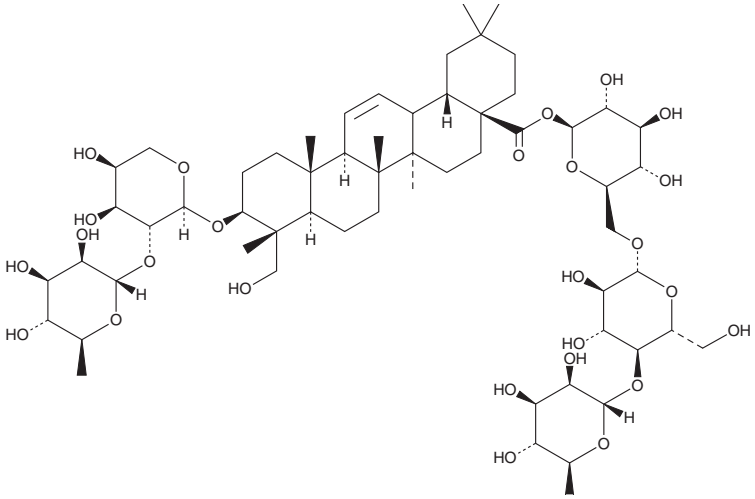
PRODUCT INFORMATION

Hederacoside C

Item No. 25138



CAS Registry No.:	14216-03-6
Formal Name:	3β-[[2-O-(6-deoxy-α-L-mannopyranosyl)-α-L-arabinopyranosyl]oxy]-23-hydroxy-olean-12-en-28-oic acid, O-6-deoxy-α-L-mannopyranosyl-(1→4α)-O-β-D-glucopyranosyl-(1→6)-β-D-glucopyranosyl ester
Synonyms:	Hederasaponin C, Kalopanaxsaponin B
MF:	$C_{59}H_{96}O_{26}$
FW:	1,221.4
Purity:	≥98%
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.

Laboratory Procedures

Hederacoside C is supplied as a crystalline solid. A stock solution may be made by dissolving the hederacoside C in the solvent of choice. Hederacoside C is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of hederacoside C in these solvents is approximately 10, 5, and 15 mg/ml, respectively.

Hederacoside C is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, hederacoside C should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Hederacoside C has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Hederacoside C is a saponin that has been found in *K. pictus* and has anti-inflammatory activity.[1,2] It is an inhibitor of acetylcholinesterase (AChE; IC_{50} = 31.3 µM).[2] Hederacoside C (0.5-5 µg) inhibits mutagenicity induced by aflatoxin B_1 (Item No. 11293) in *S. typhimurium* agar cultures from 21 to 67%.[3] It reduces TNF-α, IL-1β, IL-6, COX-2, and nitric oxide synthase (NOS) levels in a concentration-dependent manner and IL-1 receptor-associated kinase-1 (IRAK1) activity in isolated mouse peritoneal macrophages stimulated by LPS when used at concentrations ranging from 5 to 10 µM.[1] Hederacoside C (0.02 mg/kg) reduces carrageenan-induced hind paw edema by 37% compared to vehicle control in a rat model of acute inflammation.[4] It reduces scopolamine-induced memory impairment and increases latency in a passive avoidance test and spontaneous alteration in a Y-maze in mice by 100 and 59%, respectively, when administered at a dose of 40 mg/kg.[2] Hederacoside C (5 mg/kg, i.p.) reduces serum levels of TNF-α and IL-1β in LPS-challenged mice by 60 and 65%, respectively.[1]

References

1. Joh, E.H., Jeong, J.J., and Kim, D.H. *Cell Immunol.* **279(1)**, 103-108 (2012).
2. Joh, E.H., Lee, I.A., and Kim, D.H. *Phytother. Res.* **26(4)**, 546-551 (2012).
3. Lee, K.T., Sohn, I.C., Park, H.J., *et al. Planta Med.* **66(4)**, 329-332 (2000).
4. Gepdiremen, A., Mshvildadze, V., Süleyman, H., *et al. Phytomedicine* **12(6-7)**, 440-444 (2005).

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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