

Recombinant Human TrkB/NTRK2 Protein (His & Fc Tag)(Active)

Catalog No. PKSH031918

Description

Synonyms	BDNF/NT-3 Growth Factors Receptor; GP145-TrkB; Trk-B; Neurotrophic Tyrosine Kinase Receptor Type 2; TrkB Tyrosine Kinase; Tropomyosin-Related Kinase B; NTRK2; TRKB
Species	Human
Expression_host	HEK293 Cells
Sequence	Met 1-His 430
Accession	NP_001007098.1
Mol_Mass	72 kDa
AP_Mol_Mass	110-120 kDa
Tag	C-His & C-Fc
Bio_activity	Measured by its ability to bind mouse BDNF in functional ELISA.

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg as determined by the LAL method.
Storage	Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4
Reconstitution	Please refer to the printed manual for detailed information.

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. 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. Signalling through this kinase leads to cell differentiation. Mutations in TrkB/NTRK have been associated with obesity and mood disorders.

SDS-PAGE

