

Khellin Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Khellin

Catalog No.: CFN97303

Cas No.: 82-02-0

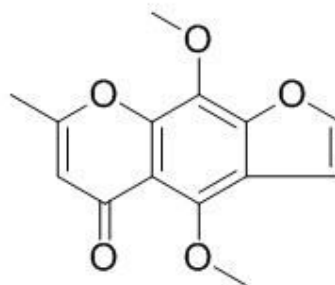
Purity: > 98%

M.F: C₁₄H₁₂O₅

M.W: 260.2

Physical Description: Yellow powder

Synonyms: 4,9-Dimethoxy-7-methyl-5H-furo[3,2-g][1]benzopyran-5-one; Visammin.



[Intended Use]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Cosmetic research;
5. Synthetic precursor compounds;
6. Intermediates & Fine Chemicals;
7. Ingredient in supplements, beverages;
8. Others.

[Source]

The fruits of *Ammi visnaga*.

[Biological Activity or Inhibitors]

Khellin, a furanochromone, as photosensitizer, together with ultraviolet A (UVA) irradiation, it can treat vitiligo patients; it does not induce skin phototoxicity with UVA but it induces repigmentation similar to psoralens; khellin does not lead to phototoxic skin erythema and thus can be considered safe for home treatment.^[1]

Khellin and visnagin can prevent renal epithelial cell damage caused by oxalate (Ox) and calcium oxalate monohydrate (COM) and can therefore play a potential role in the prevention of stone formation associated with hyperoxaluria.^[2]

KUVA (khellin plus ultraviolet A) stimulates proliferation and melanogenesis in normal human melanocytes and melanoma cells in vitro.^[3]

khellin and visnagin has genotoxicity of the natural furochromones.^[4]

[Solvent]

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

[HPLC Method]^[5]

Mobile phase: Methanol- Acetonitrile-H₂O=49:2:49 ;

Flow rate: 1.5 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 250 nm.

[Storage]

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

[References]

[1] Ortel B, Tanew A, Hönigsmann H. *J. Am. Acad. Dermatol.*, 1988, 18(4 Pt 1):693-701.

[2] Vanachayangkul P. *Phytomedicine*, 2010, 17(9):653-8.

[3] Carlie G, Ntusi N, Hulley P A, *et al. Brit. J. Dermatol.*, 2003, 149(4):707-17.

[4] Abeysekera B F, Abramowski Z, Towers G H N. *Photochem. Photobiol.*, 1983, 38(3):311-5.

[5] El Domiaty, Maher M. *J. Pharm. Sci-UK.*, 1992, 81(5):475-8.

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