Natural Products

ChemFaces

Chrysophanol Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Chrysophanol

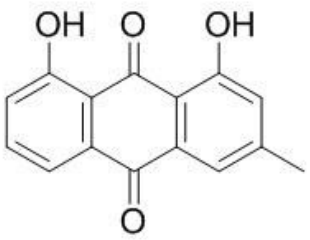
Catalog No.: CFN98751

Cas No.: 481-74-3

Purity: > 98%

M.F: $C_{15}H_{10}O_4$

M.W: 254.2



Physical Description: White powder

Synonyms: 1,8-Dihydroxy-3-methylanthracene-9,10-dione.

[Intended Use]

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

[Source]

The root and rhizome of *Rheum officinale L.*.

[Biological Activity or Inhibitors]

Chrysophanol has anti-inflammatory activity through the suppression of NF-κB/caspase-1 activation in vitro and in vivo.[1]

Chrysophanol induces necrosis through the production of ROS and alteration of ATP levels in J5 human liver cancer cells.[2]

Chrysophanol has mild cytotoxicity and anti-diabetic properties, it up to 100 microM exerts mild glucose transport activity and elevates the tyrosine phosphorylation of IR via tyrosine phosphatase 1B inhibition (IC50=79.86+/-0.12 microM), thus it could play metabolic roles in the insulin-stimulated glucose transport pathway.[3]

Chrysophanol and physcion, are main active compounds of the plant Baill, has is active against plant powdery mildew, and physcion is much more bioactive than chrysophanol against these powdery mildews.[4]

Chrysophanol can inhibit NALP3 inflammasome activation and ameliorate cerebral ischemia/reperfusion in mice.[5]

[Solvent]

Chloroform, Dichloromethane, DMSO, Acetone.

[HPLC Method][6]

Mobile phase: Methanol : 0.2% Acetic acid H2O=83:17;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 254 nm.

[Storage]

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

[References]

[1] Sujin K, Mincheol K, Byongjoo L, *et al. Molecules, 2010, 15(9):6436-51.*

[2] Lu C C, Yang J S, Huang A C, *et al. Mol. Nutr. Food Res., 2010, 54(7):967-76.*

[3] Lee M S, Sohn C B. *Biol. Pharm. Bull., 2008, 31(11):2154-7.*

[4] Yang X, Yang L, Wang S, *et al. Pest Manag. Sci., 2007, 63(5):511-5.*

[5] Zhang N, Zhang X, Liu X, *et al. Mediat. Inflamm., 2014, 2014(1):289-339.*

[6] Tang W F, Yu Q, Wan M H, *et al. Biomed. Chromatogr., 2007, 21(7):701-7.*

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