

Product Name: TFLLR-NH₂

Catalog No.: 1464

Batch No.: 8

CAS Number: 197794-83-5

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₁H₅₃N₉O₆
Batch Molecular Weight: 647.82
Physical Appearance: White lyophilised solid
Net Peptide Content: 66%
Counter Ion: TFA
Solubility: Soluble to 1 mg/ml in 20% acetonitrile / water
Storage: Desiccate at -20°C
Peptide Sequence: Thr-Phe-Leu-Leu-Arg-NH₂

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			Lys		
Arg	1.00	1.03	Met		
Asx			Phe	1.00	0.70
Cys			Pro		
Glx			Ser		
Gly			Thr	1.00	0.99
His			Trp		
Ile			Tyr		
Leu	2.00	1.98	Val		

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

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Description:

Peptide derived from the protease-activated receptor-1 (PAR₁) that acts as a PAR₁ selective agonist (EC₅₀ = 1.9 μM). Stimulates PAR₁-mediated plasma extravasation in vivo. Control Peptide RLLFT-NH₂ (Cat. No. 3393) also available.

Physical and Chemical Properties:

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Batch Molecular Weight: 647.82

Physical Appearance: White lyophilised solid

Peptide Sequence:

Thr-Phe-Leu-Leu-Arg-NH₂

Storage: Desiccate at -20°C

Solubility & Usage Info:

Soluble to 1 mg/ml in 20% 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: 66% (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:

Hollenberg *et al* (1997) Proteinase-activated receptors: structural requirements for activity, receptor cross-reactivity, and receptor selectivity of receptor-activating peptides. *Can.J.Physiol.Pharmacol.* **75** 832. PMID: 9315351.

Kawabata *et al* (2000) Characterization of the protease-activated receptor-1-mediated contraction and relaxation in the rat duodenal smooth muscle. *Life Sci.* **67** 2521. PMID: 11065174.

de Garavilla *et al* (2001) Agonists of proteinase-activated receptor 1 induce plasma extravasation by a neurogenic mechanism. *Br.J.Pharmacol.* **133** 975. PMID: 11487506.

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