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PRODUCT DATASHEET

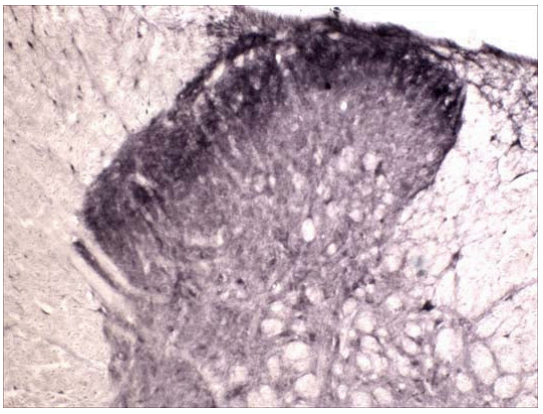
Anti-Tyrosine Kinase Receptor A (TrkA) Antibody

Product Details

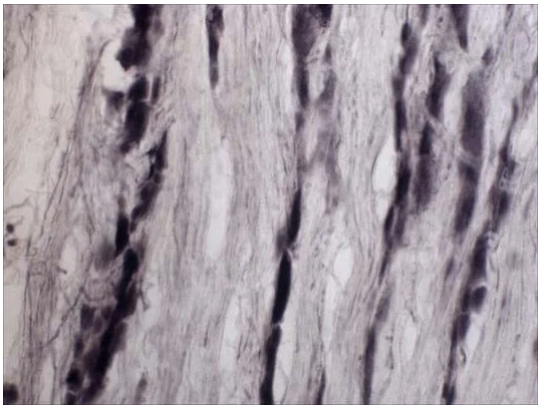
Available Variants	100 µL (SKU:R-152-100)
Conjugate	Unconjugated
Isotype	Mixed
Host Species	Rabbit
Format	Whole serum
Physical State	Lyophilized
Applications	ELISA, IHC
Dilution Ranges	WB: 1:1000-1:2500 IHC: 1:1000 ELISA: 1:5000
Species Reactivity	Human, Mouse, Rat
Immunogen	Extracellular domain of glycosylated human TrkA protein produced in mammalian cells was used as the immunogen.
Specificity	Specificity was demonstrated by immunohistochemistry. When used for immunohistochemistry in rat dorsal root ganglia, staining is restricted to the known distribution of TrkA, that is in small, nociceptive neurons. Reacts with human, rat and mouse TrkA. Other species not yet tested.
Storage	Spin vial briefly before opening. Reconstitute in 100 µL sterile-filtered, ultrapure water. Centrifuge to remove any insoluble material. After reconstitution keep aliquots at -20°C for a higher stability, and at 2-8°C with an appropriate antibacterial agent. Glycerol (1:1) may be added for an additional stability. Avoid repetitive freeze/thaw cycles.
UniProt ID	P04629 UniProt Summary: 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. 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.
Country of Origin	United States
Shipping	25°C (ambient)
Expiration	12 months after date of receipt (unopened vial).
Usage Statement	For research use only.
NCBI Gene ID	4914

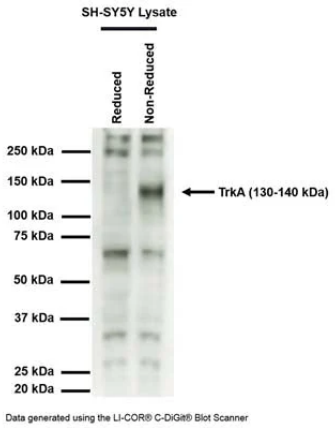
Product Images



Immunohistochemical staining of Tyrosine Kinase Receptor A (TrkA) in rat spinal cord (free floating cryostat section) using rabbit antibody (R-152-100) at a dilution of 1 in 2000. Courtesy of Professor Xin Fu Zhou, The Flinders University of South Australia.



Immunohistochemical staining of Tyrosine Kinase Receptor A (TrkA) in rat trigeminal nerve (free floating cryostat section) using rabbit antibody (R-152-100) at a dilution of 1 in 2000. Courtesy of Professor Xin Fu Zhou, The Flinders University of South Australia.



Western blot of TrkA receptor in human neuroblastoma SH-SY5Y cell lysate (30 µg/lane). R-152-100 detects TrkA full-length protein at 130-140 kDa under non-reducing conditions (no DTT or beta-mercaptoethanol!). Higher molecular-weight bands may represent homodimeric forms of TrkA or heterodimeric TrkA-receptor complexes. The identity of lower molecular weight bands is unknown. SDS-PAGE: denatured and non-reducing; Transfer: Tris-Glycine buffer; Membrane: nitrocellulose (0.45 um); Blocking: 5% skim milk in TBST, 1 hour at RT; Primary antibody: overnight at 4°C (1/2500 dilution); Secondary antibody: anti-rabbit-HRP (1/6000) 2 hours at RT; Detection: Chemiluminiscence. Predicted MW of humanTrkA based on amino acid sequence: 84 kDa. The observed MW differs due to post-translational modification, mainly glycosylation.