

**CTSK Antibody (Center R222) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP7381c****Specification**

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**CTSK Antibody (Center R222) Blocking Peptide - Product Information**Primary Accession [P43235](#)**CTSK Antibody (Center R222) Blocking Peptide - Additional Information****Gene ID** 1513**Other Names**

Cathepsin K, Cathepsin O, Cathepsin O2, Cathepsin X, CTSK, CTSO, CTSO2

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody [AP7381c](/products/AP7381c) was selected from the Center region of human CTSK. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**CTSK Antibody (Center R222) Blocking Peptide - 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: <http://www.uniprot.org/citations/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).

**CTSK Antibody (Center R222) Blocking Peptide - Protocols**

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

**CTSK Antibody (Center R222) Blocking Peptide - Images****CTSK Antibody (Center R222) Blocking Peptide - Background**

The protein encoded by this gene is a lysosomal cysteine proteinase involved in bone remodeling and resorption. This protein, which is a member of the peptidase C1 protein family, is predominantly expressed in osteoclasts. However, the encoded protein is also expressed in a significant fraction of human breast cancers, where it could contribute to tumor invasiveness. Mutations in this gene are the cause of pycnodysostosis, an autosomal recessive disease characterized by osteosclerosis and short stature. This gene may be subject to RNA editing.

**CTSK Antibody (Center R222) Blocking Peptide - References**

Lendeckel,U., Neurochem. Int. 54 (7), 410-417 (2009)