10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

NGFR Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1342a

Product Information

Application	WB, FC, ICC, E
Primary Accession	P08138
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	2F1C2
Isotype	IgG1
Calculated MW	45183
Description	Nerve growth factor receptor contains an extracellular domain containing four 40-amino acid repeats with 6 cysteine residues at conserved positions followed by a serine/threonine-rich region, a single transmembrane domain, and a 155-amino acid cytoplasmic domain. The cysteine-rich region contains the nerve growth factor binding domain. NGFR p75 plays a central role in the regulation of cell number by apoptosis in the developing CNS. During early development, activation of NGFR p75 by NGF induces apoptotic cell death in some neuronal cells, probably through activation of the sphingomyelinase/ceramide pathway, the ICE like proteases and the JNK pathway. In rat Schwann cells, NGF binding to NGFR p75 activates NF kappaB, possibly to modulate Schwann cell migration during nerve regeneration. CD271 has recently been described as being expressed in mesenchymal stem cells (bone marrow stromal cells).
Immunogen	Purified recombinant fragment of human NGFR expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	4804
Other Names	Tumor necrosis factor receptor superfamily member 16, Gp80-LNGFR, Low affinity neurotrophin receptor p75NTR, Low-affinity nerve growth factor receptor, NGF receptor, p75 ICD, CD271, NGFR, TNFRSF16
Dilution	WB~~1/500 - 1/2000 FC~~1/200 - 1/400 ICC~~N/A E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
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}

References

1. J Invest Dermatol. 1992 Dec;99(6):734-42. 2. Nature. 1997 Aug 7;388(6642):548-54. 3. Exp Neurol. 2002 Nov;178(1):104-11. 4. Science. 2004 May 7;304(5672):870-5.

Images

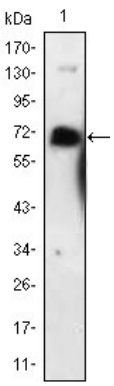
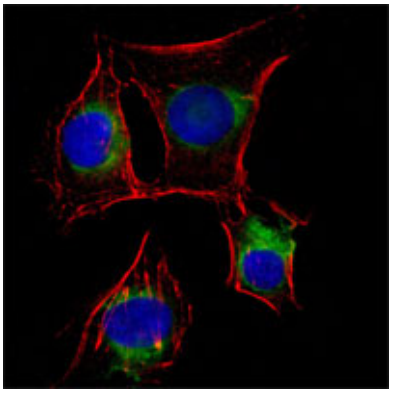


Figure 1: Western blot analysis using NGFR mouse mAb against NGFR-hIgGFc transfected HEK293 cell lysate.

Figure 2:Immunofluorescence analysis of EC cells using NGFR mouse mAb (green). Red: Actin filaments have been labeled with DY-554 phalloidin. Blue: DRAQ5 fluorescent DNA dye.



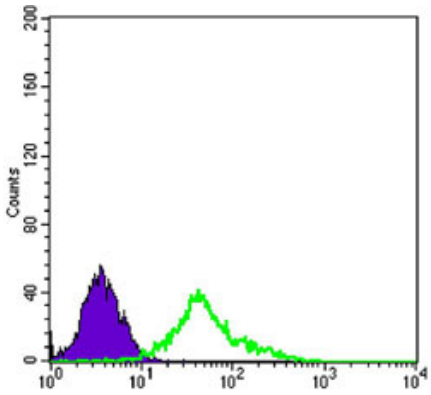


Figure 3: Flow cytometric analysis of EC cells using NGFR mouse mAb (green) and negative control (purple).

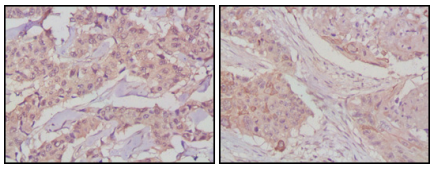


Figure 2: Immunohistochemical analysis of paraffin-embedded human lung cancer (left) and breast cancer tissues (right) using GSK3B mouse mAb with DAB staining.

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