*Natural Products*

ChemFaces

# Puerarin Datasheet

4th Edition (Revised in July, 2016)

## [ Product Information ]

**Name:** Puerarin

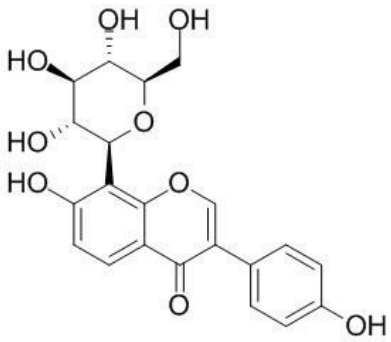
**Catalog No.:** CFN99169

**Cas No.:** 3681-99-0

**Purity:** > 98%

**M.F:** $C_{21}H_{20}O_9$

**M.W:** 416.38




**Physical Description:** White cryst.

**Synonyms:**7-Hydroxy-3-(4-hydroxyphenyl)-8-[(2S,3R,4R,5S,6R)-3,4,5-trihydroxy-6-(hydroxymethyl)-2-oxanyl]-1-benzopyran-4-one.

## [ Intended Use ]

1. Reference standards;
2. Pharmacological research;
3. Food and cosmetic research;
4. Synthetic precursor compounds;
5. Intermediates & Fine Chemicals;
6. Ingredient in supplements, beverages;
7. Others.

## [ Source ]

The root of *Pueraria thomsonii Benth.*

## [ Biological Activity or Inhibitors]

Puerarin is the most abundant of flavonoid derivatives in the root of Pueraria lobata (Willd) Ohwi, has antioxidant activity and can impair CYP-catalysed drug metabolism.[1]

Puerarin can reduce the atherogenic properties of dietary cholesterol in rats, the hypocholesterolemic function may be due to the promotion of cholesterol and bile acids excretion in liver. [2]

Puerarin can inhibit oxidative stress through the activation of phosphatidylinositol 3-kinase (PI3K)-Akt pathway, can significantly reduce traumatic brain injury (TBI)-induced neuronal degeneration, accompanied by the partial restoration of the redox disturbance and enhanced expression of phospho-Akt in the pericontusional cortex after TBI.[3]

Puerarin may act as an intracellular ROS scavenger, and its antioxidant properties may protect against Abeta25-35-induced cell injury,and apoptosis and could also promote the survival of PC12 cells.[4]

Puerarin can ameliorate Aβ(1-42)-induced and reverse the increase of in the hippocampus, the attenuation is associated with the activation of and of Bad, suggests that puerarin may be an anti-candidate drug to suppress both -related neuronal cell and dysfunction of the system.[5]

## [ Solvent ]

Pyridine, DMSO, Ethanol, Methanol.

## [ HPLC Method ][6]

Mobile phase: Methanol : H2O=25:75;

Flow rate: 1.0 ml/min;

Column temperature: 30 ℃;

The wave length of determination: 250 nm.

## [ Storage ]

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

## [ References ]


[1] Guerra M C, Speroni E, Broccoli M, *et al. Life Sci., 2000, 67(24):2997-3006.*

[2] Yan L P, Chan S W, Chan S C, *et al. Life Sci., 2006, 79(4):324-30.*

[3] Wang J W, Wang H D, Cong Z X, *et al. J. Surg. Res., 2014, 186(1):328-37.*

[4] Zhang H Y, Liu YH, Wang HQ, *et al.Cell Biol. Int.,2008, 32(10):1230-7.*

[5] Li J, Wang G, Liu J, *et al. Eur. J. Pharm., 2010, 649(1-3):195-201.*

[6] Peng Z B, Fan Y B, Tang W F. *World Journal of Integrated Traditional & Western Medicine, 2009, 4(07):480-2.*


## [ Contact ]


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

**Email:** info@chemfaces.com
**Tel:** +86-27-84237783
**Fax:** +86-27-84254680
**Web:** www.chemfaces.com
**Tech Support:** service@chemfaces.com