

Certificate of Analysis

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Product Name: PBP 10
CAS Number: 794466-43-6

Catalog No.: 4611 **Batch No.:** 6

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₈₄H₁₂₆N₂₄O₁₅
Batch Molecular Weight: 1712.1
Physical Appearance: Purple lyophilised solid
Net Peptide Content: 67%
Counter Ion: TFA
Solubility: Soluble to 2 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: RhoB-Gln-Arg-Leu-Phe-Gln-Val-Lys-Gly-Arg-Arg

2. ANALYTICAL DATA

HPLC: Shows 98% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical		Actual		Amino Acid Theoretical		Actual	
Ala				Lys	1.00		0.98
Arg	3.00	2.81	Met				
Asx			Phe	1.00		0.99	
Cys			Pro				
Glx	2.00	1.25	Ser				
Gly	1.00	1.05	Thr				
His			Trp				
Ile			Tyr				
Leu	1.00	0.99	Val	1.00		0.98	

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

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Description:

Selective formyl peptide receptor 2 (FPR2) antagonist; cell permeable. Selectively inhibits FPR2-mediated NADPH oxidase activity but has no effect on FPR1 signaling in neutrophils. Displays PIP₂ binding activity in vitro and blocks cell motility. Also exhibits antiviral activity against influenza viruses via inhibition of viral-induced ERK activation.

Physical and Chemical Properties:

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Batch Molecular Weight: 1712.1

Physical Appearance: Purple lyophilised solid

Peptide Sequence:

RhoB-Gln-Arg-Leu-Phe-Gln-Val-Lys-Gly-Arg-Arg

Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

Soluble to 2 mg/ml in water

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: 67% (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:

Courtin et al (2017) Antiviral activity of formyl peptide receptor 2 antagonists against influenza viruses. *Antiviral Res.* **5** 252. PMID: 28483551.

Forsman et al (2012) Structural characterization and inhibitory profile of formyl peptide receptor 2 selective peptides descending from a PIP₂-binding domain of gelsolin. *J. Immunol.* **189** 629. PMID: 22706076.

Cunningham et al (2011) Cell permeant polyphosphoinositide-binding peptides that block cell motility and actin assembly. *J. Biol. Chem.* **276** 43390. PMID: 11533030.

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