

Recombinant Human Neurturin (Human Neurturin)

Product Information

Product Name	Cat#	Size
	92525ES08	5 µg
Recombinant Human Neurturin (Human Neurturin)	92525ES60	100 µg
	92525ES76	500 µg

Product Description

Neurturin is a member of the GDNF family of ligands, which include glial cell-derived neurotrophic factor (GDNF), Neurturin, Persephin, and Artemin. GDNF family proteins are distant members of the Transforming Growth Factor beta (TGF-beta) superfamily. Similarly to other TGF-beta family proteins, Neurturin is synthesized as a precursor protein that is cleaved at the dibasic cleavage site (RXXR) to release the carboxy-terminal domain. The carboxy-terminal domain of Neurturin contains the characteristic seven conserved cysteine residues necessary for the formation of the cysteine-knot and the single interchain disulfide bond. Biologically active human Neurturin is a disulfide-linked homodimer of the carboxy-terminal 102 amino acid residues. Mature human Neurturin shares approximately 92% amino acid sequence identity with mouse Neurturin. Mature Neurturin also shares about 40% similarities with the other three members of the GDNF family ligands. Unlike other members of TGF-beta family, bioactivities of all GDNF family ligands are mediated through a unique multicomponent receptor complex composed of high affinity ligand binding component (GFR alpha -1-GFR alpha -4) and a common signaling component (cRET receptor tyrosine kinase). Each member of the GDNF family ligands has its preferred binding protein. Neurturin preferentially binds to GFR alpha -2 but can also bind GFR alpha -1 at higher concentrations. Neurturin had been shown to promote the survival of a variety of neurons including sympathetic, sensory, and central nervous system neurons. Neurturin is expressed in both neuronal and non-neuronal tissues.

Product Properties

Synonyms	NRTN; NTN
Accession	Q99748
GeneID	4902
Source	E.coli-derived Human Neurturin, Ala96-Val197.
Molecular Weight	Approximately 23.4 kDa.
AA Sequence	ARLGARPCGL RELEV RVSEL GLGYASDETV LFRY CAGACE AAARVYDLGL RRLRQRRRLR RERVRAQPCC RPTAYEDEV SFLDAHSRYHT VHEL SARECA CV
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 96% by SDS-PAGE and HPLC analyses.
Biological Activity	The biologically active as determined by its binding ability in a functional ELISA. Fully biologically active when compared to standard.
Endotoxin	< 1.0 EU per 1µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 30 mM Citrate Sodium, pH 4.2, 400 mM NaCl, with 0.02% Tween-20.

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water to a concentration of 0.5 mg/mL. Stock solutions should be apportioned into working aliquots and stored at $\leq -20^{\circ}\text{C}$. Further dilutions should be made in appropriate buffered solutions.

Reconstitution

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!