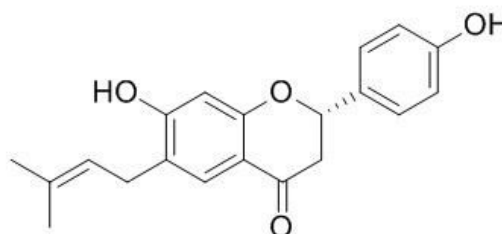


## Bavachin Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)**[ Product Information ]****Name:** Bavachin**Catalog No.:** CFN98007**Cas No.:** 19879-32-4**Purity:** > 98%**M.F:** C<sub>20</sub>H<sub>20</sub>O<sub>4</sub>**M.W:** 324.4**Physical Description:** Powder

**Synonyms:** 4H-1-benzopyran-4-one, 2,3-dihydro-7-hydroxy-2-(4-hydroxyphenyl)-6-(3-methyl-2-buten-1-yl)-; 7-Hydroxy-2-(4-hydroxyphenyl)-6-(3-methylbut-2-en-1-yl)-2,3-dihydro-4H-chromen-4-one; Coryfolin.

**[ Intended Use ]**

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

**[ Source ]**The fruits of *Psoralea corylifolia* L.

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

Bavachin, a phytoestrogen, potentially protects cartilage from inflammation-mediated damage in joints of osteoarthritis patients through decreasing IL-1 $\beta$ -induced activation of IKK-I $\kappa$ B $\alpha$ -NF- $\kappa$ B signaling pathway.<sup>[1]</sup>

Bavachin has inhibitory effects on melanin production in B16 mouse melanoma cells, it may have suppressive effects against pigmentation by melanin in the skin.<sup>[2]</sup>

Bavachin and isobavachalcone are cholesterol acyltransferase inhibitors.<sup>[3]</sup>

Bavachin increases insulin-induced glucose uptake by differentiated adipocytes and myoblasts, it enhances glucose uptake via glucose transporter 4 (GLUT4) translocation by activating the Akt and 5'AMP-activated protein kinase (AMPK) pathway in the presence or absence of insulin; suggests that bavachin might have therapeutic potential for type 2 diabetes by activating insulin signaling pathways.<sup>[4]</sup>

Bavachin in the blood can stimulate the genetic expression of VEGF in PB, and directly help the fracture healing, it has no significant influence on the 5-HT concentration during the fracture healing.<sup>[5]</sup>

## **[ Solvent ]**

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

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

Mobile phase: Acetonitrile-1% Acetic acid, gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 245 nm.

## **[ Storage ]**

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

## **[ References ]**

- [1] Cheng C C, Chen Y H, Chang W L, *et al. Eur. J. Pharmacol.*, 2010, 636(1-3):181-8.
- [2] Ohno O, Watabe T, Nakamura K, *et al. Biosci. Biotech. Biochem.*, 2014, 74(7):1504-6.
- [3] Choi J H, Rho M C, Lee S W, *et al. Arch. Pharm. Res.*, 2008, 31(11):1419-23.
- [4] Lee H, Hua L, Noh M, *et al. Int. J. Mol. