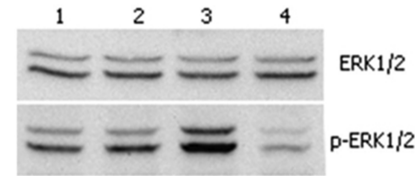


Progranulin, Human CellExp™, mouse recombinant

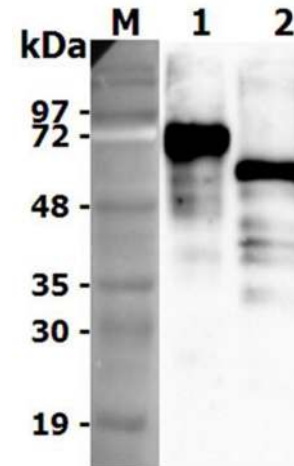
CATALOG #:	4734-10	10 µg
	4734-50	50 µg
SOURCE:	HEK 293 cells	
SEQUENCE:	Signal peptide and mouse Progranulin (aa 1-589) fused at the C-terminus to a FLAG®-tag	
PURITY:	≥95% by SDS-PAGE	
MOL. WEIGHT:	~70.0 kDa (SDS-PAGE)	
FORMULATION:	Liquid; 0.2 µm-filtered solution in PBS	
ENDOTOXIN CONTENT:	<0.1 EU/µg purified protein	
CONCENTRATION:	0.5 mg/ml	
STORAGE CONDITIONS:	After opening, prepare aliquots and store at -20°C. Avoid repeated freeze thaw cycles.	

DESCRIPTION:

Progranulin (PGRN), also called proepithelin and PC cell-derived growth factor, is a single precursor protein of granulins which are a family of secreted, glycosylated peptides. It 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 fronto-temporal 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. Mouse Recombinant Progranulin fused to FLAG® at C-terminus produced in HEK is a single, glycosylated, polypeptide chain purified by standard chromatographic techniques, containing 589 amino acids and having a molecular mass of ~70.0 kDa.



ERK phosphorylation induced by Rec. Mouse Progranulin: To examine the signal of phospho-p44/42 MAPK and p44/42 MAP kinase, reactions were carried out at 37°C for 0, 5, 10, 30, mins, respectively by adding Progranulin (mouse) (rec.) (500ng/ml) to the MCF10A human breast epithelial cells maintained with serum starvation for 24hrs. Proteins in lanes 1, 2, 3, 4 were subjected to treatments of 0, 5, 10 and 30mins, respectively.



Deglycosylation of Rec. Mouse Progranulin: To examine deglycosylation of mouse Progranulin-FLAG, 1µg of mouse progranulin was denatured with 1X Glycoprotein Denaturing Buffer at 100°C for 10 minutes. After the addition of NP-40 and G7 Reaction Buffer, two-fold dilutions of PNGase F were added and the reaction mix was incubated for 1 hour at 37°C. Separation of reaction products were visualized by immunoblotting using antibody against anti-Progranulin (mouse), pAb

RELATED PRODUCTS:

- Recombinant Human Progranulin (Cat. No. 4738-10, 100)
- Recombinant Rat Progranulin (Cat. No. 4735-10, 50)

FOR RESEARCH USE ONLY! Not to be used on humans.