

**(Z-DEVD)<sub>2</sub>-R110**

Catalog number: 13430

Unit size: 1 mg

Component	Storage	Amount
(Z-DEVD) <sub>2</sub> -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 caspases 3 and 7. 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. (Z-DEVD)<sub>2</sub>-R110 stock solution (10 mM):**

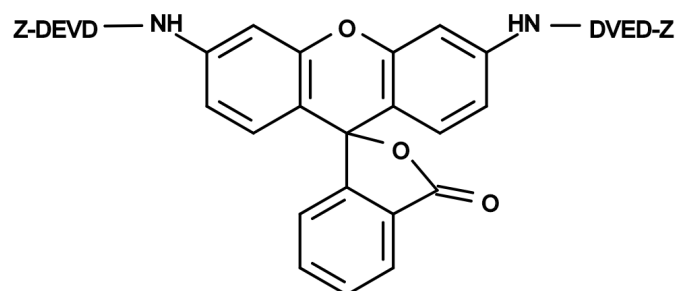
Add 65 µL of DMSO into the vial of 1 mg (Z-DEVD)<sub>2</sub>-R110 to make 10 mM stock solution.

**PREPARATION OF WORKING SOLUTION**
**Caspase 3/7 assay solution (2X):**

Mix 50 µL (Z-DEVD)<sub>2</sub>-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**

- Mix equal volume of the caspase 3/7 standards or samples with 2X caspase 3/7 assay reaction solution and incubate at room temperature for at least 1 hour.
- Monitor the fluorescence increase at Ex/Em = 490/525 nm.

**EXAMPLE DATA ANALYSIS AND FIGURES**


**Z-DEVD = Cbz-Asp-Glu-Val-Asp**

**Figure 1.** Chemical structure for (Z-DEVD)<sub>2</sub>-R110

**DISCLAIMER**

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