

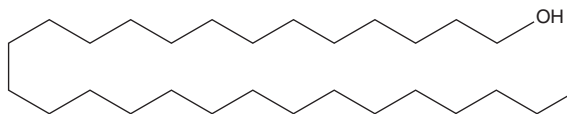
PRODUCT INFORMATION



1-Octacosanol

Item No. 28010

CAS Registry No.: 557-61-9
Synonyms: Montanyl Alcohol,
NSC 10770,
NSC 57768
MF: C₂₈H₅₈O
FW: 410.8
Purity: ≥90%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Description

1-Octacosanol is a very long-chain fatty alcohol that has diverse biological activities, including antibacterial, antifungal, anti-inflammatory, and antioxidative properties.¹⁻³ It is active against the bacteria *K. pneumoniae*, *S. flexneri*, *S. typhi*, and *E. faecalis* (MICs = 4, 8, 2, and 32 µg/ml, respectively), as well as the pathogenic fungi *T. ajelloi* and *T. rubrum* (MICs = 4 and 32 µg/ml, respectively), but not the yeast *C. albicans*, *C. lusitanae*, or *C. krusei*.¹ It reduces the expression of TNF-α, inducible nitric oxide synthase (iNOS), IL-1β, and IL-6 in RAW 264.7 cells stimulated with LPS when used at concentrations of 30 and 100 µg/ml.³ 1-Octacosanol (100 mg/kg per day) increases body weight, decreases diarrhea and hematochezia, and improves histopathological and morphological changes in the colon in a mouse model of ulcerative colitis induced by dextran sulfate sodium (DSS; Item No. 23250). 1-Octacosanol (10, 50, or 100 mg/kg) reduces carbon tetrachloride-induced increases in serum transaminase, hepatic myeloperoxidase, and hepatic xanthine oxidase activity, as well as lipid peroxidation, in a rat model of acute liver injury progression.² It also reverses decreases in hepatic superoxide dismutase and catalase activity, as well as glutathione (GSH) levels, in the same model.

References

1. Tchakam, P.D., Lunga, P.K., Kowa, T.K., *et al.* Antimicrobial and antioxidant activities of the extracts and compounds from the leaves of *Psorospermum aurantiacum* Engl. and *Hypericum lanceolatum* Lam. *BMC Complement. Altern. Med.* **12:136**, (2012).
2. Ohta, Y., Ohashi, K., Matura, T., *et al.* Octacosanol attenuates disrupted hepatic reactive oxygen species metabolism associated with acute liver injury progression in rats intoxicated with carbon tetrachloride. *J. Clin. Biochem. Nutr.* **42(2)**, 118-125 (2008).
3. Guo, T., Lin, Q., Li, X., *et al.* Octacosanol attenuates inflammation in both RAW264.7 macrophages and a mouse model of colitis. *J. Agric. Food Chem.* **65(18)**, 3647-3658 (2017).

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, 11/09/2022

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