PRODUCT INFORMATION

Pexiganan (acetate)

Item No. 36924

CAS Registry No.: 172820-23-4
Formal Name: glycyl-L-isoleucylglycyl-L-lysyl-L-phenylalanyl-L-leucyl-L-lysyl-L-lysyl-L-alanyl-L-lysyl-L-lysyl-L-phenylalanylglycyl-L-lysyl-L-alanyl-L-phenylalanyl-L-valyl-L-lysyl-L-isoleucyl-L-leucyl-L-lysyl-L-lysinamide, acetate
Synonyms: Cytolex, GIGKFLKKAKKFGKAFVKILKK*a*, GIGKFLKKAKKFGKAFVKILKK-NH_2, MSI-78
MF: $C_{122}H_{210}N_{32}O_{22} \bullet XC_2H_4O_2$
FW: 2,477.2
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years

H—Gly—Ile—Gly—Lys—Phe—Leu—Lys—Lys—Ala—Lys—Lys—Phe—Gly—Lys—Ala—Phe—Val—Lys—Ile—Leu—Lys—Lys—NH_2 • XCH_3CO_2H

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

Laboratory Procedures

Pexiganan (acetate) is supplied as a solid. A stock solution may be made by dissolving the pexiganan (acetate) in the solvent of choice, which should be purged with an inert gas. Pexiganan (acetate) is soluble in the organic solvent ethanol at a concentration of approximately 12 mg/ml. Pexiganan (acetate) is slightly soluble in DMSO and dimethyl formamide.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of pexiganan (acetate) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of pexiganan (acetate) in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Pexiganan is a synthetic antimicrobial peptide.[1] It is active against various clinical isolates of bacteria from patients with diabetic foot infections, including *S. aureus*, methicillin-resistant *S. aureus* (MRSA), and *P. aeruginosa* (MICs = 16-32, 16-32, and 8-16 µg/ml, respectively). Pexiganan (1 mg/kg) decreases lethality in a mouse model of sepsis induced by *A. baumannii*.[2]

References

1. Flamm, R.K., Rhomberg, P.R., Simpson, K.M., *et al.* *In vitro* spectrum of pexiganan activity when tested against pathogens from diabetic foot infections and with selected resistance mechanisms. *Antimicrob. Agents Chemother.* **59(3)**, 1751-1754 (2015).
2. Cirioni, O., Simonetti, O., Pierpaoli, E., *et al.* Enhanced efficacy of combinations of pexiganan with colistin versus *Acinetobacter Baumannii* in experimental sepsis. *Shock* **46(2)**, 219-225 (2016).

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