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NTRK2

Recombinant Human TrkB / NTRK2 (His Tag)

Catalog No.CRH384A-HisQuantity:100 μg

CRH384B-His 200 μg

Alternate Names: BDNF/NT-3 growth factors receptor, GP145-TrkB, Trk-B, Neurotrophic tyrosine kinase

receptor type 2, TrkB tyrosine kinase, Tropomyosin-related kinase B

Description: 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 receptors 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 highest affinity for brain-derived neurotrophic factor (BDNF) and is involved in neuronal plasticity, longterm 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, leading to cell differentiation. Mutations in TrkB/NTRK have been associated with obesity and mood

disorders.

UniProt ID: Q16620

Accession Number: NP 001007098.1

Protein Construction: A DNA sequence encoding the extracellular domain (Met 1-His 430) of human TrkB

(NP_001007098.1) precursor was expressed with a C-terminal polyhistidine tag.

Source: HEK293 Cells

Molecular Weight: The recombinant human TrkB consists of 410 amino acids and has a predicted molecular

mass of 45.7 kDa. In SDS-PAGE under reducing conditions, the apparent molecular

mass of rhTrkB is approximately 70-80 kDa due to glycosylation.

Formulation: Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants

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before lyophilization.

Purity: > 97 % as determined by SDS-PAGE.

Endotoxin Level: $< 1.0 \text{ EU per } \mu\text{g}$ protein as determined by the LAL method.

Biological Activity: Measured by its ability to bind Mouse/Human BDNF Protein in a functional ELISA.

Predicted N-terminal: Cys 32

Reconstitution: Centrifuge vial prior to opening. Add sterile distilled water to a concentration of 0.1

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mg/mL and gently pipette the solution up and down the sides of the vial. **DO NOT VORTEX**. Allow several minutes for complete reconstitution.

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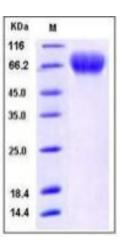
Storage & Stability:

Stable for up to 1 year from date of receipt at -20°C to -80°C After reconstitution, store working aliquots at -20°C to -80°C. **Avoid repeated freeze-thaw cycles.**

Measured by its ability to bind mouse BDNF in functional ELISA.

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SDS-PAGE



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