

# PRODUCT INFORMATION



## SMAP 29 (ovine) (trifluoroacetate salt)

Item No. 37462

**Formal Name:** L-arginylglycyl-L-leucyl-L-arginyl-L-arginyl-L-leucylglycyl-L-arginyl-L-lysyl-L-iso-leucyl-L-alanyl-L-histidylglycyl-L-valyl-L-lysyl-L-lysyl-L-tyrosylglycyl-L-prolyl-L-threonyl-L-valyl-L-leucyl-L-arginyl-L-iso-leucyl-L-iso-leucyl-L-arginyl-L-iso-leucyl-L-alanyl-glycine, trifluoroacetate salt

**Synonym:** Sheep Myeloid Antimicrobial Peptide 29

**Peptide Sequence:** RGLRRLGRKIAHGVKKYGPTVLRIRIAG-OH

**MF:** C<sub>146</sub>H<sub>260</sub>N<sub>52</sub>O<sub>32</sub> • XCF<sub>3</sub>COOH

**FW:** 3,256.0

**Purity:** ≥98%

**Supplied as:** A solid

**Storage:** -20°C

**Stability:** ≥4 years



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

### Laboratory Procedures

SMAP 29 (ovine) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the SMAP 29 (ovine) (trifluoroacetate salt) in water. We do not recommend storing the aqueous solution for more than one day.

### Description

SMAP 29 is an antimicrobial peptide and a C-terminal cleavage product of an ovine cathelicidin prepropeptide.<sup>1-3</sup> SMAP 29 is bactericidal to *P. aeruginosa* strain PAO1 under low- and high-salt conditions in an energy-dependent luminescence assay (EC<sub>50</sub>s = 0.05 and 0.06 μM, respectively).<sup>2</sup> It induces hemolysis in ovine red blood cells in a concentration-dependent manner.<sup>4</sup>

### References

1. Mahoney, M.M., Lee, A.Y., Brezinski-Caliguri, D.J., *et al.* Molecular analysis of the sheep cathelin family reveals a novel antimicrobial peptide. *FEBS Lett.* **377(3)**, 519-522 (1995).
2. Travis, S.M., Anderson, N.N., Forsyth, W.R., *et al.* Bactericidal activity of mammalian cathelicidin-derived peptides. *Infect. Immun.* **68(5)**, 2748-2755 (2000).
3. Dawson, R.M. and Liu, C.-Q. Cathelicidin peptide SMAP-29: Comprehensive review of its properties and potential as a novel class of antibiotics. *Drug Dev. Res.* **70(7)**, 481-498 (2009).
4. Jung, B., Yun, H., Min, H.J., *et al.* Discovery of structural and functional transition sites for membrane-penetrating activity of sheep myeloid antimicrobial peptide-18. *Sci. Rep.* **13(1)**, 1238 (2023).

#### 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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