

Trk B Antibody FITC Conjugated

Catalog No: #C00208F

Package Size: #C00208F 100ul

Description

Product Name	Trk B Antibody FITC Conjugated
Host Species	Rabbit
Clonality	Polyclonal
Isotype	IgG
Purification	Purified by Protein A.
Applications	IF
Species Reactivity	Hu Ms Rt
Immunogen Description	KLH conjugated synthetic peptide aa 30-80 822 derived from human Trk B
Conjugates	FITC
Target Name	TrkB
Other Names	TRKB; trk-B; GP145-TrkB; BDNF NT-3 growth factors receptor; Neurotrophic tyrosine kinase receptor type 2; TrkB tyrosine kinase; Tropomyosin-related kinase B; NTRK2
Accession No.	Swiss-Prot#Q16620NCBI Gene ID4915
Cell Localization	Extracellular
Concentration	1mg ml
Formulation	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Application Details

IF=1:50-200

Background

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.

Note: This product is for in vitro research use only and is not intended for use in humans or animals.