

PSMA Protein, Human (HEK293, His)

Cat. No.:	HY-P70548
Synonyms:	Glutamate carboxypeptidase 2; FGCP; GCPII; mGCP; NAALADase I; PSMA; Cell growth-inhibiting gene 27 protein; Folate hydrolase 1
Species:	Human
Source:	HEK293
Accession:	Q04609 (K44-A750)
Gene ID:	2346
Molecular Weight:	90-120 kDa

PROPERTIES

AA Sequence

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

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

Appearance

Solution.

Formulation

Supplied as a 0.2 µm filtered solution of 20 mM MES, 150 mM NaCl, 5% Trehalose, pH 5.5.

Endotoxin Level

<1 EU/µg, determined by LAL method.

Reconstitution

N/A

Storage & Stability

Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.

Shipping

Shipping with dry ice

DESCRIPTION**Background**

PSMA, a multifaceted enzyme, showcases both folate hydrolase and N-acetylated-alpha-linked-acidic dipeptidase (NAALADase) activities, displaying a notable preference for tri-alpha-glutamate peptides. It plays a crucial role in the intestinal uptake of folate, contributing to essential metabolic processes. Within the brain, PSMA acts as a modulator of excitatory neurotransmission by hydrolyzing the neuropeptide N-acetylaspartylglutamate (NAAG), leading to the release of glutamate. Notably, PSMA's involvement in prostate tumor progression highlights its potential significance in cancer biology. Additionally, the enzyme exhibits dipeptidyl-peptidase IV type activity and effectively cleaves Gly-Pro-AMC in vitro, further emphasizing its diverse enzymatic functions.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA