

UCH-L3 Deubiquitinase Inhibitor Screening Kit

Product Information

Cat

Kit-2390

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Product Overview

Diseases such as cancer and Alzheimer's are often the result of dysregulation of proteostasis. Protein levels in the cell are regulated by both synthesis and degradation, with some proteins being marked for either localization or proteasomal degradation through the attachment of ubiquitin, a small, 76-amino acid protein. This attachment, termed 'ubiquitination,' or 'ubiquitylation' can be reversed by enzymes known as deubiquitinases (DUBs). The human proteome includes as many as four hundred DUBs, and thus these enzymes offer more specific targets for altering cellular equilibrium. UCH-L3, a DUB, is a cysteine protease that has been implicated in prostate cancer, although its regulation and downstream targets are largely unknown. It has been found that UCH-L3 is a novel regulator of epithelial-to-mesenchymal transition in cancer cell metastasis, making it an attractive drug target. Unfortunately, specific inhibitors for this and other DUBs are not readily available. Such compounds would also be a necessity for further illuminating and understanding downstream signaling. UCH-L3 Inhibitor Screening Kit utilizes the ability of active human UCH-L3 deubiquitinase to cleave a synthetic DUB substrate to release a fluorophore, which can be easily quantified (Ex/Em = 360/460 nm) using a fluorescence microplate reader. This inhibitor screening kit thus allows rapid and reliable determination of the inhibitory effects of various compounds on UCH-L3 deubiquitinase and could be used to screen for novel inhibitors. A nonspecific DUB inhibitor is included in this kit to allow the user to validate the experimental setup.

Applications

Screening/characterizing/studying UCH-L3 inhibitors/activators

Storage

-20°C

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UCH-L3 Deubiquitinase Inhibitor Screening Kit

Shipping

Gel Pack

Size

100 assays

Kit Components

UCH-L3 Assay Buffer; UCH-L3 Substrate (in DMSO); UCH-L3 Enzyme; DUB Inhibitor (50X); 96-well Half-Area White Plate

Detection method Fluorescence (RFU= 360/460 nm)

Features & Benefits

Simple and reliable test to screen UCH-L3 inhibitors/activators; High-throughput compatible;
Includes Inhibitor Control
