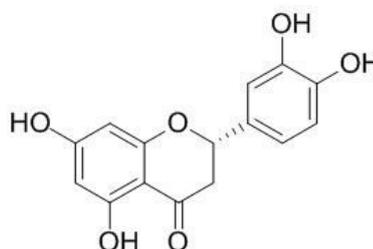


Eriodictyol Datasheet

4th Edition (Revised in July, 2016)**[Product Information]****Name:** Eriodictyol**Catalog No.:** CFN99719**Cas No.:** 552-58-9**Purity:** > 98%**M.F:** C₁₅H₁₂O₆**M.W:** 288.25**Physical Description:** Powder

Synonyms: (S)-2-(3,4-dihydroxyphenyl)-2,3-dihydro-5,7-dihydroxy-4-benzopyrone; 2-(3,4-Dihydroxyphenyl)-5,7-dihydroxy-2,3-dihydro-4H-chromen-4-one; 3',4',5,7-tetrahydroxyflavanone; 4H-1-benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-2,3-dihydro-5,7-dihydroxy-

**[Intended Use]**

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

[Source]The fruits of *Citrus sinensis* (L.) Osbeck.

[Biological Activity or Inhibitors]

Eriodictyol, a flavonoid found in citrus fruits, is among the most potent compounds reported to protect human RPE cells from oxidative stress-induced cell death; it induces long-term protection in ARPE-19 cells through its effects on Nrf2 activation and phase 2 gene expression, the greatest benefit from eriodictyol may be its ability to regulate gene expression and enhance multiple cellular defenses to oxidative injury.^[1]

Eriodictyol can be used to protect keratinocytes from UV-induced damage, the anti-apoptotic and anti-oxidant effects of eriodictyol are also confirmed in UV-induced cell death of normal human epidermal keratinocyte (NHEK) cells. ^[2]

Eriodictyol attenuates the degree of retinal inflammation and plasma lipid peroxidation preserving the blood-retinal barrier (BRB) in early diabetic rats.^[3]

Eriodictyol acts as an antagonist of the transient potential vanilloid 1 receptor (TRPV1) receptor and as an antioxidant, it induces antinociception without some of the side effects and limitations such as hyperthermia that are expected for TRPV1 antagonists. ^[4]

Eriodictyol upregulates HO-1 and γ -GCS expression through the activation of Nrf2/ARE pathway and protects PC12 cells against H₂O₂-induced oxidative stress.^[5]

Eriodictyol has anti-inflammatory effects in lipopolysaccharide-stimulated raw 264.7 murine macrophages.^[6]

Eriodictyol inhibits RSK2-ATF1 signaling and suppresses EGF-induced neoplastic cell transformation. ^[7]

Eriodictyol has vasodilator effect, the effect in rat thoracic aorta could be partially related to the inhibition of calcium influx or other enzymatic protein subsequent to activation of PKC related to the activation of contractile proteins like myosin light chain kinase (MLCK).^[8]

[Solvent]

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

[HPLC Method]^[9]

Mobile phase: Methanol- 1% Phosphoric acid H₂O=48:52;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 254 nm.

[Storage]

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

[References]

- [1] Johnson J, Maher P, Hanneken A. *Invest. Opth. Vis. Sci.*, 2009, 50(5):2398-406.
- [2] Lee E R, Kim J H, Kang Y J, *et al. Biol. Pharmaceut. Bull.*, 2007, 30(1):32-7.
- [3] Bucolo C, Leggio G M, Drago F, *et al. Biochem. Pharmacol.* 2012, 84(1):88-92.
- [4] Rossato M F, Trevisan G, Walker C I B, *et al. Biochem.Pharmacol.* 2010, 81(4):544-51.
- [5] Lou H, Jing X, Ren D, *et al. Neurochem. Int.*, 2012, 61(2):251-7.
- [6] Lee J K. *Arch. Pharm.Res.*, 2011, 34(4):671-9.
- [7] Liu K, Cho Y Y, Yao K, *et al. J.Biol. Chem.*, 2011, 286(3):2057-66.
- [8] Ramón S d R V, Somoza B, Ortega T, *et al. Planta Med.*, 1999, 65(3):234-8.
- [9] Yao L, Lin Y P, Gong Y Q, *et al. Food Science & Technology*, 2006, 31(3):116-8.

[Contact]

Address:

S5-3 Building, No. 111, Dongfeng Rd.,
Wuhan Economic and Technological Development Zone,
Wuhan, Hubei 430056,
China

Email: info@chemfaces.com

Tel: +86-27-84237783

Fax: +86-27-84254680

Web: www.chemfaces.com

Tech Support: service@chemfaces.com