

Z-DEVD-pNA

Catalog number: 13422

Unit size: 5 mg

Component	Storage	Amount
Z-DEVD-pNA	Freeze (<-15 °C), Minimize light exposure	5 mg

OVERVIEW

Z-DEVD-pNA is a colorimetric substrate for caspase 3, a protease that is rapidly activated when cells are exposed to apoptotic conditions and that cleaves poly(ADP-ribose) polymerase. This substrate is hydrolyzed by caspase 3 to generate highly colored pNA that is measured at 405 nm by an absorption microplate reader or spectrophotometer.

AT A GLANCE

Important notes

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.

KEY PARAMETERS

Instrument:	Absorbance microplate reader
Absorbance:	405 nm
Recommended plate:	Clear bottom

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-pNA stock solution (10 mM)

Prepare a 10 mM stock solution in DMSO.

PREPARATION OF WORKING SOLUTION

Prepare a 2X caspase substrate (50 μM) assay solution as the following:

Component	Volume
Substrate stock solution	50 μL
DTT (1M)	100 μL
EDTA (100 mM)	400 μL
Tris Buffer (20 mM), pH = 7.4	10 mL
Total volume	10.55 mL

SAMPLE EXPERIMENTAL PROTOCOL

- Mix equal volume of the caspase standards or samples with 2X caspase substrate assay solution and incubate the solutions at room temperature for at least 1 hour.
- Monitor the fluorescence using a fluorescence microplate reader or absorbance using an absorbance microplate reader.

EXAMPLE DATA ANALYSIS AND FIGURES

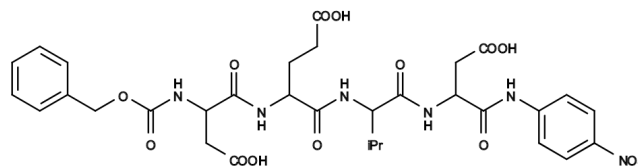


Figure 1. Chemical structure for Z-DEVD-pNA

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