

# Active Recombinant Human NTRK3 Protein, His-tagged, Alexa Fluor 555 conjugated

**Cat. No.** NTRK3-160HAF555    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

A DNA sequence encoding the extracellular domain (Met 1-Asp 428) of human TrkC (Alexa Fluor 555 conjugated) was expressed with a C-terminal polyhistidine tag.

### Species

Human

### Source

HEK293

### ProteinLength

Met1-Asp428

### Description

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

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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.

**Form**

Lyophilized

**Bio-activity**

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.

**Molecular Mass**

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.

**Endotoxin**

< 1.0 EU/ µg of the protein as determined by the LAL method.

**Purity**

> 95 % as determined by SDS-PAGE

**Characteristic**

Disulfide-linked homodimer  
 Labeled with Alexa Fluor 555 via amines  
 With an excitation and emission maximum of 555/565 nm, Alexa Fluor 555 can be efficiently excited using a 543 nm He-Ne laser line and detected under standard TRITC/Cy3 filters.

**Storage**

Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade  
 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.

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<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.
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<b>Reconstitution</b>	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.
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<b>Conjugation</b>	Alexa Fluor 555
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## GENE INFORMATION

<b>Gene Name</b>	NTRK3 neurotrophic tyrosine kinase, receptor, type 3 [ Homo sapiens ]
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<b>Official Symbol</b>	NTRK3
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<b>Synonyms</b>	TRKC; GP145-TrkC; gp145(trkC)
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<b>Gene ID</b>	4916
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<b>mRNA Refseq</b>	NM_001007156
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<b>Protein Refseq</b>	NP_001007157
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<b>MIM</b>	191316
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<b>UniProt ID</b>	Q16288
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