

TrkA Active Protein | NTRK1 active protein

TrkA Protein, Human, Recombinant (aa 285-413, His Tag)

CATALOG #
AAA257961

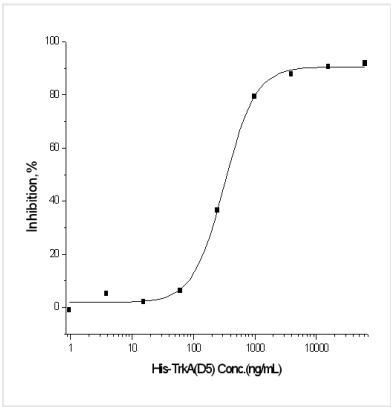
HOST
E Coli

PRODUCT SYNONYMS

TrkA; TrkA Protein; Human; Recombinant (aa 285-413; His Tag); Human TrkA/NTRK1 Protein (aa 285-413; MTC Protein; p140-TrkA Protein; TRK Protein; Trk-A Protein; TRK1 Protein; TRKA Protein; neurotrophic tyrosine kinase; receptor; type 1; NTRK1 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	>97% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile 50mM Tirs, 200mM NaCl, pH8.0. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Sequence	Pro285-Glu 413
Species	Human
Activity	Measured by its ability to inhibit NGF-induced proliferation of TF-1 human erythroleukemic cells. The ED50 for this effect is typically 0.2-0.8ug/ml in the presence of 10ng/mL of Recombinant human NGF.
Predicted N Terminal	Met
Tag	N-His
Protein Construction	A DNA sequence encoding the amino acid sequence (Pro 285-Glu 413) of human NTRK1 (NP_002520.2), corresponding to the Ig-like C2-type 2 domain, was expressed and purified, with a N-terminal polyhistidine tag.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.



SDS-PAGE

Application Data
Measured by its ability to inhibit NGF-induced proliferation of TF-1 human erythroleukemic cells. The ED50 for this effect is typically 0.2-0.8 ug/ml in the presence of 10 ng/mL of Recombinant human NGF.

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 #	4585712
NCBI GeneID	4914
NCBI Accession #	NP_002520.2
NCBI GenBank Nucleotide #	NM_002529.3
UniProt Accession #	P04629; P08119; Q15655; Q15656; Q5D056; Q5VZS2; Q7Z5C3; Q9UIU7; B2R6T5; B7ZM34
Molecular Weight	77,145 Da
NCBI Official Full Name	high affinity nerve growth factor receptor isoform 2
NCBI Official Synonym Full Names	neurotrophic tyrosine kinase, receptor, type 1

NCBI Official Symbol	NTRK1
NCBI Official Synonym Symbols	MTC; TRK; TRK1; TRKA; Trk-A; p140-TrkA
NCBI Protein Information	high affinity nerve growth factor receptor; gp140trk; Oncogene TRK; tyrosine kinase receptor A; tropomyosin-related kinase A; TRK1-transforming tyrosine kinase protein
UniProt Protein Name	High affinity nerve growth factor receptor
UniProt Gene Name	NTRK1
UniProt Synonym Gene Names	MTC; TRK; TRKA; Trk-A
UniProt Entry Name	NTRK1_HUMAN

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.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-ntrk1-active-protein/trka/257961>