

# Cathepsin B

Catalog # PVGS1652

## Product Information

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<b>Primary Accession</b>	<a href="#">P07858</a>
<b>Species</b>	Human
<b>Sequence</b>	Arg18-Ile339
<b>Purity</b>	> 95% as analyzed by SDS-PAGE
<b>Endotoxin Level</b>	
<b>Expression System</b>	Human cells
<b>Formulation</b>	Supplied as a 0.2 $\mu$ m filtered solution in PBS, pH 7.4.
<b>Storage &amp; Stability</b>	Upon receiving, this product remains stable for up to 6 months at -70°C or below, the product can be stored for 2-3 weeks at 2-8°C or 3 months at -20°C. Avoid repeated freeze-thaw cycles.

## Additional Information

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<b>Gene ID</b>	1508
<b>Other Names</b>	Cathepsin B, 3.4.22.1, APP secretase, APPS, Cathepsin B1, Cathepsin B light chain, Cathepsin B heavy chain, CTSB, CPSB
<b>Target Background</b>	Cathepsin B is an enzymatic protein belonging to the peptidase (or protease) families. The protein encoded by this gene is a lysosomal cysteine protease composed of a dimer of disulfide-linked heavy and light chains, both produced from a single protein precursor. It is a member of the peptidase C1 family. At least five transcript variants encoding the same protein have been found for this gene. Cystatin-B / CSTB is an intracellular thiol proteinase inhibitor. Tightly binding reversible inhibitor of cathepsins L, H and B. Cystatin-B / CSTB is able to form a dimer stabilized by noncovalent forces, inhibiting papain and cathepsins L, h and b. Cystatin-B / CSTB is also thought to play a role in protecting against the proteases leaking from lysosomes.

## Protein Information

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<b>Name</b>	CTSB
<b>Synonyms</b>	CPSB
<b>Function</b>	Thiol protease which is believed to participate in intracellular degradation and turnover of proteins (PubMed: <a href="#">12220505</a> ). Cleaves matrix extracellular phosphoglycoprotein MEPE (PubMed: <a href="#">12220505</a> ). Involved in the solubilization

of cross-linked TG/thyroglobulin in the thyroid follicle lumen (By similarity).  
Has also been implicated in tumor invasion and metastasis  
(PubMed:[3972105](#)).

**Cellular Location**

Lysosome. Melanosome. Secreted, extracellular space  
{ECO:0000250|UniProtKB:A1E295}. Apical cell membrane  
{ECO:0000250|UniProtKB:P10605}; Peripheral membrane protein  
{ECO:0000250|UniProtKB:P10605}; Extracellular side  
{ECO:0000250|UniProtKB:P10605}. Note=Identified by mass spectrometry in  
melanosome fractions from stage I to stage IV (PubMed:17081065) Localizes  
to the lumen of thyroid follicles and to the apical membrane of thyroid  
epithelial cells (By similarity) {ECO:0000250|UniProtKB:P10605,  
ECO:0000269|PubMed:17081065}

**Tissue Location**

Expressed in the stratum spinosum of the epidermis. Weak expression is  
detected in the stratum granulosum

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.