

Neuritin Antibody

Neuritin: NRN1, cpg15

CATALOG No.: 4101

BACKGROUND:

As the nervous system of a complex organism develops, it establishes functional networks through the growth and retraction of synaptic connections from growing axons and dendrites. This synaptic remodeling involves neuro-transmitter signaling, activation of neurotrophin receptors and alterations in gene expression (reviewed in 1). One such gene whose expression is increased by neural activity is neuritin, a GPI-anchored protein that is expressed in postmitotic differentiating neurons of the developing nervous system. Its expression is also induced by the neurotrophins BDNF and NT-3. Purified recombinant neuritin promotes neurite outgrowth and arborization in primary embryonic neuronal cultures, suggesting that neuritin may play a role as a downstream effector of activity-induced neurite outgrowth (2). More recent experiments have shown that neuritin is required for the androgen-induced axonal elongation in motor neurons (3) and is upregulated following spinal cord injury, suggesting that neuritin may also play a role in survival and axonal regeneration (4).

SOURCE:

Rabbit polyclonal neuritin antibody was raised against a 20 amino acid peptide from near the center of human neuritin (GenBank accession no. NP_057672).

APPLICATION:

Neuritin antibody can be used for detection of Neuritin by Western blot at 5 – 10 µg/ml. (Optimal dilution should be determined by user.) Daudi cell lysate can be used as positive control. Neuritin antibody is human and mouse reactive.

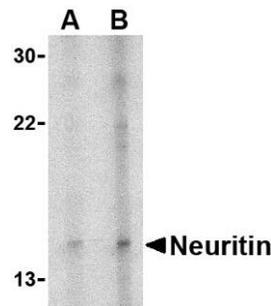
For research use only.

STORAGE:

Neuritin antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Stable at 4°C for three months, store at -20°C for up to one year.

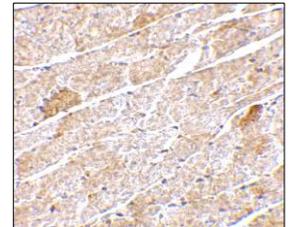
RELATED PRODUCTS:

Blocking Peptide, Catalog No. **4101P**.
Daudi Cell Lysate, Catalog No. **1224**.



Western blot analysis of neuritin in Daudi cell lysate with neuritin antibody at (A) 5 and (B) 10 µg/ml.

Immunohistochemistry of Neuritin in mouse heart tissue with Neuritin antibody at 5 µg/ml.



REFERENCES:

1. Li Z and Sheng M. Some assembly required: the development of neuronal synapses. *Nat. Rev. Mol. Cell Biol.* 2003; 4:833-41.
2. Naeve GS, Ramakrishnan M, Kramer R, et al. Neuritin: A gene induced by neural activity and neurotrophins that promotes neuritogenesis. *Proc. Natl. Acad. Sci. USA* 1997; 94:2648-53.
3. Marron TU, Guerini V, Rusmini P, et al. Androgen-induced neurite outgrowth is mediated by neuritin in motor neurons. *J. Neurochem.* 2005; 92:10-20.
4. Di Giovanni S, De Biase A, Yakovlev A, et al. In vivo and in vitro characterization of novel neuronal plasticity factors identified following spinal cord injury. *J. Biol. Chem.* 2005; 280:2084-91.