Recombinant Human Trk-B/NTRK2 Protein

Catalog No.: RP00290

Sequence Information

Species
Human

Gene ID
4915

Swiss Prot
Q16620

Tags
C-His

Synonyms
NTRK2, GP145-TrkB, TRKB, trk-B, BDNF/NT-3 growth factors receptor,GP145-TrkB,TRKB,trk-B, TrkB,OBHD

Product Information

Source
HEK293 cells

Purification
≥ 95 % as determined by SDS-PAGE.

Calculated MW
45.05 kDa

Observed MW
55-70 kDa

Endotoxin
< 1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.Contact us for customized product form or formulation.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

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 receptors with intracellular tyrosine kinase activity. TrkB/NTRK2 is a member of the neurotrophic tyrosine receptor kinase (NTRK) family and contains two Ig-like C2-type (immunoglobulin-like) domains, two LRR (leucine-rich) repeats, one LRRCT domain, one LRRNT domain, one protein kinase domain.TrkB/NTRK2 tyrosine kinase is coupled to the Ras, Cdc42/Rac/RhoG, MAPK, PI3-K and PLCgamma signaling pathways. TrkB/NTRK has high affinity for brain-derived neurotrophic factor (BDNF) and is involved in neuronal plasticity, longterm potentiation and apoptosis of CNS neurons. As a membrane-bound receptor, TrkB/NTRK binds upon neurotrophin, phosphorylates itself and members of the MAPK pathway. NTRK2 / TrkB involved in the development and the maturation of the central and the peripheral nervous systems through regulation of neuron survival, proliferation, migration, differentiation, and synapse formation and plasticity. Mutations in TrkB/NTRK have been associated with obesity and mood disorders.

Basic Information

Description
Recombinant Human Trk-B/NTRK2 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Cys32-His430) of human TrkB (Accession #NP_001018074.1) fused with a 6×His tag at the C-terminus.

Activity
Measured by its binding ability in a functional ELISA. Immobilized Recombinant HumanTrkB, His Tag at 2 μg/mL (100 μL/well) can bind Recombinant Human BDNF with a linear range of 1.95-258 ng/mL.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

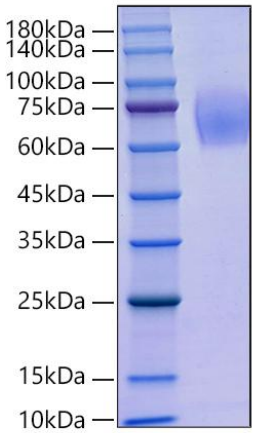
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

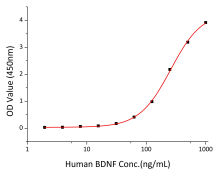
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Validation Data



Recombinant Human Trk-B/NTRK2 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Recombinant Human TrkB (Catalog: RP00290) at 2μg/mL (100 μL/well) can bind Recombinant Human BDNF(Catalog: RP01243) with a linear range of 1.95-258ng/mL.