

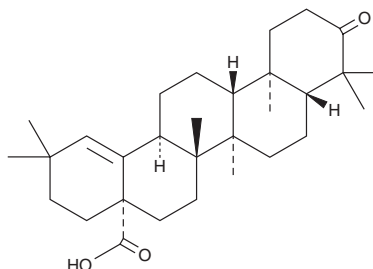
PRODUCT INFORMATION



Moronic Acid

Item No. 30654

CAS Registry No.: 6713-27-5
Formal Name: 3-oxo-olean-18-en-28-oic acid
Synonyms: Ambronic Acid, (+)-Moronic Acid, 3-Oxoolean-18-en-28-oic Acid
MF: $C_{30}H_{46}O_3$
FW: 454.7
Purity: $\geq 98\%$
Supplied as: A solid
Storage: -20°C
Stability: ≥ 4 years
Item Origin: Synthetic



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

Laboratory Procedures

Moronic acid is supplied as a solid. A stock solution may be made by dissolving the moronic acid in the solvent of choice, which should be purged with an inert gas. Moronic acid is sparingly soluble (1-10 mg/ml) in chloroform and slightly soluble (0.1-1 mg/ml) in methanol.

Description

Moronic acid is a triterpenoid that has been found in *M. euosma* and has diverse biological activities.¹⁻⁴ It inhibits α -glucosidase and α -amylase (IC_{50} s = 10.57 and 20.08 $\mu\text{g/ml}$, respectively).¹ Moronic acid inhibits the replication of HIV-1 in H9 T cells (EC_{50} = <0.1 $\mu\text{g/ml}$).² It decreases intestinal macrophage infiltration and the levels of $\text{Tnf-}\alpha$, IL-6 , and $\text{IL-1}\beta$ in a mouse model of chronic colitis induced by the sulfated polysaccharide dextran sulfate (DSS; Item No. 23250).³ Moronic acid inhibits ear edema induced by the PKC activator 12-O-tetradecanoylphorbol-13-acetate (TPA; Item No. 10008014) in mice (ID_{50} = 379 nmol/ear). It also reduces the number of tumors per mouse and the percentage of mice with tumors in a two-stage mouse skin model of tumor formation initiated and promoted by the polycyclic aromatic hydrocarbon (PAH) 7,12-dimethylbenz[a]anthracene (DMBA; Item No. 30383) and TPA, respectively.⁴

References

1. Koki, M., Yalo, M., Makhaba, M., *et al.* Phytochemical investigation and biological studies on selected *Searsia* species. *Plants (Basel)* **11**(20), 2793 (2022).
2. Ito, J., Chang, F.R., Wang, H.K., *et al.* Anti-AIDS agents. 48.(1) Anti-HIV activity of moronic acid derivatives and the new melliferone-related triterpenoid isolated from Brazilian propolis. *J. Nat. Prod.* **64**(10), 1278-1287 (2001).
3. Ruan, S. Moronic acid improves intestinal inflammation in mice with chronic colitis by inhibiting intestinal macrophage polarization. *J. Biochem. Mol. toxicol.* **36**(11), e23188 (2022).
4. Yasukawa, K., Yu, S.Y., Tsutsumi, S., *et al.* Inhibitory effects of Brazilian propolis on tumor promotion in two-stage mouse skin carcinogenesis. *J. Pharm. Nutr. Sci.* **2**(1), 71-76 (2012).

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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