

# Caspase Colorimetric Substrate Set II Plus



## Instruction Manual

<b>Catalog Number</b>	PK-CA577-K138		
<b>Description</b>	Contains 9 ready-to-use caspase-1/-2/-3/-4/-5/-6/-8/-9/-10 pNA-labeled substrates and all buffers for performing caspase assays. All substrates are provided in liquid ready-to-use form.		
<b>Kit Components</b>	Concentration	Description	Volume
	4 mM	Caspase-1 Substrate, Ac-YVAD-pNA	125 µl
	4 mM	Caspase-2 Substrate, Ac-VDVAD-pNA	125 µl
	4 mM	Caspase-3/7 Substrate, Ac-DEVD-pNA	125 µl
	4 mM	Caspase-4 Substrate, Ac-LEVD-pNA	125 µl
	4 mM	Caspase-5 Substrate, Ac-WEHD-pNA	125 µl
	4 mM	Caspase-6 Substrate, Ac-VEID-pNA	125 µl
	4 mM	Caspase-8 Substrate, Ac-IETD-pNA	125 µl
	4 mM	Caspase-9 Substrate, Ac-LEHD-pNA	125 µl
	4 mM	Caspase-10 Substrate, Ac-AEVD-pNA	125 µl
	N/A	Cell Lysis Buffer	100 ml
	N/A	Dilution Buffer	200 ml
	N/A	2X Reaction Buffer	20 ml
	1 M	DTT	0.4 ml
<b>Quantity</b>	9 x 25 assays		
<b>Sequence / Molecular Weight / Molecular Formula</b>	see data sheets of individual caspase substrates		
<b>Purity</b>	see data sheets of individual caspase substrates		
<b>Appearance / Formulation / Solubility</b>	Solution in DMSO		
<b>Storage &amp; Stability</b>	Store at -20°C. Stable for 6 months under proper storage conditions.		
<b>Applications</b>	<p>1. Induce apoptosis in cells by desired method. Concurrently incubate a control culture without induction.</p> <p>2. Count cells and pellet <math>1-5 \times 10^8</math> cells.</p> <p>3. Resuspend cells in 50 µl of chilled Cell Lysis Buffer (Cat.# PK-CA577-1067-100) and incubate cells on ice for 10 minutes.</p> <p>4. Centrifuge for 1 minute in a microcentrifuge (10,000 x g).</p> <p>5. Transfer supernatant to a fresh tube and assay protein concentration.</p> <p>6. Dilute 100-300 µg protein to 50 µl Cell Lysis Buffer for each assay.</p> <p>7. Add 50 µl of 2X Reaction Buffer (Cat.# PK-CA577-1068-20) containing 10 mM DTT (Cat.# PK-CA577-1201-1) to each sample.</p> <p>8. Add 5 µl of the 4 mM pNA conjugated substrates (200 µM final conc.) into each tube individually and incubate at 37°C for 1-2 hour.</p> <p>9. Read samples at 400- or 405-nm in a microtiter plate reader, or spectrophotometer using a 100-µl micro quartz cuvet (Sigma), or dilute sample to 1 ml with Dilution Buffer (Cat.# PK-CA577-1066-100, PK-CA577-1066-500) and using regular cuvet (note: Dilution of the samples proportionally decreases the reading).</p> <p>Fold-increase in caspase activity can be determined by comparing these results with the level of the uninduced control.</p> <p>Note: Background reading from cell lysates and buffers should be subtracted from the readings of both induced and the uninduced samples before calculating fold increase in caspase activity.</p>		
<b>References</b>	NA		
<b>Caution</b>	NA		

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