

Recombinant Mouse Gdnf protein

Cat. No. Gdnf-249M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Gdnf protein was expressed in Escherichia coli.
Species	Mouse
Source	E.coli
ProteinLength	134
Description	This gene encodes a secreted ligand of the TGF-beta (transforming growth factor-beta) superfamily of proteins. Ligands of this family bind various TGF-beta receptors leading to recruitment and activation of SMAD family transcription factors that regulate gene expression. The encoded preproprotein is proteolytically processed to generate each subunit of the disulfide-linked homodimer. The recombinant form of this protein, a highly conserved neurotrophic factor, was shown to promote the survival and differentiation of dopaminergic neurons in culture, and was able to prevent apoptosis of motor neurons induced by axotomy. This protein is a ligand for the product of the RET (rearranged during transfection) protooncogene. Mutations in this gene may be associated with Hirschsprung disease and Tourette syndrome. This gene encodes multiple protein isoforms that may undergo similar proteolytic processing.
Form	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4, with 0.05 % Tween-20.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by a

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	cell proliferation assay using rat C6 cells is less than 0.2 ng/ml, corresponding to a specific activity of $> 5.0 \times 10^6$ IU/mg.
Molecular Mass	Approximately 29.9 kDa, a homodimeric protein consisting of two 134 amino acid non-glycosylated polypeptide chains.
AA Sequence	SPDKQAAALPRRERNRQAAAASPENSRGKGRRGQRGKNRGCVLTAIHLNVTDLGL GYETKEELIFRYCSGSCESAETMYDKILKNLSRRLTSDKVGQACCRPVAFDDDL FLDDNLVYHILRKHSKRKCGCI
Endotoxin	Less than 0.1 EU/μg of rMuGDNF as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	Gdnf
Official Symbol	Gdnf

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Synonyms	GDNF; glial cell line derived neurotrophic factor; glial cell line-derived neurotrophic factor; ATF; mGDNF; neurotrophic factor; astrocyte-derived trophic factor; A1385739;
Gene ID	14573
mRNA Refseq	NM_010275
Protein Refseq	NP_034405
UniProt ID	P48540

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