

Store at
-20°C

TrkA (14G6) Rabbit mAb

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#2508

Small 100 µl (10 western blots)
Petite 40 µl (4 western blots)Support: 877-678-TECH (8324)
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orders@cellsignal.comEntrez-Gene ID #4914
UniProt ID #P04629

rev. 07/14/14

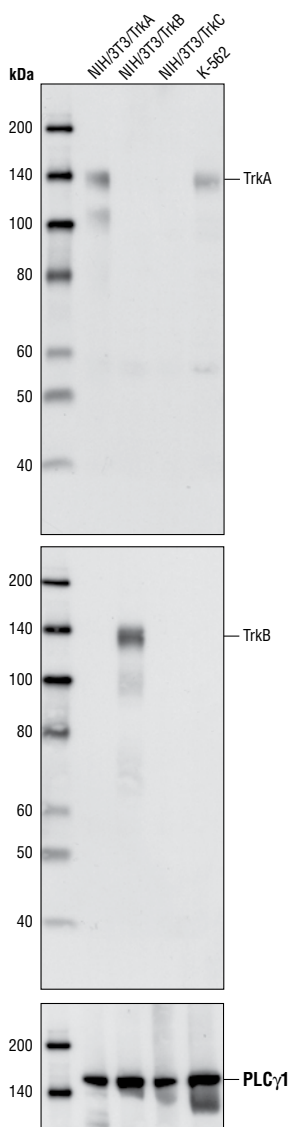
For Research Use Only. Not For Use In Diagnostic Procedures.**Applications**
W, IHC-P
Endogenous**Species Cross-Reactivity***
H**Molecular Wt.**
140 kDa**Isotype**
Rabbit IgG**

Background: The family of Trk receptor tyrosine kinases consists of TrkA, TrkB, and TrkC. While the sequence of these family members is highly conserved, they are activated by different neurotrophins: TrkA by NGF, TrkB by BDNF or NT4, and TrkC by NT3 (1). Neurotrophin signaling through these receptors regulates a number of physiological processes, such as cell survival, proliferation, neural development, and axon and dendrite growth and patterning (1). In the adult nervous system, the Trk receptors regulate synaptic strength and plasticity. TrkA regulates proliferation and is important for development and maturation of the nervous system (2). Phosphorylation at Tyr490 is required for Shc association and activation of the Ras-MAP kinase cascade (3,4). Residues Tyr674/675 lie within the catalytic domain, and phosphorylation at these sites reflects TrkA kinase activity (3-6). Point mutations, deletions, and chromosomal rearrangements (chimeras) cause ligand-independent receptor dimerization and activation of TrkA (7-10). TrkA is activated in many malignancies including breast, ovarian, prostate, and thyroid carcinomas (8-13). Research studies suggest that expression of TrkA in neuroblastomas may be a good prognostic marker as TrkA signals growth arrest and differentiation of cells originating from the neural crest (10).

Specificity/Sensitivity: TrkA (14G6) Rabbit mAb detects endogenous levels of total TrkA protein. This antibody does not cross-react with TrkB.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide surrounding Arg220 of human TrkA.

Western blot analysis of extracts from NIH/3T3, NIH/3T3-TrkA, NIH/3T3-TrkB and NIH/3T3-TrkC and K562 cells using TrkA (14G6) Rabbit mAb (upper) TrkB (80G2) Rabbit mAb Antibody #4607 (middle) and PLCγ1 Antibody #2822 (lower).



Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:200†
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Detection reagent:	SignalStain® Boost (HRP, Rabbit) #8114

†Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com

Background References:

- (1) Huang, E.J. and Reichardt, L.F. (2003) *Annu Rev Biochem* 72, 609-42.
- (2) Segal, R.A. and Greenberg, M.E. (1996) *Annu Rev Neurosci* 19, 463-89.
- (3) Stephens, R.M. et al. (1994) *Neuron* 12, 691-705.
- (4) Marsh, H.N. et al. (2003) *J Cell Biol* 163, 999-1010.
- (5) Obermeier, A. et al. (1993) *EMBO J* 12, 933-41.
- (6) Obermeier, A. et al. (1994) *EMBO J* 13, 1585-90.
- (7) Arevalo, J.C. et al. (2001) *Oncogene* 20, 1229-34.
- (8) Reuther, G.W. et al. (2000) *Mol Cell Biol* 20, 8655-66.
- (9) Greco, A. et al. (1997) *Genes Chromosomes Cancer* 19, 112-23.
- (10) Pierotti, M.A. and Greco, A. (2006) *Cancer Lett* 232, 90-8.
- (11) Lagadec, C. et al. (2009) *Oncogene* 28, 1960-70.
- (12) Greco, A. et al. (2010) *Mol Cell Endocrinol* 321, 44-9.
- (13) Ødegaard, E. et al. (2007) *Hum Pathol* 38, 140-6.

U. S. Patent No. 5,675,063

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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

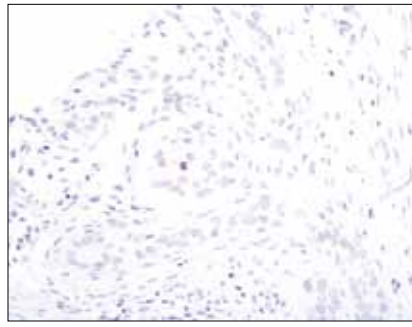
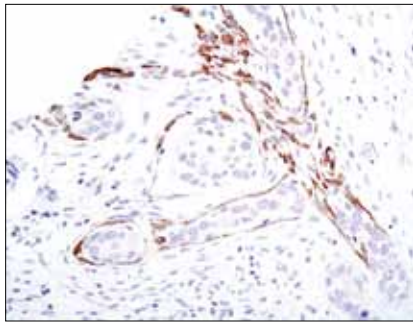
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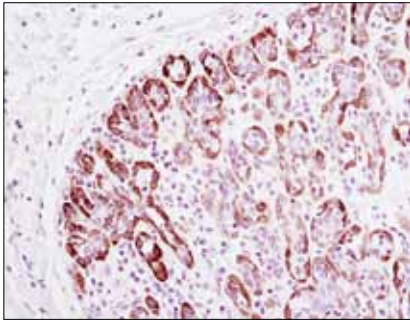


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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Immunohistochemical analysis of paraffin-embedded human breast carcinoma using Trk A (14G6) Rabbit mAb #2508 in the presence of control peptide (left) or Trk A Blocking Peptide #1435 (right).



Immunohistochemical analysis of paraffin-embedded human breast using TrkA (14G6) Rabbit mAb.

