

**Goat Anti-Cathepsin K Antibody**  
**Peptide-affinity purified goat antibody**  
**Catalog # AF1198a****Specification**

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**Goat Anti-Cathepsin K Antibody - Product Information**

Application	WB, Pep-ELISA
Primary Accession	<a href="#">P43235</a>
Other Accession	<a href="#">NP_000387</a> , <a href="#">1513</a>
Reactivity	Human
Predicted	Mouse, Rat, Pig, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	36966

**Goat Anti-Cathepsin K Antibody - Additional Information****Gene ID** 1513**Other Names**

Cathepsin K, 3.4.22.38, Cathepsin O, Cathepsin O2, Cathepsin X, CTSK, CTSO, CTSO2

**Dilution**

WB~~1:1000

Pep-ELISA~~N/A

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-Cathepsin K Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-Cathepsin K Antibody - 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:<a href="http://www.uniprot.org/citations/11082042" target="\_blank">11082042</a>).

#### 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).

### Goat Anti-Cathepsin K Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Goat Anti-Cathepsin K Antibody - Images



AF1198a (1µg/ml) staining of Human Lung lysate (35µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

### Goat Anti-Cathepsin K Antibody - 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.

## **Goat Anti-Cathepsin K Antibody - References**

Evaluation of candidate stromal epithelial cross-talk genes identifies association between risk of serous ovarian cancer and TERT, a cancer susceptibility hot-spot. Johnatty SE, et al. PLoS Genet, 2010 Jul 8. PMID 20628624.

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.

Conformational flexibility and allosteric regulation of cathepsin K. Novinec M, et al. Biochem J, 2010 Jul 15. PMID 20450492.

Expression of syndecan-1 and cathepsins D and K in advanced esophageal squamous cell carcinoma. Szumilo J, et al. Folia Histochem Cytobiol, 2009. PMID 20430722.

A novel missense mutation in cathepsin K (CTSK) gene in a consanguineous Pakistani family with pycnodysostosis. Khan B, et al. J Investig Med, 2010 Jun. PMID 20305575.