

## 4',7-Isoflavandiols Datasheet

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

### [ Product Information ]

**Name:** 4',7-Isoflavandiols

**Catalog No.:** CFN90723

**Cas No.:** 531-95-3

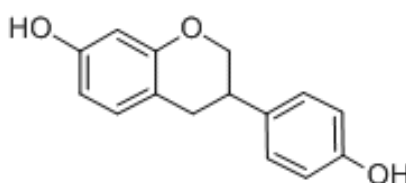
**Purity:** >=98%

**M.F:** C<sub>15</sub>H<sub>14</sub>O<sub>3</sub>

**M.W:** 242.27

**Physical Description:** Powder

**Synonyms:** S-Equol; 7,4'-Homoisoflavane; (S)-3,4-Dihydro-3-(4-hydroxyphenyl)-2H-1-benzopyran-7-ol; (3S)-3-(4-hydroxyphenyl)-3,4-dihydro-2H-chromen-7-ol; 3-(4-hydroxyphenyl)-3,4-dihydro-2H-chromen-7-ol; 2H-1-Benzopyran-7-ol, 3,4-dihydro-3-(4-hydroxyphenyl)-.



### [ Intended Use ]

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

### [ Source ]

The seeds of *Glycine max*.

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

Equol is a nonsteroidal estrogen metabolized from the soy isoflavone daidzein by intestinal bacteria, it plays various biological roles in cancer, osteoporosis, and cardiovascular disease; equol inhibits the odorant-induced signaling pathway through modulation of PKA/CREB signaling transduction. <sup>[1]</sup>

Dietary soy isoflavones (such as equol) are neuroprotective in transient focal cerebral ischemia in male and OVX female rats, they may protect the brain via increases in endogenous antioxidant mechanisms and reduced oxidative stress. <sup>[2]</sup>

R-(+)-equol and S-(-)-equol inhibit the invasion of MDA-MB-231 breast cancer cells potentially via the down-regulation of matrix metalloproteinase-2. <sup>[3]</sup>

## **[ Solvent ]**

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

## **[ HPLC Method ]**<sup>[4]</sup>

Mobile phase: n-Hexane-Isopropanol=75:25;

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] Kim S H, Yoon Y C, Jin I K, *et al. Curr.Top. Nutraceut. R.*, 2013, 11(4):145-9.

[2] Ma Y, Sullivan J C, Schreihofer D A. *Am. J. Physiol.-Reg. I.*, 2010, 299(3):R871-7.

[3] Magee P J, Allsopp P, Samaletdin A, *et al. Eur. J.Nutr.*, 2014, 53(1):345-50.

[4] Huang Y Y, Xiao M T, Guo Y Y. *Chinese Journal of Pharmaceutical Analysis*, 2013, 33:973-6.

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