

## Certificate of Analysis

**Product Name:** D15  
**CAS Number:** 251939-41-0

**Catalog No.:** 2334      **Batch No.:** 4

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>69</sub>H<sub>111</sub>N<sub>23</sub>O<sub>19</sub>  
**Batch Molecular Weight:** 1566.78  
**Physical Appearance:** White lyophilised solid  
**Net Peptide Content:** 75%  
**Counter Ion:** TFA  
**Solubility:** Soluble to 1 mg/ml in water  
**Storage:** Desiccate at -20°C  
**Peptide Sequence:** Pro-Pro-Pro-Gln-Val-Pro-Ser-Arg-Pro-Asn-Arg-Ala-Pro-Pro-Gly

### 2. ANALYTICAL DATA

**HPLC:** Shows 96% 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	2.09	Met			
Asx		1.00	1.00	Phe			
Cys				Pro	7.00	6.50	
Glx		1.00	1.00	Ser	1.00	1.00	
Gly		1.00	1.04	Thr			
His				Trp			
Ile				Tyr			
Leu				Val	1.00	1.05	

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**Description:**

Endocytosis inhibitor that blocks the interaction of dynamin with amphiphysin 1 and 2. Impairs AMPA receptor cycling and blocks DHPG-induced long term depression (LTD).

**Physical and Chemical Properties:**

Batch Molecular Formula: C<sub>69</sub>H<sub>111</sub>N<sub>23</sub>O<sub>19</sub>  
Batch Molecular Weight: 1566.78  
Physical Appearance: White lyophilised solid

**Peptide Sequence:**

Pro-Pro-Pro-Gln-Val-Pro-Ser-Arg-Pro-Asn-  
Arg-Ala-Pro-Pro-Gly

**Storage:** Desiccate at -20°C

**Solubility & Usage Info:**

Soluble to 1 mg/ml in water

**Net Peptide Content:** 75% (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:**

**Wigge and McMahon** (1998) The amphiphysin family of proteins and their role in endocytosis at the synapse. *Trends Neurosci.* **21** 339.

**Lüscher et al** (1999) Role of AMPA receptor cycling in synaptic transmission and plasticity. *Neuron* **24** 649. PMID: 10595516.

**Xiao et al** (2001) Metabolic glutamate receptor activation causes a rapid redistribution of AMPA receptors. *Neuropharmacology* **41** 664. PMID: 11640920.

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