

Active Recombinant Human NTRK3 Protein, His-tagged, Alexa Fluor 647 conjugated

Cat. No. NTRK3-160HAF647 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

A DNA sequence encoding the extracellular domain (Met 1-Asp 428) of human TrkC (Alexa Fluor 647 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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	<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>
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	<p>Disulfide-linked homodimer</p> <p>Labeled with Alexa Fluor 647 via amines</p> <p>Excitation = 650 nm</p> <p>Emission = 668 nm</p>
Storage	<p>Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade</p> <p>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>
Storage Buffer	Lyophilized from sterile PBS, pH 7.4. Normally 5%-8% trehalose, mannitol and 0.01%

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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 647

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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