

## Oxyresveratrol Datasheet

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

### [ Product Information ]

**Name:** Oxyresveratrol

**Catalog No.:** CFN98368

**Cas No.:** 29700-22-9

**Purity:** > 98%

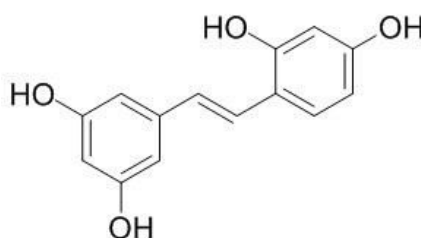
**M.F:** C<sub>14</sub>H<sub>12</sub>O<sub>4</sub>

**M.W:** 244.24

**Physical Description:** Powder

**Synonyms:** 4-[2-(3,5-Dihydroxyphenyl)ethenyl]benzene-1,3-diol;

4-[(E)-2-(3,5-Dihydroxyphenyl)ethenyl]benzene-1,3-diol.



### [ Intended Use ]

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

### [ Source ]

The herbs of *Dracaena angustifolia*.

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

Oxyresveratrol(OXY) shows potent inhibitory effect with an IC(50) value of 1.2 microm on mushroom tyrosinase activity, which is 32-fold stronger inhibition than kojic acid, a depigmenting agent used as the cosmetic material with skin-whitening effect and the medical agent for hyperpigmentation disorders; the depigmenting effect of oxyresveratrol works through reversible inhibition of tyrosinase activity rather than suppression of the expression and synthesis of the enzyme.<sup>[1]</sup>

Oxyresveratrol is a more effective scavenger for 2,2-diphenyl-1-picryl-hydrazyl (DPPH, 100 microM) used as a general free radical model, compared to resveratrol (RES) or trans-4-hydroxystilbene (IC(50)=28.9, 38.5, and 39.6 microM, respectively), OXY displayed a generally lower cytotoxicity than RES; the radical and ROS scavenging properties, as well as the lower cytotoxicity towards microglia and the known good water solubility suggest OXY as a potential protectant against reactive oxygen and nitrogen species (ROS/RNS).<sup>[2]</sup>

Oxyresveratrol has neuroprotective effect, it can inhibit the apoptotic cell death in transient cerebral ischemia .<sup>[3]</sup>

Oxyresveratrol , a dietary phenolic compound, as a potential nutritional candidate for protection against neurodegeneration in Parkinson disease.<sup>[4]</sup>

Oxyresveratrol exhibits the inhibitory activity at the early and late phase of viral replication and inhibited the viral replication with pretreatment in one-step growth assay of HSV-1 and HSV-2, it inhibits late protein synthesis at 30microg/ml; the combination of oxyresveratrol and acyclovir (ACV) produced synergistic anti-HSV-1 effect, topical application of 30% oxyresveratrol ointment five times daily significantly delayed the development of skin lesions and protected mice from death.<sup>[5]</sup>

Oxyresveratrol as an antibrowning agent for cloudy apple juices and fresh-cut apples.<sup>[6]</sup>

## **[ Solvent ]**

Pyridine, Methanol, Ethanol, etc.

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

Mobile phase: Acetonitrile- 0.5% Aqueous acetic acid ,gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 320 nm.

## **[ Storage ]**

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

## **[ References ]**

- [1] Kim Y M, Yun J, Lee C K, *et al. J. Biol. Chem.*, 2002, 277(18):16340-4.
- [2] Lorenz P, Roychowdhury S, Engelmann M, *et al. Nitric Oxide*, 2003, 9(2):64-76.
- [3] Andrabi S A, Spina M G, Lorenz P, *et al. Brain Res.*, 2004, 1017(1-2):98-107.
- [4] Chao J, Yu M Y, Wang M, *et al. Free Radical Bio. Med.*, 2008, 45(7):1019-26.
- [5] Chuanasa T, Phromjai J, Lipipun V, *et al. Antiviral Res.*, 2008, 80(1):62-70.
- [6] Li H, Cheng K W, Cho C H, *et al. J. Agr. Food Chem.*, 2007, 55(7):2604-10.
- [7] Huang H, Zhang J, Chen G, *et al. Biomed. Chromatogr.*, 2008, 22(4):421-7.

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