

## **Product** Data Sheet

# TrkB Protein, Canine (HEK293, His)

Cat. No.: HY-P73461

Synonyms: BDNF/NT-3 Growth Factors Receptor; Trk-B; NTRK2; TRKB

Species: Canine Source: HEK293

XP\_541264.2 (C32-H430) Accession:

Gene ID: 484147

Molecular Weight: Approximately 60-78 kDa

#### **PROPERTIES**

AA Sequence	CPTSCKCSAS RIWCSDPSPG IVAFPRLEPN SADPENITEI YIANQKRLEI INEDDVEAYA GLKNLTIVDS GLKFVAHKAF LKNSNLQHIN FTRNKLTSLS RKHFRHLDLS ELILVGNPFT CSCDIMWIKT LQETKSSPET QDLYCLNESS KNIPLANLQI PNCGLPSANL AAPNLTVEEG KSITLSCSVA GDPVPNLYWD VGNLVSKHMN ETSHMQGSLR ITNISSDDSG KQISCVAENL VGEDQDSVNL TVHFAPTITF LESPTSDHHW CIPFTVKGNP KPALQWFYNG AILNESKYIC TKIHVTNHTE YHGCLQLDNP THMNNGDYKL VAKNEYGKDE KQISAHFMGW PGIDDGANPN YPDVIYEDYG TAANDIGDTT NRSNEIPSTD VADKSGREH
Biological Activity	Immobilized canine TrkB at 10 $\mu$ g/mL (100 $\mu$ L/well) can bind biotinylated mouse BDNF. The ED <sub>50</sub> for this effect is 69.78 ng/mL.
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 $\mu g/mL$ in $ddH_2O.$
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**

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#### Background

TrkB protein has a high affinity for brain-derived neurotrophic factor (BDNF) and plays a role in various physiological functions of neurons, including cell survival and differentiation<sup>[1]</sup>.

TrkB protein is involved in epithelial-mesenchymal transition associated with increased migration and invasion in many cancer cell lines<sup>[3]</sup>.

Abnormal activation caused by overexpression or fusion of TrkB protein can promote the genesis, progression, and treatment resistance of various types of neurogenic tumors<sup>[5]</sup>.

Dysregulation of TrkB protein is associated with the pathogenesis of many diseases, such as neurodegenerative diseases, angiogenesis, lung adenocarcinoma, and gastric cancer<sup>[2][3][4]</sup>.

Caution: Product has not been fully validated for medical applications. For research use only.

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