

## CPVL Protein, Human (HEK293, His)

<b>Cat. No.:</b>	HY-P7818
<b>Synonyms:</b>	rHuProbable serine carboxypeptidase CPVL, His; Probable serine carboxypeptidase CPVL; Carboxypeptidase vitellogenic-like; Vitellogenic carboxypeptidase-like protein; VCP-like protein; CPVL
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	AAH16838.1 (L23-G476)
<b>Gene ID:</b>	54504
<b>Molecular Weight:</b>	54-65 kDa

### PROPERTIES

#### AA Sequence

LFRSLYRSVS	MPPKGDSDGQP	LFLTPYIEAG	KIQKGRELSL
VGPFPGLNMK	SYAGFLTWNK	TYNLNLFWF	FPAQIQPEDA
PVVLWLQGGP	GGSSMFGLFV	EHGPYVVTSN	MTLRDRDFPW
TTTLSMLYID	NPVGTGFSFT	DDTHGYAVNE	DDVARDLYSA
LIQFFQIFPE	YKNNDFYVTG	ESYAGKYVPA	IAHLIHSLN
VREVKINLNG	IAIGDGYSDP	ESIIGGYAEF	LYQIGLLDEK
QKKYFQKQCH	ECIEHIRKQN	WFEAFEILDK	LLDGDLTSDP
SYFQNVTGCS	NYYNFLRCTE	PEDQLYYVKF	LSLPEVRQAI
HVGNQTFNDG	TIVEKYLRED	TVQSVKPWLT	EIMNNYKVL
YNGQLDIIVA	AALTERSLMG	MDWKGSQEK	KAEEKVWKIF
KSDSEVAGYI	RQAGDFHQVI	IRGGGHI LPY	DQPLRAFDMI
NRFIYGKGD	PYVG		

<b>Biological Activity</b>	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
<b>Appearance</b>	Solution.
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution of 20 mM Tris-HCl, 150 mM NaCl, 10% Glycerol, pH 7.5.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	N/A
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	Shipping with dry ice.

### DESCRIPTION

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## Background

The CPVL protein, a serine carboxypeptidase, may be involved in the digestion of phagocytic granules in lysosomes, in the inflammatory protease cascade, and in the pruning of peptides for antigen presentation. Carboxypeptidases are a large family of proteases that cleave individual amino acids from the carboxyl terminus of proteins or peptides. The functions of these enzymes include the degradation of phagocytic and/or endocytosed proteins in lysosomes and the digestive breakdown of proteins in the intestine. In addition to their degradative functions in the intestine, carboxypeptidases can activate or inactivate bioactive peptides such as angiotensin, bradykinin, and endothelin I. CPVL protein expression is induced during the maturation of monocytes into macrophages. In macrophages, possible functions of CPVL include digestion of phagocytic granules in lysosomes, participation in inflammatory protease cascades, and pruning of peptides for antigen presentation. Studies have found that the expression of CPVL protein is significantly up-regulated in both neovascular AMD (nAMD) and dry AMD, making it a potential biomarker for identification of AMD. Furthermore, high CPVL expression was associated with advanced clinical grade and poor prognosis. CPVL silencing activates the IFN- $\gamma$ /STAT1 signaling pathway, thereby promoting glioma cell apoptosis and inhibiting cell proliferation and tumorigenicity in vitro and in vivo.

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

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