[ Product Information ]

Name: Isoimperatorin
Catalog No.: CFN99107
Cas No.: 482-45-1
Purity: > 98%
M.F: C_{16}H_{14}O_{4}
M.W: 270.28
Physical Description: Yellow cryst.

[ Intended Use ]

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

[ Source ]

The root of Peucedanum ostruthium L.

[ Biological Activity or Inhibitors ]
Isoimperatorin is a medicinal herbal product that is isolated from the dried roots of Angelicae dahuricae, can inhibit the cyclooxygenase-2 (COX-2) and COX-1-dependent phases of prostaglandin D2 (PGD2) generation in bone marrow-derived mast cells (BMMC) in a concentration-dependent manner, with IC 50 values of 10.7 uM and 24 uM, respectively; it may provide the basis for novel anti-inflammatory drugs.[1]

Isoimperatorin possesses a potent hepatoprotective effect against AFB1, presumably through the induction of GSTalpha and the direct inhibition of CYP1A at 2 microM concentration, and suggests that it should be considered a potential chemopreventive.[2]

Isoimperatorin isolated from Cimicifugae Rhizome selectively inhibits TNF-α-induced expression of VCAM-1 at least by upregulation of PPAR-γ, and signals for ERK1/2, PI3K, and PKC are involved in this effect.[3]

Isoimperatorin (IO) has antimycobacterial activity against Mycobacterium tuberculosis strain H37Rv (ATCC 27294), IO has antimycobacterial activity against 2 drug-sensitive and 6 drug-resistant isolates, with minimum inhibitory concentrations (MICs) of 50-100 ug ml(-1) and 100-200 ug ml(-1), respectively; and IO exhibits synergistic antimycobacterial effects with rifampin (RMP),isoniazid (INH) and ethambutol (EMB) against 6 drug-resistant strains, with fractional inhibitory concentration index (FICI) values of 0.133 – 0.472, 0.123 – 0.475 and 0.124 – 0.25, respectively.[4]

[ Solvent ]

Chloroform, Dichloromethane, DMSO, Acetone, etc.

[ HPLC Method ][5]

Mobile phase: Methanol- H2O, gradient elution;
Flow rate: 1.0 ml/min;
Column temperature: Room Temperature;
The wave length of determination: 249 nm.
[ Storage ]

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

[ References ]


[ Contact ]

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