

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse Neurturin in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant mouse Neurturin
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Blockade of Receptor-ligand Interaction	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

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 β (TGF- β) superfamily (1 - 4). Similar to other TGF- β 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 Neurturin is a disulfide-linked homodimer of the carboxy-terminal 100 amino acid residues. Mature mouse Neurturin shares 91% amino acid sequence similarity with human Neurturin. Mature Neurturin also shares about 40% similarities with the other three members of the GDNF family ligands (2, 5). Unlike other members of TGF- β family, bioactivities of all GDNF family ligands are mediated through a unique multicomponent receptor complex composed of high affinity ligand binding component (GFR α -1 - GFR α -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 α -2 but can also bind GFR α -1 at higher concentration (5 - 8). Neurturin has 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. It may play a role in regulating the development and maintenance of the central and peripheral nervous systems as well as non-neuronal systems (9).

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