Print Date: Nov 9th 2018

Certificate of Analysis

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Product Name: **Z-DQMD-FMK** **Catalog No.: 2168** **Batch No.: 1**

IUPAC Name: Benzyloxycarbonyl-Asp(OMe)-Gln-Met-Asp(OMe)-fluoromethylketone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	$C_{29}H_{40}FN_5O_{11}S$
Batch Molecular Weight:	685.72
Physical Appearance:	White lyophilised solid
Solubility:	Soluble to 13.71 mg/ml in DMSO
Storage:	Desiccate at -20°C
Peptide Sequence:	Z-Asp(OMe)-Gln-Met-Asp(OMe)-FMK

2. ANALYTICAL DATA

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

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Product Name: **Z-DQMD-FMK** **Catalog No.: 2168** **Batch No.: 1**

IUPAC Name: Benzyloxycarbonyl-Asp(OMe)-Gln-Met-Asp(OMe)-fluoromethylketone

Description:

Caspase-3 inhibitor. Inhibits MG 132-induced small cell lung cancer cell death in vitro.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{29}H_{40}FN_5O_{11}S$

Batch Molecular Weight: 685.72

Physical Appearance: White lyophilised solid

Peptide Sequence:

Z-Asp(OMe)-Gln-Met-Asp(OMe)-FMK

Storage: Desiccate at -20°C

Solubility & Usage Info:

Soluble to 13.71 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 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:

Bang *et al* (2004) Differential response to MG132 cytotoxicity against small cell lung cancer cells to changes in cellular GSH contents. Biochem.Pharmacol. ***68*** 659. PMID: 15276073.

Chou *et al* (2004) Alterations in protein kinase C activity and processing during zinc deficiency-induced cell death. Biochem.J. ***383*** 63. PMID: 15198639.

Izban *et al* (2001) Characterization of NF-κB expression in Hodgkin's disease: inhibition of constitutively expressed NF-κB results in spontaneous caspase-independent apoptosis in Hodgkin and Reed-Sternberg cells. Mod.Pathol. ***14*** 297. PMID: 11301346.