Product Data Sheet

K2096 Proteasome Activity Fluorometric Assay Kit

Kit Contents

Components	K2096-96 96 assays	Part Number
Assay Buffer	1 x 10 mL	K2096-C-1
Proteasome LLVY-R110 Substrate	1 x 1 Vial	K2096-C-2
DMSO	1 x 100	K2096-C-3

Introduction

Proteasomes are large protein complex located in nucleus and cytoplasm in all eucaryotes. They degrades and recycles the target protein that been tagged by ubiquitin. The tagged protein is hydrolyzes into 7 - 8 amino acids long peptides that are further degraded. The 20S assembly is the protease structure that has chymotrypsin/trypsin/caspase-like protease activities. This Proteasome Activity Assay utilized the chymotrypsin-like activity with an AMC-tagged peptide substrate that releases free, highly fluorescent AMC in the presence of proteolytic activity.

The kit also contains Jurkat Cell lysate as a positive control and MG-132 as proteasome inhibitor. This can differentiate proteasome activity from other protease activities that may also in the samples.

Key facts

Detection method

Fluorescent

Sample types

Suspension cells, Adherent cells

Assay type

Quantitative

Reactive species

Mammals

Assay Platform

Microplate reader

Storage

Shipped at conditions

Blue Ice

Appropriate short-term storage conditions

-20°C

Appropriate long-term storage conditions

-20°C

Storage information

-20°C

Notes

Proteasome Activity Assay Kit is a homogeneous fluorescent assay that measures the chymotrypsin-like protease activity associated with the proteasome complex in cultured cells. K2096 uses LLVY-R110 as a fluorogenic indicator for proteasome activities. Cleavage of LLVY-R110 by the proteasome generates strongly green fluorescent R110 that is monitored fluorometrically at 520-530 nm with excitation at 480-500 nm. The kit provides all the essential components with an optimized assay protocol. The assay is robust, and can be readily adapted for high-throughput assays to evaluate the proteasome activities or screen inhibitors in cultured cells or in solution. The assay can be performed in a convenient 96-well and 384-well fluorescence microtiter-plate format. Visit our for tips and troubleshooting.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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