

Rabbit TRK B Polyclonal Antibody | anti-TRKB antibody

Anti-TRK B (pY516) Antibody

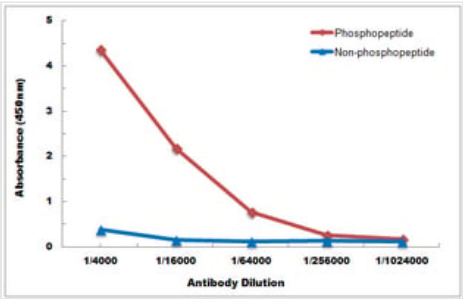
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA292330	Rabbit	Human, Mouse, Rat, Rabbit, Monkey, Chicken, Bovine, Drosophila	ELISA, Western Blot

PRODUCT SYNONYMS

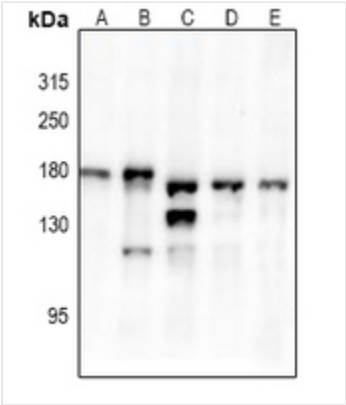
TRK B; Polyclonal Antibody; Anti-TRK B (pY516) Antibody; TRKB; BDNF/NT-3 growth factors receptor; GP145-TrkB; Trk-B; Neurotrophic tyrosine kinase receptor type 2; TrkB tyrosine kinase; Tropomyosin-related kinase B; anti-TRKB antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat, Rabbit, Monkey, Chicken, Bovine, Drosophila
Clonality	Polyclonal
Specificity	Recognizes endogenous levels of TRK B (pY516) protein
Form/Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide
Applicable Applications for anti-TRKB antibody	ELISA, WB (Western Blot)
Function	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 (By similarity). 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 (PubMed:7574684, PubMed:). Upon ligand- binding, undergoes homodimerization, autophosphorylation and activation (PubMed:). 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.
Cellular Location	Cell membrane; Single-pass type I membrane protein. Endosome membrane {ECO:0000250 UniProtKB:P15209}; Single-pass type I membrane protein {ECO:0000250 UniProtKB:P15209}. Early endosome membrane {ECO:0000250 UniProtKB:P15209}. Cell projection, axon {ECO:0000250 UniProtKB:Q63604}. Cell projection, dendrite {ECO:0000250 UniProtKB:Q63604}. Cytoplasm, perinuclear region {ECO:0000250 UniProtKB:Q63604}. Postsynaptic density {ECO:0000250 UniProtKB:P15209}. Note=Internalized to endosomes upon ligand-binding. {ECO:0000250 UniProtKB:P15209}
Tissue Location	Isoform TrkB is expressed in the central and peripheral nervous system. In the central nervous system (CNS), expression is observed in the cerebral cortex, hippocampus, thalamus, choroid plexus, granular layer of the cerebellum, brain stem, and spinal cord. In the peripheral nervous system, it is expressed in many cranial ganglia, the ophthalmic nerve, the vestibular system, multiple facial structures, the submaxillary glands, and dorsal root ganglia Isoform TrkB-T1 is mainly expressed in the brain but also detected in other tissues including pancreas, kidney and heart. Isoform TrkB-T-Shc is predominantly expressed in the brain.
Preparation and Storage	Upon receipt, store at -20°C



ELISA
Direct ELISA antibody dose-response curve using Anti-TRK B (pY516) Antibody. Antigen (phosphopeptide and non-phosphopeptide) concentration is 5 ug/ml. Goat Anti-Rabbit IgG (H&L) - HRP was used as the secondary antibody, and signal was developed by TMB substrate.



WB (Western Blot)
Western blot analysis of TRK B (pY516) expression in mouse kidney (A), rat kidney (B), BV2 (C), PC12 (D), SGC7901 (E) whole cell lysates.

ADDITIONAL INFORMATION

Related Product Information for anti-TRKB antibody	Rabbit polyclonal antibody to TRK B (pY516) KLH-conjugated synthetic peptide encompassing a sequence within the center region of human TRK B. The exact sequence is proprietary.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	55956790
NCBI GeneID	4915
NCBI Accession #	NP_001007098.1
NCBI GenBank Nucleotide #	NM_001007097.1
UniProt Accession #	Q16620; Q16675; Q59GJ1; Q8WXJ5; Q8WXJ6; Q8WXJ7; B1ANZ4; B4DFV9
Molecular Weight	Calculated MW: 91,999
NCBI Official Full Name	BDNF/NT-3 growth factors receptor isoform b
NCBI Official Synonym Full Names	neurotrophic tyrosine kinase, receptor, type 2
NCBI Official Symbol	NTRK2
NCBI Official Synonym Symbols	TRKB; trk-B; GP145-TrkB
NCBI Protein Information	BDNF/NT-3 growth factors receptor; trkB tyrosine kinase; tyrosine kinase receptor B; tropomyosin-related kinase B; BDNF-tropomyosine receptor kinase B
UniProt Protein Name	BDNF/NT-3 growth factors receptor
UniProt Gene Name	NTRK2
UniProt Synonym Gene Names	TRKB; Trk-B
UniProt Entry Name	NTRK2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.