

Product Datasheet

TrkA Polyclonal Antibody GRP216

Description

Receptor tyrosine kinase involved in the development and the maturation of the central and peripheral nervous systems through regulation of proliferation, differentiation and survival of sympathetic and nervous neurons. High affinity receptor for NGF which is its primary ligand, it can also bind and be activated by NTF3/neurotrophin-3. However, NTF3 only supports axonal extension through NTRK1 but has no effect on neuron survival. Upon dimeric NGF 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 driving cell survival and differentiation. Through SHC1 and FRS2 activates a GRB2-Ras-MAPK cascade that regulates cell differentiation and survival. Through PLCG1 controls NF-Kappa-B activation and the transcription of genes involved in cell survival. Through SHC1 and SH2B1 controls a Ras-PI3 kinase-AKT1 signaling cascade that is also regulating survival. In absence of ligand and activation, may promote cell death, making the survival of neurons dependent on trophic factors. Isoform TrkA-III is resistant to NGF, constitutively activates AKT1 and NF-kappa-B and is unable to activate the Ras-MAPK signaling cascade. Antagonizes the anti-proliferative NGF-NTRK1 signaling that promotes neuronal precursors differentiation. Isoform TrkA-III promotes angiogenesis and has oncogenic activity when overexpressed.

Species/Host

Rabbit

Reactivity

Human, Mouse, Rat

Conjugation

Unconjugated

Tested Applications

IHC-P, WB

Immunogen

KLH conjugated synthetic peptide derived from human Trk A (public_immunogen_range: 740-796/796)

Form/Appearance

Aqueous buffered solution containing 1% BSA, 50% glycerol and 0.09% sodium azide.

Concentration

1ug/ul

Storage

Store at -20°C for 12 months.

Note

For research use only.

Isotype

IgG

Clonality

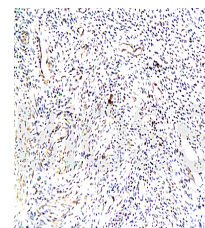
Polyclonal

Purity

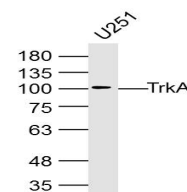
Purified by Protein A.

Uniprot ID

[P04629](#)



WB of GRP216



IHC-P of GRP216