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NGFR Antibody

Catalog # ASC10349

Product Information

Application	WB, ICC, E
Primary Accession	P08138
Other Accession	NP_002498, 4505393
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	45183
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	NGFR antibody can be used for the detection of NGFR by Western blot at 1 g/mL. Antibody can also be used for immunocytochemistry starting at 10 g/mL.

Additional Information

Gene ID	4804
Other Names	NGFR Antibody: CD271, p75NTR, TNFRSF16, p75(NTR), Gp80-LNGFR, Tumor necrosis factor receptor superfamily member 16, NGF receptor, nerve growth factor receptor (TNFR superfamily, member 16)
Target/Specificity	NGFR;
Reconstitution & Storage	NGFR antibody can be stored at 4℃ for three months and -20℃, 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	NGFR Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NGFR
Synonyms	TNFRSF16
Function	Low affinity receptor which can bind to NGF, BDNF, NTF3, and NTF4. Forms a heterodimeric receptor with SORCS2 that binds the precursor forms of NGF, BDNF and NTF3 with high affinity, and has much lower affinity for mature NGF and BDNF (PubMed:24908487). Plays an important role in differentiation and survival of specific neuronal populations during development (By similarity). Can mediate cell survival as well as cell death of neural cells. Plays

a role in the inactivation of RHOA (PubMed:26646181). Plays a role in the regulation of the translocation of GLUT4 to the cell surface in adipocytes and skeletal muscle cells in response to insulin, probably by regulating RAB31 activity, and thereby contributes to the regulation of insulin- dependent glucose uptake (By similarity). Necessary for the circadian oscillation of the clock genes BMAL1, PER1, PER2 and NR1D1 in the suprachiasmatic nucleus (SCmgetaN) of the brain and in liver and of the genes involved in glucose and lipid metabolism in the liver (PubMed:23785138). Together with BFAR negatively regulates NF-kappa-B and JNK-related signaling pathways (PubMed:22566094).

Cellular Location

Cell membrane; Single-pass type I membrane protein. Cytoplasm. Perikaryon {ECO:0000250|UniProtKB:Q9Z0W1}. Cell projection, growth cone {ECO:0000250|UniProtKB:Q9Z0W1}. Cell projection, dendritic spine {ECO:0000250|UniProtKB:Q9Z0W1}

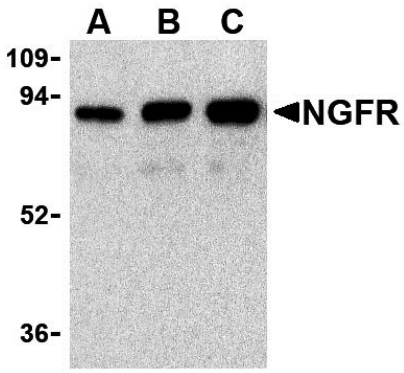
Background

NGFR Antibody: The tumor necrosis factor (TNF) and TNF receptor (TNFR) gene superfamilies regulate numerous biological functions including cell proliferation, differentiation, and survival through regulating the activation of the transcription factor NF-κB and various mitogen-activated protein kinases. Nerve growth factor receptor (NGFR) was one of the earliest characterized members of this family. Also known as the low-affinity receptor p75NTR, this receptor is involved in several diverse functions such as apoptosis, neurite outgrowth during development, and myelination. Its ligands include NGF, brain-derived neurotrophic factor (BDNF), NT3, and NT4. NGFR can also associate with other NGF receptors such as Trk through the cytosolic and transmembrane domains and thus can function as a co-receptor that refines Trk affinity and specificity for neurotrophins. Finally, upon binding of various neurotrophins, NGFR associates with tumor necrosis factor receptor-6 (TRAF6), suggesting that it can potentially function as a signal transducer for NGF signals through NGFR.

References

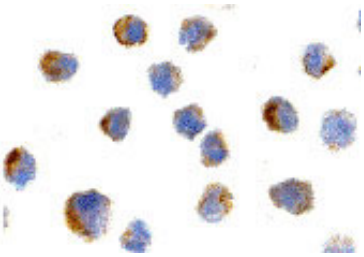
Gaur U, Aggarwal BB. Regulation of proliferation, survival and apoptosis by members of the TNF superfamily. Biochem. Pharmacol. 2003; 66:1403-8.
Johnson D, Lanahon A, Buck CR, et al. Expression and structure of the human NGF receptor. Cell 1986; 47:545-54.
Gentry JJ, Barker, PA, and Carter BD. The p75 neuro-trophin receptor: multiple interactors and numerous functions. Prog. Brain Res. 2004;146:25-39.
Nykjaer A, Willnow TE, and Petersen CM. p75NTR - live or let die. Curr. Opin. Neurobio. 2005; 15:49-57.

Images



Western blot analysis of (A) 25 ng, (B) 50 ng, and (C) 100 ng of purified recombinant NGFR with NGFR antibody at 1 µg/mL.

Immunocytochemistry of NGFR in A20 cells with NGFR



antibody at 10 µg/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.