Cathepsin B Rabbit mAb

Catalog No	YP-rAb-17218
Isotype	IgG
Reactivity	Human
Applications	WB,IHC,IF,IP,ELISA
Gene Name	CTSB CPSB
Protein Name	Cathepsin B
Purification Process	Protein A
Specificity	Endogenous
Formulation	PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA
Source	Monoclonal, Rabbit,IgG
Dilution	IHC 1:200-1:1000; WB 1:2000-1:10000; IF 1:200-1:1000; ELISA 1:5000-1:20000; IP 1:50-1:200; Note: For IHC, we suggest antigen retrieval with TE buffer pH 9.0
Concentration	0.5 mg/ml
Purity	≥90%
Storage Stability	-15° C to -25° C/1 year(Do not lower than -25° C)
Synonyms	Cathepsin B;CTSB ; CPSB ; Cathepsin B ; APP secretase ; APPS ; Cathepsin B1 ; [Cleaved into: Cathepsin B light chain ; Cathepsin B heavy chain];CTSB CPSB
Observed Band	25 kDa 、42 kDa
Calculated Molecular Weight	38kD
Cell Pathway	Lysosome . Melanosome . Secreted, extracellular space . Apical cell membrane ; Peripheral membrane protein ; Extracellular side . 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). .
Tissue Specificity	Expressed in the stratum spinosum of the epidermis. Weak expression is detected in the stratum granulosum.
Function	Catalytic activity:Hydrolysis of proteins with broad specificity for peptide bonds. Preferentially cleaves -Arg-Arg-|-Xaa bonds in small molecule substrates (thus differing from cathepsin L). In addition to being an endopeptidase, shows peptidyl-dipeptidase activity, liberating C-terminal dipeptides.,Function:Thiol protease which is believed to participate in intracellular degradation and turnover of proteins. Has also been implicated in tumor invasion and metastasis.,similarity:Belongs to the peptidase C1 family.,subcellular location:Identified by mass spectrometry in melanosome fractions from stage I to stage IV.,subunit:Dimer of a heavy chain and a light chain cross-linked by a

disulfide bond.,

Background	This gene encodes a member of the C1 family of peptidases. Alternative splicing of this gene results in multiple transcript variants. At least one of these variants encodes a preproprotein that is proteolytically processed to generate multiple protein products. These products include the cathepsin B light and heavy chains, which can dimerize to form the double chain form of the enzyme. This enzyme is a lysosomal cysteine protease with both endopeptidase and exopeptidase activity that may play a role in protein turnover. It is also known as amyloid precursor protein secretase and is involved in the proteolytic processing of amyloid precursor protein (APP). Incomplete proteolytic processing of APP has been suggested to be a causative factor in Alzheimer's disease, the most common cause of dementia. Overexpression of the encoded protein has been associated with esophageal adenocarcinoma and other tumors.
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

