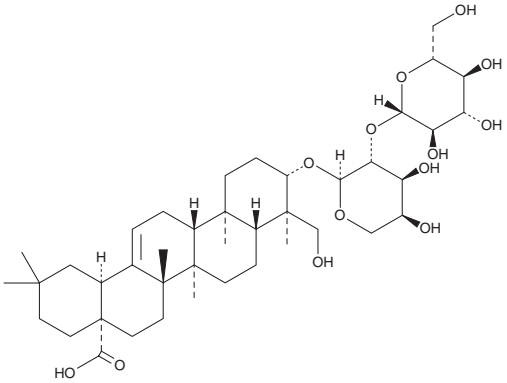
PRODUCT INFORMATION

Hederoside D_2

Item No. 27507

CAS Registry No.:	20853-58-1
Formal Name:	(3β,4α)-3-[(2-O-β-D-glucopyranosyl-α-L-arabinopyranosyl)oxy]-23-hydroxy-olean-12-en-28-oic acid
Synonyms:	Cauloside C, Fatsiaside D_1
MF:	$C_{41}H_{66}O_{13}$
FW:	767.0
Purity:	≥98%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Hedera helix*



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

Laboratory Procedures

Hederoside D_2 is supplied as a crystalline solid. A stock solution may be made by dissolving the hederoside D_2 in the solvent of choice, which should be purged with an inert gas. Hederoside D_2 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of hederoside D_2 in these solvents is approximately 5, 15, and 20 mg/ml, respectively.

Hederoside D_2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, hederoside D_2 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Hederoside D_2 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Hederoside D_2 is a triterpenoid saponin originally isolated from *C. robustum* rhizome and roots and has diverse biological activities.[1,2] It induces potassium release and hemolysis in mouse erythrocytes in a pH-dependent manner when used at a concentration of 10 µg/ml.[2] Hederoside D_2 is cytotoxic to N1E-115 neuroblastoma cells at low pH. It induces proliferation of human embryonic fibroblasts in acidic medium, an effect that can be blocked by the calcium channel blockers verapamil (Item No. 14288), diltiazem, and nitrendipine (Item No. 17549).

References

1. Murakami, T., Nagasawa, M., Urayama, S., *et al.* New triterpenoid saponins in the rhizome and roots of *Caulophyllum robustum*. *Yakugaku Zasshi* **88(3)**, 321-324 (1968).
2. Likhatskaya, G.N., Aminin, D.L., Agafonova, I.G., *et al.* The pH-dependent channels formed by cauloside C. *Advances in Experimental Medicine and Biology*. Waller, G.R. and Yamasaki, K., editors, **404**, *Springer* (1996).

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