Data Sheet (Cat.No.TMPK-01162)

TargetMol

NTS1 Protein, Mouse, Recombinant (hFc)

General Information

Synonyms:	NTS1;NTRH;NN;NT;NTR1;NMN-125;NT/N;NTSR1;NTR;NTRR
Protein Construction:	Ser23-Leu162
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q9D3P9
Molecular Weight:	42.9 kDa (predicted). Due to glycosylation, the protein migrates to 48-51 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95% as determined by Tris-Bis PAGE
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, containingPBS (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

Crystal structures of neurotensin receptor subtype 1 (NTS1) allowed us to visualize the binding mode of the endogenous peptide hormone neurotensin and its pharmacologically active C-terminal fragment NT(8-13) within the orthosteric binding pocket of NTS1.

Reference

Kling RC, et al. Structure-based exploration of an allosteric binding pocket in the NTS1 receptor using bitopic NT(8-13) derivatives and molecular dynamics simulations. J Mol Model. 2019 Jun 17;25(7):193. doi: 10.1007/s00894-019-4064-x. PMID: 31209646.

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