

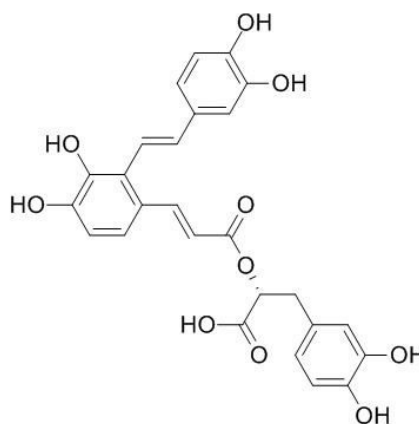
# Salvianolic acid A Datasheet

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

## [ Product Information ]

**Name:** Salvianolic acid A**Catalog No.:** CFN99161**Cas No.:** 96574-01-5**Purity:** > 98%**M.F:** C<sub>26</sub>H<sub>22</sub>O<sub>10</sub>**M.W:** 494.45**Physical Description:** Yellow cryst.**Synonyms:**

(2R)-3-(3,4-dihydroxyphenyl)-2-[(E)-3-[2-[(E)-2-(3,4-dihydroxyphenyl)ethenyl]-3,4-dihydroxyphenyl]-1-oxoprop-2-enoyl]propanoic acid.



## [ Intended Use ]

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

## [ Source ]

The root of *Salvia miltiorrhiza* Bge.

## **[ Biological Activity or Inhibitors ]**

Salvianolic acid A (SAA), the water-soluble phenolic acids in *Salvia miltiorrhiza*, has protection against cerebral lesion, defense from oxidative damage and improvement of remembrance; it also has antithrombotic effect, antiplatelet action and can modulate hemorheology without affecting coagulation system, the mechanisms underlying such activities may involve the induction of cAMP.<sup>[1]</sup>

Salvianolic acid A possesses antioxidant activity, also has a significant protective effect against isoproterenol-induced myocardial infarction; it activates the Nrf2/HO-1 axis in RPE cells and protects against oxidative stress via activation of Akt/mTORC1 signaling. <sup>[2,3]</sup>

Salvianolic acid A (oral) can significantly improve glucose metabolism and inhibit oxidative injury as well as protect against impaired vascular responsiveness in STZ-induced diabetic rats.<sup>[4]</sup>

Salvianolic acid A has protection on oxidative stress and liver injury induced by carbon tetrachloride in rats, which may mainly be related to its antioxidative effect.<sup>[5]</sup>

Salvianolic acid A inhibits platelet activation via the inhibition of PI3K, and attenuates arterial thrombus formation in vivo, suggests that SAA may be developed as a novel therapeutic agent for the prevention of thrombotic disorders.<sup>[6]</sup>

Salvianolic acid A is a novel matrix metalloproteinase-9 inhibitor, can prevents cardiac remodeling in spontaneously hypertensive rats.<sup>[7]</sup>

Salvianolic acid A inhibits PDGF-BB-activated HSC proliferation, partially through apoptosis induction, it exerts no direct cytotoxicity on primary hepatocytes and HSC-T6 cells under experimental concentrations. <sup>[8]</sup>

## **[ Solvent ]**

Pyridine, DMSO, Methanol, etc.

## **[ HPLC Method ]<sup>[9]</sup>**

Mobile phase: Acetonitrile- 1% Acetic acid H<sub>2</sub>O=30:70;

Flow rate: 0.8 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 ]**

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- [2] Wang S B, Tian S, Fan Y, *et al. Eur. J. Pharmacol.*, 2009, 615(1-3):125-32.
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- [4] Wang S B, Yang X Y, Tian S, *et al. Life Sci.*, 2009, 85(13-14):499-504.
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- [8] Lin Y L, Lee T F, Huang Y J, *et al. J. Pharm. Pharmacol.*, 2006, 58(7):933-9.
- [9] Wang Z, Xu Y, Jiao R, *et al. China Pharmacist*, 2014(09):1473-5.

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