



Recombinant Protein Technical Manual

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

RPES2701

Product Data:

Product SKU: RPES2701

Size: 100µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_001007098.1

Protein Information:

Molecular Mass: 72 kDa

AP Molecular Mass: 11020 kDa

Tag: C-His & C-Fc

Bio-activity: Measured by its ability to bind mouse BDNF in functional ELISA.

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.

Application: Functional ELISA

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

Immunogen Information:

Sequence: Met 1-His 430

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.