each monomer contains seven conserved cysteine residues, one of which (Cys 69) is used for inter-chain disulfide bridging and the others are involved in intramolecular ring formation known as the cysteine knot configuration.

Sequence

ARLGARPCGL RELEVRVSEL GLGYASDETV LFRYCAGACE
AAARVYDLGL RRLRQRRRLR RERVRAQPC C RPTAYEDEV S
FLDAHSRYHT VHEL SARECA CV

Database References

Protein RefSeq:	NP_004549.1
Uniprot ID:	Q99748
mRNA RefSeq:	NM_004558.3.

Product Specifications

Expressed in	E. coli
Purity	> 98% by SDS-PAGE & HPLC analysis
Structural Information	disulphide-linked homodimer
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	lyophilized
Length (aa):	204
MW:	11.8 kDa

Biological Activity: Human Neurturin at a concentration of 100 ng/ml will support the survival of 65% of newborn rat sympathetic neurons.



AVOID REPEATED FREEZE AND THAW CYCLES!