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Procathepsin K Antibody

Rabbit Anti Human Polyclonal Antibody
Catalog # ABV11701

Product Information

Application	WB
Primary Accession	P43235
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	36966

Additional Information

Gene ID	1513
Positive Control	Western blot: Recombinant protein
Application & Usage	Western blot: ~1:200
Other Names	CTSK, CTSO, CTSO3
Target/Specificity	Procathepsin K
Antibody Form	Liquid
Appearance	Colorless liquid
Formulation	30 □g (0.5 mg/ml) of antibody in PBS pH 7.2 containing 0.01 % BSA, 0.01 % thimerosal, and 50 % glycerol.
Handling	The antibody solution should be gently mixed before use.
Reconstitution & Storage	-20 °C
Background Descriptions	
Precautions	Procathepsin K Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CTSK
Synonyms	CTSO, CTSO2
Function	Thiol protease involved in osteoclastic bone resorption and may participate partially in the disorder of bone remodeling. Displays potent endoprotease

	activity against fibrinogen at acid pH. May play an important role in extracellular matrix degradation. Involved in the release of thyroid hormone thyroxine (T4) by limited proteolysis of TG/thyroglobulin in the thyroid follicle lumen (PubMed:11082042).
Cellular Location	Lysosome. Secreted. Apical cell membrane; Peripheral membrane protein; Extracellular side. Note=Localizes to the lumen of thyroid follicles and to the apical membrane of thyroid epithelial cells
Tissue Location	Predominantly expressed in osteoclasts (bones) (PubMed:7805878). Expressed in thyroid epithelial cells (PubMed:11082042).

Background

Cathepsin K, a member of the papain cysteine proteinase family is the predominant proteinase responsible for the resorption of the bone matrix. Cathepsin cleaves proteins such as collagen type I, collagen type II and osteonectin, thereby playing a role in bone remodeling and resorption in osteoporosis, osteolytic bone metastasis and rheumatoid arthritis (Bromme and Okamoto, 1995; Drake, F. et al 1996; Bossard et al, 1996). Cathepsin K is synthesized as an inactive proenzyme (35.1 kDa) that is converted to its mature active form (23.6 kDa) by proteolytic cleavage of its 99-amino-acid propeptide domain. The in-vitro processing of procathepsin K to mature cathepsin K is autocatalytic.