

## Neobavaisoflavone Datasheet

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

### [ Product Information ]

**Name:** Neobavaisoflavone

**Catalog No.:** CFN92222

**Cas No.:** 41060-15-5

**Purity:** > 98%

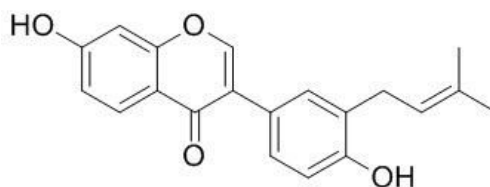
**M.F:** C<sub>20</sub>H<sub>18</sub>O<sub>4</sub>

**M.W:** 322.4

**Physical Description:** Cryst.

**Synonyms:**

4',7-Dihydroxy-3'-(3-methyl-2-butenyl)isoflavone;7-Hydroxy-3-[4-hydroxy-3-(3-methyl-2-buten-1-yl)phenyl]-4H-1-benzopyran-4-one.



### [ Intended Use ]

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

### [ Source ]

The bark of *Psoralea corylifolia* L.

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

Neobavaisoflavone (NBIF), an isoflavone isolated from *Psoralea corylifolia* (Leguminosae), has striking anti-inflammatory and anti-cancer effects, it inhibits the proliferation of prostate cancer in vitro and in vivo; it reduces the resistance of cancer cells to tumor necrosis factor-related apoptosis-inducing ligand (TRAIL) and that the combination of NBIF and TRAIL may be a new therapeutic strategy for treating TRAIL-resistant glioma cells.<sup>[1]</sup>

Neobavaisoflavone possesses noncompetitive  $\alpha$ -glucosidase inhibitory activities with  $IC_{50}$ s of 27.7  $\mu$ M.<sup>[2]</sup>

Neobavaisoflavone has inhibition of inflammatory mediators in activated RAW264.7 macrophages, it significantly inhibits the production of reactive oxygen species (ROS), reactive nitrogen species (RNS) and cytokines: IL-1 $\beta$ , IL-6, IL-12p40, IL-12p70, TNF- $\alpha$  in LPS+IFN- $\gamma$ - or PMA- stimulated RAW264.7 macrophages.<sup>[3]</sup>

Neobavaisoflavone has osteogenic activity, the activity might probably act through activation of p38-dependent signaling pathway to up-regulate the mRNA levels of Runx2 and Osx then stimulate bone matrix proteins expression; the beneficial effect of NBIF on mineralization demonstrated that NBIF represented as an active component existed in *P. corylifolia* and might be a potential anabolic agent to treat bone loss-associated diseases.<sup>[4]</sup>

Neobavaisoflavone is a DNA polymerase inhibitor.<sup>[5]</sup>

## **[ Solvent ]**

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

## **[ HPLC Method ]**<sup>[6]</sup>

Mobile phase: Acetonitrile- H<sub>2</sub>O, gradient elution;

Flow rate: 1.0 ml/min;

Column temperature: 35 °C;

The wave length of determination: 250 nm.

## **[ Storage ]**

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

## **[ References ]**

- [1] Kim Y J, Choi W I, Ko H, *et al. Life Sci.*, 2014, 95(2):101-7.
- [2] Oh K Y, Jin H L, Curtis-Long M J, *et al. Food Chem.*, 2010, 121(4):940-5.
- [3] Szliszka E, Skaba D, Czuba Z P, *et al. Molecules*, 2011, 16(5):3701-12.
- [4] Don M J, Lin L C, Chiou W F. *Phytomedicine International Journal of Phytotherapy & Phytopharmacology*, 2012, 19(6):551-61.
- [5] Sun N J, Woo S H, Cassady J M, *et al. J. Nat. Prod.*, 1998, 61(3):362-6.
- [6] Yan C, Wu Y, Weng Z, *et al. J. Anal. Methods Chem.*, 2015, 2015(23):1-7.

## **[ Contact ]**

**Address:**

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

**Email:** [info@chemfaces.com](mailto:info@chemfaces.com)

**Tel:** +86-27-84237783

**Fax:** +86-27-84254680

**Web:** [www.chemfaces.com](http://www.chemfaces.com)

**Tech Support:** [service@chemfaces.com](mailto:service@chemfaces.com)