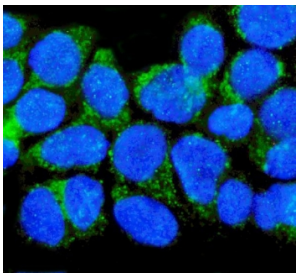
NGF Receptor Polyclonal Antibody / p75 NGF Receptor Antibody (RQ5997)

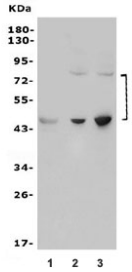
Catalog No.	Formulation	Size
RQ5997	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

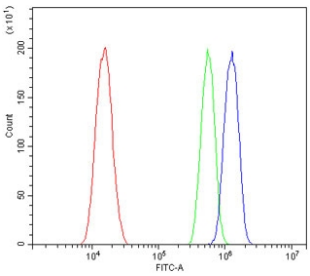
Availability	1-3 business days
Species Reactivity	Human, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P08138
Applications	Western blot: 0.5-1ug/ml Immunofluorescence: 2-4ug/ml Flow cytometry: 1-3ug/million cells Direct ELISA: 0.1-0.5ug/ml
Limitations	This NGF Receptor Polyclonal Antibody / p75 NGF Receptor Antibody is available for research use only.



NGF Receptor Polyclonal Antibody by IF in Human A431 Cells. Immunofluorescence staining of FFPE human A431 cells using rabbit polyclonal NGF Receptor antibody. Green fluorescence is visible predominantly along the cell periphery, with additional cytoplasmic staining surrounding the blue DAPI-stained nuclei. The staining pattern is consistent with the cellular distribution of p75 NGF Receptor (CD271), a transmembrane protein involved in neurotrophin signaling. Heat-induced epitope retrieval was performed by steaming sections in citrate buffer, pH 6, for 20 minutes.



NGF Receptor Polyclonal Antibody by WB in Rat and Human Lysates. Western blot analysis of rat brain (lane 1), human SW620 cells (lane 2), and human Caco-2 cells (lane 3) using rabbit polyclonal NGF Receptor antibody. A prominent immunoreactive band is observed near 45-50 kDa in all three lanes, with additional weaker bands near 70-75 kDa in the human samples. The lower molecular weight band is consistent with the predicted unmodified p75 NGF Receptor, while the higher molecular weight signals may represent glycosylated forms of NGFR (CD271). The results demonstrate antibody reactivity in both rat and human lysates, with comparable migration of the predominant bands.



NGF Receptor Polyclonal Antibody by FACS in Human A431 Cells. Flow cytometry analysis of human A431 cells using rabbit polyclonal NGF Receptor antibody at 1 ug per million cells following blocking with goat serum. The antibody-stained population (blue) exhibits a clear rightward fluorescence shift relative to the isotype control (green) and unstained cells (red). The separation between the antibody-stained and control populations demonstrates detectable p75 NGF Receptor (CD271) expression in A431 cells. The histogram provides evidence of antibody performance in flow cytometry and supports its use in studies of NGFR-associated cell surface expression.

Description

NGF Receptor Polyclonal Antibody recognizes the p75 nerve growth factor receptor, a transmembrane glycoprotein encoded by the NGFR gene. Also known as p75NTR, CD271, and TNFRSF16, this receptor belongs to the tumor necrosis factor receptor superfamily and participates in neuronal development, survival, differentiation, and apoptosis. Its expression in neural crest-derived cells, peripheral neurons, and selected non-neural tissues makes it an important marker in neuroscience, developmental biology, and cancer research.

The p75 NGF receptor contains four extracellular cysteine-rich domains, a transmembrane region, and an intracellular death domain. Unlike Trk receptors, NGFR lacks intrinsic tyrosine kinase activity and relies on associated signaling proteins to regulate cellular responses. It binds nerve growth factor (NGF), brain-derived neurotrophic factor (BDNF), and other neurotrophins. Depending on receptor complexes and cellular context, these interactions can influence neuronal survival, programmed cell death, and cytoskeletal organization.

NGFR signaling involves pathways associated with NF-kappaB, JNK, and RhoA. Interactions with Trk receptors can modify neurotrophin sensitivity, while complexes involving sortilin may mediate responses to proneurotrophins. During nervous system development, p75NTR is expressed in neural crest cells, developing peripheral neurons, and Schwann cell precursors. Its expression can increase following peripheral nerve injury, reflecting involvement in neuronal repair, axonal regeneration, and Schwann cell responses.

Beyond neural tissues, CD271 is expressed in certain mesenchymal stromal cell populations, melanocytes, and neural crest-associated tumors. In melanoma research, NGFR expression is particularly relevant to desmoplastic and neurotropic melanoma, where it can help characterize cells exhibiting neural differentiation. Expression has also been investigated in neuroblastoma and other malignancies, although its biological significance varies with tumor type and cellular context.

Western blotting allows investigation of NGFR protein expression and electrophoretic migration, while immunohistochemistry provides information about receptor distribution within tissue sections. Polyclonal antibodies recognize multiple epitopes within their immunogen, potentially supporting detection across different experimental conditions. An NGF Receptor Polyclonal Antibody from NSJ Bioreagents supports investigations of p75 NGF receptor expression, neurotrophin signaling, neuronal differentiation, and neural crest-associated tumor biology.

For an alternative antibody targeting the same neurotrophin receptor, see our NGFR Antibody NGFR/4919, a mouse

monoclonal antibody featuring human melanoma IHC and protein microarray specificity validation.

Application Notes

Optimal dilution of the NGF Receptor Polyclonal Antibody / p75 NGF Receptor Antibody should be determined by the researcher.

Immunogen

Recombinant human protein (amino acids K29-Q240) was used as the immunogen for the NGF Receptor Polyclonal Antibody.

Storage

After reconstitution, the NGF Receptor Polyclonal Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

NGFR antibody, p75NTR antibody, CD271 antibody, TNFRSF16 antibody, Nerve Growth Factor Receptor antibody, Low Affinity NGF Receptor antibody, p75 Neurotrophin Receptor antibody

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