

Bergapten Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Bergapten

Catalog No.: CFN98766

Cas No.: 484-20-8

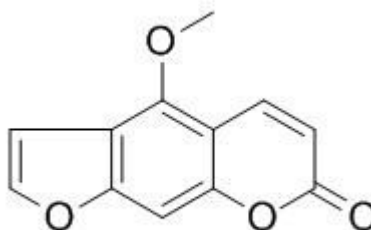
Purity: >=98%

M.F: C₁₂H₈O₄

M.W: 216.19

Physical Description: Powder

Synonyms: 5-Methoxypsoralen;4-Methoxy-7H-furo[3,2-g]chromen-7-one.



[Intended Use]

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

[Source]

The root of *Angelica dahurica*.

[Biological Activity or Inhibitors]

Bergapten and bergapten plus UV (PUVA) are able to significantly affect MCF-7, ZR-75

and SKBR-3 breast cancer cell proliferations, suggests that bergapten and its photoactivated compound, exert antiproliferative effects and induce apoptotic responses in breast cancer cells.^[1]

Bergapten for photochemotherapy, it has clinical efficacy in psoriasis of a new drug preparation.^[2]

Bergapten may efficiently act as a natural antitumoral agent, able to deplete ER α from breast cancer tamoxifen-sensitive and resistant cells, thereby retraining the effect of membrane signals targeting ER α and in such way its mitogenic potentiality. ^[3]

Bergapten has anti-inflammatory activity, it exhibits significant inhibition of the production of pro-inflammatory cytokines, namely tumour necrotic factor- α (TNF- α) and interleukin-6 (IL-6) by peripheral blood mononuclear cells (PBMCs) stimulated with lipopolysaccharide in a concentration-dependent manner.^[4]

Bergapten can prevent lipopolysaccharide mediated osteoclast formation, bone resorption and osteoclast survival, it may be beneficial as an alternative for prevention and treatment of inflammatory bone loss.^[5]

[Solvent]

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

[HPLC Method]^[6]

Mobile phase: Acetonitrile- H₂O, gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 300 nm.

[Storage]

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

[References]

- [1] Panno M L, Giordano F, Mastroianni F, *et al. Febs Lett.*, 2010, 584(11):2321-6.
- [2] Tanew A, Ortel B, Rappersberger K, *et al. J. Am. Acad. Dermatol.*, 1988, 18(2):333-8.
- [3] Panno M L, Giordano F, Rizza P, *et al. Breast Cancer Res.Tr.*, 2012, 136(2):443-55.
- [4] Bose S K, Dewanjee S, Sahu R, *et al. Nat. Prod. Res.*, 2011, 25(15):1444-9.
- [5] Zheng M, Ge Y, Li H, *et al. Int. Orthop.*, 2014, 38(3):627-34.
- [6] Mao Z, Meng X, Li Y, *et al. China Pharmacist*, 2011, 14(2):205-7.

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