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Datasheet for ABIN6265746
anti-TRKB antibody (C-Term)

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Overview

Quantity:	100 µL
Target:	TRKB (NTRK2)
Binding Specificity:	C-Term
Reactivity:	Human, Rat, Mouse
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This TRKB antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA, Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	A synthesized peptide derived from human Trk B, corresponding to a region within C-terminal amino acids.
Isotype:	IgG
Specificity:	Trk B Antibody detects endogenous levels of total Trk B.
Predicted Reactivity:	Horse, Sheep, Rabbit, Chicken
Purification:	The antiserum was purified by peptide affinity chromatography using SulfoLink™ Coupling Resin (Thermo Fisher Scientific).

Target Details

Target:	TRKB (NTRK2)
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Target Details

Alternative Name: [NTRK2 \(NTRK2 Products\)](#)

Background: Description: Receptor tyrosine kinase involved in the development and the maturation of the central and the peripheral nervous systems through regulation of neuron survival, proliferation, migration, differentiation, and synapse formation and plasticity. Receptor for BDNF/brain-derived neurotrophic factor and NTF4/neurotrophin-4. Alternatively can also bind NTF3/neurotrophin-3 which is less efficient in activating the receptor but regulates neuron survival through NTRK2. Upon ligand-binding, undergoes homodimerization, autophosphorylation and activation. Recruits, phosphorylates and/or activates several downstream effectors including SHC1, FRS2, SH2B1, SH2B2 and PLCG1 that regulate distinct overlapping signaling cascades. Through SHC1, FRS2, SH2B1, SH2B2 activates the GRB2-Ras-MAPK cascade that regulates for instance neuronal differentiation including neurite outgrowth. Through the same effectors controls the Ras-PI3 kinase-AKT1 signaling cascade that mainly regulates growth and survival. Through PLCG1 and the downstream protein kinase C-regulated pathways controls synaptic plasticity. Thereby, plays a role in learning and memory by regulating both short term synaptic function and long-term potentiation. PLCG1 also leads to NF-Kappa-B activation and the transcription of genes involved in cell survival. Hence, it is able to suppress anoikis, the apoptosis resulting from loss of cell-matrix interactions. May also play a role in neurotrophin-dependent calcium signaling in glial cells and mediate communication between neurons and glia.

Gene: NTRK2

Molecular Weight: 145kDa

Gene ID: 4915

UniProt: [Q16620](#)

Pathways: [RTK Signaling](#), [Neurotrophin Signaling Pathway](#), [cAMP Metabolic Process](#), [Skeletal Muscle Fiber Development](#), [Feeding Behaviour](#), [Dicarboxylic Acid Transport](#)

Application Details

Application Notes: WB 1:500-2000, IHC 1:50-1:200, IF/ICC 1:100-1:500, ELISA(peptide) 1:20000-1:40000

Restrictions: For Research Use only

Handling

Format: Liquid

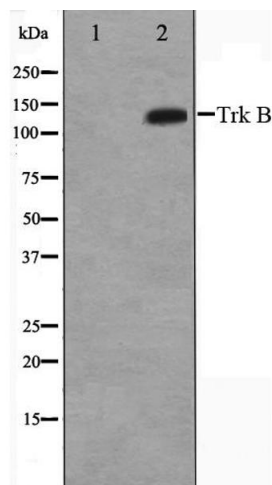
Handling

Concentration:	1 mg/mL
Buffer:	Rabbit IgG in phosphate buffered saline , pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store at -20 °C. Stable for 12 months from date of receipt.
Expiry Date:	12 months

Publications

Product cited in: Liu, Liu, Yu, Lin, Chu, Deng, Yan, Li, Yao: "Systematic analysis of mRNA expression profiles in NSCLC cell lines to screen metastasis-related genes." in: **Molecular medicine reports**, Vol. 14, Issue 6, pp. 5093-5103, (2017) ([PubMed](#)).

Images



Western Blotting

Image 1. Western blot analysis of Trk B expression in HepG2 whole cell lysates, The lane on the left is treated with the antigen-specific peptide.



Immunofluorescence (fixed cells)

Image 2. ABIN6269377 staining NIH-3T3 cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25°C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37°C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody (Cat.# S0006), diluted at 1/600, was used as secondary antibody.