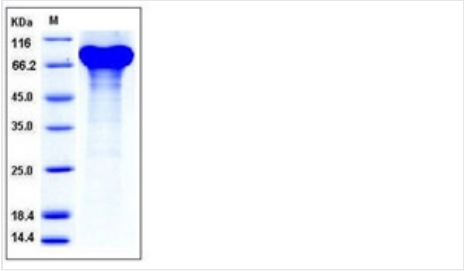
Granulin (GRN) Recombinant Protein

PRODUCT OVERVIEW

Product Name	Granulin (GRN), Recombinant Protein
Full Product Name	Granulin Protein, Mouse, Recombinant (His Tag)
Product Gene Name	GRN recombinant protein
Product Synonym Names	Mouse Granulin/GRN/Progranulin Protein (His Tag); epithelin Protein, Mouse; Pgrn Protein, Mouse; Granulin Precursor
Sequence	Met1-Leu58 9
Host	HEK293 Cells
Form/Format	Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.
Purity/Purification	>90% as determined by SDS-PAGE
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.
Molecular Weight	The secreted recombinant mouse GRN comprises 583 amino acids and has a predicted molecular mass of 63kDa. As a result of glycosylation, the apparent molecular mass of rmGRN is approximately 70-90kDa in SDS-PAGE under reducing conditions.
Species	Mouse
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Thr 18
Tag	C-His
Protein Construction	A DNA sequence encoding the mouse GRN (NP_032201.2)(Met 1-Leu 589) was fused with a polyhistidine tag at the C-terminus.
Reconstitution	A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.
Related Product Information for GRN recombinant protein	Background: Granulins are a family of secreted, glycosylated peptides that are cleaved from a single precursor protein with 7.5 repeats of a highly conserved 12-cysteine granulin/epithelin motif. The precursor protein, progranulin, is also called Proepithelin and PC cell-derived growth factor. Cleavage of the signal peptide produces mature granulin which can be further cleaved into a variety of active, 6kDa peptides. These smaller cleavage products are named granulin A, granulin B, granulin C, etc. Epithelins 1 and 2 are synonymous with granulins A and B, respectively. Both the peptides and intact granulin protein regulate cell growth. However, different members of the granulin protein family may act as inhibitors, stimulators, or have dual actions on cell growth. Granulin family members are important in normal development, wound healing, and tumorigenesis. Granulins have possible cytokine-like activity. They may play a role in inflammation, wound repair, and tissue remodeling. Granulin-4 promotes proliferation of the epithelial cell line A431 in culture while granulin-3 acts as an antagonist to granulin-4, inhibiting the growth. Granulin expression inhibited Tat transactivation, and tethering experiments showed that this effect was due, at least in part, to a direct action on cyclin T1 in the absence of Tat.

Product References and Citations for GRN recombinant protein	Hoque M, et al. (2003) The growth factor granulin interacts with cyclin T1 and modulates P-TEFb-dependent transcription. Mol Cell Biol. 23(5): 1688-702.Bateman A, et al. (1990) Granulins, a novel class of peptide from leukocytes. Biochem Biophys Res Commun. 173(3): 1161-8.Trinh DP, et al. (1999) Epithelin/granulin growth factors: extracellular cofactors for HIV-1 and HIV-2 Tat proteins. Biochem Biophys Res Commun. 256(2): 299-306.
Other Notes	Small volumes of GRN recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for GRN purchase	MBS8122720 is a recombinant protein targeting GRN. Also known as Granulin Protein, Mouse, Recombinant (His Tag). Host: HEK293 Cells.



SDS-Page of GRN recombinant protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GRN. It may not necessarily be applicable to this product.

NCBI Accession #	NP_032201.2
Protein Family	GATA-binding factor
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

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