

Certificate of Analysis

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Product Name: Z-DEVD-FMK Caspase-3 Inhibitor

Catalog No.: 8009

Batch No.: 3

CAS Number: 634911-78-7

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₃₀ H ₄₁ FN ₄ O ₁₂
Batch Molecular Weight:	668.67
Physical Appearance:	White lyophilised solid
Counter Ion:	Trifluoroacetate
Solubility:	Soluble to 1 mg/ml in DMSO
Storage:	Store at -20°C
Peptide Sequence:	Z-Asp(OMe)-Glu(OMe)-Val-DL-Asp(OMe)-FMK

2. ANALYTICAL DATA

HPLC:	Shows 95.9% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical		Actual		Amino Acid Theoretical		Actual	
Ala				Lys			
Arg				Met			
Asx	1.00	1.06		Phe			
Cys				Pro			
Glx	1.00	1.07		Ser			
Gly				Thr			
His				Trp			
Ile				Tyr			
Leu				Val	1.00	0.87	

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

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CAS Number: 634911-78-7

Description:

Z-DEVD-FMK Caspase-3 Inhibitor is a cell-permeable, irreversible inhibitor of caspase-3/CPP32. It inhibits tumor cell apoptosis. In vivo, it has a neuroprotective effect in rat hippocampus following seizures. It also significantly reduces post-traumatic apoptosis, and improved neurological recovery, before and after induced traumatic brain injury in rat.

Physical and Chemical Properties:

Batch Molecular Formula: C₃₀H₄₁FN₄O₁₂

Batch Molecular Weight: 668.67

Physical Appearance: White lyophilised solid

Peptide Sequence:

Z-Asp(OMe)-Glu(OMe)-Val-DL-Asp(OMe)-FMK

Storage: Store at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in DMSO

This product is supplied in lyophilized form. It may appear as a solid, gel or film and 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.

Counter Ion: Trifluoroacetate

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:

Henshall *et al* (2000) Involvement of caspase-3-like protease in the mechanism of cell death following focally evoked limbic seizures. *J.Neurochem.* **74** 1215. PMID: 10693954.

Kugawa *et al* (2000) Apoptosis of NG108-15 cells induced by Bupren. hydrochloride occurs via the caspase-3 pathway. *Biol.Pharm.Bull.* **23** 930. PMID: 10963298.

Brocksted *et al* (1998) Identification of apoptosis-associated proteins in a human Burkitt lymphoma cell line. *J.Biol.Chem.* **273** 28057. PMID: 9774422.

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