abcam

Product datasheet

Deubiquitinase Assay Kit ab241002

1 References 3 Images

Overview

Product name	Deubiquitinase Assay Kit
Detection method	Fluorescent
Sample type	Cell culture extracts, Tissue Extracts
Product overview	Deubiquitinase Assay Kit (ab241002) provides a straight-forward and general measure of deubiquitinase activity by utilizing a fluorescent deubiquitinase substrate to detect activity as low as 0.25 µU with purified enzyme. Fl-Substrate -------> Cleaved Substrate + Fluorescence
Notes	This product is manufactured by BioVision, an Abcam company and was previously called K485 Deubiquitinase Activity Assay Kit (Fluorometric). K485-100 is the same size as the 100 test size of ab241002.
Platform	Microplate reader

Properties

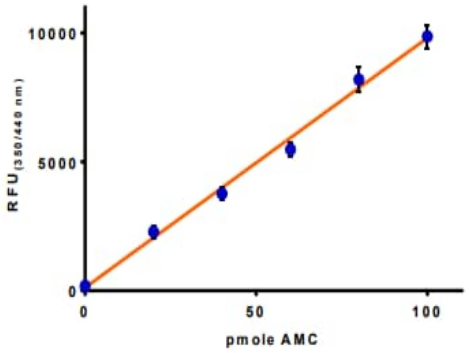
Storage instructions Store at -20°C. Please refer to protocols.

Components	100 tests
1 M DTT	1 x 100µl
AMC Standard (1 mM)	1 x 100µl
DUB Assay Buffer	1 x 25ml
DUB Positive Control	1 vial
DUB Substrate (in DMSO)	1 x 25µl
White 96-well Half-Area Plate	1 unit

Relevance Cell activity and viability is tightly regulated by controlling the production and degradation of the

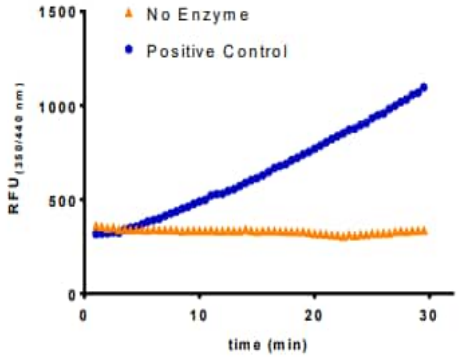
thousands of different proteins in the cell. The proteasome is responsible for the majority of cellular protein degradation; however, drugs targeting the proteasome can have side effects caused by the lack of specificity associated with inhibiting the proteasome itself. Altering the ubiquitination state of target proteins is thus appealing as an alternative approach. Modification of the ubiquitin-mediated proteasome pathway has been shown to be a valid mechanism for treating a variety of diseases, all of which involve dysregulation of cellular proteostasis. As such, it is imperative that these ubiquitination signals also be reversible. The enzymes responsible for cleavage, and hence removal of ubiquitin from ubiquitinated proteins, are known as de-ubiquitinating enzymes, or DUBs. They are proteases that hydrolyze the isopeptide bond between an ubiquitin moiety and a lysine residue on its target protein. By removing the ubiquitin molecule, the protein escapes the fate of proteasomal degradation and remains a viable factor in the cell.

Images



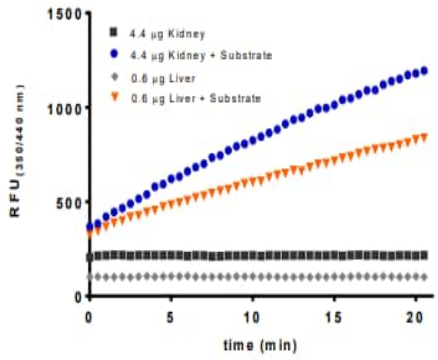
AMC Standard Curve

AMC Standard Curve



Time course using positive control DUB as described.

Time course using positive control DUB as described



Example of determination of DUB activity in tissue lysates.

Rat tissue samples (10 mg each) were resuspended in DUB Assay Buffer with DTT (100 □l), homogenized, and clarified by centrifugation. The DUB activities for Rat Kidney and Liver lysates, in mU/mg, were determined to be 0.76 and 3.31, respectively. Assays were performed following the kit protocol.

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors