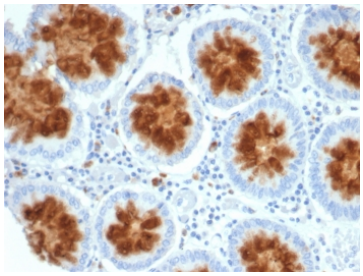
NTRK2 Antibody / Neurotrophic tyrosine kinase receptor type 2 / TrkB [clone NTRK2/4672] (V5271)

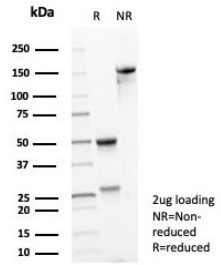
Catalog No.	Formulation	Size
V5271-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5271-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5271SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

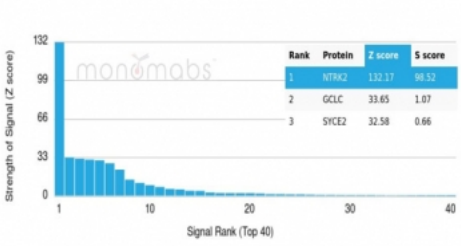
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2, kappa
Clone Name	NTRK2/4672
Purity	Protein A/G affinity
UniProt	Q16620
Localization	Cell surface, cytoplasm
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This NTRK2 antibody is available for research use only.



Immunohistochemistry analysis of NTRK2 antibody (clone NTRK2/4672) in FFPE human colon tissue. HRP-DAB brown chromogenic staining is observed predominantly in the epithelial cells lining the colonic glands, with cytoplasmic and membranous localization in glandular epithelial cells. Surrounding stromal cells show minimal staining. Heat-induced epitope retrieval was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min followed by cooling prior to immunostaining.



SDS-PAGE analysis of purified, BSA-free NTRK2 antibody (clone NTRK2/4672) as confirmation of integrity and purity.



Analysis of a HuProt(TM) microarray containing more than 19,000 full-length human proteins using NTRK2 antibody (clone NTRK2/4672). Z- and S- Score: The Z-score represents the strength of a signal that a monoclonal antibody (in combination with a fluorescently-tagged anti-IgG secondary antibody) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If targets on HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-score. S-score therefore represents the relative target specificity of a mAb to its intended target. A mAb is considered to specific to its intended target, if the mAb has an S-score of at least 2.5. For example, if a mAb binds to protein X with a Z-score of 43 and to protein Y with a Z-score of 14, then the S-score for the binding of that mAb to protein X is equal to 29.

Description

NTRK2 antibody, also known as Neurotrophic tyrosine kinase receptor 2 antibody, recognizes a receptor tyrosine kinase encoded by the NTRK2 gene and commonly known as TrkB. This transmembrane glycoprotein belongs to the neurotrophic receptor tyrosine kinase family and functions as a high-affinity receptor for brain-derived neurotrophic factor (BDNF) and neurotrophin-4 (NT-4). Ligand binding induces receptor dimerization and autophosphorylation, activating downstream signaling pathways including MAPK, PI3K-AKT, and PLC-gamma cascades that regulate neuronal survival, differentiation, synaptic plasticity, and axonal growth. NTRK2 is highly expressed in the central and peripheral nervous systems, particularly in cortical neurons, hippocampal neurons, and certain sensory ganglia, where it plays a critical role in development and maintenance of neuronal circuits.

Neurotrophic tyrosine kinase receptor 2 is also expressed outside the nervous system, including in thyroid, lung, and selected epithelial tissues. Aberrant activation of NTRK2 signaling has been implicated in tumorigenesis, particularly in cancers harboring NTRK gene fusions or overexpression of Trk family members. In solid tumors such as thyroid carcinoma, lung carcinoma, and certain sarcomas, NTRK2 expression may contribute to enhanced proliferation, invasion, and resistance to apoptosis. Because of its therapeutic relevance, NTRK2 has become an important molecular target in oncology research and targeted therapy development.

NTRK2 antibody (clone NTRK2/4672) targets TrkB protein expression in research applications. Detection of NTRK2 by immunohistochemistry typically demonstrates membranous and cytoplasmic staining in positive cells, consistent with its localization as a cell surface receptor that undergoes ligand-induced internalization. In neural tissues, staining is observed in neuronal cell bodies and processes, while in non-neural tissues expression patterns vary depending on differentiation status and pathologic context. Evaluation of NTRK2 expression can assist in studies of neurodevelopment, neurodegenerative disease, and tumor biology, particularly in investigations focused on neurotrophin signaling pathways.

Given its involvement in survival signaling and synaptic modulation, NTRK2 continues to be studied in psychiatric disorders, epilepsy, and neurodegenerative conditions where altered BDNF-TrkB signaling has been described. A NTRK2 antibody is suitable for detecting Neurotrophic tyrosine kinase receptor 2 expression in relevant research assays including immunohistochemistry and western blot analysis.

Application Notes

Optimal dilution of the NTRK2 antibody should be determined by the researcher.

Immunogen

A recombinant partial protein sequence (within amino acids 250-450) from the human protein was used as the immunogen for the NTRK2 antibody.

Storage

Aliquot the NTRK2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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