

Curdione Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Curdione

Catalog No.: CFN99146

Cas No.: 13657-68-6

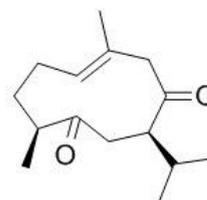
Purity: > 98%

M.F: C₁₅H₂₄O₂

M.W: 236.34

Physical Description: Cryst.

Synonyms: (3S,6E,10S)-6,10-dimethyl-3-propan-2-ylcyclodec-6-ene-1,4-dione.



[Intended Use]

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

[Source]

The rhizomes of *Curcuma zedoaria* (Berg.) Rosc.

[Biological Activity or Inhibitors]

Curdione, isolated from the rhizome of *Curcuma zedoaria*, has the inhibitory effect on the production of prostaglandin E2 in lipopolysaccharide (LPS)-stimulated mouse macrophage RAW 264.7 cells in a concentration-dependent manner (IC50 = 1.1 microM); the suppression of cyclooxygenase-2 (COX-2) mRNA expression is, at least in part, involved in this inhibitory activity of curdione; the inhibitors of prostaglandin biosynthetic enzyme cyclooxygenase (COX) have played a role of anti-inflammatory and cancer chemopreventive agents; suggests that curdione may have anti-inflammatory and cancer chemopreventive activities.^[1]

Curdione can induce the apoptosis of the human breast cancer cell line MCF-7, and block the cells at G1/G0 phase, thereby inhibiting the proliferation of MCF-7 cells; and both mitochondrial pathway and death receptor pathway participate in the process to induce the apoptosis.^[2]

Curdione shows significant anti-platelet aggregation and antithrombotic activities, the inhibitory mechanism of curdione on platelet aggregation may increase cAMP levels and subsequently inhibit intracellular Ca²⁺ mobilization.^[3]

Curdione plays an important role in the CYP3A4 inhibitory activity of *C. aromatica* and curdione might inhibit the activity by accelerating the degradation of CYP3A4.^[4]

[Solvent]

Chloroform, Dichloromethane, Diethyl ether, DMSO, Acetone, etc.

[HPLC Method]^[5]

Mobile phase: Acetonitrile : H2O=32:68;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 220 nm.

[Storage]

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

[References]

- [1] Oh O J, Min H Y, Sang K L. *Arch. Pharm. Res.*, 2007, 30(10):1236-9.
- [2] Wang K, Li J, Wang J, *et al.* *Chinese Medical Association of Integrative Medicine physician Assembly Abstract Book*. 2014.
- [3] Xia Q, Wang X, Xu D J, *et al.* *Thromb. Res.*, 2012, 130(3):409-14.
- [4] Hou X L, Hayashinakamura E, Takataninakase T, *et al.* *Evid-Based .Compl. Alt. Med.*, 2011, 2011(5):1-9.
- [5] Li C W, Wang W H. *China Practical Medical*, 2006, 1(5):37-8.

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