

# PRODUCT INFORMATION



## Ac2-26 (human) (ammonium salt)

Item No. 34429

**Formal Name:** N-acetyl-L-alanyl-L-methionyl-L-valyl-L-seryl-L- $\alpha$ -glutamyl-L-phenylalanyl-L-leucyl-L-lysyl-L-glutamyl-L-alanyl-L-tryptophyl-L-phenylalanyl-L-isoleucyl-L- $\alpha$ -glutamyl-L-asparaginyl-L- $\alpha$ -glutamyl-L- $\alpha$ -glutamyl-L-glutamyl-L- $\alpha$ -glutamyl-L-tyrosyl-L-valyl-L-glutamyl-L-threonyl-L-valyl-L-lysine, monoammonium salt

**Synonyms:** Ac-AMVSEFLKQAWFIENEEQEYVQTVK-OH, Ac-ANX-A1<sub>2-26</sub>, N-Acetyl-AMVSEFLKQAWFIENEEQEYVQTVK

**MF:** C<sub>141</sub>H<sub>210</sub>N<sub>32</sub>O<sub>44</sub>S • NH<sub>4</sub>

**FW:** 3,107.5

**Purity:**  $\geq 90\%$

**UV/Vis.:**  $\lambda_{\text{max}}$ : 260 nm

**Supplied as:** A solid

**Storage:** -20°C

**Stability:**  $\geq 4$  years

Ac—Ala—Met—Val—Ser—Glu—Phe—Leu—Lys—Gln—Ala—

Trp—Phe—Ile—Glu—Asn—Glu—Glu—Gln—Glu—Tyr—

Val—Gln—Thr—Val—Lys—OH

• NH<sub>4</sub><sup>+</sup>

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Ac2-26 (human) (ammonium salt) is supplied as a solid. Aqueous solutions of Ac2-26 (human) (ammonium salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of Ac2-26 (human) (ammonium salt) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Ac2-26 is an annexin A1-mimetic peptide that corresponds to amino acids 2-26 of the N-terminus in annexin A1.<sup>1</sup> It binds to HEK293 cells expressing human formyl peptide receptor 1 (FPR1) or FPR2, also known as FPR-like 1 (FPRL1; EC<sub>50</sub>s = 1.4 and 1.8  $\mu$ M, respectively, in a radioligand binding assay), as well as inhibits polymorphonuclear leukocyte (PMN) rolling over TNF- $\alpha$ -stimulated human umbilical vein endothelial cells (HUVECs) when used at concentrations of 10 and 30  $\mu$ M. Ac2-26 (10 and 100  $\mu$ g/ml) inhibits LPS-induced production of prostaglandin E<sub>2</sub> (PGE<sub>2</sub>; Item No. 14010) and nitric oxide (NO) in rat microglial cells.<sup>2</sup> It decreases pulmonary edema in a rat model of ventilator-induced ischemia-reperfusion injury when administered at doses of 0.5 and 1 mg/kg.<sup>3</sup>

### References

1. Hayhoe, R.P.G., Kamal, A.M., Solito, E., *et al.* Annexin 1 and its bioactive peptide inhibit neutrophil-endothelium interactions under flow: Indication of distinct receptor involvement. *Blood* **107**(5), 2123-2130 (2006).
2. Minghetti, L., Nicolini, A., Polazzi, E., *et al.* Down-regulation of microglial cyclo-oxygenase-2 and inducible nitric oxide synthase expression by lipocortin 1. *Br. J. Pharmacol.* **126**(6), 1307-1314 (1999).
3. Liao, W.-I., Wu, S.-Y., Wu, G.-C., *et al.* Ac2-26, an annexin A1 peptide, attenuates ischemia-reperfusion-induced acute lung injury. *Int. J. Mol. Sci.* **18**(8), 1771 (2017).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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