

Product Data Sheet

Product Name: Cecropin A TFA

Cat. No.: GC34229

Chemical Properties

Cas. No.

SMILES FC(F)(F)C(O)=O.[KWKLFFKKIEKVGQNIRDGIIKAGPAVAVVGQATQIAK-NH2]

Formula $C_{186}H_{314}N_{53}O_{48}F_3$ M.Wt 4117.8

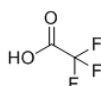
Solubility Water : ≥ 50 mg/mL (12.14 mM) Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

KWKLFFKKIEKVGQNIRDGIIKAGPAVAVVGQATQIAK-NH₂



Background

Cecropin A TFA is a linear 37-residue antimicrobial polypeptide isolated from *Hyalophora cecropia* pupae. Cecropin A TFA exhibits anti-bacterial, anti-inflammatory[1] and anti-cancer activity[2].

Cecropin A (10, 20, 30, 40 and 50 μM) induces cytotoxicity on HL-60 cells in a dose-dependent manner. Cecropin A induces apoptosis independent of caspase activation[1]. Cecropin A shows good antibacterial activity against both multidrug-resistant Gram-negative bacteria such as *A. baumannii*

Caution: Product has not been fully validated for medical applications. For research use only.

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(MDRAB) and multidrug-resistant *P. aeruginosa* (MDRPA) with IC₅₀s of 0.5-1 μ M. Cecropin A (0.1, 0.25 μ M) exhibits anti-inflammatory activities. Cecropin A (25 μ M) effectively suppresses the expression of mTNF- α , mL-1 β , and mMIP-2 mRNA and slightly inhibits the expression of mMIP-1 mRNA. Cecropin A also effectively inhibits LPS-induced phosphorylation of ERK, JNK, p38 MAPK, and reduced the expression of COX-2[2].

[1]. Cerón JM, et al. The antimicrobial peptide cecropin A induces caspase-independent cell death in human promyelocytic leukemia cells. *Peptides*. 2010 Aug;31(8):1494-503. [2]. Lee E, et al. Anti-inflammatory activities of cecropin A and its mechanism of action. *Arch Insect Biochem Physiol*. 2015 Jan;88(1):31-44.

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