

## Tanshinol B Datasheet

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

### [ Product Information ]

**Name:** Tanshinol B

**Catalog No.:** CFN90370

**Cas No.:** 189290-30-0

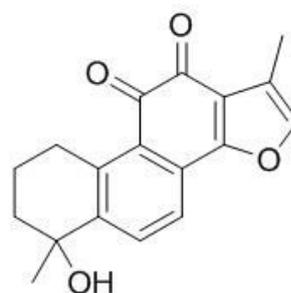
**Purity:** > 98%

**M.F:** C<sub>18</sub>H<sub>16</sub>O<sub>4</sub>

**M.W:** 296.32

**Physical Description:** Red needles

**Synonyms:**



### [ 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 ]

Tanshinol attenuates oxidative stress via down-regulation of FoxO3a signaling, and rescues the decrease of osteoblastic differentiation through upregulation of Wnt signal under oxidative stress, suggest that the beneficial effects of Tanshinol may be adopted as a novel therapeutic approach in recently recognized conditions of niche targeting osteoporosis.<sup>[1]</sup>

Tanshinol protects hippocampus and attenuates vascular dementia development, it may be a potential compound in vascular dementia (VD) model.<sup>[2]</sup>

Tanshinol protects against atherosclerosis by preventing H<sub>2</sub>O<sub>2</sub>-induced apoptosis of human umbilical vein endothelial cells (HUVECs), these effects appear to be mediated by enhancing the antioxidant defenses and preserving the mitochondrial function of the cells.<sup>[3]</sup>

Tanshinol can stimulate bone formation and attenuate dexamethasone-induced inhibition of osteogenesis in larval zebrafish.<sup>[4]</sup>

Tanshinol protects against hydrogen peroxide-induced oxidative stress via regulating Wnt/FoxO pathway in osteoblastic differentiation of C2C12 cells.<sup>[5]</sup>

### **[ Solvent ]**

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

### **[ HPLC Method ]<sup>[6]</sup>**

Mobile phase: Methanol- 1% Acetic acid H<sub>2</sub>O=8:92 ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 280 nm.

### **[ Storage ]**

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

## **[ References ]**

- [1] Yang Y, Su Y, Wang D, *et al.* *Oxid. Med. Cell Longev.*, 2013, 2013(6):2409-20.
- [2] Shi C G, Yang Y S, Li H, *et al.* *J. Asian Nat. Prod. Res.*, 2014, 16(6):1-10.
- [3] Song W, Pu J, He B. *Mol. Med. Rep.*, 2014, 10(5):2764-70.
- [4] Luo S, Yang Y, Chen J, *et al.* *Journal of Orthopaedic Translation*, 2015, 4:35-45.
- [5] Yang Y J, Chen Y H, Wu T, *et al.* *Acta Pharmacol. Sin.*, 2013, 34:33-33.
- [6] Suo Y K, Huo B K, Qin J G. *Chinese Pharmaceutical Affairs*, 2012, 26(4):379-81.

## **[ Contact ]**

**Address:**

S5-3 Building, No. 111, Dongfeng Rd.,  
Wuhan Economic and Technological Development Zone,  
Wuhan, Hubei 430056,  
China

**Email:** [info@chemfaces.com](mailto:info@chemfaces.com)

**Tel:** +86-27-84237783

**Fax:** +86-27-84254680

**Web:** [www.chemfaces.com](http://www.chemfaces.com)

**Tech Support:** [service@chemfaces.com](mailto:service@chemfaces.com)