

## Certificate of Analysis

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**Product Name:** Rac1 Inhibitor W56

**Catalog No.:** 2221

**Batch No.:** 6

CAS Number: 1095179-01-3

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>74</sub>H<sub>117</sub>N<sub>19</sub>O<sub>23</sub>S  
**Batch Molecular Weight:** 1671.93  
**Physical Appearance:** White lyophilised solid  
**Net Peptide Content:** 81%  
**Counter Ion:** TFA  
**Solubility:** Soluble to 2 mg/ml in PBS (pH 7.4)  
**Storage:** Desiccate at -20°C  
**Peptide Sequence:** Met-Val-Asp-Gly-Lys-Pro-Val-Asn-Leu-Gly-  
 Leu-Trp-Asp-Thr-Ala-Gly

### 2. ANALYTICAL DATA

**HPLC:** Shows 96.8% purity  
**Mass Spectrum:** Consistent with structure

### 3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	1.00	1.00	Lys	1.00	0.99
Arg			Met	1.00	0.90
Asx	3.00	3.03	Phe		
Cys			Pro	1.00	1.04
Glx			Ser		
Gly	3.00	3.03	Thr	1.00	0.88
His			Trp	1.00	Detected
Ile			Tyr		
Leu	2.00	2.02	Val	2.00	1.99

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

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**Product Name:** Rac1 Inhibitor W56

**Catalog No.:** 2221

**Batch No.:** 6

CAS Number: 1095179-01-3

**Description:**

Peptide comprising residues 45-60 of the guanine nucleotide exchange factor (GEF) recognition/activation site of Rac1; selectively inhibits Rac1 interaction with Rac1-specific GEFs TrioN, GEF-H1 and Tiam1. Control Peptide also available.

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>74</sub>H<sub>117</sub>N<sub>19</sub>O<sub>23</sub>S

Batch Molecular Weight: 1671.93

Physical Appearance: White lyophilised solid

**Peptide Sequence:**

Met-Val-Asp-Gly-Lys-Pro-Val-Asn-Leu-Gly-  
Leu-Trp-Asp-Thr-Ala-Gly

**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

Soluble to 2 mg/ml in PBS (pH 7.4)

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.

**Net Peptide Content:** 81% (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.

**References:**

Gao *et al* (2001) Trp56 of Rac1 specifies interaction with a subset of guanine nucleotide exchange factors. *J.Biol.Chem.* **276** 47530. PMID: 11595749.

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