

GRN

Recombinant Human Progranulin, FLAG tag

Catalog No.	CRH026A CRH026B	Quantity:	10 µg 50 µg
Alternate Names:	PGRN, Acrogranin, Epithelin precursor, Glycoprotein 88, GP88, Granulin precursor, PC cell-derived growth factor, PCDGF, Proepithelin, PEPI		
Description:	<p>Progranulin (PGRN) is a widely expressed pluripotent growth factor which plays a role in processes such as development, wound repair and inflammation by activating signaling cascades that control cell cycle progression and cell motility. Its function in the central nervous system is of interest, as mutations in the PGRN gene were found in cases of frontotemporal degeneration (FTLD). In addition, PGRN has also been linked to tumorigenesis. Progranulin is a biomarker for FTLD, other types of Alzheimer's Disease (AD) and potentially for MCI (Mild Cognitive Impairment). Additionally, PGRN is described as a new ligand of TNF receptors and a potential therapeutic against inflammatory disease like arthritis.</p> <p>Recombinant Human Progranulin is composed of a signal peptide and aa 1-593 of human progranulin fused at the C-terminus to a FLAG tag.</p>		
UniProt ID:	P28799		
Gene ID:	2896		
Source:	HEK 293 cells		
Molecular Weight:	~90 kDa by SDS-PAGE		
Formulation:	Lyophilized from PBS.		
Purity:	≥98% (SDS-PAGE)		
Endotoxin Level:	<0.01 EU/µg purified protein as determined by LAL test (Lonza).		
Biological Activity:	Activates ERK phosphorylation in THP-1 and MCF10A cells and induces cell migration of THP-1 monocytic leukemia cells.		
Reconstitution:	10 µg size: Reconstitute with 100 µl sterile water. 50 µg size: Reconstitute with 50 µl sterile water. After reconstitution, prepare working aliquots and store at -20°C to -80°C. PBS containing at least 0.1% BSA or HSA should be used for further dilutions.		
Storage & Stability:	Lyophilized product is stable for at least 6 months after receipt when stored at -20°C to -80°C. Following reconstitution, working aliquots are stable at -20°C to -80°C for up to 3 months. Avoid repeated freeze-thaw cycles.		



Fig. 1. Effect of Recombinant Human Progranulin FLAG on phospho- and non-phospho-ERK1/2 in MCF10A cells. Reactions were carried out at 37°C over 0, 10, 30, or 60 mins by adding progranulin to MCF10A human breast epithelial cells maintained under serum starvation conditions for 24 hrs.

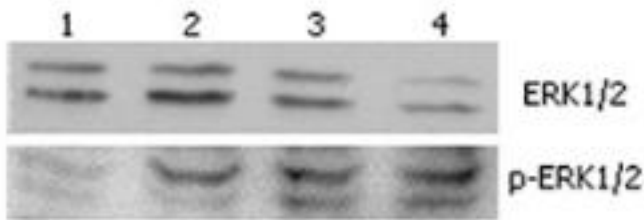
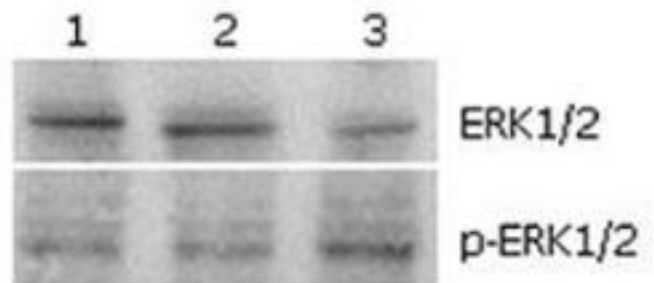


Fig. 2. ERK phosphorylation induced by Recombinant Human Progranulin FLAG in THP-1 cells. Reactions were carried out at 37°C over 0, 30, or 60 mins by adding Progranulin (100ng/ml) to THP-1 monocyte cells maintained under serum starvation conditions for 24 hrs.



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