ARG20177
anti-TrkB antibody

Package: 50 µg, 25 µg
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes TrkB
Tested Reactivity	Hu, Ms, Rat, Chk
Tested Application	ICC/IF, IHC-P, IP, WB
Specificity	Trk protein exists as variably glycosylated entities with the major forms having molecular weights of 140 kDa, 110 kDa, and the unglycosylated form of 80 kDa.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	TrkB
Species	Human
Immunogen	Synthetic peptide surrounding amino acid 810 of human TrkB
Conjugation	Un-conjugated
Alternate Names	TRKB; Neurotrophic tyrosine kinase receptor type 2; Trk-B; trk-B; Tropomyosin-related kinase B; TrkB tyrosine kinase; BDNF/NT-3 growth factors receptor; GP145-TrkB; EC 2.7.10.1

Application Instructions

Application table

Application	Dilution
ICC/IF	5-10 µg/ml
IHC-P	Assay-dependent.
IP	Assay-dependent.
WB	0.5-4 µg/ml

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	HL-60 cell lysate

Properties

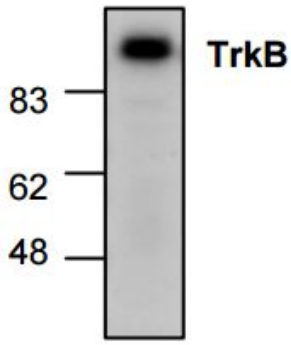
Form	Liquid
Purification	Affinity Purified Antibody
Buffer	PBS, 30% Glycerol, 0.5% BSA and 0.01% Thimerosal
Preservative	0.01% Thimerosal
Stabilizer	30% Glycerol, 0.5% BSA

Concentration	0.2 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	NTRK2
Gene Full Name	neurotrophic tyrosine kinase, receptor, type 2
Background	Due to the various splice variants, the trk proteins exist as variably glycosylated entities with the major forms having molecular weights of 140-145 kDa, 110 kDa and the unglycosylated form of 80 kDa. trkB contains 33.3% carbohydrate by weight representing modification on 10 of 12 N-glycosylation sites. The primary ligand for trkB is BDNF which induces the phosphorylation of the protein and subsequent binding of PLC-gamma via SH2 domains. TrkB may function to modulate neuronal responses to the neurotrophins acting through trkB such as BDNF.
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 neutrophin-dependent calcium signaling in glial cells and mediate communication between neurons and glia. [UniProt]
Calculated Mw	92 kDa

Images



ARG20177 anti-TrkB antibody WB image

Western Blot: HL-60 cell lysate stained with anti-TrkB antibody (ARG20177).