



# Recombinant Protein Technical Manual

**Recombinant Mouse TrkC/NTRK3 Protein (His Tag)(Active)**  
RPES3068

## Product Data:

**Product SKU:** RPES3068

**Size:** 50µg

**Species:** Mouse

**Expression host:** HEK293 Cells

**Uniprot:** NP\_032772.3

## Protein Information:

**Molecular Mass:** 46.1 kDa

**AP Molecular Mass:** 10010 kDa

**Tag:** C-His

**Bio-activity:** Immobilized mouse NTRK3-His at 10 µg/ml (100 µl/well) can bind biotinylated human NT3, The EC50 of biotinylated human NT3 is 0.04-0.08 µg/ml.

**Purity:** > 95 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg of the protein 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:** GP145-TrkB/GP95-TrkB;Tkrb;trk-B;trkB

## Immunogen Information:

**Sequence:** Met 1-Thr 429

## Background:

NT-3 growth factor receptor also known as neurotrophic tyrosine kinase receptor type 3 or TrkC tyrosine kinase or Trk-C receptor, is a member of the neurotrophic tyrosine receptor kinase (NTRK) family. This kinase is a membrane-bound receptor that, upon neurotrophin binding, phosphorylates itself and members of the MAPK pathway. TrkC/NTRK3 is widely expressed in the developing and adult nervous system. In later embryonic development, TrkC/NTRK3 is expressed in various structures of the CNS including the caudatoputamen, septal nuclei, cerebellum, and brainstem. Other neurotrophins include nerve growth factor(NGF), neurotrophin-3 and neurotrophin-4. In the PNS, trkC hybridization appears to correlate, both temporally and spatially, with the outgrowth of axons toward their peripheral targets. TrkC/NTRK3 is widely expressed in the three identified branches of the mammalian nervous system and appears to correlate with the expression of NT-3, its cognate ligand. The apparent colocalization of trkC transcripts with NT-3 raises the possibility this neurotrophin exerts its trophic effects by a paracrine and/or autocrine mechanism. Signalling through this kinase leads to cell differentiation and may play a role in the development of proprioceptive neurons that sense body position. Mutations in TrkC encoding gene have been associated with medulloblastomas, secretory breast carcinomas and other cancers.