

# Active Recombinant Human NTRK3 Protein, His-tagged, Alexa Fluor 488 conjugated

**Cat. No.** NTRK3-160HAF488    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>Product Overview</b> | A DNA sequence encoding the extracellular domain (Met 1-Asp 428) of human TrkC (Alexa Fluor 488 conjugated) was expressed with a C-terminal polyhistidine tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>ProteinLength</b>    | Met1-Asp428                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>      | <p>NT-3 growth factor receptor is also known as neurotrophic tyrosine kinase receptor type 3 or TrkC tyrosine kinase or Trk-C receptor, is a member of the neurotrophic tyrosine receptor kinase (NTRK) family. This kinase is a membrane-bound receptor that, upon neurotrophin binding, phosphorylates itself and members of the MAPK pathway. TrkC/NTRK3 is widely expressed in the developing and adult nervous system. In later embryonic development, TrkC/NTRK3 is expressed in various structures of the CNS including the caudate-putamen, septal nuclei, cerebellum, and brainstem. Other neurotrophins include nerve growth factor(NGF), neurotrophin-3 and neurotrophin-4. In the PNS, The trkC hybridization appears to correlate, both temporally and spatially, with the outgrowth of axons toward their peripheral targets. TrkC/NTRK3 is widely expressed in the three identified branches of the mammalian nervous system and appears to correlate with the expression of NT-3, its cognate ligand. The apparent colocalization of trkC transcripts with NT-3 raises the possibility this neurotrophin exerts its trophic effects by a paracrine and/or autocrine</p> |

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|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                       | <p>mechanism. Signaling through this kinase leads to cell differentiation and may play a role in the development of proprioceptive neurons that sense body position. Mutations in the TrkC encoding gene have been associated with medulloblastomas, secretory breast carcinomas, and other cancers.</p> |
| <b>Form</b>           | Lyophilized                                                                                                                                                                                                                                                                                              |
| <b>Bio-activity</b>   | <p>Immobilized human Trkc-His at 10 µg/mL (100 µL/well) can bind biotinylated human NT3, The EC50 of biotinylated human NT3 is 0.03-0.07 µg/mL.</p>                                                                                                                                                      |
| <b>Molecular Mass</b> | <p>The recombinant human TrkC consists of 408 amino acids and has a calculated molecular mass of 46.1 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 80-90 kDa protein in SDS-PAGE under reducing conditions.</p>                                               |
| <b>Endotoxin</b>      | < 1.0 EU/ µg of the protein as determined by the LAL method.                                                                                                                                                                                                                                             |
| <b>Purity</b>         | > 95 % as determined by SDS-PAGE                                                                                                                                                                                                                                                                         |
| <b>Characteristic</b> | <p>Disulfide-linked homodimer<br/> Labeled with Alexa Fluor 488 via amines<br/> Excitation Wavelength: 488 nm<br/> Emission Wavelength: 515-545 nm</p>                                                                                                                                                   |
| <b>Storage</b>        | <p>Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade<br/> Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.</p>                                 |
| <b>Storage Buffer</b> | Lyophilized from sterile PBS, pH 7.4. Normally 5%-8% trehalose, mannitol and 0.01%                                                                                                                                                                                                                       |

Tween80 are added as protectants before lyophilization.

**Reconstitution**

It is recommended that sterile water be added to the vial to prepare a stock solution of 0.25 mg/ml. Centrifuge the vial at 4 centigrade before opening to recover the entire contents.

**Conjugation**

Alexa Fluor 488

## GENE INFORMATION

**Gene Name**

NTRK3 neurotrophic tyrosine kinase, receptor, type 3 [ Homo sapiens ]

**Official Symbol**

NTRK3

**Synonyms**

TRKC; GP145-TrkC; gp145(trkC)

**Gene ID**

4916

**mRNA Refseq**

NM\_001007156

**Protein Refseq**

NP\_001007157

**MIM**

191316

**UniProt ID**

Q16288

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