

# Certificate of Analysis

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Product Name: TCS 183

Catalog No.: 2236

Batch No.: 1

## 1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C<sub>58</sub>H<sub>96</sub>N<sub>20</sub>O<sub>20</sub>S  
 Batch Molecular Weight: 1425.58  
 Physical Appearance: White lyophilised solid  
 Net Peptide Content: 87%  
 Solubility: Soluble to 1 mg/ml in water  
 Storage: Desiccate at -20°C  
 Peptide Sequence: Met-Ser-Gly-Arg-Pro-Arg-Thr-Thr-Ser-Phe  
 Ala-Glu-Ser-NH<sub>2</sub>

## 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	1.01	Lys		
Arg	2.00	1.98	Met	1.00	0.99
Asx			Phe	1.00	1.01
Cys			Pro	1.00	1.00
Glx	1.00	0.99	Ser	3.00	3.03
Gly	1.00	1.00	Thr	2.00	2.01
His			Trp		
Ile			Tyr		
Leu			Val		

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

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## Product Information

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**Product Name:** TCS 183

**Catalog No.:** 2236

**Batch No.:** 1

**Description:**

Fragment 1-13 of human and mouse GSK-3 $\beta$  sequence. Potentially useful as a competitive inhibitor of GSK-3 $\beta$  (Ser9) phosphorylation. Control Peptide also available.

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>58</sub>H<sub>96</sub>N<sub>20</sub>O<sub>20</sub>S

Batch Molecular Weight: 1425.58

Physical Appearance: White lyophilised solid

**Peptide Sequence:**

Met-Ser-Gly-Arg-Pro-Arg-Thr-Thr-Ser-Phe  
Ala-Glu-Ser-NH<sub>2</sub>

**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

Soluble to 1 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:** 87% (Remaining weight made up of counterions and residual water).

**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  $\mu$ m filter to remove potential bacterial contamination whenever possible.

**References:**

Peineau *et al* (2007) GSK3 $\beta$  mediates a novel interaction between LTP and LTD in the hippocampus. *Neuron* **53** 703. PMID: 17329210.

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