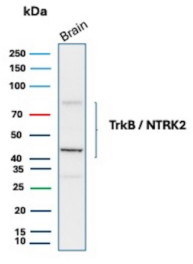
Tropomyosin Receptor Kinase B Antibody / NTRK2 [clone NTRK2/7925] (V5960)

Catalog No.	Formulation	Size
V5960-100UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	100 ug
V5960-20UG	0.2 mg/ml in 1X PBS with 0.05% BSA, 0.05% sodium azide	20 ug
V5960SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2, kappa
Clone Name	NTRK2/7925
UniProt	Q16620
Localization	Cell surface
Applications	Western Blot: 2-4ug/ml
Limitations	This Tropomyosin Receptor Kinase B/NTRK2 antibody is available for research use only.



Western blot analysis of human brain tissue lysate using Tropomyosin Receptor Kinase B / NTRK2 antibody (clone NTRK2/7925). A dominant band is observed at approximately 43 kDa which may reflect an N-terminal TrkB fragment generated by processing or proteolysis.

Description

Tropomyosin Receptor Kinase B antibody, also known as NTRK2 antibody, recognizes a receptor tyrosine kinase commonly referred to as TrkB and brain-derived neurotrophic factor receptor. The NTRK2 gene encodes a high-affinity transmembrane receptor for neurotrophins including BDNF and neurotrophin-4, playing a pivotal role in neuronal survival, synaptic plasticity, axonal growth, and differentiation. TrkB is highly expressed in the central nervous system, particularly

in cortical neurons, hippocampal pyramidal cells, and cerebellar granule neurons, where it regulates long-term potentiation and memory-associated signaling pathways.

Tropomyosin Receptor Kinase B contains an extracellular ligand-binding domain composed of leucine-rich motifs and immunoglobulin-like regions, a single-pass transmembrane segment, and an intracellular tyrosine kinase domain responsible for downstream signaling. Upon ligand engagement, TrkB undergoes dimerization and autophosphorylation at specific tyrosine residues, activating MAPK-ERK, PI3K-AKT, and PLC-gamma pathways. These cascades promote neuronal survival, metabolic adaptation, and resistance to apoptosis. NTRK2 antibody detection is valuable for studying receptor activation dynamics and neurotrophin-mediated signaling mechanisms.

Alternative splicing of NTRK2 generates both full-length kinase-active isoforms and truncated variants lacking the intracellular catalytic domain. These truncated forms can modulate ligand availability and receptor trafficking, influencing cellular responsiveness to neurotrophins. Expression patterns vary across tissue types, and TrkB has also been detected in certain epithelial and endocrine tissues. Aberrant NTRK2 signaling has been implicated in tumor progression, invasion, and therapeutic resistance in selected malignancies, making reliable detection important in oncology research.

Subcellular localization of TrkB includes the plasma membrane and intracellular vesicular compartments associated with receptor internalization and signaling endosomes. Interaction with adaptor proteins such as SHC1 and GRB2 integrates NTRK2 into broader growth factor signaling networks. Clone NTRK2/7925 is designed for research applications involving detection of Tropomyosin Receptor Kinase B expression in formalin-fixed, paraffin-embedded tissues and other laboratory assays. A Tropomyosin Receptor Kinase B antibody supports investigation of neurodevelopment, neurodegenerative disease, and oncogenic NTRK2 alterations.

Application Notes

Optimal dilution of the Tropomyosin Receptor Kinase B/NTRK2 antibody should be determined by the researcher.

Immunogen

A recombinant fragment (around amino acids 250-450) of human NTRK2 protein (exact sequence is proprietary) was used as the immunogen for the Tropomyosin Receptor Kinase B/NTRK2 antibody.

Storage

Tropomyosin Receptor Kinase B/NTRK2 antibody with sodium azide - store at 2 to 8oC; antibody without sodium azide - store at -20 to -80oC.

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