

Product datasheet

Cathepsin S Activity Assay Kit (Fluorometric) ab65307

6 References 2 Images

Overview

Product name	Cathepsin S Activity Assay Kit (Fluorometric)
Sample type	Tissue Extracts, Cell Lysate
Assay type	Enzyme activity
Assay time	2h 00m
Product overview	<p>Cathepsin S Activity Assay Kit (ab65307) is a fluorescence-based assay that utilizes the preferred cathepsin-S substrate sequence VVR labeled with AFC (amino-4-trifluoromethyl coumarin). Cell lysates or other samples that contain cathepsin-S will cleave the synthetic substrate VVR-AFC to release free AFC. The released AFC can easily be quantified using a fluorometer or fluorescence plate reader.</p> <p>Visit our FAQs page for tips and troubleshooting.</p>

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.

Properties

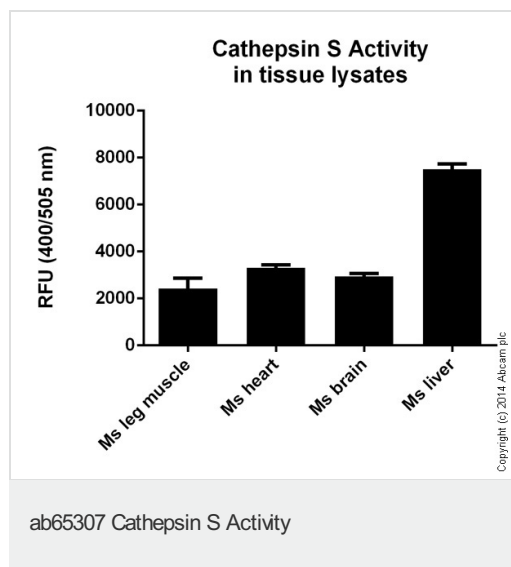
Storage instructions Store at -20°C. Please refer to protocols.

Components	Identifier	100 tests
CS Cell Lysis Buffer	WM	1 x 25ml
CS Inhibitor (1 mM)	Red	1 x 20µl
CS Reaction Buffer	NM	1 x 5ml
CS Substrate Ac-VVR-AFC (10 mM)	Brown	1 x 200µl

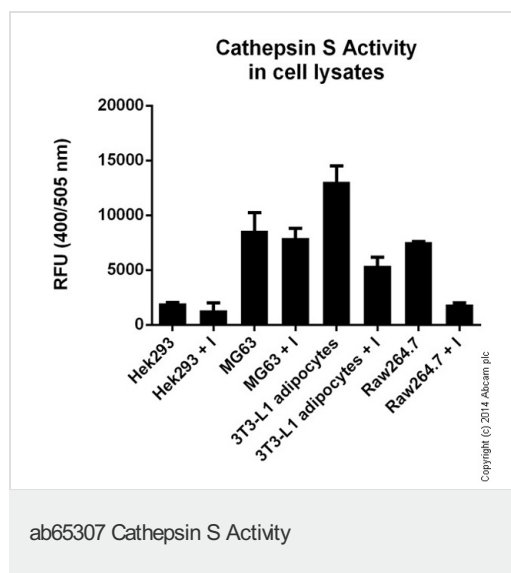
Relevance

The cathepsin family of proteases contains several diverse classes of enzymes. The cysteine protease class comprises cathepsin B, H, K, L, O, and S. The aspartyl protease class contains cathepsin D and E. Cathepsin G belongs to the serine protease class. Cathepsins are involved in various cellular events such as peptide biosynthesis, protein degradation, and apoptosis. Cathepsin S has been shown to be able to function as an elastase over a broad pH range in alveolar macrophages.

Images



Cathepsin S Activity measured in tissue lysates (each with protein concentration of 4 mg/mL) after 1 hour of incubation.



Cathepsin S Activity measured in cell lysates (each with cells concentration of 4×10^7 cells/mL) after 1 hour of incubation with and without inhibitor (I).

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