Datasheet for ABIN6255997

anti-TRKB antibody (pTyr706)

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Overview

Quantity:	100 µL
Target:	TRKB (NTRK2)
Binding Specificity:	pTyr706
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 around the phosphorylation site of Tyr706.
Isotype:	IgG
Specificity:	Phospho-Trk B (Tyr706) Antibody detects endogenous levels of Trk B only when phosphorylated at Tyrosine 706.
Predicted Reactivity:	Horse,Sheep,Rabbit,Chicken
Purification:	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.

Target Details

Target:	TRKB (NTRK2)

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 neutrophin-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 1:500-1:2000, 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

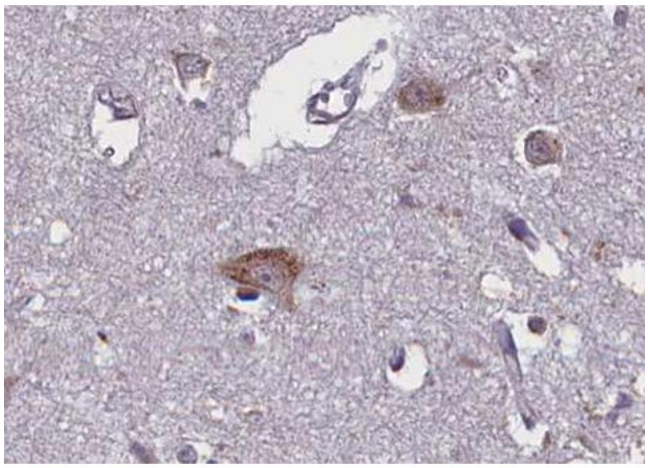
Handling

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:	Zhao, Deng, Xu, Zhang, Mi, Meng, Gou, Xu: "PirB Overexpression Exacerbates Neuronal Apoptosis by Inhibiting TrkB and mTOR Phosphorylation After Oxygen and Glucose Deprivation Injury." in: **Cellular and molecular neurobiology**, Vol. 37, Issue 4, pp. 707-715, (2017) (PubMed).

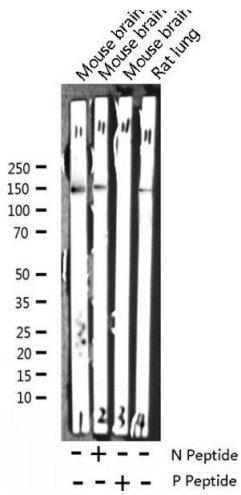
Images



Immunohistochemistry

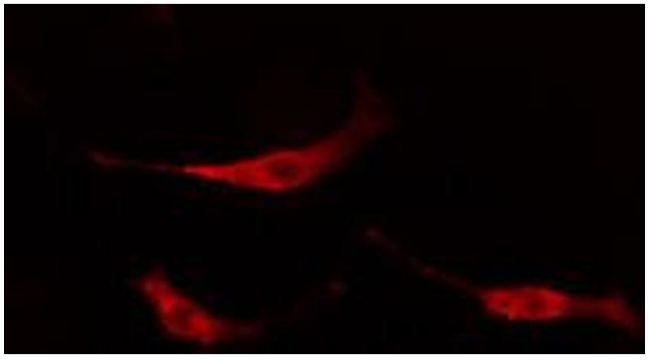
Image 1. ABIN6267670 at 1/100 staining human brain tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22°C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

Images



Western Blotting

Image 2. Western blot analysis of Phospho-Trk B (Tyr705) expression in various lysates



Immunofluorescence (fixed cells)

Image 3. ABIN6267670 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.

Please check the product details page for more images. Overall 5 images are available for ABIN6255997.