

alpha-Hederin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: alpha-Hederin

Catalog No.: CFN98325

Cas No.: 27013-91-8

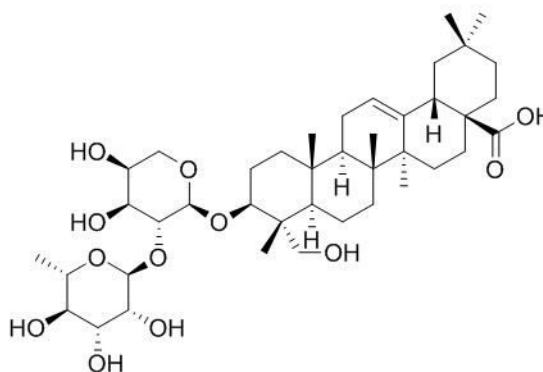
Purity: >=98%

M.F: C₄₁H₆₆O₁₂

M.W: 751.0

Physical Description: Powder

Synonyms: Sapindoside A; Kalopanaxsaponin A; Kizutasaponin K6; Akebiasaponin PD; Prosapogenin CP3b; Hederoside B; Nepalins 2; Tauroside E; Glycoside LE1; Calopanaxsaponin A; Helixin; Dipscacobioside; Cephalaroside C; Dipsacoside A.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Synthetic precursor compounds;
4. Intermediates & Fine Chemicals;
5. Others.

[Source]

The herbs of *Hedera nepalensis*.

[Biological Activity or Inhibitors]

Alpha-hederin as a pro-drug, has cytotoxic and apoptotic/necrotic effects in a dose- and time-dependent manner on four human cancer cell lines [A549 (lung carcinoma), HEp-2 (larynx epidermoid carcinoma), HT-29 (colon adenocarcinoma) and MIA PaCa-2 (pancreas carcinoma)] .^[1]

Alpha-hederin is a saponin isolated from ivy, has anti-oxidant activity and acute anti-inflammatory activity in carrageenan-induced rat paw edema.^[2]

Alpha-hederin, chlorophyllin and ascorbic acid have protective effects towards the induction of micronuclei by doxorubicin in cultured human lymphocytes.^[3]

Alpha-hederin has antileishmanial activity ,exhibits a strong antiproliferative activity on all stages of development of the parasite by altering membrane integrity and potential in Leishmania .^[4]

Alpha-hederin affects the binding behavior, dynamics, and regulation of beta 2-adrenergic receptors.^[5]

Alpha-Hederin can increase isoprenaline-induced relaxation indirectly, probably by inhibiting heterologous desensitization induced by high concentrations of muscarinic ligands like .^[6]

Alpha-hederin at sub-IC(50) cytotoxic concentrations enhances 5-fluorouracil (5-FU) cytotoxicity about 3.3-fold, suggests that it is possible to optimize colorectal cancer cell sensitivity to 5-FU with alpha-hederin.^[7]

Alpha-hederin has anticancer effect on breast cancer cells.^[8]

[Solvent]

Pyridine, Methanol, Ethanol, Hot water, etc.

[HPLC Method]^[9]

HPLC-ELSD:

Mobile phase: Acetonitrile -H₂O, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

Drift tube temperature: 106 °C

Flow rate of gas : 2.8L/min.

[Storage]

2-8°C, Protected from air and light, refrigerate or freeze.

[References]

- [1] Rooney S, Ryan M F. *Anticancer Res.*, 2005, 25(3B):2199-204.
- [2] Gepdiremen A, Mshvildadze V, Süleyman H, *et al. Phytomedicine*, 2005, 12(6-7): 440-4.
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- [4] Amara-Mokrane Y A, Lehucher-Michel M P, Balansard G, *et al. Mutagenesis*, 1996, 11(2):161-7.
- [5] Delmas F, Di G C R, Gasquet M, *et al. Planta Med.*, 2000, 66(4):343-7.
- [6] Sieben A, Prenner L, Sorkalla T, *et al. Biochemistry*, 2009, 48(15):3477-82.
- [7] Anne Wolf, Reinoud Gosens, Herman Meurs, *et al. Phytother. Res. Ptr.*, 2008, 22(10): 1299-302.
- [8] Cheng L, Xia T S, Wang Y F, *et al. Int. J. Oncol.*, 2014, 45(2):757-63.
- [9] Li Y, Li J, Huang J, *et al. Chinese Agr. Sci. Bull.*, 2014, 30(13):190-3.

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