(Ac-IETD)2-R110

Catalog number: 13431
Unit size: 1 mg

Component	Storage	Amount
(Ac-IETD)2-R110	Freeze (<-15 °C), Minimize light exposure	1 mg

OVERVIEW

Since highly purified rhodamine 110 (R110)-derived substrates are locked in the lactone configuration they are colorless and non-fluorescent. Cleavage of R110 peptides by caspases generates strongly fluorescent R110 that can be monitored fluorimetrically at 510-530 nm with excitation of 488 nm, the most common excitation light source used in fluorescence instruments. R110-derived caspase substrates are probably the most sensitive indicators widely used for the fluorimetric detection of various caspase activities. This R110 substrate is specific for caspase 8. Our R110-based substrates are highly purified to eliminate the trace amount of free R110 that is not detectable by HPLC, but causes significant assay background.

AT A GLANCE

Important It is important to store at <-15 °C and should be stored in cool, dark place.

It can be used within 12 months from the date of receipt.

PREPARATION OF STOCK SOLUTIONS

Unless otherwise noted, all unused stock solutions should be divided into single-use aliquots and stored at -20 °C after preparation. Avoid repeated freeze-thaw cycles.

1. (Ac-IETD)$_2$-R110 stock solution (10 mM):
Add 75 µL of DMSO into the vial of 1 mg (Ac-IETD)$_2$-R110 to make 10 mM stock solution.

PREPARATION OF WORKING SOLUTION

Caspase 8 assay solution (2X):
Mix 50 µL (Ac-IETD)$_2$-R110 stock solution (10 mM), 100 µL DTT (1M), 400 µL EDTA (100 mM) and 10 mL Tris Buffer (20 mM), pH =7.4.

SAMPLE EXPERIMENTAL PROTOCOL

1. Mix equal volume of the caspase 8 standards or samples with 2X caspase 8 assay reaction solution and incubate at room temperature for at least 1 hour.

2. Monitor the fluorescence increase at Ex/Em = 490/525 nm.

EXAMPLE DATA ANALYSIS AND FIGURES

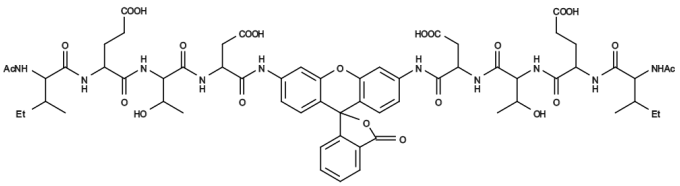

Figure 1. Chemical structure for (Ac-IETD)2-R110

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