

Calpain Activity Assay Kit ab65308

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医薬用外劇物

製品の概要

製品名	Calpain Activity Assay Kit
検出方法	Fluorescent
サンプルの種類	Tissue Extracts, Cell Lysate
アッセイタイプ	Quantitative
全工程の試験時間	2h 00m
種交差性	交差種: Mammals, Other species
製品の概要	Calpain Activity Assay Kit ab65308 provides optimized buffers and reagents for a convenient measurement of calpain activity.

The extraction buffer included in the kit specifically extracts cytosolic proteins without contamination by cell membrane and lysosome proteases. It also prevents auto-activation of calpain during the extraction procedure. Thus, the kit detects only activated calpain within the cytosol.

The calpain activity assay protocol is based on the detection of cleavage of calpain substrate Ac-LLY-AFC. Ac-LLY-AFC emits blue light ($\lambda_{max} = 400 \text{ nm}$); upon cleavage of the substrate by calpain, free AFC emits a yellow-green fluorescence ($\lambda_{max} = 505 \text{ nm}$), which can be quantified using a fluorometer or a fluorescence plate reader. Comparison of the fluorescence intensity from a treated sample with a normal control allows determination of the changes in calpain activity.

Calpain activity assay protocol summary:

- add samples and positive and negative controls to wells
- add reaction buffer and calpain substrate
- incubate for 60 min
- analyze with a microplate reader

特記事項

This product is manufactured by BioVision, an Abcam company and was previously called K240 Calpain Activity Fluorometric Assay Kit. K240-100 is the same size as the 100 test size of ab65308.

If additional Ac-LLY-AFC substrate is needed, it can be purchased separately as [ab171379](#).

試験プラットフォーム

Microplate reader

製品の特性

保存方法

Store at -80°C. Please refer to protocols.

内容	100 tests
10X Reaction Buffer	1 x 1.5ml
Calpain I Positive Control	1 x 10µl
Calpain Inhibitor	1 x 10µl
Calpain Substrate	1 x 500µl
Extraction Buffer III	1 x 25ml

機能

Calcium-regulated non-lysosomal thiol-protease which catalyze limited proteolysis of substrates involved in cytoskeletal remodeling and signal transduction.

組織特異性

Ubiquitous.

配列類似性

Belongs to the peptidase C2 family.

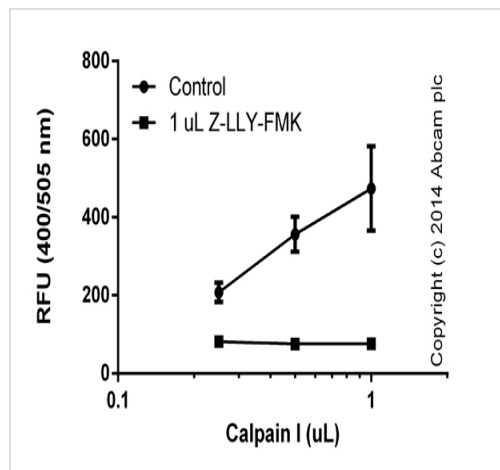
Contains 1 calpain catalytic domain.

Contains 4 EF-hand domains.

細胞内局在

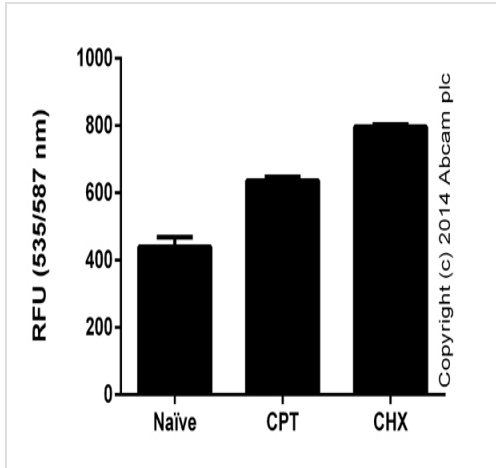
Cytoplasm. Cell membrane. Translocates to the plasma membrane upon Ca(2+) binding.

画像



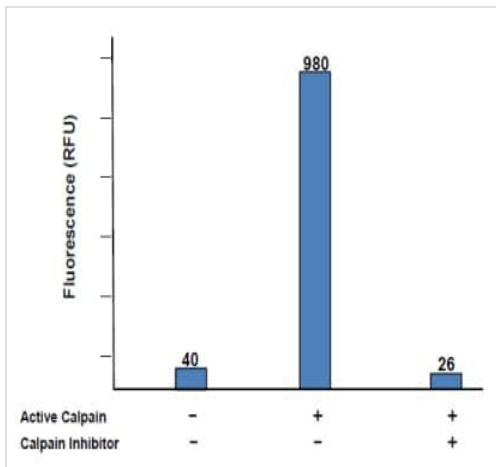
Different amounts of positive control (Calpain I) treated with 1 µL of inhibitor (Z-LLY-FMK), background signal subtracted, duplicates; +/- SD.

Functional assays: Calpain Activity Assay Kit
(ab65308)



10e7 Jurkat cells (in 10 mL) were cultured in the absence or presence of 10 μ M Camptothecin (CPT) ([ab120115](#)) or 10 μ g/mL Cycloheximide (CHX) ([ab120093](#)) for 4 hours. Pelleted cells were lysed in 0.5 mL of Extraction Buffer and tested directly. Background signal subtracted, duplicates; +/- SD.

Functional assays: Calpain Activity Assay Kit
(ab65308)



Typical Data for ab65308: Active Calpain (1 μ g) was incubated at 37 $^{\circ}$ C for one hour using the Calpain Substrate with or without 20 μ M Calpain Inhibitor.

Functional Studies - Calpain Activity Assay Kit
(ab65308)

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