10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

CTSK Antibody (Center R222)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP7381c

Specification

CTSK Antibody (Center R222) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	P43235
Other Accession	P43236, Q9GLE3, P61276, Q5E968
Reactivity	**Human, Mouse**
Predicted	**Bovine, Monkey, Pig, Rabbit**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit Ig**
Antigen Region	**207-237**

CTSK Antibody (Center R222) - Additional Information

Gene ID 1513

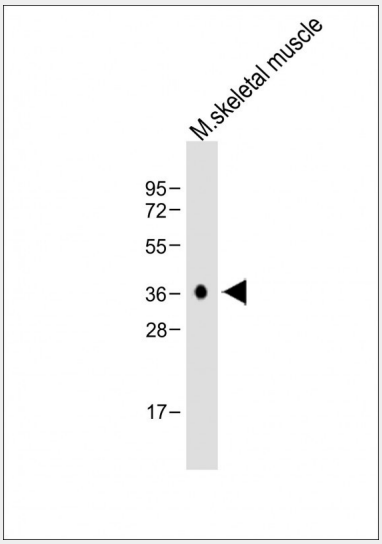
Other Names
Cathepsin K, Cathepsin O, Cathepsin O2, Cathepsin X, CTSK, CTSO, CTSO2

Target/Specificity
This CTSK antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 207-237 amino acids from the Central region of human CTSK.

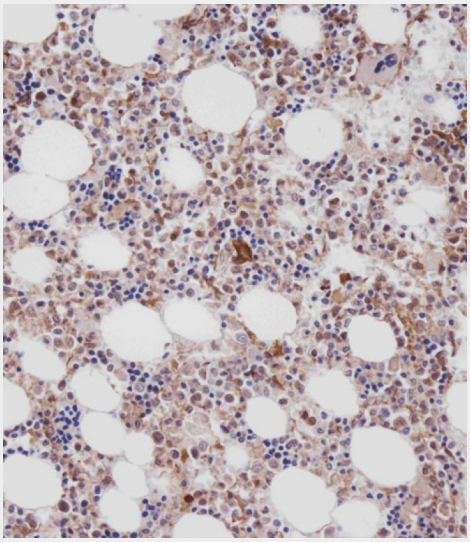
Dilution
WB~~1:2000
IHC-P~~1:100
FC~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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



Anti-CTSK Antibody (Center R222) at 1:2000 dilution + Mouse skeletal muscle lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 37 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Immunohistochemical analysis of AP7381C on paraffin-embedded Human marrow tissue. Tissue was fixed with formaldehyde at room temperature. Heat induced epitope retrieval

cycles.

Precautions
CTSK Antibody (Center R222) is for research use only and not for use in diagnostic or therapeutic procedures.

CTSK Antibody (Center R222) - 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).

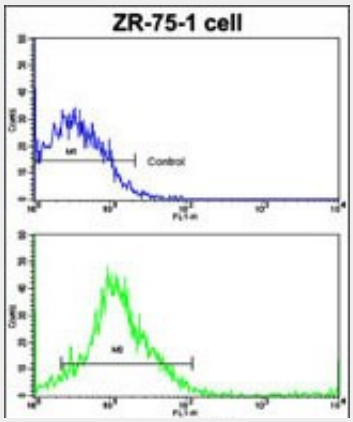
CTSK Antibody (Center R222) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CTSK Antibody (Center R222) - Citations

was performed by EDTA buffer (pH9. 0). Samples were incubated with primary antibody(1:100) for 1 hour at room temperature. Undiluted CRF Anti-Polyvalent HRP Polymer antibody was used as the secondary antibody.



Flow cytometric analysis of ZR-75-1 cells using CTSK Antibody (Center R222)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

CTSK Antibody (Center R222) - 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) - References

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

- Circular RNA atlas in osteoclast differentiation with and without alendronate treatment