



## **Product** Data Sheet

## TrkA Protein, Rabbit (HEK293, His)

Cat. No.: HY-P73577

Synonyms: High affinity nerve growth factor receptor; Trk-A; NTRK1; MTC; TRK

Species: HEK293 Source:

Accession: XP\_008262512 (A33-E414)

Gene ID: 100354292

**Molecular Weight:** Approximately 43.4 kDa

PROPERTIES	
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 $\mu$ m filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

## **DESCRIPTION**

Background

TRKA with the highly similar receptors TRKB and TRKC belongs to the group of tyrosine kinase receptors. TRKB binds neurotrophins brain-derived neurotrophic factor (BDNF) and neurotrophin-4 (NT-4) while TRKC is the predominant receptor for neurotrophin NT-3, although TRKA and TRKB can also be activated by NT-3. Signaling initiated by the NGF-TRKA complex is crucial for the development of pain-mediating sensory neurons, postganglionic sympathetic neurons and basal forebrain cholinergic neurons<sup>[1]</sup>.

TRKA (also known as NTRK1) gene is a target of alternative splicing which can result in several different protein isoforms. TRKA is encoded by the NTRK1 gene located on chromosome 1q21-q22. Presently, three human isoforms (TRKAI, TRKAII and TRKAIII) and two rat isoforms (TRKA L0 and TRKA L1) have been described. Human TRKA gene is overlapped by two genes and spans 67 kb. TrkA genes in rat and mouse appear to be considerably shorter, are not overlapped by other genes. Human TRKA gene is located on chromosome 1 and has been described to span 23 kb. Seventeen exons, that are relatively well conserved in rat and mouse as compared to human TRKA gene, [the basic local alignment search tool (BLAST) algorithm gives 85 % of similarity in both cases] have been characterized<sup>[1][2]</sup>.

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 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

Tel: 609-228-6898 Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA

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