Human TrkA / NTRK1 (33-417) Protein, Mouse IgG2a Fc Tag

Catalog # TRA-H5259

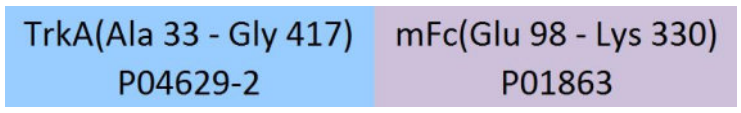
Synonym

TrkA,NTRK1,MTC,TRK,TRKA,Trk-A

Source

Human TrkA (33-417), Mouse IgG2a Fc Tag(TRA-H5259) is expressed from human 293 cells (HEK293). It contains AA Ala 33 - Gly 417 (Accession # P04629-2).
Predicted N-terminus: Ala 33

Molecular Characterization



This protein carries a mouse IgG2a Fc tag at the C-terminus.

The protein has a calculated MW of 68.2 kDa. The protein migrates as 80-110 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per μg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in
Tris with Glycine, Arginine and NaCl, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

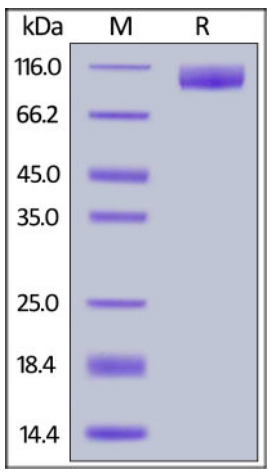
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

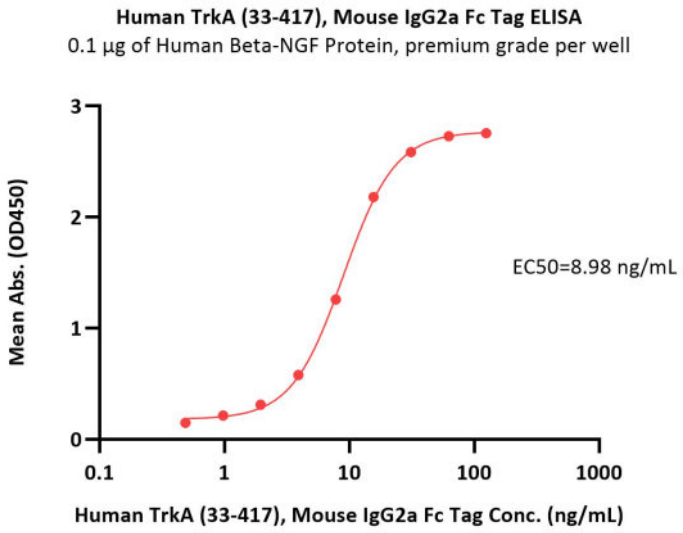
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human TrkA (33-417), Mouse IgG2a Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



Immobilized Human Beta-NGF Protein, premium grade (Cat. No. BEF-H5214) at 1 μg/mL (100 μL/well) can bind Human TrkA (33-417), Mouse IgG2a Fc Tag (Cat. No. TRA-H5259) with a linear range of 0.1-16 ng/mL (Routinely tested).

Background

Receptor tyrosine kinase involved in the development and the maturation of the central and peripheral nervous systems through regulation of proliferation, differentiation and survival of sympathetic and nervous neurons. High affinity receptor for NGF which is its primary ligand. Can also bind and be activated by NTF3/neurotrophin-3. However, NTF3 only supports axonal extension through NTRK1 but has no effect on neuron survival. Upon dimeric NGF ligand-binding, undergoes homodimerization, autophosphorylation and activation. Recruits, phosphorylates and/or activates several downstream effectors including SHC1, FRS2, SH2B1, SH2B2 and PLCG1 that regulate distinct overlapping signaling cascades driving cell survival and differentiation. In absence of ligand and activation, may promote cell death, making the survival of neurons dependent on trophic factors.