

# 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-glutamyl-L-glutamyl-L-cysteinamide, trifluoroacetate salt

**Synonym:** Mel-Cys

**Peptide Sequence:** GIGAVLKVLTTGLPALISWIKRKRQQC-NH<sub>2</sub>

**MF:** C<sub>134</sub>H<sub>234</sub>N<sub>40</sub>O<sub>32</sub>S • XCF<sub>3</sub>COOH

**FW:** 2,949.6

**Purity:** ≥95%

**UV/Vis.:** λ<sub>max</sub>: 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.<sup>1,2</sup> It induces hemolysis of isolated human red blood cells at endosomal and extracellular pHs (EC<sub>50</sub>s = 5 and 6 μM at pH 5.5 and 7.4, respectively).<sup>1</sup> 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*.<sup>2</sup>

### 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).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 06/16/2023

#### 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](http://WWW.CAYMANCHEM.COM)