

TrkA Active Protein | NTRK1 active protein

TrkA Protein, Mouse, Recombinant (hFc Tag)

CATALOG #
AAA258229

HOST
HEK293 Cells

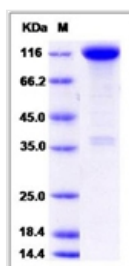
PRODUCT SYNONYMS

TrkA; TrkA Protein; Mouse; Recombinant (hFc Tag); Mouse TrkA/NTRK1 Protein (Fc Tag); C80751 Protein; Tkr Protein; trk Protein; neurotrophic tyrosine kinase; receptor; type 1; NTRK1 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	≥ 90% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH 7.4, 5% Trehalose, 5% mannitol, 0.01% Tween-80.
Sequence	Met1-Gly420
Source	Mouse
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Ala34
Tag	Fc
Protein Construction	A DNA sequence encoding the mouse NTRK1 (NP_001028296.1) (Met1-Gly420) was expressed with the Fc region of human IgG1 at the C-terminus.
Reconstitution	Reconstituted with sterile deionized water 0.25 mg/ml
Molecular Weight Note	The recombinant mouse NTRK1 /Fc is a disulfide-linked homodimer. The reduced monomer comprises 628 amino acids and has a predicted molecular mass of 69.2 kDa. The apparent molecular mass of the protein is approximately 116 kDa in SDS-PAGE under reducing conditions due to glycosylation.
Preparation and Storage	Store it under sterile conditions at -20 degree C to -80 degree C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage. Avoid repeated freeze-thaw cycles.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for NTRK1 active protein	Background: TRKA is a member of the neurotrophic tyrosine kinase receptor (NTRK) family. It is a membrane-bound receptor that, upon neurotrophin binding, phosphorylates itself and members of the MAPK pathway. Isoform TrkA-III promotes angiogenesis and has oncogenic activity when overexpressed. Isoform TrkA-I is found in most non-neuronal tissues. Isoform TrkA-II is primarily expressed in neuronal cells. TrkA-III is specifically expressed by the pluripotent neural stem and neural crest progenitors. The presence of NTRK1 leads to cell differentiation and may play a role in specifying sensory neuron subtypes. Mutations in the TRKA gene have been associated with congenital insensitivity to pain, anhidrosis, self-mutilating behavior, mental retardation, and cancer. It was originally identified as an oncogene as it is commonly mutated in cancers, particularly colon and thyroid carcinomas. TRKA is required for high-affinity binding to nerve growth factor (NGF), neurotrophin-3 and neurotrophin-4/5 but not brain-derived neurotrophic factor (BDNF). Known substrates for the Trk receptors are SHC1, PI 3-kinase, and PLC-gamma-1. NTRK1 has a crucial role in the development and function of the nociceptive reception system as well as the establishment of thermal regulation via sweating. It also activates ERK1 by either SHC1- or PLC-gamma-1-dependent signaling pathway. Defects in NTRK1 are a cause of congenital insensitivity to pain with anhidrosis and thyroid papillary carcinoma.
Product Categories/Family for NTRK1 active protein	Cancer Drug Targets Receptor Tyrosine Kinases (RTKs)
References	Lambiase A, et al. (2005) Molecular basis for keratoconus: lack of TrkA expression and its transcriptional repression by Sp3. Natl Acad Sci. 102 (46):16795-800. Benito-Gutia©rrez E, et al. (2006) Origin and evolution of the Trk family of neurotrophic receptors. Mol Cell Neurosci. 31(2):179-92. Martin-Zanca D, et al. (1986) A human oncogene formed by the fusion of truncated tropomyosin and protein tyrosine kinase sequences. Nature. 319(6056):743-8.

NCBI AND UNIPROT INFORMATION

NCBI GI #	169234626
NCBI GeneID	18211
NCBI Accession #	NP_001028296.1
NCBI GenBank Nucleotide #	NM_001033124.1
UniProt Accession #	Q3UFB7
Molecular Weight	69.26 kDa
NCBI Official Full Name	high affinity nerve growth factor receptor
NCBI Official Synonym Full Names	neurotrophic tyrosine kinase, receptor, type 1
NCBI Official Symbol	Ntrk1
NCBI Official Synonym Symbols	Tkr; trk; TrkA; C80751
NCBI Protein Information	high affinity nerve growth factor receptor
UniProt Protein Name	High affinity nerve growth factor receptor
UniProt Gene Name	Ntrk1
UniProt Entry Name	NTRK1_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.