

Cathepsin D Inhibitor Assay Kit ab126779

1 References 1 图像

概述

产品名称	Cathepsin D抑制剂Assay 试剂盒
检测方法	Fluorescent
样品类型	Inhibitor compounds
检测类型	Quantitative
检测时间	1h 00m
产品概述	<p>Cathepsin D Inhibitor Screening Kit (ab126779) is a fluorescence-based assay that utilizes the preferred cathepsin D substrate sequence GKPILFFRLK(Dnp)-D-R-NH2) labeled with MCA. Cathepsin D will cleave the synthetic substrate to release the quenched fluorescent group MCA, which can then easily be measured using a fluorometer or fluorescence plate reader at Ex/Em = 328/460 nm. The relative efficacy of test inhibitors are compared to the positive control inhibitor, Pepstatin A (IC₅₀ < 0.1 nM). The Cathepsin D assay is simple, straightforward, and can be adapted to 96-well plate assays and is suitable for high throughput screening (HTS). Visit our FAQs page for tips and troubleshooting.</p>
说明	<p>This product is manufactured by BioVision, an Abcam company and was previously called K148 Cathepsin D Inhibitor Screening Kit (Fluorometric). K148-100 is the same size as the 100 test size of ab126779.</p> <p>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 pro-apoptotic signals. Cathepsins are lysosomal enzymes that are also used as sensitive markers in various toxicological investigations.</p>
平台	Microplate reader

性能

存放说明 Please refer to protocols.

组件	100 tests
CD Reaction Buffer	1 x 10ml
Human Cathepsin D	1 vial

组件	100 tests
Pepstatin A Solution	1 x 20µl
Substrate II	1 x 0.2ml

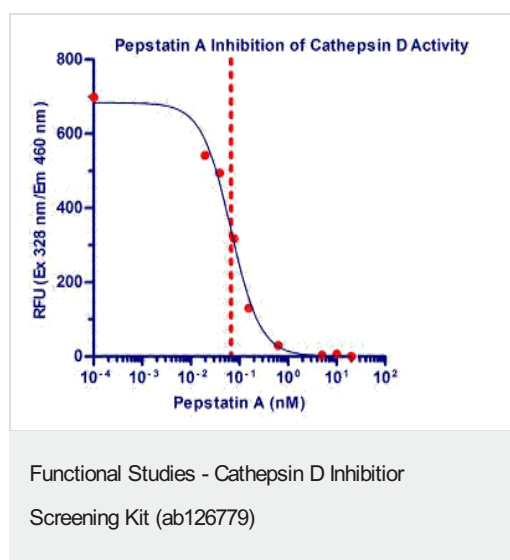
相关性

Cathepsin D is a normal lysosomal protease that is expressed in all cells. It is an aspartyl protease with a pH optimum in the range of 3-5, and contains two N linked oligosaccharides. Cathepsin D is synthesized as an inactive pro enzyme. Activation involves the proteolytic removal of the 43 amino acid profragment and an internal cleavage to generate the two chain form made up of 34 and 14 kDa subunits. Cathepsin D contains the mannose-6-phosphate lysosomal localization signal that targets the enzyme to the lysosomal compartment where it functions in the normal degradation of proteins. In certain tumor cells, Cathepsin D is abnormally processed and is secreted in its precursor form. Numerous clinical studies as well as in vitro evidence suggest that cathepsin D plays an important role in malignant transformation and may be a useful prognostic indicator for breast cancer and possibly Alzheimer's disease.

细胞定位

Lysosome. Melanosome. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

图片



Typical Pepstatin A Inhibition Profile of Cathepsin D Activity. The red line denotes an IC_{50} value of 0.067 nM. Results were analyzed by fluorescence plate reader according to the kit instructions.

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