

Certificate of Analysis

Product Name: LPYFD-NH₂

Catalog No.: 4084

Batch No.: 1

CAS Number: 700361-48-4

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₃H₄₄N₆O₈
Batch Molecular Weight: 652.75
Physical Appearance: White lyophilised solid
Net Peptide Content: 79%
Counter Ion: TFA
Solubility: Soluble to 2 mg/ml in 10% acetonitrile / water
Storage: Store at -20°C
Peptide Sequence: Leu-Pro-Tyr-Phe-Asp-NH₂

2. ANALYTICAL DATA

HPLC: Shows 99% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid		Theoretical	Actual	Amino Acid		Theoretical	Actual
Ala				Lys			
Arg				Met			
Asx	1.00		1.01	Phe	1.00		1.00
Cys				Pro	1.00		1.01
Glx				Ser			
Gly				Thr			
His				Trp			
Ile				Tyr	1.00		1.00
Leu	1.00		0.98	Val			

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

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Description:

Neuroprotective peptide that binds to amyloid beta (A β). Protects neurons against toxic effects of A β (1-42) *in vitro* and *in vivo*. Potential therapeutic in the treatment of Alzheimer's Disease.

Physical and Chemical Properties:Batch Molecular Formula: C₃₃H₄₄N₆O₈

Batch Molecular Weight: 652.75

Physical Appearance: White lyophilised solid

Peptide Sequence:Leu-Pro-Tyr-Phe-Asp-NH₂**Storage:** Store at -20°C**Solubility & Usage Info:**

Soluble to 2 mg/ml in 10% acetonitrile / water

Net Peptide Content: 79% (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 μ m filter to remove potential bacterial contamination whenever possible.

References:

Szegedi et al (2005) Pentapeptides derived from A β 1-42 protect neurons from the modulatory effects of A β fibrils- an *in vitro* and *in vivo* electrophysiological study. *Neurobiology of Disease* **18** 499. PMID: 15755677.

Juhasz et al (2009) An intraperitoneally administered pentapeptide protects against A β (1-42) induced neuronal excitation *in vivo*. *J. Alzheimer's Dis.* **16** 189.

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