Data Sheet (Cat.No.TMPK-00774)

TargetMol

TrkA Protein, Human, Recombinant (aa 33-417, His)

General Information

Synonyms:	TrkAI;TrkA I;Trk-A;TRKA;NTRK1;MTC;TRK;TrkA-I
Protein Construction:	Ala33-Gly417
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P04629-2
Molecular Weight:	43.00 kDa (predicted). Due to glycosylation, the protein migrates to 70-100 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Immobilized Human Beta-NGF, No Tag at 1 μg/mL (100 μL/well) on the plate. Dose response curve for Human TrkA, His Tag with the EC50 of 0.21 μg/mL determined by ELISA.(QC Test)
Purity:	> 95% as determined by Tris-Bis PAGE; > 95% as determined by HPLC
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS (pH 7.4). Typically, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

TrkA, a tyrosine kinase receptor, is an essential component of the nerve growth factor (NGF) response pathway. The binding of NGF to the receptor induces receptor autophosphorylation and activation of intracellular signaling pathways, resulting in diverse biological effects.

Reference

Clary DO, et al. TrkA cross-linking mimics neuronal responses to nerve growth factor. Mol Biol Cell. 1994 May;5(5): 549-63. doi: 10.1091/mbc.5.5.549. PMID: 7919537; PMCID: PMC301067.

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