

Product datasheet for **TA328903**

Ngf Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)SPRVLFSTQPPPTSSDTLDLD, corresponding to amino acid residues 84-104 of rat NGF (precursor). Pro domain of the NGF protein.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS) pH 7.4, 1% BSA, 0.025% NaN ₃ .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	nerve growth factor
Database Link:	NP_001263984 Entrez Gene 4803 Human Entrez Gene 18049 Mouse Entrez Gene 310738 Rat P25427



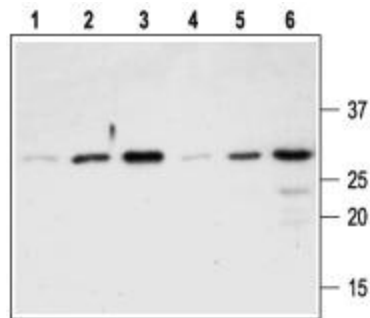
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Background:

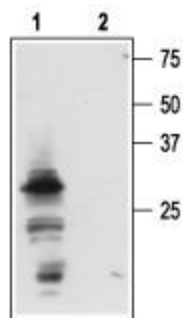
Neurotrophins are synthesized as pro-forms that can be cleaved either intracellularly to release mature, secreted ligands, or extracellularly by various proteases such as plasmin, furin, PC1/3, PC7, and PACE 4. The immature precursor has a prodomain of 103 amino acids, which was thought to have a role in the folding and sorting of the mature NGF into the various secretion pathways. It was recently reported that proNGF, binds p75NTR receptor preferentially over TrkA, and this selective binding of proNGF to p75NTR leads to apoptotic death of cells that express both TrkA and p75NTR. However, mature NGF binds and activates both receptors, with resulting promotion of cell survival due to the TrkA-mediated survival signal overriding p75NTR-mediated apoptotic signal. Since pro- and mature neurotrophins seem to elicit opposite functional effects, by differential interactions with Trks and p75NTR receptors, extracellular cleavage represents a new way to control the synaptic functions of neurotrophins. It was demonstrated that proNGF from injured spinal cord extracts, is active and induce apoptosis among oligodendrocytes, and apoptosis can be blocked by a proNGF-specific antibody. Finally, proNGF was demonstrated as the predominant form in mouse, rat, and human brain tissue, thyroid, hippocampus, thus suggesting a role for proNGF in vivo.

Synonyms:

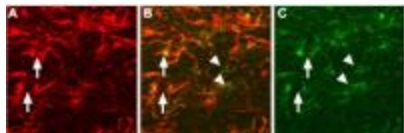
Beta-NGF; HSN5; MGC161426; MGC161428; NGFB; NID67

Product images:


Western blot analysis of proNGF (WT-mouse), (Lanes 1-3) and proNGF (WT-human), (Lanes 4-6): 1, 4. 100 ng + Anti-proNGF antibody (ANT-005), (1:200). 2, 5. 250 ng + Anti-proNGF antibody (1:200). 3, 6. 500 ng + Anti-proNGF antibody (1:200).



Western blot analysis of mouse submandibular glands (SMGs): 1. Anti-proNGF antibody, (1:200). 2. Anti-proNGF antibody, preincubated with the control peptide antigen.



Expression of proNGF in rat brain sections. Immunohistochemical staining of proNGF in rat brain sections using Anti-proNGF antibody. A. Staining of astrocytes was performed using mouse anti-glial fibrillary acidic protein (GFAP), labeled red. B. Co-localization between GFAP and proNGF (orange). C. Staining of proNGF (green).