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Recombinant Human Trk-B/NTRK2 Protein

Catalog No.: RP00290 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Human	4915	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	Purification
HEK293 cells	> 97% by SDS-PAGE.

Endotoxin
< 1.0 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 votex 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.

Contact

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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.

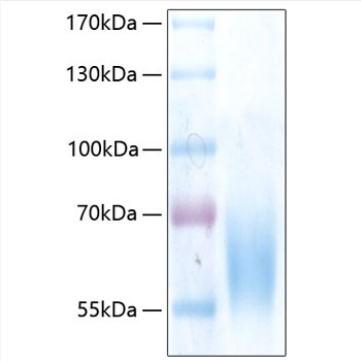
Basic Information

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.

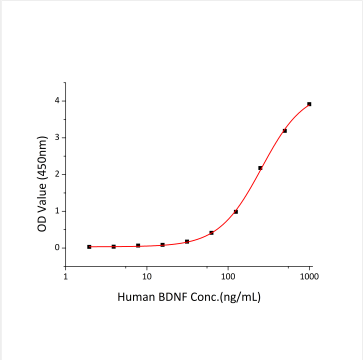
Bio-Activity
Measured by its binding ability in a functional ELISA. Immobilized Recombinant HumanTrkB, His Tag at 2 μg/mL (100 μL/well) can bind Recombinant Human BDNF with a linear range of 1.95-258 ng/mL.

Storage
Store the lyophilized protein at -20°C to -80 °C for long term.
After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week.
Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human Trk-B/NTRK2 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 55-70 kDa.



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.