Mouse TrkC / NTRK3 Protein (His Tag)

Catalog Number: 50320-M08H

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

AW125844; Ntrk3_tv3; TrkC

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse TrkC (NP_032772.3) (Met 1-Thr 429) was expressed, with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Immobilized mouse NTRK3-His at 10 μg/ml (100 μl/well) can bind biotinylated human NT3 (Cat:10286-HNA), The EC_{50} of biotinylated human NT3 (Cat:10286-HNA) is 0.04-0.08 μg/ml.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Cys 32

Molecular Mass:

The secreted recombinant mouse TrkC comprises 409 amino acids and has a calculated molecular mass of 46.1 kDa. As a result of glycosylation, the recombinant protein migrates as an approximately 100-110 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

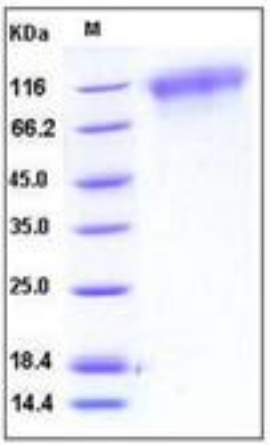
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

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 , 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.

References

1.Tessarollo L, et al. (1993) trkC, a receptor for neurotrophin-3, is widely expressed in the developing nervous system and in non-neuronal tissues. Development. 118(2): 463-75.
2.Lamballe F, et al. (1994) Developmental expression of trkC, the neurotrophin-3 receptor, in the mammalian nervous system. J Neurosci. 14(1): 14-28.
3.Klein R, et al. (1994) Disruption of the neurotrophin-3 receptor gene trkC eliminates la muscle afferents and results in abnormal movements. Nature. 368(6468): 249-51.