

## Certificate of Analysis

[www.tocris.com](http://www.tocris.com)

Product Name: Z-VRPR-FMK trifluoroacetate salt

Catalog No.: 4645

Batch No.: 2

### 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C <sub>31</sub> H <sub>49</sub> FN <sub>10</sub> O <sub>6</sub> .CF <sub>3</sub> CO <sub>2</sub> H
Batch Molecular Weight:	790.81
Physical Appearance:	Off White lyophilised solid
Net Peptide Content:	69.9%
Counter Ion:	TFA
Solubility:	Soluble to 1 mg/ml in water with gentle warming
Storage:	Store at -20°C
Peptide Sequence:	Z-Val-Arg-Pro-DL-Arg-FMK. CF <sub>3</sub> CO <sub>2</sub> H

### 2. ANALYTICAL DATA

HPLC:	Shows 95.6% purity
Mass Spectrum:	Consistent with structure

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

**bio-techne.com**  
info@bio-techne.com  
techsupport@bio-techne.com

**North America**  
Tel: (800) 343 7475

**China**  
info.cn@bio-techne.com  
Tel: +86 (21) 52380373

**Europe Middle East Africa**  
Tel: +44 (0)1235 529449

**Rest of World**  
[www.tocris.com/distributors](http://www.tocris.com/distributors)  
Tel:+1 612 379 2956

**Product Name:** Z-VRPR-FMK trifluoroacetate salt

**Catalog No.:** 4645

**Batch No.:** 2

**Description:**

Irreversible MALT1 inhibitor. Suppresses T cell activation-induced cleavage of Bcl-10 in a dose-dependent manner. Reduces Jurkat cell adhesion to fibronectin. Cell permeable.

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>31</sub>H<sub>49</sub>FN<sub>10</sub>O<sub>6</sub>.CF<sub>3</sub>CO<sub>2</sub>H

Batch Molecular Weight: 790.81

Physical Appearance: Off White lyophilised solid

**Peptide Sequence:**

Z-Val-Arg-Pro-DL-Arg-FMK. CF<sub>3</sub>CO<sub>2</sub>H

**Storage:** Store at -20°C

**Solubility & Usage Info:**

Soluble to 1 mg/ml in water with gentle warming

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. This peptide is supplied in gross weight.

**Net Peptide Content:** 69.9% (Remaining weight made up of counterions and residual water).

**Counter Ion:** TFA

**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.

**Licensing Information:**

Sold under licence from UNIL under the licenced patents

**References:**

Rebeaud *et al* (2008) The proteolytic activity of the paracaspase MALT1 is key in T cell activation. *Nat.Immunol.* **9** 272. PMID: 18264101.

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

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel:+1 612 379 2956