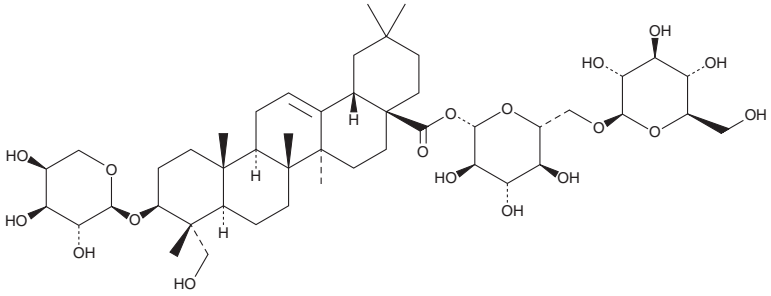
PRODUCT INFORMATION

Asperosaponin VI

Item No. 33206

CAS Registry No.:	39524-08-8
Formal Name:	(3β,4α)-3-(α-L-arabinopyranosyloxy)-23-hydroxy-olean-12-en-28-oic acid, 6-O-β-D-glucopyranosyl-β-D-glucopyranosyl ester
Synonyms:	Akebia Saponin D, ASA VI, Leiyemudanoside A, Tauroside St-G_{0-1}
MF:	$C_{47}H_{76}O_{18}$
FW:	929.1
Purity:	≥98%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Plant/*Dipsacus fullonum*



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

Laboratory Procedures

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

Asperosaponin VI is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, asperosaponin VI should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Asperosaponin VI has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Asperosaponin VI is a triterpenoid saponin that has been found in *D. asper* and has diverse biological activities.[1-3] It increases bone morphogenetic protein 2 (BMP2) levels in, and induces differentiation of, MC3T3-E1 mouse preosteoblasts in a concentration-dependent manner.[1] It also inhibits osteoclast formation induced by RANKL *in vitro* and reduces joint inflammation and bone loss in a mouse model of collagen-induced arthritis when administered at a dose of 20 mg/kg.[2] Asperosaponin VI (150 and 450 mg/kg) reduces increases in acetic acid-induced vascular permeability and increases the latency to paw withdrawal in the hot plate test in mice.[3]

References

1. Niu, Y., Li, Y., Huang, H., *et al.* Asperosaponin VI, a saponin component from Dipsacus asper wall, induces osteoblast differentiation through bone morphogenetic protein-2/p38 and extracellular signal-regulated kinase 1/2 pathway. *Phytother. Res.* **25(11)**, 1700-1706 (2011).
2. Liu, K., Liu, Y., Xu, Y., *et al.* Asperosaponin VI protects against bone destructions in collagen induced arthritis by inhibiting osteoclastogenesis. *Phytomedicine* **63**, 153006 (2019).
3. Gong, L.-L., Yang, S., Liu, H., *et al.* Anti-nociceptive and anti-inflammatory potentials of Akebia saponin D. *Eur. J. Pharmacol.* **845**, 85-90 (2019).

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