

Technical Data Sheet

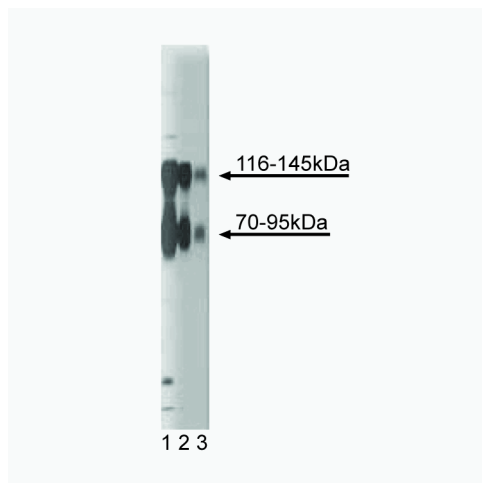
Purified Mouse Anti-TrkB

Product Information

Material Number:	610102
Alternate Name:	Neurotrophic Tyrosine Kinase Receptor Type 2; NTRK2
Size:	150 µg
Concentration:	250 µg/ml
Clone:	47/TrkB
Immunogen:	Human TrkB aa. 156-322
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Rat
Target MW:	116-145 & 70-95 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

The full-length TrkB gene has been reported to encode for a 145 kDa glycosylated transmembrane tyrosine kinase and neurotrophin receptor. The same gene also has been reported to encode for a 95 kDa glycoprotein that is identical to gp145 [TrkB] at the extracellular domain and transmembrane portion but lacks the intracellular portion. TrkB has been observable in a range of 116-145 kD and 70-95 kD due to various TrkB maturation states, subcellular localizations, and glycosylation states. TrkB belongs to a family of tyrosine kinases that include the TrkA proto-oncogene and TrkC. All have an extracellular ligand-binding domain, a transmembrane region, and intracellular kinase and autophosphorylation domains. TrkB binds the neurotrophins NT3 and NT4/5, as well as brain-derived neurotrophic factor (BDNF), a peptide that helps motor neuron survival and repair. The TrkB tyrosine kinase is activated upon binding to BDNF resulting in autophosphorylation of residues Y670, Y674 and Y675 and the subsequent association of several intracellular proteins like PLCγ, Shc, and PI3-Kinase. TrkB is widely expressed in cells of neuroepithelium and neural crest origin. Some of these include motor neurons, dopamine-producing neurons, and neurons which release γ-aminobutyric acid in the substantia nigra, neocortex, and hippocampus. The two TrkB gene products are differentially expressed in regions of the adult brain.



Western blot analysis of TrkB on a rat cerebrum lysate (left). Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of the mouse anti-TrkB antibody.

Preparation and Storage

Store undiluted at -20°C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Western blot	Routinely Tested
Immunoprecipitation	Not Recommended
Immunohistochemistry	Not Recommended
Bioimaging	Not Recommended
Fluorescence microscopy	Not Recommended

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Recommended Assay Procedure:

Western blot: Please refer to <http://www.bdbiosciences.com/resources/cellbiology/index.jsp>

Suggested Companion Products

Catalog Number	Name	Size	Clone
611463	Rat Cerebrum Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.

References

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