

Certificate of Analysis

Product Name: AKTide-2T

Catalog No.: 2422

Batch No.: 1

CAS Number: 324029-01-8

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₇₄ H ₁₁₄ N ₂₈ O ₂₀
Batch Molecular Weight:	1715.89
Physical Appearance:	White lyophilised solid
Net Peptide Content:	83.7%
Counter Ion:	Trifluoroacetate
Solubility:	Soluble to 1 mg/ml in water
Storage:	Desiccate at -20°C
Peptide Sequence:	Ala-Arg-Lys-Arg-Glu-Arg-Thr-Tyr-Ser-Phe- Gly-His-His-Ala

2. ANALYTICAL DATA

HPLC:	Shows >95.8% purity
Mass Spectrum:	Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical Actual			Amino Acid Theoretical Actual		
Ala	2.00	2.08	Lys	1.00	1.05
Arg	3.00	3.18	Met		
Asx			Phe	1.00	1.06
Cys			Pro		
Glx	1.00	1.00	Ser		
Gly	1.00	1.07	Thr	1.00	0.80
His	2.00	2.08	Trp		
Ile			Tyr	1.00	0.85
Leu			Val		

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

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Description:

Peptide substrate for Akt/PKB. Acts as an inhibitor and mimics the optimal phosphorylation sequence of Akt.

Physical and Chemical Properties:

Batch Molecular Formula: C₇₄H₁₁₄N₂₈O₂₀

Batch Molecular Weight: 1715.89

Physical Appearance: White lyophilised solid

Peptide Sequence:

Ala-Arg-Lys-Arg-Glu-Arg-Thr-Tyr-Ser-Phe-
Gly-His-His-Ala

Storage: Desiccate at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in water

Net Peptide Content: 83.7% (Remaining weight made up of counterions and residual water).

Counter Ion: Trifluoroacetate

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:

Obata et al (2000) Peptide and protein library screening defines optimal substrate motifs for AKT/PKB. *J.Biol.Chem.* **275** 36108. PMID: 10945990.

Rane et al (2003) Heat shock protein 27 controls apoptosis by regulating Akt activation. *J.Biol.Chem.* **278** 27828. PMID: 12740362.

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