

Myricitrin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Myricitrin

Catalog No.: CFN99840

Cas No.: 17912-87-7

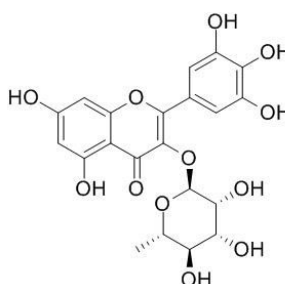
Purity: >=98%

M.F: C₂₁H₂₀O₁₂

M.W: 464.38

Physical Description: Yellow powder

Synonyms: 5,7-Dihydroxy-4-oxo-2-(3,4,5-trihydroxyphenyl)-4H-chromen-3-yl-6-deoxy- α -L-mannopyranoside.



[Intended Use]

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

[Source]

The root bark of *Myrica cerifera* L.

[Biological Activity or Inhibitors]

Myricitrin, a flavonoid rich in *Myrica rubra* leaf, has anti-inflammatory and anti-allergic effects, it has an inhibitory effect on pro-inflammatory TNF α production in a macrophage cell line, Raw264.7 cells. ^[1]

Myricitrin produces pronounced antinociception against chemical and mechanical models of pain in rodents, the mechanisms involved in their actions are not completely understood but seem to involve an interaction with nitric oxide-L-arginine and protein kinase C pathways.^[2]

Myricitrin is a nitric oxide (NO) and protein kinase C (PKC) inhibitor that has central nervous system activity, including anxiolytic-like action; nitric oxide inhibitors block the behavioral effects of apomorphine, suggesting an antipsychotic-like effect.^[3]

Myricitrin can protect against peroxynitrite-induced DNA damage and cytotoxicity, which might have implications for myricitrin-mediated neuroprotection. ^[4]

Myricitrin can attenuate 6-hydroxydopamine-induced mitochondrial damage and apoptosis in PC12 cells via inhibition of mitochondrial oxidation, thus, myricitrin has the neuroprotective capacity to antagonize 6-OHDA-induced neurotoxicity in PC12 cells and may be useful in treating Parkinson's disease (PD).^[5]

Myricitrin exhibits antioxidant, anti-inflammatory and antifibrotic activity in carbon tetrachloride-intoxicated mice, it exhibits a significant hepatoprotective activity.^[6]

[Solvent]

Pyridine, Methanol, Ethanol, etc.

[HPLC Method]^[7]

Mobile phase: Acetonitrile- 1% Acetic acid H₂O, gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 355 nm.

[Storage]

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

[References]

- [1] Shimosaki S, Tsurunaga Y, Itamura H, *et al. Nat.Prod. Res.*, 2011, 25(4):374-80.
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- [3] Pereira M, Siba I P, Chioca L R, *et al. Prog. Neuro-Psychoph.*, 2011, 35(7):1636-44.
- [4] Chen W, Zhuang J, Li Y, *et al. Food Chem.*, 2013, 141(2):927-33.
- [5] Wang Y H, Xuan Z H, Tian S, *et al. J.Funct.Foods*, 2013, 5(1):337-45.
- [6] Domitrović R, Rashed K, Cvijanović O, *et al. Chem.Biol. Int.*, 2015, 230:21-9.
- [7] Yang X, Zhang X, Yuan Z, *et al. J. Chromatogr. Sci.*, 2009, 47(8):714-7.

[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