

# PRODUCT INFORMATION



## Butyrolactone II

Item No. 29943

**CAS Registry No.:** 87414-44-6  
**Formal Name:** (2R)-2,5-dihydro-4-hydroxy-3-(4-hydroxyphenyl)-2-[(4-hydroxyphenyl)methyl]-5-oxo-2-furancarboxylic acid, methyl ester

**MF:** C<sub>19</sub>H<sub>16</sub>O<sub>7</sub>

**FW:** 356.3

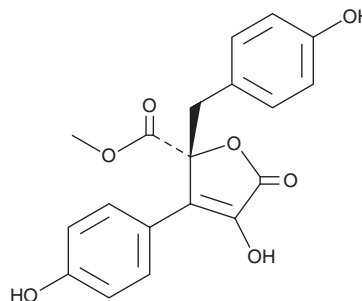
**Purity:** ≥95%

**Supplied as:** A solid

**Storage:** -20°C

**Stability:** ≥2 years

**Item Origin:** Fungi/*Aspergillus terreus*



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

### Laboratory Procedures

Butyrolactone II is supplied as a solid. A stock solution may be made by dissolving the butyrolactone II in the solvent of choice, which should be purged with an inert gas. Butyrolactone II is soluble in organic solvents such as ethanol, methanol, DMSO, and dimethyl formamide.

### Description

Butyrolactone II is a butenolide fungal metabolite that has been found in *A. terreus*.<sup>1</sup> It scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) and ABTS (Item No. 27317) free radicals (EC<sub>50</sub>s = 11.5 and 68.5 μM, respectively). It inhibits 5-lipoxygenase (5-LO; IC<sub>50</sub> = 21.43 μg/ml) and α-glucosidase (IC<sub>50</sub> = 0.126 mM).<sup>2,3</sup>

### References

1. Kang, H.-S. and Kim, J.-P. Butenolide derivatives from the fungus *Aspergillus terreus* and their radical scavenging activity and protective activity against glutamate-induced excitotoxicity. *J. Appl. Biol. Chem.* **62:43** (2019).
2. Wang, F.-S., Ke, A.-B., Zhu, J.-T., et al. Butyrolactones, inhibitors of 5-lipoxygenase from fungal metabolites. *J. Chin. Pharma. Sci.* **19(4)**, 251-255 (2010).
3. Zhang, L.-H., Feng, B.-M., Zhao, Y.-Q., et al. Polyketide butenolide, diphenyl ether, and benzophenone derivatives from the fungus *Aspergillus flavipes* PJ03-11. *Bioorg. Med. Chem. Lett.* **26(2)**, 346-350 (2016).

#### 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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#### 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