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# Certificate of Analysis

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**Product Name:** Pep1-AGL **Catalog No.:** 1602 **Batch No.:** 1

## 1. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Batch Molecular Formula:** | $C_{40}H_{69}N_{11}O_{14}S$ |
| **Batch Molecular Weight:** | 960.11 |
| **Physical Appearance:** | White lyophilised solid |
| **Net Peptide Content:** | 82% |
| **Solubility:** | Soluble to 2 mg/ml in water |
| **Storage:** | Desiccate at -20°C |
| **Peptide Sequence:** | Ser-Ser-Gly-Met-Pro-Leu-Gly-Ala-Ala-Gly-Leu |

## 2. ANALYTICAL DATA

**HPLC:** Shows >95% purity

## 3. AMINO ACID ANALYSIS DATA

| Amino Acid | Theoretical | Actual | Amino Acid | Theoretical | Actual |
|---|---|---|---|---|---|
| Ala | 2.00 | 1.94 | Lys | | |
| Arg | | | Met | 1.00 | 1.02 |
| Asx | | | Phe | | |
| Cys | | | Pro | 1.00 | 0.99 |
| Glx | | | Ser | 2.00 | 1.85 |
| Gly | 3.00 | 3.04 | Thr | | |
| His | | | Trp | | |
| Ile | | | Tyr | | |
| Leu | 2.00 | 1.94 | Val | | |



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**Product Name:** Pep1-AGL **Catalog No.:** 1602 **Batch No.:** 1

**Description:**

Analog of Pep1-TGL (Cat. No. 1601), a peptide containing the 'TGL' motif that corresponds to the C-terminus of the AMPA receptor GluA1 subunit.

**Physical and Chemical Properties:**

Batch Molecular Formula: $C_{40}H_{69}N_{11}O_{14}S$

Batch Molecular Weight: 960.11

Physical Appearance: White lyophilised solid

**Peptide Sequence:**

Ser-Ser-Gly-Met-Pro-Leu-Gly-Ala-Ala-Gly-Leu

**Storage:** Desiccate at -20°C

**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:** 82% (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 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:**

**Shi** *et al* (2001) Subunit-specific rules governing AMPA receptor trafficking to synapses in hippocampal pyramidal neurons. Cell ***105*** 331. PMID: 11348590.

**Hayashi** *et al* (2000) Driving AMPA receptors into synapses by LTP and CaMKII: requirement for GluR1 and PDZ domain interaction. Science ***287*** 2262. PMID: 10731148.