

## Product datasheet

# Anti-Cathepsin K antibody ab66237

[1 References](#) [4 Images](#)

### Overview

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<b>Product name</b>	Anti-Cathepsin K antibody
<b>Description</b>	Mouse monoclonal to Cathepsin K
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> ELISA, WB, Flow Cyt, ICC/IF, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human <b>Predicted to work with:</b> Rat, Rabbit, Horse, Cow, Dog, Pig, Chimpanzee, Cynomolgus monkey, Rhesus monkey, Opossum
<b>Immunogen</b>	Recombinant fragment with tag: KCRGYREIPE GNEKALKRAV ARVGPVSVAI DASLTSFQFY SKGVYYDESC NSDNLNHA VL AVGYGIQKGN KHWIIKNSWG ENWGNKGYIL MARNKNNACG IANLASFPKM, corresponding to amino acids 220-331 of Human Cathepsin K <a href="#">Run BLAST with ExPASy</a> <a href="#">Run BLAST with NCBI</a>
<b>Positive control</b>	Cathepsin K transfected 293T cell lysate.
<b>General notes</b>	Abcam is committed to meeting high standards of ethical manufacturing and has decided to discontinue this product by July 2018 as it has been generated by the ascites method. We are sorry for any inconvenience this may cause.

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
<b>Storage buffer</b>	Preservative: None Constituents: PBS, pH 7.2
<b>Purity</b>	Protein A purified
<b>Clonality</b>	Monoclonal
<b>Isotype</b>	IgG2a

### Applications

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Our [Abpromise guarantee](#) covers the use of **ab66237** in the following tested applications.

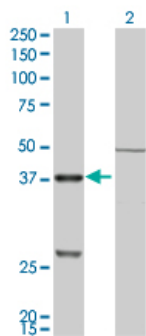
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ELISA		Use at an assay dependent concentration.
WB		Use a concentration of 1 - 5 µg/ml. Detects a band of approximately 37 kDa (predicted molecular weight: 37 kDa).
Flow Cyt		Use 0.5µg for 10 <sup>6</sup> cells. <a href="#">ab170191</a> - Mouse monoclonal IgG2a, is suitable for use as an isotype control with this antibody.
ICC/IF		Use a concentration of 1 µg/ml.
IHC-P		Use a concentration of 10 µg/ml.

## Target

<b>Function</b>	Closely 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.
<b>Tissue specificity</b>	Predominantly expressed in osteoclasts (bones).
<b>Involvement in disease</b>	Defects in CTSK are the cause of pycnodysostosis (PKND) [MIM:265800]. PKND is an autosomal recessive osteochondrodysplasia characterized by osteosclerosis and short stature.
<b>Sequence similarities</b>	Belongs to the peptidase C1 family.
<b>Cellular localization</b>	Lysosome.

## Images



Western blot - Cathepsin K antibody (ab66237)

**All lanes :** Anti-Cathepsin K antibody

(ab66237) at 1 µg/ml

**Lane 1 :** Cathepsin K transfected 293T cell lysate

**Lane 2 :** Non-transfected 293T cell lysate

Lysates/proteins at 50 µg per lane.

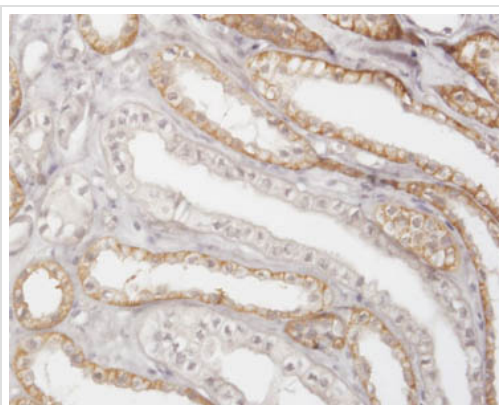
### Secondary

**All lanes :** Goat Anti-Mouse IgG (H&L)-HRP at 1/2500 dilution

**Predicted band size:** 37 kDa

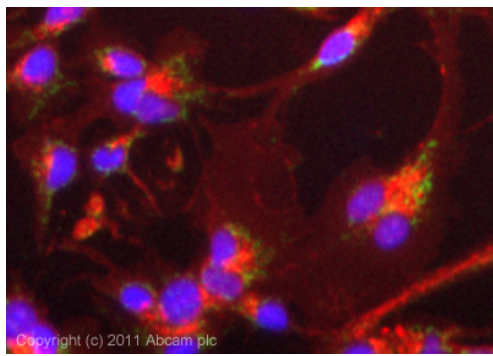
**Observed band size:** 37 kDa

**Additional bands at:** 27 kDa. We are unsure as to the identity of these extra bands.



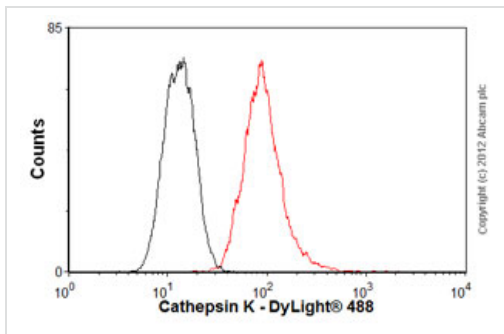
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections)-Cathepsin K antibody(ab66237)

ab66237 at 10 µg/ml staining Cathepsin K in human kidney tissue section by Immunohistochemistry (Formalin/ PFA fixed paraffin-embedded tissue sections).



Immunocytochemistry/ Immunofluorescence-Anti-Cathepsin K antibody(ab66237)

ICC/IF image of ab66237 stained HepG2 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab66237, 1 µg/ml) overnight at +4°C. The secondary antibody (green) was [ab96879](#) Dylight 488 goat anti-mouse IgG (H+L) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



Flow Cytometry-Anti-Cathepsin K antibody(ab66237)

Overlay histogram showing U20S cells stained with ab66237 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab66237, 0.5µg/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) ([ab96879](#)) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2a [ICIGG2A] ([ab91361](#), 1µg/1x10<sup>6</sup> cells) used under the same conditions. Acquisition of >5,000 events was performed.

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