

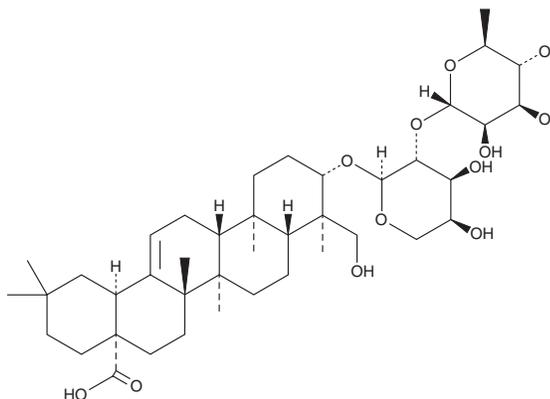
PRODUCT INFORMATION



α -Hederin

Item No. 28164

CAS Registry No.: 27013-91-8
Formal Name: (3 β ,4 α)-3-[[2-O-(6-deoxy- α -L-mannopyranosyl)- α -L-arabinopyranosyl]oxy]-23-hydroxy-olean-12-en-28-oic acid
Synonyms: Kalopanaxsaponin A, Koronaroside A, NSC 106553
MF: C₄₁H₆₆O₁₂
FW: 751.0
Purity: \geq 98%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years
Item Origin: Plant/*Lonicera fulvotomentosa*



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

Laboratory Procedures

α -Hederin is supplied as a crystalline solid. A stock solution may be made by dissolving the α -hederin in the solvent of choice, which should be purged with an inert gas. α -Hederin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of α -hederin in ethanol is approximately 5 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Description

α -Hederin is a triterpenoid saponin that has been found in *K. pictus* and has diverse biological activities.¹⁻⁴ It increases spontaneous motoric activity in isolated rat stomach corpus and fundus strips when used at concentrations ranging from 25 to 320 μ M.¹ It is cytotoxic to J82 and T24 human bladder carcinoma, Colon26 murine colon adenocarcinoma, and 3LL Lewis murine lung carcinoma cells (EC₅₀s = 15.5, 16.5, 12.5, and 1.1 μ M, respectively).² α -Hederin (7.5 and 15 mg/kg) increases survival time in a 3LL Lewis mouse lung carcinoma model. It reduces acetic acid-induced writhing in mice when administered at doses of 10 and 20 mg/kg.³ α -Hederin (5, 10, and 20 mg/kg) reduces paw edema in a rat model of rheumatoid arthritis induced by Freund's complete adjuvant (FCA). It dose-dependently prevents carbon tetrachloride-induced increases in serum alanine aminotransferase (ALT) and lactate dehydrogenase (LDH) activity, as well as hepatic levels of malondialdehyde (MDA) in a mouse model of hepatic injury.⁴ α -Hederin also decreases levels of the cytochrome P450 (CYP) isoform CYP2E1 in mouse liver.

References

1. Mendel, M., Chłopecka, M., Dziekan, N., *et al.* The effect of the whole extract of common ivy (*Hedera helix*) leaves and selected active substances on the motoric activity of rat isolated stomach strips. *J. Ethnopharmacol.* **134**(3), 796-802 (2011).
2. Park, H.-J., Kwon, S.-H., Lee, J.-H., *et al.* Kalopanaxsaponin A is a basic saponin structure for the anti-tumor activity of hederagenin monodesmosides. *Planta Med.* **67**(2), 118-121 (2001).
3. Choi, J., Huh, K.B., Kim, S.H., *et al.* Antinociceptive and anti-rheumatoidal effects of *Kalopanax pictus* extract and its saponin components in experimental animal. *J. Ethnopharmacol.* **79**(2), 199-204 (2002).
4. Jeong, H.G. and Park, H.Y. The prevention of carbon tetrachloride-induced hepatotoxicity in mice by α -hederin: Inhibitor of cytochrome P450 2E1 expression. *Biochem. Mol. Biol. Int.* **45**(1), 163-170 (1998).

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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