Natural Products

ChemFaces

Tanshinone IIA-sulfonic sodium Datasheet

4th Edition (Revised in July, 2016)

[Product Information]

Name: Tanshinone IIA-sulfonic sodium

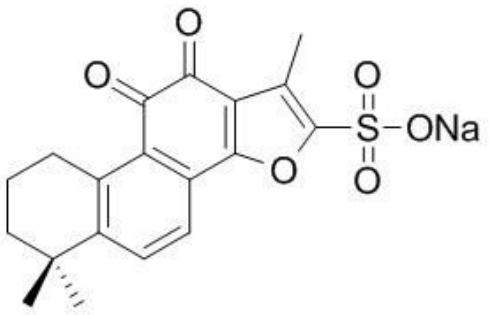
Catalog No.: CFN90399

Cas No.: 69659-80-9

Purity: > 98%

M.F: $C_{19}H_{17}O_6S{\cdot}Na$

M.W: 396.39



Physical Description: Red powder

Synonyms: Sodium1,6,6-trimethyl-10,11-dioxo-6,7,8,9,10,11-hexahydrophenanthro[1,2-b] furan-2-sulfonate.

[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]

Tanshinone IIA sodium sulfonate has cardio-protective effects, can protect against cardiotoxicity induced by doxorubicin in vitro and in vivo.[1]

Intravenous Sodium Tanshinone II A sulfonic acid inhibits intimal proliferation after arterial balloon injury in rabbits, the effect can he partially explained by the induction of apoptosis in injured artery; sodium tanshinone-II A sulfonic acid may be of potential therapeutic value in the prevention of restenosis after angioplasty.[2]

Tanshinone IIA is innocuous to human alveolar epithelial cells (A549) at a dosage of 25 ug/ml, and it can decrease the overexpression of aquaporin-5 (AQP5) induced by seawater.[3]

Tanshinone II A sodium sulfonate injection has no significant stimulation on rabbit muscuil quadriceps femoris,providing a reference for the safety evaluation of drugs.[4]

Tanshinone IIA sodium sulfonate , selectively inhibits endotoxin-induced HMGB1 release and confers protection against lethal endotoxemia and sepsis, it may facilitate HMGB1 endocytic uptake, and subsequently delivered it to LC3-positive vacuoles (possibly amphisomes) for degradation via a lysosome-dependent pathway.[5]

Tanshinone II A sodium sulfonate has strong anti-PRRSV activity, could be due to inhibiting the virus replication or/and inactivating the virus directly.[6]

Sodium tanshinone IIA sulfonate suppresses pulmonary fibroblast proliferation and activation induced by silica, the mechanism might via up-regulation of the Nrf2 and Trx system pathways in MRC-5 cells.[7]

[Solvent]

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

[HPLC Method][8]

Mobile phase: 0.01M Phosphoric solution- Methyl alcohol-Triethylamine=35:65:0.5 (pH=5.5);

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 271 nm.

[Storage]

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

[References]

[1] Jiang B, Zhang L, Wang Y, *et al. Food Chem. Toxicol. , 2009, 47(7):1538-44.*

[2] Chen Y C, Chen H S, Long B, *et al. Journal of Chinese Medicinal Materials, 2007, 30(30):811-5*.

[3] Li J H, Xu M, Fan Q X, *et al. Chinese Critical Care Medicine , 2011, 23(1):32-5.*

[4] Liu Y, Xing G L, Yang Z X, *et al. Lab. Anim. Sci., 2015, 32(6):22-5.*

[5] Zhang Y, Li W, Zhu S, *et al. Biochem. Pharmacol., 2012, 84(11):1492-500.*

[6] Sun N, Zhao X, Bai X Y, *et al. J. Asian Nat. Prod. Res., 2012, 14(8):721-8.*

[7] Zhu Z, Wang Y, Liang D, *et al. Toxicol. Res., 2015, 35(7):116-25.*

[8] Tang N, Zhang D. *China Medical Herald, 2010(9):51-52.*

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