

## Sarsasapogenin Datasheet

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

### [ Product Information ]

**Name:** Sarsasapogenin

**Catalog No.:** CFN99779

**Cas No.:** 126-19-2

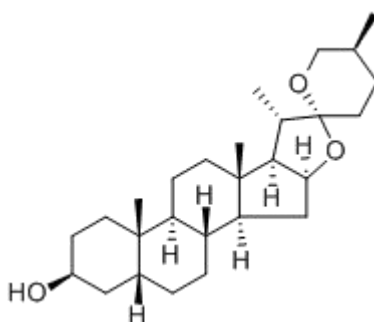
**Purity:** >=98%

**M.F:** C<sub>27</sub>H<sub>44</sub>O<sub>3</sub>

**M.W:** 416.64

**Physical Description:** Powder

**Synonyms:** (25S)-5-beta-Spirostan-3-beta-ol; (3beta,5beta,25S)-Spirostan-3-ol.



### [ Intended Use ]

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

### [ Source ]

The rhizomes of *Anemarrhena asphodeloides* Bunge.

### [ Biological Activity or Inhibitors ]

Sarsasapogenin, a kind of mainly effective components of *Anemarrhena asphodeloides*

*Bunge (Liliaceae)* has the effects of being anti-diabetes and improving memory, it can induce cell apoptosis through arrest of cell cycle in G(2)/M phase, it could be used as an anti-cancer drug .<sup>[1]</sup>

Sarsasapogenin can improve memory by elevating the low muscarinic acetylcholine receptor density in brains of memory-deficit rat models.<sup>[2]</sup>

Sarsasapogenin has antidepressant activity, the effect may involve the central monoaminergic neurotransmitter systems.<sup>[3]</sup>

Sarsasapogenin exerts its antitumor activity through both reactive oxygen species (ROS)-mediated mitochondrial dysfunction and endoplasmic reticulum (ER) stress cell death. <sup>[4]</sup>

Sarsasapogenin has protective effects against glutamate-induced neurotoxicity in the cultured cortical neurons in rats.<sup>[5]</sup>

Sarsasapogenin can effectively promote the proliferation, differentiation and mineralization of osteoblasts cultured in vitro, it also can inhibit the generation of osteoclasts from marrow cells.<sup>[6]</sup>

## **[ Solvent ]**

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

## **[ HPLC Method ]<sup>[7]</sup>**

HPLC-ELSD:

Mobile phase: Methanol -H<sub>2</sub>O=91:9 ;

Flow rate: 0.8 ml/min;

Column temperature: 25 °C;

Drift tube temperature: 80 °C

Flow rate of gas : 2.0 L/min.

Carrier gas: N<sub>2</sub>.

## **[ Storage ]**

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

## **[ References ]**

- [1] Bao W, Pan H, Lu M, *et al. Cell Biol. Int.*, 2007, 31(9):887-92.
- [2] Hu Y, Xia Z, Sun Q. *Brain Res.*, 2005, 1060(1-2):26-39.
- [3] Ren L X, Luo Y F, Li X, *et al. Biol. Pharmaceut. Bull.*, 2006, 29(11):2304-6.
- [4] Shuying S, Yi Z, Rui Z, *et al. Biochem. Bioph. Res. Co.*, 2013, 441(2):519-24.
- [5] Qi W, Sui H J, Qu W H, *et al. Chinese Pharmacological Bulletin*, 2013, 29(2):281-5.
- [6] Yang M, Ji H, Zhang S P, *et al. Journal of China Pharmaceutical University*, 2009, 179(3):430-6.
- [7] Cai L. *China Pharmaceuticals*, 2013, 22(19):42-3.

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