

Certificate of Analysis

Print Date: May 30th 2023

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Product Name: TFLLR-NH₂ Catalog No.: 1464 Batch No.: 11

CAS Number: 197794-83-5

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{31}H_{53}N_9O_6$ Batch Molecular Weight: 647.82

Physical Appearance: White lyophilised solid

Counter Ion: TFA

Solubility: Soluble to 1 mg/ml in water

Storage: Store at -20°C

Peptide Sequence: Thr-Phe-Leu-Leu-Arg-NH₂

2. ANALYTICAL DATA

HPLC: Shows 96.3% purity

Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

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Ala			Lys		
Arg	1.00	1.06	Met		
Asx			Phe	1.00	0.96
Cys			Pro		
Glx			Ser		
Gly			Thr	1.00	0.99
His			Trp		
lle			Tyr		
Leu	2.00	1.92	Val		

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



Product Information

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Product Name: TFLLR-NH₂ Catalog No.: 1464 11

CAS Number: 197794-83-5

Description:

TFLLR-NH $_2$ is a peptide derived from the protease-activated receptor-1 (PAR $_1$) that acts as a PAR $_1$ selective agonist (EC $_{50}$ = 1.9 μ M). Stimulates PAR $_1$ -mediated plasma extravasation in vivo. Control Peptide also available.

Physical and Chemical Properties:

Batch Molecular Formula: $C_{31}H_{53}N_9O_6$ Batch Molecular Weight: 647.82

Physical Appearance: White lyophilised solid

Peptide Sequence:

Thr-Phe-Leu-Leu-Arg-NH₂

Storage: Store 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.

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 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:

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.

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.

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.

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