

Certificate of Analysis

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Product Name: AY-NH₂
CAS Number: 352017-71-1

Catalog No.: 1487 **Batch No.:** 10

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₃₄H₄₈N₈O₇
Batch Molecular Weight: 680.8
Physical Appearance: White lyophilised solid
Net Peptide Content: 75%
Counter Ion: TFA
Solubility: Soluble to 2 mg/ml in water
Storage: Store at -20°C
Peptide Sequence: Ala-Tyr-Pro-Gly-Lys-Phe-NH₂

2. ANALYTICAL DATA

HPLC: Shows 96.1% purity
Mass Spectrum: Consistent with structure

3. AMINO ACID ANALYSIS DATA

Amino Acid Theoretical		Actual	Amino Acid Theoretical		Actual
Ala	1.00	0.98	Lys	1.00	1.00
Arg			Met		
Asx			Phe	1.00	1.02
Cys			Pro	1.00	1.02
Glx			Ser		
Gly	1.00	0.97	Thr		
His			Trp		
Ile			Tyr	1.00	1.02
Leu			Val		

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

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CAS Number: 352017-71-1

Description:

AY-NH₂ is a selective PAR₄ receptor agonist peptide. Stimulates platelet aggregation *in vitro* (EC₅₀ = 15 μM). Exhibits an increase in paw thickness in the paw edema inflammation model *in vivo*.

Physical and Chemical Properties:Batch Molecular Formula: C₃₄H₄₈N₈O₇

Batch Molecular Weight: 680.8

Physical Appearance: White lyophilised solid

Peptide Sequence:Ala-Tyr-Pro-Gly-Lys-Phe-NH₂**Storage:** Store 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: 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:

Hollenburg *et al* (2004) Proteinase-activated receptor-4: evaluation of tethered ligand-derived peptides as probes for receptor function and as inflammatory agonists *in vivo*. *Br.J.Pharmacol.* **143** 443. PMID: 15451771.

Hollenberg and Saifeddine (2001) Proteinase-activated receptor 4 (PAR4): activation and inhibition of rat platelet aggregation by PAR4-derived peptides. *Can.J.Physiol.Pharmacol.* **79** 439. PMID: 11405248.

Faruqi *et al* (2000) Structure-function analysis of protease-activated receptor 4 tethered ligand peptides. *J.Biol.Chem.* **275** 19728. PMID: 10779527.

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