

**Neurturin Antibody**  
**Catalog # ASC10012****Specification**

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**Neurturin Antibody - Product Information**

Application	WB, IHC-P, IF, E
Primary Accession	<a href="#">Q99748</a>
Other Accession	<a href="#">NP_004549</a> , <a href="#">4902</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	14 kDa KDa
Application Notes	Neurturin antibody can be used for detection of neurturin by Western blot. An approximate 14 kDa band of the full length recombinant NTN was detected. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 5 µg/mL.

**Neurturin Antibody - Additional Information**

Gene ID 4902

**Other Names**

Neurturin Antibody: NTN, Neurturin, neurturin

**Target/Specificity**

Neurturin antibody was raised against a 16 amino acid peptide near the carboxy terminus of human Neurturin.

The immunogen is located within the last 50 amino acids of Neurturin.

**Reconstitution & Storage**

Neurturin antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

Neurturin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Neurturin Antibody - Protein Information****Name** NRTN {ECO:0000303|PubMed:31535977, ECO:0000312|HGNC:HGNC:8007}**Function**

Growth factor that supports the survival of sympathetic neurons in culture (PubMed:<a href="http://www.uniprot.org/citations/8945474" target="\_blank">8945474</a>). May regulate the development and maintenance of the CNS (PubMed:<a

[8945474](http://www.uniprot.org/citations/8945474)). Involved in the development of the neural crest (PubMed:[15242795](http://www.uniprot.org/citations/15242795)). Might control the size of non- neuronal cell population such as haemopoietic cells (PubMed:[8945474](http://www.uniprot.org/citations/8945474)). Acts by binding to its coreceptor, GFRA2, leading to autophosphorylation and activation of the RET receptor (PubMed:[10829012](http://www.uniprot.org/citations/10829012), PubMed:[29414779](http://www.uniprot.org/citations/29414779), PubMed:[31535977](http://www.uniprot.org/citations/31535977)). Heparan sulfate- binding is required for signaling (PubMed:[29414779](http://www.uniprot.org/citations/29414779)).

#### Cellular Location

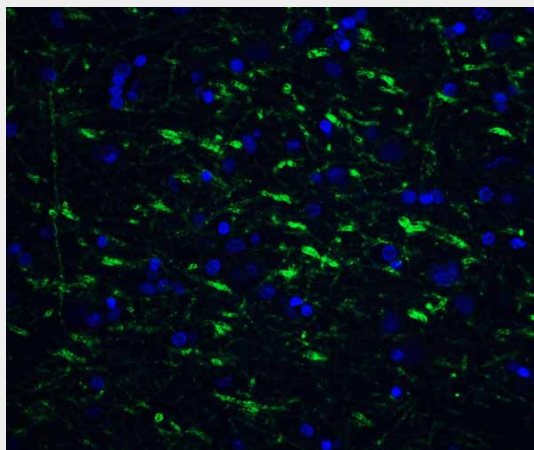
Secreted {ECO:0000250|UniProtKB:P97463}.

#### Neurturin Antibody - Protocols

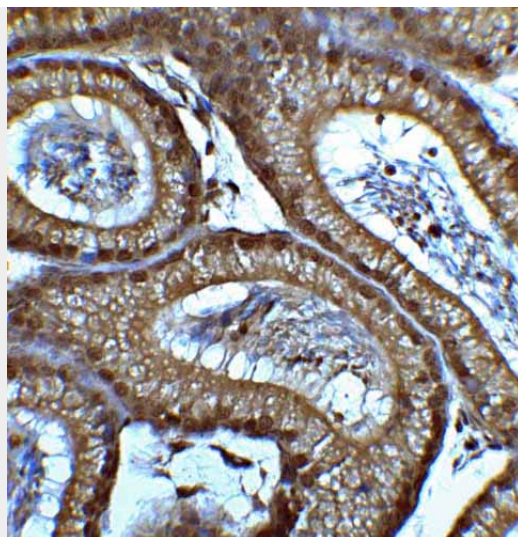
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

