

TrkB Blocking Peptide
Catalog # PBV10251b**Specification**

TrkB Blocking Peptide - Product Information

Primary Accession	Q63604
Gene ID	25054
Calculated MW	92186

TrkB Blocking Peptide - Additional Information**Gene ID** 25054**Application & Usage**

The peptide is used for blocking the antibody activity of TrkB. It usually blocks the antibody activity completely in Western blot analysis by incubating the peptide with equal volume of antibody for 30-60 minutes at 37°C.

Other Names

BDNF/NT-3 growth factors receptor, 2.7.10.1, Neurotrophic tyrosine kinase receptor type 2, TrkB tyrosine kinase, Trk-B, Ntrk2, Trkb

Target/Specificity

TrkB

Formulation

50 µg (0.2 mg/ml) in phosphate buffered saline (PBS), pH 7.2, containing 50% glycerol, 1% BSA and 0.02% thimerosal.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

TrkB Blocking Peptide is for research use only and not for use in diagnostic or therapeutic procedures.

TrkB Blocking Peptide - Protein Information**Name** Ntrk2**Synonyms** Trkb**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. 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.

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. Cell projection, dendrite. Cytoplasm, perinuclear region. Postsynaptic density {ECO:0000250|UniProtKB:P15209}. Note=Internalized to endosomes upon ligand-binding. {ECO:0000250|UniProtKB:P15209}

Tissue Location

Widely expressed in the central and peripheral nervous system. The different forms are differentially expressed in various cell types. Isoform T2 is primarily expressed in neurons

TrkB Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TrkB Blocking Peptide - Images