

Certificate of Analysis

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Product Name: ZIP, Biotinylated

Catalog No.: 3290

Batch No.: 2

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₁₀₀ H ₁₆₈ N ₃₂ O ₁₉ S
Batch Molecular Weight:	2154.69
Physical Appearance:	White lyophilised solid
Net Peptide Content:	72.2%
Counter Ion:	TFA
Solubility:	Soluble to 0.67 mg/ml in 30% acetonitrile / water
Storage:	Store at -20°C
Peptide Sequence:	Myr-Ser-Ile-Tyr-Arg-Arg-Gly-Ala-Arg-Arg- Trp-Arg-Lys(Biotin)-Leu

2. ANALYTICAL DATA

HPLC:	Shows 97% 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	1.00
Arg	5.00	5.19	Met		
Asx			Phe		
Cys			Pro		
Glx			Ser	1.00	0.93
Gly	1.00	0.99	Thr		
His			Trp		
Ile	1.00	0.98	Tyr	1.00	1.05
Leu	1.00	1.02	Val		

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

Product Name: ZIP, Biotinylated**Catalog No.:** 3290**Batch No.:** 2**Description:**

ZIP (Cat. No. 2549) with a biotin moiety covalently attached. Potently binds to avidins ($K_d = 4 \times 10^{-14}$ M), which mediates detection of ZIP in biochemical assays.

Physical and Chemical Properties:Batch Molecular Formula: C₁₀₀H₁₆₈N₃₂O₁₉S

Batch Molecular Weight: 2154.69

Physical Appearance: White lyophilised solid

Peptide Sequence:

Myr-Ser-Ile-Tyr-Arg-Arg-Gly-Ala-Arg-Arg-
Trp-Arg-Lys(Biotin)-Leu

Storage: Store at -20°C**Solubility & Usage Info:**

Soluble to 0.67 mg/ml in 30% acetonitrile / 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: 72.2% (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:

Holmberg *et al* (2005) The biotin-streptavidin interaction can be reversibly broken using water at elevated temperatures. *Electrophoresis* **26** 501. PMID: 15690449.

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