

Deubiquitinase Activity Assay Kit (Fluorometric)

Product Information

Cat

Kit-1071

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Description

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. Deubiquitinase Activity Assay Kit provides a straight-forward and general measure of deubiquitinase activity by utilizing a fluorescent deubiquitinase substrate to detect activity as low as 0.25 μ U with purified enzyme.

Applications

Measurement of DUB activity in various tissues/cell extracts
Determination of DUB activity associated with pathological conditions
Characterization of activity of purified DUB enzymes

Storage

-20°C

Shipping

Deubiquitinase Activity Assay Kit (Fluorometric)

Gel Pack

Size

100 assays

Kit Components

DUB Assay Buffer; 1 M DTT; DUB Substrate (in DMSO); DUB Positive Control; AMC Standard (1 mM);
White 96-well Half-Area Plate

Target Species

Mammalian

Detection method Fluorescence (Ex/Em 350/440 nm)

Features & Benefits

Simple procedure; takes only ~40 min;
Fast and convenient