

Rabbit antibody to the Tyrosine Kinase Receptor A (TrkA): whole serum

Catalogue No.: R-152-100

Description: TrkA is a member of the neurotrophic tyrosine kinase receptor family. It is a membrane-bound

receptor that upon neurotrophin binding, phosphorylates itself and members of the MAPK pathway. TrkA is required for high-affinity binding to nerve growth factor (NGF), neurotrophin-3 and neurotrophin-4/5 but not brain-derived neurotrophic factor (BDNF). TrkA leads to cell differentiations and may play a role in specifying sensory neuron subtypes. It has a crucial role in the development and function of the nociceptive reception system as well as establishment of thermal regulation via sweating. SUBUNIT: Exists in a dynamic equilibrium between monomeric (low affinity) and dimeric (high affinity) structures. SUBCELLULAR LOCATION: Cell membrane; single-pass type I membrane protein. Endocytosed to the endosomes upon treatment of cells with NGF. ALTERNATIVE PRODUCTS: 2 named isoforms produced by alternative splicing. Both isoforms have similar biological properties. TISSUE SPECIFICITY: Isoform TrkA-II is primarily expressed in neuronal cells. Isoform TrkA-I is found in non-neuronal tissues. Mutations in TrkA have been associated with congenital insensitivity to pain,

anhidrosis, self-mutalating behaviour, mental retardation and cancer.

Batch No.: See product label

Unit size: 100 µl

Antigen: Extracellular domain of glycosylated human TrkA protein produced in CHO cells was used as

the immunogen.

Other Names: Tropomyosin-related kinase receptor; High affinity nerve growth factor receptor; Neurotrophic

tyrosine kinase receptor type 1; TRK1 transforming tyrosine kinase protein; p140-TrkA; Trk-A;

NTRK1; TRK;

Accession: NTRK1_HUMAN

Produced in: Rabbit

Purity: Whole serum

Applications: IHC, 1-site ELISA (1:5000 dilution). A dilution of 1:1000 is recommended for IHC. Biosensis

recommends optimal dilutions/concentrations should be determined by the end user.

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.

Cross-reactivity: Reacts with human, rat and mouse TrkA. Other species not yet tested.

Form: Lyophilised

Reconstitute in 100 µl of sterile water. Centrifuge to remove any insoluble material.

Storage: After reconstitution keep aliquots at -20°C for a higher stability, and at 4°C with an appropriate

antibacterial agent. Glycerol (1:1) may be added for an additional stability. Avoid repetitive

freeze/thaw cycles.

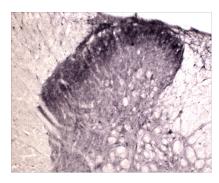
References: 1. Zhang FX, et al. (2005) Brain Res 16; 1062 (1-2) pp. 92-100.

FOR RESEARCH USE ONLY



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2. Gearhart DA, et al. (2006) J Neurosci Methods. 150(2) pp. 159-173.



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.

