

# Anti-TrkB

Polyclonal Antibody

Cat. # 07-225

Lot # DAM1408774

pack size: 200 µg

Store at -20°C

FOR RESEARCH USE ONLY  
NOT FOR USE IN HUMANS



## Certificate of Analysis

page 1 of 2

Applications	Species Cross-Reactivity	Antibody Isotype	Epitope/Region	Host Species	Molecular Weight	Accession #
WB	M, R	IgG	N/A	Rb	145 kDa	NP_036863

### Background

The Trk (tropomyosin-receptor-kinase) proto-oncogene family of receptor tyrosine kinases contains four members, TrkA, TrkB, TrkC, and TrkE, which are variably expressed throughout the central and peripheral nervous systems. TrkB is the high-affinity to the binding brain-derived neurotrophic factor (BDNF) receptor and neurotrophin-4/5 NT-4/5). TrkB is autophosphorylated on five cytoplasmic tyrosines. The binding of BDNF to TrkB receptor causes many intercellular cascades to be activated such as promoting survival of sensory neurons mainly through Shc site-independent pathways. The signaling activity of these receptors includes the Ras – MAP kinase pathway, and the PI3 Kinase pathway. These receptors are responsible for resistance to apoptosis, obesity, Alzheimer's disease, and mood disorders.

### Presentation

Purified rabbit polyclonal IgG in buffer containing 0.014 M phosphate buffer, pH 7.6, 0.175 M NaCl, 0.07% sodium azide, and 30% glycerol.

### Concentration

1 mg/mL

### Specificity

Recognizes TrkB, Mr 145 kDa, as well as an additional protein, Mr 90 kDa, which is likely a TrkB degradation product.

### Species Cross-reactivity

Rat and mouse.

### Immunogen

The entire extracellular domain (corresponding to residues 1–429) of the rat TrkB receptor, expressed in COS cells. The immunizing sequence has 97% identity with mouse TrkB and 88% identity with human TrkB.

### Molecular Weight

145 kDa

### Method of Purification

Protein A Purified

### Storage and Handling

Stable for 1 year at -20°C from date of receipt.

Handling Recommendations: Upon first thaw, and prior to removing the cap, centrifuge the vial and gently mix the solution. Aliquot into microcentrifuge tubes and store at -20°C. Avoid repeated freeze/thaw cycles, which may damage IgG and affect product performance. Note: Variability in freezer temperatures below -20°C may cause glycerol containing solutions to become frozen during storage.

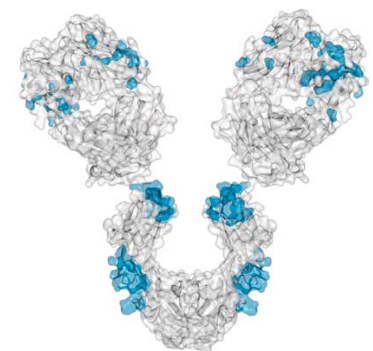
### Control

Brain tissue.

### Quality Control Testing

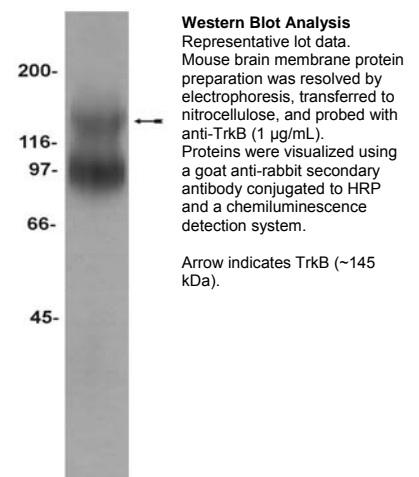
Evaluated by western blot on mouse brain membrane protein preparations.

Western Blot Analysis: 0.5-2 µg/mL of this antibody detected TrkB in mouse brain membrane protein preparations.



### References

- Huang, E. J., et al. (1999). *Development*. 126: 2191-203.
- Clary, D. O., et al. (1994). *Mol. Biol. Cell*. 5: 549-63.
- Weskamp, G. and Reichardt, L. F., et al. (1991). *Neuron*. 6: 649-63.



**APPLICATION LEGEND:** WB Western Blotting IP Immunoprecipitation IC Immunocytochemistry IF Immunofluorescence  
IH Immunohistochemistry (Tissue)

**SPECIES LEGEND:** H Human M Mouse R Rat Rb Rabbit WR Most Common Vertebrates

Please visit [www.millipore.com](http://www.millipore.com) for additional product information, test data and references.

