

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse Neurturin in Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse Neurturin Pro96-Val195 Accession # P97463
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human Neurturin (Catalog # 1297-NE) Recombinant Mouse Neurturin (Catalog # 477-MN)

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Neurturin (NTN) is a member of the GDNF family of ligands which also includes glial cell-derived neurotrophic factor (GDNF), persephin, and artemin. GDNF family proteins are distant members of the TGF-β superfamily and contain a conserved seven cysteine motif found in the entire family. Human NTN encodes a 197 amino acid (aa) preproprotein with a 19 aa residue putative signal peptide and a 76 aa pro region. Proteolytic cleavage of the pro-protein occurs at an RXXR consensus sequence. The native protein is a disulfide-linked homodimer with a calculated monomeric mass of about 12.5 kDa. The amino acid sequence of human NTN shares 91% identity to mouse NTN. NTN also shares about 42% similarity with GDNF. The bioactivities of all GDNF family ligands are mediated through a receptor complex composed of a high affinity ligand binding component (GFRα1 - GFRα4) and a common signaling component, cRET (receptor tyrosine kinase). NTN prefers to bind GFRα2 but can also bind GFRα1. NTN can promote the survival of a variety of neurons including sympathetic, sensory, and central nervous system neurons. The wide expression of NTN in both neuronal and non-neuronal tissues suggests that NTN may regulate the development and maintenance of the central and peripheral nervous systems and other systems.