

# PRODUCT INFORMATION



## Butyrolactone V

Item No. 29947

**CAS Registry No.:** 1151509-01-1  
**Formal Name:** (2R)-2-[[[(3S)-3,4-dihydro-3-hydroxy-2,2-dimethyl-2H-1-benzopyran-6-yl]methyl]-2,5-dihydro-4-hydroxy-3-(4-hydroxyphenyl)-5-oxo-2-furancarboxylic acid, methyl ester

**MF:** C<sub>24</sub>H<sub>24</sub>O<sub>8</sub>

**FW:** 440.4

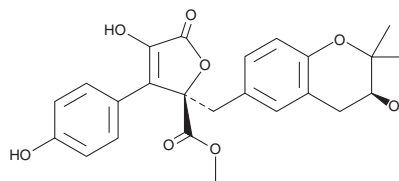
**Purity:** ≥95%

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

### Description

Butyrolactone V is a fungal metabolite that has been found in *A. terreus* and has antiprotozoal, antioxidant, and anticancer activities.<sup>1-3</sup> It is active against the *P. falciparum* strain K1 (IC<sub>50</sub> = 7.9 μg/ml) and *L. amazonensis* promastigotes (IC<sub>50</sub> = 23.7 μM).<sup>1,2</sup> Butyrolactone V (227 and 454.1 μM) is also active against adult *S. mansoni* worms.<sup>1</sup> It scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) and ABTS (Item No. 27317) radicals with IC<sub>50</sub> values of 20.7 and 3.7 μM, respectively, in cell-free assays.<sup>3</sup> Butyrolactone V also inhibits proliferation of MDA-MB-231 and MCF-7 breast cancer cells (IC<sub>50</sub>s = 22.2 and 31.9 μM, respectively).<sup>1</sup>

### References

1. de Silva, I.P., Brissow, E., Kellner, F., L.C., et al. Bioactive compounds of *Aspergillus terreus*—F7, an endophytic fungus from *Hyptis suaveolens* (L.) Poit. *World J. Microbiol. Biotechnol.* **33**(3), 62 (2017).
2. Haritakun, R., Rachtawee, P., Chanthaket, R., et al. Butyrolactones from the fungus *Aspergillus terreus* BCC 4651. *Chem. Pharm. Bull. (Tokyo)* **58**(11), 1545-1548 (2010).
3. An, X., Pei, Y., Chen, S., et al. Three new butenolides from the fungus *Aspergillus* sp. CBS-P-2. *Molecules* **21**(10), E1361 (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