

**Product Name:** C 21  
**CAS Number:** 1229236-78-5

**Catalog No.:** 5128 **Batch No.:** 1

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>90</sub>H<sub>161</sub>ClN<sub>36</sub>O<sub>24</sub>  
**Batch Molecular Weight:** 2166.94  
**Physical Appearance:** White lyophilised solid  
**Net Peptide Content:** 62%  
**Counter Ion:** TFA  
**Solubility:** Soluble to 2 mg/ml in water  
**Storage:** Store at -20°C  
**Peptide Sequence:** Ac-Ser-Gly-[N<sup>5</sup>-(2-Chloro-1-iminoethyl)]-Orn-Gly-Lys-Gly-Gly-Lys-Gly-Leu-Gly-Lys-Gly-Gly-Ala-Lys-Arg-His-Arg-Lys-Val

**2. ANALYTICAL DATA**

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

**3. AMINO ACID ANALYSIS DATA**

Amino Acid	Theoretical	Actual	Amino Acid	Theoretical	Actual
Ala	1.00	1.08	Lys	5.00	4.93
Arg	2.00	2.25	Met		
Asx			Phe		
Cys			Pro		
Glx			Ser	1.00	0.90
Gly	8.00	8.06	Thr		
His	1.00	1.04	Trp		
Ile			Tyr		
Leu	1.00	0.88	Val	1.00	1.12

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

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**Description:**

Selective protein arginine methyltransferase 1 (PRMT1) inhibitor ( $IC_{50} = 1.8 \mu M$ ). Exhibits five-fold selectivity for PRMT1 over PRMT6 and >250-fold selectivity over PRMT3 and CARM1.

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**Peptide Sequence:**

Ac-Ser-Gly-[ $N^5$ -(2-Chloro-1-iminoethyl)]-Orn-Gly-Lys-Gly-Gly-Lys-Gly-Leu-Gly-Lys-Gly-Gly-Ala-Lys-Arg-His-Arg-Lys-Val

**References:**

**Obianyo et al** (2010) A chloroacetamide-based inactivator of protein arginine methyltransferase 1: design, synthesis, and in vitro and in vivo evaluation. *Chembiochem* **11** 1219. PMID: 20480486.

**Obianyo and Thompson** (2012) Kinetic mechanism of protein arginine methyltransferase 6 (PRMT6). *J.Biol.Chem.* **287** 6062. PMID: 22219200.

**Storage:** Store at -20°C

**Solubility & Usage Info:**

Soluble to 2 mg/ml in water

This product is supplied as a lyophilised solid and may be very hard to visualise. 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.

**Net Peptide Content:** 62% (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).

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