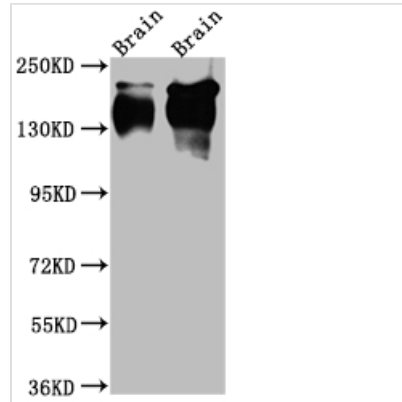




NTRK1 Recombinant Monoclonal Antibody

Product Code	CSB-RA202683A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P04629
Immunogen	A synthesized peptide derived from human TrkA
Species Reactivity	Human, Mouse, Rat
Tested Applications	ELISA, WB; Recommended dilution: WB:1:500-1:5000
Relevance	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 (PubMed:1850821, PubMed:1849459, PubMed:1281417, PubMed:8325889, PubMed:15488758, PubMed:17196528). 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 (By similarity). Upon dimeric NGF ligand-binding, undergoes homodimerization, autophosphorylation and activation (PubMed:1281417). 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.
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Other
Gene Names	NTRK1
Clone No.	2A5
Image	


Western Blot

Positive WB detected in: Rat Brain whole cell lysate, Mouse Brain whole cell lysate

All lanes: TrkA Antibody at 1:1000

Secondary

Goat polyclonal to rabbit IgG at 1/50000 dilution

Predicted band size: 88, 87, 84, 78 kDa

Observed band size: 145 kDa

Description

NTRK1, also called TrkA, is expressed on cells throughout the nervous system as well as on structural cells and other non-neuronal cells in the immune and neuroendocrine systems in human. When NGF binds to the TrkA receptor, it induces receptor homodimerization, which initiates kinase activation and transphosphorylation, triggering neuronal differentiation and neurite outgrowth. The NGF-TrkA signaling plays an essential role in the development of sympathetic neurons.

The production of this recombinant NTRK1 antibody started with identifying and cloning the genes for antibody expression. After the NTRK1 antibody was cloned into an expression plasmid, the plasmid could be introduced into the mammalian cell to produce the target recombinant antibody. This recombinant NTRK1 antibody has been validated in ELISA, WB.