

Isobergapten Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Isobergapten

Catalog No.: CFN90231

Cas No.: 482-48-4

Purity: >=98%

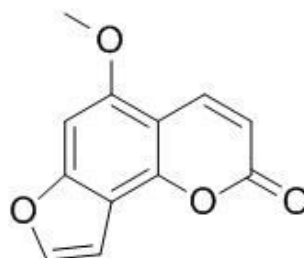
M.F: C₁₂H₈O₄

M.W: 216.19

Physical Description: White powder

Synonyms: Isobergaptol methyl ether; 5-Methoxyangelicin;

5-Hydroxyangelicin methyl ether 5-Methoxy-2H-furo[2,3-h]-1-benzopyran-2-one.



[Intended Use]

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

[Source]

The fruits of *Citrus medica* L.

[Biological Activity or Inhibitors]

Isobergapten is a plant growth regulating substance.^[1]

Isobergapten can suppress in vivo growth of *G. limetticola* and *B. cinerea*, it may form an important class of natural defensive agents against fungi.^[2]

Isobergapten, a furocoumarins having a methoxy group, shows anti-proliferative activity and causes G2/M arrest at concentrations of 0.05-15.0 μ M, the anti-tumor actions of UVA plus furocoumarins having a methoxy group may be due to the arrest of the cell cycle at G2/M through an increase in phospho-Chk1 and reduction in phospho-cdc2.^[3]

(3R,8S)-Falcarindiol, bergapten, isobergapten, angelicin, sphondin, pimpinellin, isopimpinellin and 6-isopentenylxyisobergapten are identified as the principal constituents responsible for the antimycobacterial activity of the roots of *Heracleum maximum*.^[4]

[Solvent]

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

[HPLC Method]^[5]

Mobile phase: Methanol -H₂O, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 40 °C;

The wave length of determination: 248 nm.

[Storage]

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

[References]

[1] Shimomura H, Sashida Y, Nakata H, *et al. Phytochemistry*, 1982, 21(9):2213-5.

[2] Martin J T, Baker E A, Byrde R J W. *Ann. Appl. Biol.*, 1966, 57(3):501-8.

[3] Sumiyoshi M, Sakanaka M, Taniguchi M, *et al. J. Nat. Med.*, 2014, 68(1):83-94.

[4] O'Neill T , Johnson J A, Webster D, *et al. J. Ethnopharmacol.*, 2013, 147(1):232-7.

[5] Peroutka R, Schulzova V, Botek P, *et al. J. Sci.Food Agr.*, 2007, 87(11):2152–63.

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