[ Product Information ]

**Name:** Dihydrotanshinone I

**Catalog No.:** CFN90162

**Cas No.:** 20958-18-3

**Purity:** > 98%

**M.F:** C_{18}H_{14}O_{3}

**M.W:** 278.30

**Physical Description:** Red powder

**Synonyms:**
4,8-dimethyl-8,9-dihydronaphtho[2,1-f]benzofuran-7,11-dione

[ Intended Use ]

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

[ Source ]

The roots of *Salvia miltiorrhiza*
[Biological Activity or Inhibitors]

Dihydrotanshinone I and cryptotanshinone, constituents of a medicinal plant, Salvia miltiorrhiza Bunge, have antibacterial activity against a broad range of Gram positive bacteria, they have non-selectively inhibition against DNA, RNA, and protein syntheses in B. subtilis, suggest that superoxide radicals are important in the antibacterial actions of the agents.[1]

Dihydrotanshinone I induces topoisomerase I-mediated DNA cleavage as strongly as camptothecin; and inhibits the catalytic activity of topoisomerase I by the formation of a cleavable complex and at least in part through the intercalation into DNA.[2]

Dihydrotanshinone I (DI) has cytotoxicity to a variety of tumor cells, DI (with an IC 50 value of approximately 1.28 ug/ml) could inhibit angiogenesis through suppressing endothelial cell proliferation, migration, invasion and tube formation, indicating that DI has a potential to be developed as a novel anti-angiogenic agent.[3]

Dihydrotanshinone I as an inhibitor of NF-κB activation through our research on Salvia miltiorrhiza Bunge, it significantly inhibits the expression of NF-κB reporter gene induced by TNF-α in a dose-dependent manner, also inhibits TNF-α induced phosphorylation and degradation of IκBα, phosphorylation and nuclear translocation of p65; it suppresses the growth of HeLa cells in a xenograft tumor model, which could be correlated with its modulation of TNF-α production, taken together, dihydrotanshinone I could be a valuable candidate for the intervention of NF-κB-dependent pathological conditions such as inflammation and cancer.[4]

[Solvent]

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

[HPLC Method][5]

Mobile phase: Acetonitrile- H2O= 55:45 ;
Flow rate: 1.0 ml/min;
Column temperature: Room Temperature;
The wave length of determination: 245 nm.

[ Storage ]

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

[ References ]


[ Contact ]

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