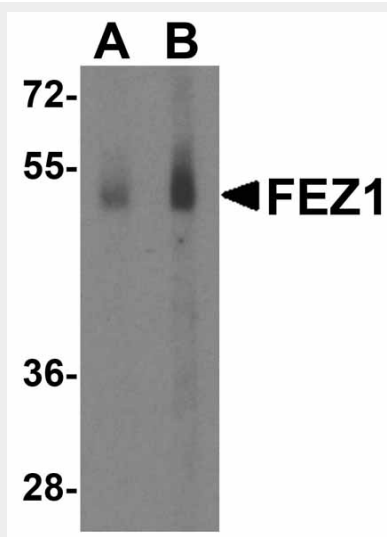
#### Neurturin Antibody - Images



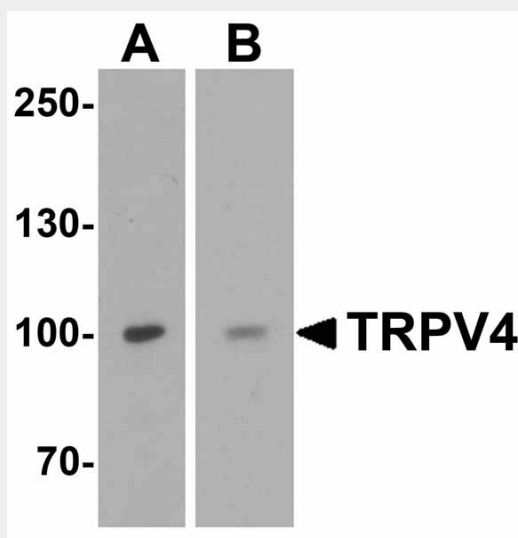
Immunofluorescence of TOLLIP in human brain tissue with TOLLIP antibody at 20 µg/ml.



Immunohistochemistry of SMARCA4 in mouse testis tissue with SMARCA4 antibody at 2  $\mu$ g/ml.



Western blot analysis of SAPAP2 in Raji cell lysate with SAPAP2 antibody at (A) 0.5 and (B) 1  $\mu$ g/mL.



Western blot analysis of TRPV4 in (A) human testis tissue and (B) SK-N-SH cell lysate with TRPV4 antibody at 1 µg/mL.

### **Neurturin Antibody - Background**

Neurturin Antibody: Glial cell line-derived neurotrophic factor (GDNF) plays key roles in the control of vertebrate neuron survival and differentiation. A novel neurotrophic factor was recently cloned from human and mouse and designated neurturin. Physiological responses to neurturin (NTN) require the presence of receptor tyrosine kinase RET and a novel glycosylphosphatidylinositol linked receptor NTN $\alpha$ . The cDNAs encoding NTN $\alpha$  from human, rat, chicken, and mouse have been cloned recently and termed GDNFR $\beta$ , Ret ligand 2 (RETL2) or TGF-beta-related neurotrophic factor receptor 2 (TrnR2) and nominated as GFR $\alpha$ -2 recently. NTN binds to and forms a complex with GFR $\alpha$ -2 and the Ret PTK and activates the RET receptor tyrosine kinase pathway. Both NTN and GDNF can activate the MAP kinase and phosphatidylinositol 3-kinase pathways and play a critical role in the development of many neuronal populations. Neurturin and GDNF define a new family of neurotrophic factors.

### **Neurturin Antibody - References**

- Kotzbauer PT, Lampe PA, Heuckeroth RO, et al. Neurturin, a relative glial-cell-line-derived neurotrophic factor. *Nature* 1996;384:467-470
- Heuckeroth RO, Kotzbauer P, Copeland NG, et al. Neurturin, a novel neurotrophic factor, is localized to mouse chromosome 17 and human chromosome 19p13.3. *Genomics* 1997;44(1):137-40
- Klein RD, Sherman D, Ho WH, et al. GPI-linked protein that interacts with Ret to form a candidate neurturin receptor. *Nature* 1997;387:717-721
- Buj-Bello A, Adu J, Pinon LG, et al. Neurturin responsiveness requires a GPI-linked receptor and the Ret receptor tyrosine kinase. *Nature* 1997;387:721-724