10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GRN Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20450b

Product Information

Application	WB, IHC-P, E
Primary Accession	P28799
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	63544
Antigen Region	563-591

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
Target/Specificity	This GRN antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 563-591 amino acids from the C-terminal region of human GRN.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	GRN Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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 delivred 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

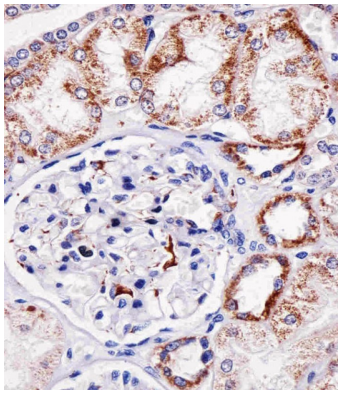
Background

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.

References

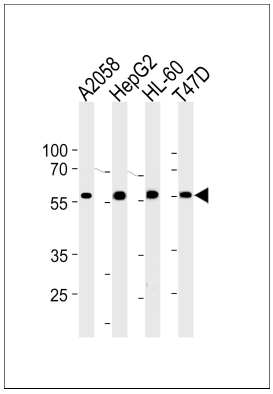
Bhandari V., et al. Biochem. Biophys. Res. Commun. 188:57-63(1992).
Plowman G.D., et al. J. Biol. Chem. 267:13073-13078(1992).
Bhandari V., et al. Proc. Natl. Acad. Sci. U.S.A. 89:1715-1719(1992).
Lu R., et al. Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases.
Yu W., et al. Submitted (MAR-1998) to the EMBL/GenBank/DDBJ databases.

Images



Immunohistochemical analysis of paraffin-embedded H. kidney section using GRN Antibody (C-term)(Cat#AP20450b). AP20450b was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.

GRN Antibody (C-term) (Cat. #AP20450b) western blot analysis in A2058,HepG2,HL-60,T47D cell line lysates (35ug/lane).This demonstrates the GRN antibody



detected the GRN protein (arrow).