[ Product Information ]

Name: Daphnetin
Catalog No.: CFN99952
Cas No.: 486-35-1
Purity: >=98%
M.F: C₉H₆O₄
M.W: 178.14
Physical Description: White cryst.
Synonyms: 7,8-Dihydroxy-2h-1-benzopyran-2-on.

[ Intended Use ]

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

[ Source ]

The herbs of Daphne Korean Nakai.

[ Biological Activity or Inhibitors ]

Daphnetin, one of coumarin derivatives, is a protein kinase inhibitor.[1]
Daphnetin has been shown to be a potent in vitro anti-proliferative agent to the human renal cell carcinoma (RCC) cell line, A-498; p38 MAP kinase is intrinsically involved in mediating the effect of daphnetin in A-498 cells, suggesting that this drug may act by promotion of cellular maturation, and consequently may represent a novel low toxic approach for the treatment of poorly differentiated RCCs. [2]

Daphnetin is highly effective on preventing and suppressing the development and progression of adjuvant-induced arthritis and provides direct evidences that daphnetin is one of the active principle of Zushima-Pian for treating rheumatoid arthritis. [3]

Daphnetin can enhance immunological functions of B lymphocytes, the expression of IL-12 in B lymphocytes can be up-regulated by daphnetin through natural immunity approach. [4]

Daphnetin is a dihydroxycoumarin that is being used in China for the treatment of coagulation disorders, it is also a chelator and an antioxidant; it is a novel antimalarial agent with in vitro and in vivo activity. [5]

Daphnetin shows great antiproliferative activity in several tumor cell lines and have been proposed as a potential anticancer agent. [6]

Daphnetin has anti-inflammatory properties, it has been used to treat inflammatory diseases including bronchitis; it has protective functions of daphnetin in endotoxin-induced lung inflammation and injury. [7]

[ Solvent ]

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

[ HPLC Method ] [8 ]

Mobile phase: Methanol-0.5% Acetic acid H2O=22:78 ;
Flow rate: 1.0 ml/min;
Column temperature: Room Temperature;
The wave length of determination: 327 nm.
[ Storage ]
2-8°C, Protected from air and light, refrigerate or freeze.

[ References ]


[ Contact ]

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