

## Tanshinone IIB Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)

### [ Product Information ]

**Name:** Tanshinone IIB

**Catalog No.:** CFN99820

**Cas No.:** 17397-93-2

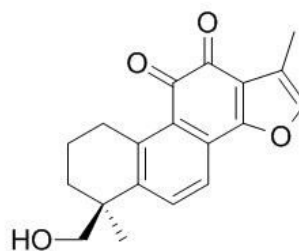
**Purity:** > 98%

**M.F:** C<sub>19</sub>H<sub>18</sub>O<sub>4</sub>

**M.W:** 310.4

**Physical Description:** Red Powder

**Synonyms:** Phenanthro[1,2-b]furan-10,11-dione, 6,7,8,9-tetrahydro-6-(hydroxymethyl)-1,6-dimethyl-, (S)- (8CI).



### [ 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 IIB (TSB) is a major active constituent of the roots of *Salvia miltiorrhiza* (Danshen) widely used in the treatment of stroke and coronary heart disease in Asian countries; TSB significantly reduces the DNA laddering caused by staurosporine in a concentration-dependent manner, also suppresses the elevated Bax protein and decreased bcl-2 and caspase-3 proteins induced by staurosporine in rat cortical neurons, indicates that TSB has a neuroprotective effect via inhibition of apoptosis.<sup>[1]</sup>

Tanshinone IIB significantly inhibits the uptake of digoxin and vinblastine in membrane vesicles containing PgP or MRP1, also moderately stimulates PgP ATPase activity, indicates that TSB is a substrate for PgP and MRP1 and that drug resistance to TSB therapy and drug interactions may occur through PgP and MRP1 modulation.<sup>[2]</sup>

## **[ Solvent ]**

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

## **[ HPLC Method ]<sup>[3]</sup>**

Mobile phase: 0.1% Ammonia H<sub>2</sub>O - Methanol, gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 271 nm.

## **[ Storage ]**

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

## **[ References ]**

[1] Yu X Q, Xue C C, Zhou Z W, *et al. Phytother. Res.*, 2008, 22(6):846-50.

[2] Sarno C, Shestakofsky B, Shoemaker H, *et al. Xenobiotica*, 2007, 37(4):375-415.

[3] Hong Y, Zhu S, Huang Z H. *CN 103819532 A [P]* 2014.

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