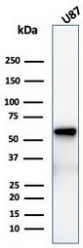
NGF Receptor Antibody rNGFR/1965 / Low Affinity NGF Receptor Antibody [clone rNGFR/1965] (V7975)

Catalog No.	Formulation	Size
V7975-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7975-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7975SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

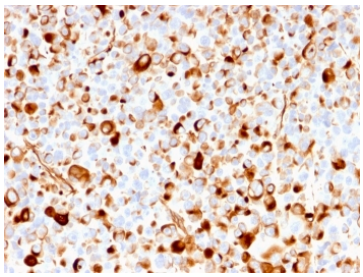
Recombinant MOUSE MONOCLONAL

Bulk quote request

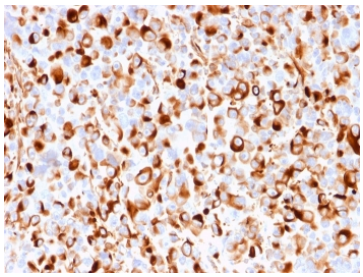
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Recombinant Mouse Monoclonal
Isotype	Mouse IgG1, kappa
Clone Name	rNGFR/1965
Purity	Protein G affinity chromatography
UniProt	P08138
Localization	Cell surface, cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml (not suitable for frozen sample testing) Western blot: 1-2ug/ml
Limitations	This NGF Receptor Antibody rNGFR/1965 / Low Affinity NGF Receptor Antibody is available for research use only.



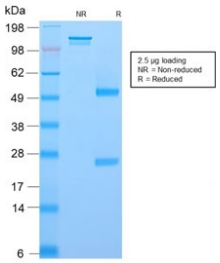
NGF Receptor Antibody rNGFR/1965 by WB in Human U-87 Cell Lysate. Western blot analysis of human U-87 glioblastoma cell lysate using recombinant mouse monoclonal NGF Receptor antibody rNGFR/1965. A distinct immunoreactive band is observed at approximately 60 kDa, within the reported 45-75 kDa molecular weight range for p75NTR (CD271). Differences in glycosylation and protein processing can influence the electrophoretic migration of this transmembrane receptor. The blot shows one predominant band with minimal additional immunoreactivity, supporting detection of NGFR in human U-87 cells. The observed migration is consistent with the expected molecular weight range of the low affinity NGF receptor, also known as TNFRSF16.



NGF Receptor Antibody rNGFR/1965 by IHC in Human Melanoma. Immunohistochemistry staining of FFPE human melanoma tissue using recombinant mouse monoclonal NGF Receptor antibody rNGFR/1965. Strong brown immunoreactivity is observed in numerous tumor cells, with predominantly membranous and peripheral cytoplasmic staining. Positive cells are distributed throughout the examined tissue, although staining intensity varies between individual cells. The pattern is consistent with expression of the low affinity NGF receptor, also known as p75NTR and CD271. Heat-induced epitope retrieval was performed using 10 mM Tris with 1 mM EDTA, pH 9, for 20 minutes, followed by cooling before antibody incubation.



NGF Receptor Antibody rNGFR/1965 by IHC Showing Variable Staining in Human Melanoma. Immunohistochemistry staining of FFPE human melanoma tissue using recombinant mouse monoclonal NGF Receptor antibody rNGFR/1965. Prominent brown staining is visible in irregular groups of tumor cells, with a predominantly membranous and peripheral cytoplasmic distribution. Staining intensity varies across the specimen, with strongly positive cells interspersed among more weakly reactive areas. This heterogeneous pattern illustrates the distribution of p75NTR (CD271) within melanoma tissue. Heat-induced epitope retrieval was performed using 10 mM Tris with 1 mM EDTA, pH 9, for 20 minutes, followed by cooling before antibody incubation.



NGF Receptor Antibody rNGFR/1965 by SDS-PAGE Under Reducing and Non-Reducing Conditions. SDS-PAGE analysis of purified, BSA-free recombinant mouse monoclonal NGF Receptor antibody rNGFR/1965, with 2.5 ug of antibody loaded per lane. Under non-reducing (NR) conditions, the predominant band migrates near 150 kDa, consistent with intact IgG. Under reducing (R) conditions, heavy and light chains are observed at approximately 50 kDa and 25 kDa, respectively. These results support the structural integrity and purity of the recombinant antibody used to recognize p75NTR, also known as CD271 and TNFRSF16.

Description

NGF Receptor Antibody rNGFR/1965 recognizes the nerve growth factor receptor (NGFR), a cell surface glycoprotein encoded by the NGFR gene. Also known as p75 neurotrophin receptor (p75NTR), CD271, and TNFRSF16, this protein belongs to the tumor necrosis factor receptor superfamily. It regulates cellular responses to neurotrophins and participates in neuronal development, differentiation, survival, and apoptosis. Expression in neural crest-derived cells and selected non-neural tissues makes NGFR relevant to neuroscience, developmental biology, and cancer research.

The low affinity 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 depends on associated signaling proteins. It binds nerve growth factor (NGF), brain-derived neurotrophic factor (BDNF), and other neurotrophins. Depending on receptor complexes and cellular context, signaling through p75NTR can promote neuronal survival, differentiation, apoptosis, or changes in cytoskeletal organization.

NGFR participates in pathways involving NF-kappaB, JNK, and RhoA, which influence cellular survival, neurite extension, and migration. Interactions with Trk receptors modify neurotrophin sensitivity, while complexes involving sortilin can mediate responses to proneurotrophins. During nervous system development, CD271 is expressed by neural crest cells, developing peripheral neurons, and Schwann cell precursors. Its expression may increase following peripheral nerve injury, reflecting involvement in neuronal repair and regeneration.

Beyond neural tissues, the low affinity NGF receptor is expressed in melanocytes, perivascular cells, myoepithelial cells, and selected stromal populations. In melanoma research, NGFR expression is particularly relevant to desmoplastic and neurotropic melanoma, where it can help characterize tumor cells exhibiting neural differentiation. Expression has also been investigated in neuroblastoma and other neural crest-associated malignancies.

Western blotting allows investigation of NGFR protein expression and electrophoretic migration, while immunohistochemistry reveals its distribution within tissue sections. Clone rNGFR/1965 recognizes an epitope associated with the human NGFR region spanning amino acids 281-421. Recombinant antibody production supports consistent clone identity across batches. An NGF Receptor Antibody rNGFR/1965 from NSJ Bioreagents supports investigations of p75NTR expression, neurotrophin signaling, neuronal differentiation, and melanoma 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 Antibody rNGFR/1965 / Low Affinity NGF Receptor Antibody should be determined by the researcher.

Immunogen

A recombinant human partial protein (amino acids 281-421) was used as the immunogen for this NGF Receptor Antibody rNGFR/1965.

Storage

Store the NGF Receptor Antibody rNGFR/1965 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

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

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