

## CAPN1 Protein, Human (His)

<b>Cat. No.:</b>	HY-P72113
<b>Synonyms:</b>	Ca2 activated neutral protease; Calcium activated neutral proteinase; CANP1; CANPL 1; CANPL1; CAPN 1; CAPN1; Cell proliferation inducing protein 30; Cell proliferation-inducing gene 30 protein; Micromolar Calpain; Micromolar-calpain; Mu Calpain; muCANP; muCL
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Accession:</b>	P07384 (M1-A714)
<b>Gene ID:</b>	823
<b>Molecular Weight:</b>	Approximately 85.9 kDa

### PROPERTIES

#### AA Sequence

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

**Biological Activity** The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.

**Appearance** Lyophilized powder

**Formulation** Lyophilized from a 0.2 µm solution of 10 mM Tris-HCl, 1 mM EDTA, 6% Trehalose, pH 8.0.

**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 ddH<sub>2</sub>O.

**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

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recommended to freeze aliquots at -20°C or -80°C for extended storage.

**Shipping**

Room temperature in continental US; may vary elsewhere.

**DESCRIPTION**

**Background**

CAPN1, a calcium-regulated non-lysosomal thiol-protease, plays a crucial role in limited proteolysis of substrates involved in cytoskeletal remodeling and signal transduction. Operating in a calcium-dependent manner, CAPN1 catalyzes the targeted cleavage of various proteins, such as CTBP1 at specific sites, including 'Asn-375', 'Gly-387', and 'His-409'. Additionally, CAPN1 is involved in the activation of caspase-7 (CASP7) through proteolytic cleavage. These activities highlight its significance in regulating cellular processes associated with cytoskeletal dynamics and apoptosis, emphasizing its role as a calcium-dependent protease with implications for signal transduction pathways and cellular remodeling.

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

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