

GRN Blocking Peptide (C-term)
Synthetic peptide
Catalog # BP20450b**Specification**

GRN Blocking Peptide (C-term) - Product InformationPrimary Accession [P28799](#)**GRN Blocking Peptide (C-term) - Additional Information****Gene ID** 2896**Other Names**

Granulins, Proepithelin, PEPI, Acrogranin, Glycoprotein of 88 Kda, Progranulin, Paragranulin, Granulin-1, Granulin G, Granulin-2, Granulin F, Granulin-3, Granulin B, Granulin-4, Granulin A, Granulin-5, Granulin C, Granulin-6, Granulin D, Granulin-7, Granulin E, GRN

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

GRN Blocking Peptide (C-term) - Protein Information**Name** GRN ([HGNC:4601](#))**Function**

Secreted protein that acts as a key regulator of lysosomal function and as a growth factor involved in inflammation, wound healing and cell proliferation (PubMed:12526812, PubMed:18378771, PubMed:28073925, PubMed:28453791, PubMed:28541286). Regulates protein trafficking to lysosomes, and also the activity of lysosomal enzymes (PubMed:28453791, PubMed:28541286). Also facilitates the acidification of lysosomes, causing degradation of mature CTSD by CTSB (PubMed:28073925). In addition, functions as a wound-related growth factor that acts directly on dermal fibroblasts and endothelial cells to promote division, migration and the formation of capillary-like tubule structures (By similarity). Also promotes epithelial cell proliferation by blocking TNF-mediated neutrophil activation preventing release of oxidants and proteases (PubMed:12526812). Moreover, modulates inflammation in neurons by preserving neurons survival, axonal outgrowth and neuronal integrity (PubMed:18378771).

Cellular Location

Secreted. Lysosome Note=Endocytosed by SORT1 and delivered to lysosomes (PubMed:21092856, PubMed:28073925). Targeted to lysosome by PSAP via M6PR and LRP1, in both biosynthetic and endocytic pathways (PubMed:26370502, PubMed:28073925). Co-localized with GBA1 in the intracellular trafficking compartments until to lysosome (By similarity) {ECO:0000250|UniProtKB:P28798, ECO:0000269|PubMed:21092856, ECO:0000269|PubMed:26370502, ECO:0000269|PubMed:28073925}

Tissue Location

In myelogenous leukemic cell lines of promonocytic, promyelocytic, and proerythroid lineage, in fibroblasts, and very strongly in epithelial cell lines. Present in inflammatory cells and bone marrow. Highest levels in kidney

GRN Blocking Peptide (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

GRN Blocking Peptide (C-term) - Images

GRN Blocking Peptide (C-term) - Background

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.

GRN Blocking Peptide (C-term) - References

Bhandari V., et al. Biochem. Biophys. Res. Commun. 188:57-63(1992).

Plowman G.D., et al. J. Biol. Chem. 267:13073-13078(1992).

Bhandari V., et al. Proc. Natl. Acad. Sci. U.S.A. 89:1715-1719(1992).

Lu R., et al. Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases.

Yu W., et al. Submitted (MAR-1998) to the EMBL/GenBank/DDBJ databases.