

Human Granulin / GRN / Progranulin Protein (His Tag)

Catalog Number: 10826-H08H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

GRN, GEP, GP88, PCDGF, PEPI, PGRN

Protein Construction:

A DNA sequence encoding the human GRN (NP_002078.1) (Met 1-Leu 593) with a C-terminal polyhistidine tag was expressed.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Thr 18

Molecular Mass:

The secreted recombinant human GRN comprises 587 amino acids with a predicted molecular mass of 63.2 kDa. As a result of glycosylation, rhGRN migrates as an approximately 100-105 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

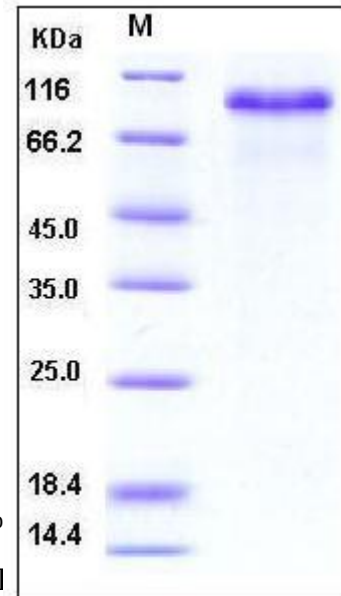
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution

products.

Protein Description

Granulin (GRN), also known as Progranulin (PCDGF), is a ubiquitously expressed 88 kDa secreted, glycosylated protein which contains seven tandem repeats (55-57 aa consensus) of a highly conserved 12-cysteine granulin/epithelin motif. Cleavage of the signal peptide produces mature granulin which can be further cleaved into a variety of active, 6 kDa peptides. These smaller cleavage products are named granulin A, granulin B, granulin C, etc. Both the peptides and intact granulin protein regulate cell growth. Different members of the granulin protein family may act as inhibitors, stimulators, or have dual actions on cell growth, and thus perform important functions in normal development, wound healing, and tumorigenesis. Defects in GRN are the cause of ubiquitin-positive frontotemporal dementia (UP-FTD), an autosomal dominant neurodegenerative.

References

1. Bateman, A. et al., 1991, Biochem. Biophys. Res. Commun. 173 (3): 1161-8.
2. Hoque, M. et al., 2003, Mol. Cell. Biol. 23 (5): 1688-702.
3. Hoque, M. et al., 2005, J Biol Chem. 280 (14): 13648-57.
4. Zhou, Ying. et al., 2008, Cell. Signal. 20 (5): 942-8.

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