# 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 hydrlyzed 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

1. 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.

2. Monitor the fluorescence using a fluorescence microplate reader or absorbance using an absorbance microplate reader.

## EXAMPLE DATA ANALYSIS AND FIGURES

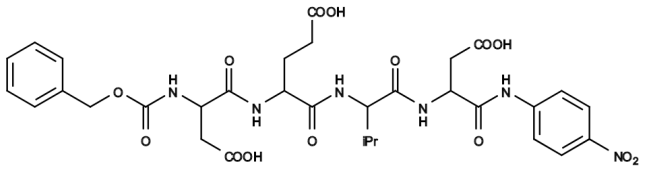


**Figure 1.** Chemical structure for Z-DEVD-pNA

## DISCLAIMER