[ Product Information ]

Name: Demethoxycurcumin

Catalog No.: CFN99185

Cas No.: 22608-11-3

Purity: > 98%

M.F: C_{20}H_{18}O_5

M.W: 338.35

Physical Description: Yellow powder

Synonyms: (1E,6E)-1-(4-Hydroxy-3-methoxyphenyl)-7-(4-hydroxyphenyl)hepta-1,6-diene-3,5-dione; 1,6-Heptadiene-3,5-dione, 1-(4-hydroxy-3-methoxyphenyl)-7-(4-hydroxyphenyl)hepta-1,6-diene-3,5-dione.

[ Intended Use ]

1. Reference standards;
2. Pharmacological research;
3. Food and cosmetic research;
4. Synthetic precursor compounds;
5. Intermediates & Fine Chemicals;
6. Ingredient in supplements, beverages;
7. Aromatics;
8. Others.
The herb of *Curcuma longa* L.

**Biological Activity or Inhibitors**

Demethoxycurcumin (DMC) is one of the main active compounds of curcuminoids found in turmeric powder, which is used as a spice in Asian cooking and traditional medicine, has anti-inflammation and anti-cancer activities, the mechanism of DMC-mediated anti-invasive activity involves modulation of the expression of invasion-associated proteins, possibly by targeting NF-κB in MDA-MB-231 cells.\[^1\]

Demethoxycurcumin has the relative potency for suppression of tumor necrosis factor (TNF)-induced nuclear factor-B (NF-B) activation, the relative potency is curcumin > demethoxycurcumin > bisdemethoxycurcumin, they also exhibit variable anti-inflammatory and anti-proliferative activities, which do not correlate with their ability to modulate the ROS status.\[^2\]

Demethoxycurcumin, curcumin and bisdemethoxycurcumin have pro-oxidant, anti-oxidant and cleavage activities on DNA.\[^3\]

Demethoxycurcumin has differential potency for inhibition of cancer cell invasion, the differential potency is BDMC > or =DMC > Cur, whereas the cell migration is not affected, shows higher antimetastasis potency than curcumin by the differentially down-regulation of ECM degradation enzymes.\[^4\]

Demethoxycurcumin exerts its in vitro anti-inflammatory effect in LPS-activated N9 microglial cells by blocking nuclear factor-κB (NF-κB) and MAPKs activation, which may be partly due to its potent down-regulation of the NADPH-derived iROS production.\[^5\]

Demethoxycurcumin can induce the apoptosis of human lung cancer NCI-H460 cells through the mitochondrial-dependent pathway, it may be used as a novel anticancer agent for the treatment of lung cancer in the future.\[^6\]

**Solvent**
Chloroform, Dichloromethane, DMSO, Acetone.

[HPLC Method][7]
Mobile phase: Acetonitrile- 0.1% Trifluoro-acetic acid H2O=50:50 ;
Flow rate: 1.5 ml/min;
Column temperature: 30 °C;
The wave length of determination: 420 nm.

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

[References]

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