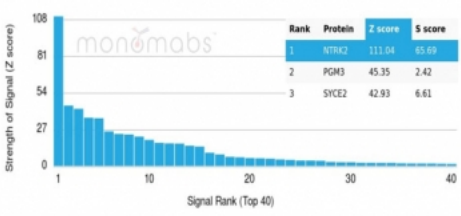
NTRK2 Antibody / TrkB / Neurotrophic tyrosine kinase receptor type 2 [clone NTRK2/4671] (V5270)

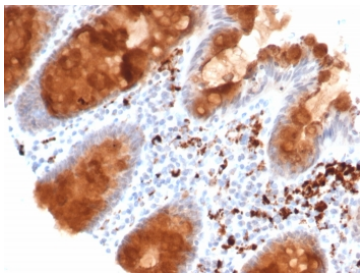
Catalog No.	Formulation	Size
V5270-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5270-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5270SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG
Clone Name	NTRK2/4671
Purity	Protein A/G affinity
UniProt	Q16620
Localization	Cell surface, cytoplasm
Applications	1-2ug/ml for 30 min at RT
Limitations	This NTRK2 antibody is available for research use only.



Analysis of a HuProt(TM) microarray containing more than 19,000 full-length human proteins using NTRK2 antibody (clone NTRK2/4671). 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.



IHC staining of FFPE human colon tissue with NTRK2 antibody (clone NTRK2/4671). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.

Description

NTRK2 antibody, also known as TrkB antibody, recognizes a receptor tyrosine kinase commonly referred to as Neurotrophic tyrosine kinase receptor 2 and brain-derived neurotrophic factor receptor. The NTRK2 gene encodes a high-affinity transmembrane receptor for neurotrophins including BDNF and NT-4/5, playing a central role in neuronal survival, differentiation, synaptic plasticity, and long-term potentiation. TrkB is widely expressed in the central and peripheral nervous systems, particularly in cortical neurons, hippocampus, cerebellum, and spinal cord, where it regulates axonal growth and synaptic signaling. In addition to neuronal tissues, NTRK2 expression has been reported in endocrine organs and selected epithelial tissues, with increasing interest in its role in tumor biology.

NTRK2 antibody is valuable for detecting TrkB expression in both normal and neoplastic tissues. Structurally, Neurotrophic tyrosine kinase receptor 2 contains an extracellular ligand-binding domain with leucine-rich motifs and immunoglobulin-like domains, a single transmembrane region, and an intracellular tyrosine kinase domain responsible for downstream signaling. Upon ligand binding, TrkB dimerizes and undergoes autophosphorylation, activating key pathways such as MAPK-ERK, PI3K-AKT, and PLC-gamma. These cascades promote cell survival, growth, and resistance to apoptosis. Dysregulation of NTRK2 signaling has been associated with neurodevelopmental disorders, mood disorders, and several malignancies including colorectal carcinoma, thyroid carcinoma, and neuroblastoma.

Alternative splicing of NTRK2 generates multiple isoforms, including full-length kinase-active forms and truncated variants lacking the intracellular kinase domain. These isoforms exhibit distinct biological activities, influencing cellular responses to neurotrophins. Because TrkB expression can vary depending on isoform distribution and tissue context, reliable detection is essential for research applications. TrkB antibody detection supports investigation of neurotrophin signaling dynamics and receptor regulation.

Clone NTRK2/4671 is designed to target NTRK2 in formalin-fixed, paraffin-embedded and other research samples. In immunohistochemistry, TrkB typically demonstrates membranous and cytoplasmic staining in epithelial and neuronal cells, consistent with its role as a membrane receptor undergoing internalization following ligand engagement. This NTRK2 antibody supports investigation of neurotrophin signaling, oncogenic activation, and therapeutic targeting strategies involving NTRK inhibitors.

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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