

TrkB Active Protein | NTRK2 active protein

TrkB Protein, Canine, Recombinant (His Tag)

CATALOG #
AAA258251

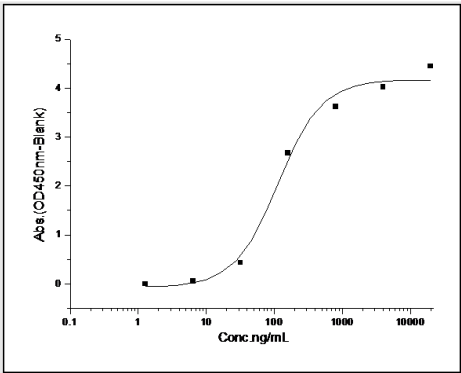
HOST
HEK293 Cells

PRODUCT SYNONYMS

TrkB; TrkB Protein; Canine; Recombinant (His Tag); Canine TrkB/NTRK2 Protein (His Tag); neurotrophic tyrosine kinase; receptor; type 2; NTRK2 active protein

PRODUCT SPECIFICATIONS

Host	HEK293 Cells
Purity/Purification	>95% as determined by SDS-PAGE
Form/Format	Lyophilized from sterile PBS, pH7.4. 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	Met1-His430
Species	Canine
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Cys 32
Tag	C-His
Protein Construction	A DNA sequence encoding the canine NTRK (XP_541264.2) (Met1-His430) was expressed with a C-terminal polyhistidine tag.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Activity	Measured by its binding ability in a functional ELISA. Immobilized canine NTRK-His at 10ug/ml (100uL/well) can bind biotinylated mouse BDNF. The EC50 of biotinylated mouse BDNF is 0.07-0.17ug/ml.
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 binding ability in a functional ELISA. Immobilized canine NTRK-His at 10 ug/ml (100 ul/well) can bind biotinylated mouse BDNF, The EC50 of biotinylated mouse BDNF is 0.07-0.17 ug/ml.

ADDITIONAL INFORMATION

Related Product Information for NTRK2 active protein	Background: TrkB receptor also known as TrkB tyrosine kinase or BDNF/NT-3 growth factors receptor or neurotrophic tyrosine kinase, receptor, type 2 (NTRK2) is a single transmembrane catalytic receptor with intracellular tyrosine kinase activity. TrkB/NTRK2 is a member of the neurotrophic tyrosine receptor kinase (NTRK) family. TrkB tyrosine kinase (TrkB) or NTRK2 is coupled to the Ras, Cdc42/Rac/RhoG, MAPK, PI3-K, and PLCgamma signaling pathways. There are four members of the Trk family; TrkA, TrkB, and TrkC and a related p75NTR receptor. Each family member binds different neurotrophins with varying affinities. TrkB/NTRK has the highest affinity for brain-derived neurotrophic factor (BDNF) and is involved in neuronal plasticity, long-term potentiation, and apoptosis of CNS neurons. Other neurotrophins include nerve growth factor(NGF), neurotrophin-3 and neurotrophin-4. TrkB/NTRK is a membrane-bound receptor that, upon neurotrophin binding, phosphorylates itself and members of the MAPK pathway. Signaling through this kinase leads to cell differentiation. Mutations in TrkB/NTRK have been associated with obesity and mood disorders.
Product Categories/Family for NTRK2 active protein	Receptor Tyrosine Kinases (RTKs) Cancer Drug Targets
References	Klein R, et al. (1990) The trkB tyrosine protein kinase gene codes for a second neurogenic receptor that lacks the catalytic kinase domain. Cell. 61 (4): 647-56. Rose CR, et al. (2003) Truncated TrkB-T1 mediates neurotrophin-evoked calcium signalling in glia cells. Nature. 426 (6962): 74-8. Yamada K, et al. (2004) Brain-derived neurotrophic factor/TrkB signaling in memory processes. J Pharmacol Sci. 91 (4): 267-70.

NCBI AND UNIPROT INFORMATION

Molecular Weight	The recombinant canine NTRK comprises 410 amino acids and has a predicted molecular mass of 45.6kDa. The apparent molecular mass of the protein is approximately 66-76kDa in SDS-PAGE under reducing conditions due to glycosylation.
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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.