**Product name:** Cathepsin K Activity Assay Kit (Fluorometric) (ab65303)

**Detection method:** Fluorescent

**Sample type:** Tissue Extracts, Cell Lysate

**Assay type:** Enzyme activity

**Assay time:** 2h 00m

**Product overview:**
Cathepsin K Activity Assay Kit (Fluorometric) (ab65303) is a fluorescence-based assay that utilizes the preferred cathepsin K substrate sequence LR labeled with AFC (amino-4-trifluoromethyl coumarin). Cell lysates or other samples that contain cathepsin K will cleave the synthetic substrate LR-AFC to release free AFC. The released AFC can easily be quantified using a fluorometer or fluorescence plate reader.

Visit our FAQs page for tips and troubleshooting.

**Notes:**
Apoptosis can be mediated by mechanisms other than the traditional caspase-mediated cleavage cascade. There is growing recognition that alternative proteolytic enzymes such as the lysosomal cathepsin proteases may initiate or propagate proapoptotic signals. Cathepsins are lysosomal enzymes that are also used as sensitive markers in various toxicological investigations.

**Platform:** Microplate reader

**Storage instructions:** Store at -20°C. Please refer to protocols.

<table>
<thead>
<tr>
<th>Components</th>
<th>Identifier</th>
<th>100 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>CK Cell Lysis Buffer</td>
<td>WM</td>
<td>1 x 25ml</td>
</tr>
<tr>
<td>CK Inhibitor (1mM)</td>
<td>Red</td>
<td>1 x 1µl</td>
</tr>
<tr>
<td>CK Reaction Buffer</td>
<td>NM</td>
<td>1 x 5ml</td>
</tr>
<tr>
<td>CK Substrate Ac-LR-AFC (10mM)</td>
<td>Amber</td>
<td>1 x 200µl</td>
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</table>

**Relevance:**
Cathepsin K is 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.
Cellular localization

Lysosome.

Images

Cathepsin K Activity measured in tissue lysates (each with protein concentration of 4 mg/mL) after 1 hour of incubation with and without inhibitor (I).

Cathepsin K Activity measured in cell lysates (each with cells concentration of 4e7 cells/mL) after 1 hour of incubation with and without inhibitor (I).

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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