

Certificate of Analysis

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Product Name: Z-VDVAD-FMK

Catalog No.: 2165

Batch No.: 1

IUPAC Name: Benzyloxycarbonyl-Val-Asp(OMe)-Val-Ala-Asp(OMe)-fluoromethylketone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₃₂ H ₄₆ FN ₅ O ₁₁
Batch Molecular Weight:	695.74
Physical Appearance:	White lyophilised solid
Solubility:	Soluble to 13.91 mg/ml in DMSO
Storage:	Store at -20°C
Peptide Sequence:	Z-Val-Asp(OMe)-Val-Ala-Asp(OMe)-FMK

2. ANALYTICAL DATA

HPLC:	Shows >95% purity
Mass Spectrum:	Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Catalog No.: 2165

Batch No.: 1

IUPAC Name: Benzyloxycarbonyl-Val-Asp(OMe)-Val-Ala-Asp(OMe)-fluoromethylketone

Description:

Irreversible caspase-2 inhibitor. Attenuates oxyhemoglobin-induced cleavage of PARP and apoptosis in endothelial cells.

Physical and Chemical Properties:

Batch Molecular Formula: C₃₂H₄₆FN₅O₁₁

Batch Molecular Weight: 695.74

Physical Appearance: White lyophilised solid

Peptide Sequence:

Z-Val-Asp(OMe)-Val-Ala-Asp(OMe)-FMK

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 13.91 mg/ml in DMSO

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Peptides in solution are much less stable than in lyophilized form. This is especially true for peptides whose sequences contain amino acids such as Cys, Met, Trp, Asn, Gln, and N-terminal Glu.

Therefore we recommend storing peptides in solution for as short a time as possible. Avoid repeated freeze thaw cycles by dividing the peptide solution into aliquots and storing the aliquots at -20°C. Any portion of an aliquot unused after thawing should be discarded.

Peptides stored in solution can occasionally be susceptible to bacterial degradation. We recommend using sterile solutions or passing the peptide solution through a 0.2 µm filter to remove potential bacterial contamination whenever possible.

References:

Gamen *et al* (2000) Doxorubicin treatment activates a Z-VAD-sensitive caspase, which causes Dym loss, caspase-9 activity, and apoptosis in Jurkat cells. *Exp.Cell Res.* **258** 223. PMID: 10912804.

Meguro *et al* (2001) Caspase inhibitors attenuate oxyhemoglobin-induced apoptosis in endothelial cells. *Stroke* **32** 561. PMID: 11157197.

Robertson *et al* (2002) Caspase-2 acts upstream of mitochondria to promote cytochrome c release during etoposide-induced apoptosis. *J.Biol.Chem.* **277** 29803. PMID: 12065594.

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