Progranulin/PGRN Protein, Mouse (589a.a, HEK293, C-His)

Cat. No.:	HY-P74617A
Synonyms:	Acrogranin; CLN11; GEP; GP88; Granulin; GRN; PCDGF; PEPI; PGRN; Proepithelin; Progranulin
Species:	Mouse
Source:	HEK293
Accession:	P28798 (T18-L589)
Gene ID:	14824
Molecular Weight:	approximately 78.92 kDa

PROPERTIES

AA Sequence

T Q C P D G Q F C P
D G S C Q T H G H C
C C P Q G F H C S A
C C I M V D G S W G
V S P T G T H T L L
S T C C E L P T G K
K C L S K N Y T T D
N T G A W G C C P F
L Q V P W M K K V I
K L N S G D W G C C
D T M V A G L E K I
L K G S W A C C Q L
D F I Q P P V L L T
A C C P Y L K G V C
M F L R D P V P R P

V A C C L D Q G G A
P A G Y S C L L T V
D G K S C F Q M S D
C C P M P Q A S C C
K K F P A Q K T N R
Y G C C P M P N A I
L L T K L P G Y P V
A K A V C C E D H I
A P L R L P D P Q I
P I P E A V C C S D
P A R Q T T P L Q I
P H A V C C E D R Q
L G P K V G N V E C
C R D G R H C C P G
L L

N Y S C C N P L L D
S G T S S C C P F S
N P L G A V Q C P G
E D R V H C C P H G
A V S L P F S V V C
C C S D H L H C C P
K E V K C D M E V S
H C C P A G F Q C H
L K S D T P C D D F
N Q H C C P Q G F T
G D I G C D Q H T S
H C C P A G Y T C N
G E G H F C H D N Q
G F H C S A R G T K

T W P R I T S H H L
K G V S C G D G Y H
S Q F E C P D S A T
A S C D L V H T R C
P D A K T Q C P D D
Q D T V C D L I Q S
C P E G Y T C C R L
T E K G T C E M G I
T R C P T N N T C C
C L A Q G Y C Q K G
C P V G Q T C C P S
V K A R T C E K D V
T C C K D S A G V W
C L R K K I P R W D

Biological Activity	Data is not available.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Progranulin (PGRN) Protein operates as a crucial regulator of lysosomal function and a growth factor with roles spanning inflammation, wound healing, and cell proliferation. PGRN orchestrates protein trafficking to lysosomes, influences lysosomal enzyme activity, and promotes lysosomal acidification, culminating in the degradation of mature cathepsin D by cathepsin B. Beyond its lysosomal functions, PGRN acts as a growth factor in wound healing, directly impacting dermal fibroblasts and endothelial cells, fostering cell division, migration, and the formation of capillary-like tubule structures. It further contributes to epithelial cell proliferation by impeding TNF-mediated neutrophil activation, preventing the release of oxidants and proteases. Additionally, PGRN plays a pivotal role in modulating inflammation in neurons, safeguarding neuronal survival, axonal outgrowth, and overall neuronal integrity. However, it exhibits a contrasting effect on epithelial cells, inhibiting their proliferation and prompting the secretion of IL-8. The multifaceted actions of PGRN highlight its versatile functions in cellular processes with implications for various physiological and pathological conditions.

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