

Taxifolin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Taxifolin

Catalog No.: CFN98734

Cas No.: 480-18-2

Purity: >= 98%

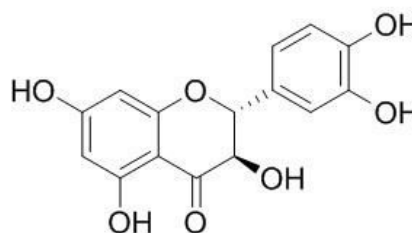
M.F: C₁₅H₁₂O₇

M.W: 304.3

Physical Description: Powder

Synonyms:

Dihydroquercetin; Distylin; Catechin hydrate; (+)-Taxifolin; (+)-Dihydroquercetin;
trans-Dihydroquercetin.



[Intended Use]

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

[Source]

The barks of *Pinus yunnanensis*.

[Biological Activity or Inhibitors]

Taxifolin, a plant flavonoid, it decreases hepatic lipid synthesis with a concomitant decreases and increases in apolipoprotein B (apoB) and apolipoprotein A-I (apoA-I) secretion, respectively.^[1]

Taxifolin has anti-oxidant activity, it can ameliorate cerebral ischemia-reperfusion injury in rats through its anti-oxidative effect and modulation of NF-kappa B activation.^[2,3]

Taxifolin and luteolin have anti-melanogenic effects, the effects are attributed to their inhibitory effects on tyrosinase enzymatic activity, despite their effects on increasing tyrosinase protein levels; and they attenuate cell pigmentation induced by expression of exogenous human tyrosinase.^[4]

Taxifolin exerts chemopreventive activity against UV-induced skin carcinogenesis by targeting EGF receptor (EGFR), and phosphoinositide 3-kinase (PI3K).^[5]

Taxifolin and quercitrin promote osteoblast differentiation in MC3T3-E1 cells and also inhibit osteoclastogenesis in RAW264.7 cells, show a positive effect of them on bone metabolism.^[6]

Taxifolin can enhance andrographolide-induced mitotic arrest and apoptosis in human prostate cancer cells via spindle assembly checkpoint activation.^[7]

Taxifolin has anti-inflammatory activity.^[8]

[Solvent]

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

[HPLC Method]^[9]

Mobile phase: Methanol -H₂O=40:60 ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 288 nm.

[Storage]

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

[References]

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- [4] Sang M A, Kim H J, Kim J E, *et al. Phytother. Res.*, 2008, 22(9):1200-7.
- [5] Oi N, Chen H, Ok K M, *et al. Cancer Prev. Res.*, 2012, 5(9):1103-14.
- [6] Satué M, Arriero M D M, Monjo M, *et al. Biochem. Pharmacol.*, 2013, 86(10):1476-86.
- [7] Zhang Z R, Al Z M, Wong M M, *et al. Plos One*, 2013, 8(1):1970-1970.
- [8] Gupta M B, Bhalla T N, Gupta G P, *et al. Jap. J. Pharmacol.*, 1971, 21(3):377-82.
- [9] Zhang W P, Liu W, Fu J H , *et al. Food Science*, 2013, 34(16):293-6.

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