

Furin/PCSK3 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P79228
Synonyms:	Furin; Dibasic-processing enzyme; Paired basic amino acid residue-cleaving enzyme; PACE; Prohormone convertase 3; Fur; Pcsk3
Species:	Mouse
Source:	HEK293
Accession:	P23188 (Q25-E714)
Gene ID:	18550
Molecular Weight:	75-91 kDa

PROPERTIES

AA Sequence

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

Biological Activity

Measured by its ability to cleave the fluorogenic peptide substrate pERTKR-AMC. The specific activity is 307.98 pmol/min/μg, as measured under the described conditions.

Appearance

Lyophilized powder.

Formulation

Lyophilized from a 0.2 μm filtered solution of 20 mM Tris, 150 mM NaCl, 1 mM₂, 0.5% (w/v) Brij-35, pH 7.4.

Endotoxin Level

<1 EU/μg, determined by LAL method.

Reconstitution

It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O. 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**

Furin/PCSK3 protein is a widely expressed endoprotease present in constitutive secretory pathways that exhibits cleavage activity at the RX(K/R)R consensus motif. It plays a crucial role in the processing of various substrates, including TGFβ1, contributing to the activation of TGF-beta-1. Additionally, Furin/PCSK3 protein is responsible for converting the non-functional prohormone Brain natriuretic factor into its active hormone BNP(1-45) through proteolytic cleavage. Moreover, it regulates the acidification of dense-core secretory granules in islets of Langerhans cells by mediating the processing of the accessory subunit ATP6AP1/Ac45 of the V-ATPase.

Caution: Product has not been fully validated for medical applications. For research use only.

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