

Cathepsin B

Catalog # PVGS1652

Product Information

Primary Accession	P07858
Species	Human
Sequence	Arg18-Ile339
Purity	> 95% as analyzed by SDS-PAGE
Endotoxin Level	
Expression System	Human cells
Formulation	Supplied as a 0.2 μ m filtered solution in PBS, pH 7.4.
Storage & Stability	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

Gene ID	1508
Other Names	Cathepsin B, 3.4.22.1, APP secretase, APPS, Cathepsin B1, Cathepsin B light chain, Cathepsin B heavy chain, CTSB, CPSB
Target Background	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

Name	CTSB
Synonyms	CPSB
Function	Thiol protease which is believed to participate in intracellular degradation and turnover of proteins (PubMed: 12220505). Cleaves matrix extracellular phosphoglycoprotein MEPE (PubMed: 12220505). 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'.