Submit your published journal article, and earn credit toward future Millipore purchases. Visit [www.millipore.com/publicationrewards](http://www.millipore.com/publicationrewards) to learn more!

upstate | CHEMICON | Linco

THE EXPERTISE OF UPSTATE®, CHEMICON® AND LINCO®  
IS NOW A PART OF MILLIPORE

**PROTOCOL**

**Western Blot**

1. Perform SDS-polyacrylamide gel electrophoresis (SDS-PAGE) on a cell lysate sample (cell lysis buffer: 50 mM Tris-HCl, pH 7.4; 1% NP-40; 0.25% sodium deoxycholate; 150 mM NaCl; 1 mM EGTA; 1 mM PMSF; 1 µg/mL each aprotinin, leupeptin, pepstatin; 1 mM Na3VO4; 1 mM NaF) and transfer the proteins to nitrocellulose. Wash the blotted nitrocellulose twice with water.
2. Incubate the nitrocellulose with 0.1% Tween in TBS for 10 minutes at room temperature with constant agitation.
3. Block the blotted nitrocellulose in freshly prepared PBS containing 3% nonfat dry milk (Catalog # 20-200), (PBS-MLK) for 90 minutes at room temperature with constant agitation.
4. Incubate the nitrocellulose with **0.5-2 µg/mL of anti-TrkB**, diluted in freshly prepared PBS-MLK overnight with agitation at 4°C.
5. Wash the nitrocellulose twice with water.
6. Incubate the nitrocellulose in the secondary reagent of choice (a goat anti-rabbit HRP conjugated IgG, Catalog # 12-348, 1:5000 dilution was used) in PBS-MLK for 1.5 hours at room temperature with agitation.
7. Wash the nitrocellulose with water twice.
8. Wash the nitrocellulose in PBS-0.05% Tween 20 for 3-5 minutes.
9. Rinse the nitrocellulose in 4-5 changes of water.
10. Use detection method of choice (enhanced chemiluminescence was used).

**RELATED PRODUCTS (specific)**

cat #	description
AB5372	■ Anti-trk B, pain, a.a. 54-67 rtrkB
AB9872	■ Anti-trkB
07-225	■ Anti-TrkB
14-507	■ TrkB, active
32-084	■ TrkB KinEASE™ FP Fluorescein Green Assay
32-164	■ TrkB KinEASE™ FP-645nm FarRed Assay
07-226	■ Anti-TrkC
AG350	■ trk C, control peptide for AB5918
AB9834	■ Tyrosine Kinase Receptor C

**RELATED PRODUCTS (non-specific)**

cat #	description
IPVH00010	■ Immobilon-P 26.5 cm x 3.75 m Roll PVDF 0.45 µm
IPFL00010	■ Immobilon-FL 26.5 cm x 3.75 m Roll PVDF 0.45 µm
IPVH07850	■ Immobilon-P 7 x 8.4 cm PVDF 0.45 mm (sheet) 50/pk
ISEQ00010	■ Immobilon-P SQ 26.5 cm x 3.75 m 1 roll PVDF 0.2 µm
ISEQ07850	■ Immobilon-P 7 x 8.4 cm PVDF 0.2 mm (sheet) 50/pk
IPFL07810	■ Immobilon-FL 7 x 8.4 cm PVDF 0.45 mm (sheet) 10/pk
WBKLS0100	■ Immobilon Western Chemilum HRP Substrate 100 mL
17-373	■ Spray & Glow™ ECL WB Detection System 1 ea
2060	■ Re-Blot Western Blot Recycling Kit
2500	■ Re-Blot Plus Western Blot Recycling Kit
B2080-175GM	■ Blot Quick Blocker Membrane Blocking Agent 175G

■ antibodies ■ Multiplex products ■ biotools ■ cell culture ■ enzymes ■ kits ■ proteins/peptides ■ siRNA/cDNA products

Please visit [www.millipore.com](http://www.millipore.com) for additional product information, test data and references

28820 Single Oak Drive • Temecula, CA 92590

Technical Support: T: 1-800-MILLIPORE (1-800-645-5476) • F: 1-800-437-7502

**FOR RESEARCH USE ONLY.** Not for use in diagnostic or therapeutic applications. Not for human or animal consumption. Purchase of this Product does not include any right to resell or transfer, either as a stand-alone product or as a component of another product. Any use of this Product for purposes other than research is strictly prohibited without prior written authorization from an authorized officer of Millipore Corporation.

Upstate®, Chemicon®, Linco® and all other trademarks are owned by Millipore Corporation. Copyright ©2008-2009 Millipore Corporation. All rights reserved.



We Buy 100% Certified Renewable Energy