PRODUCT INFORMATION

Melittin (C-Term Cysteine labeled) (trifluoroacetate salt)

Item No. 37504

Formal Name: glycyl-L-isoleucylglycyl-L-alanyl-L-valyl-L-leucyl-L-lysyl-L-valyl-L-leucyl-L-threonyl-L-threonylglycyl-L-leucyl-L-prolyl-L-alanyl-L-leucyl-L-isoleucyl-L-seryl-L-tryptophyl-L-isoleucyl-L-lysyl-L-arginyl-L-lysyl-L-arginyl-L-glutaminyl-L-glutaminyl-L-cysteinamide, trifluoroacetate salt

Synonym: Mel-Cys

Peptide Sequence: GIGAVLKVLTTGLPALISWIKRKRQQC-NH_2

MF: $C_{134}H_{234}N_{40}O_{32}S \bullet XCF_3COOH$

FW: 2,949.6

Purity: ≥95%

UV/Vis.: λ_{max}: 280 nm

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

Melittin (C-term cysteine labeled) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the melittin (C-term cysteine labeled) (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Melittin (C-term cysteine labeled) (trifluoroacetate salt) is soluble in a 30:70 solution of acetonitrile:water. We do not recommend storing the aqueous solution for more than one day.

Description

Melittin (C-term cysteine labeled) is a derivative of the cytotoxic bee venom peptide melittin (Item No. 17494) with a cysteine residue at the C-terminus.[1,2] It induces hemolysis of isolated human red blood cells at endosomal and extracellular pHs (EC_{50}s = 5 and 6 µM at pH 5.5 and 7.4, respectively).[1] Melittin (C-term cysteine labeled) has been used in the synthesis of membrane-lytic polymers that have been used in the generation of polyplexes for plasmid delivery *in vitro* and *in vivo*.[2]

References

1. Peeler, D.J., Thai, S.N., Cheng, Y., *et al.* pH-Sensitive polymer micelles provide selective and potentiated lytic capacity to venom peptides for effective intracellular delivery. *Biomaterials* **192**, 235-244 (2019).
2. Schellinger, J.G., Pahang, J.A., Johnson, R.N., *et al.* Melittin-grafted HPMA-oligolysine based copolymers for gene delivery. *Biomaterials* **34(9)**, 2318-2326 (2013).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM