

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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	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 647 via amines Excitation = 650 nm Emission = 668 nm
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.
Storage Buffer	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 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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