

## Certificate of Analysis

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**Product Name:** Z-LEHD-FMK

**Catalog No.:** 2171

**Batch No.:** 1

**IUPAC Name:** Benzyloxycarbonyl-Leu-Glu(OMe)-His-Asp(OMe)-fluoromethylketone

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:**  $C_{32}H_{43}FN_6O_{10}$   
**Batch Molecular Weight:** 690.72  
**Physical Appearance:** White lyophilised solid  
**Solubility:** Soluble to 13.81 mg/ml in DMSO  
**Storage:** Desiccate at -20°C  
**Peptide Sequence:** Z-Leu-Glu(OMe)-His-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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**IUPAC Name:** Benzyloxycarbonyl-Leu-Glu(OMe)-His-Asp(OMe)-fluoromethylketone

**Description:**

Cell-permeable inhibitor of caspase-9. Inhibits MG 132-induced cancer cell death and protects isolated rat hearts against ischemia-reperfusion injury. Neuroprotective following cerebral ischemia in rats in vivo.

**Physical and Chemical Properties:**

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Batch Molecular Weight: 690.72

Physical Appearance: White lyophilised solid

**Peptide Sequence:**

**Z-Leu-Glu(OMe)-His-Asp(OMe)-FMK**

**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

Soluble to 13.81 mg/ml in DMSO

**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:**

**Mocanu et al (2000)** Capsase inhibition and limitation of myocardial infarct size: protection against lethal reperfusion injury. *Br.J.Pharmacol.* **130** 197. PMID: 10807653.

**Mouw et al (2002)** Caspase-9 inhibition after focal cerebral ischemia improves outcome following reversible focal ischemia. *Metab.Brain Dis.* **17** 143. PMID: 12322785.

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

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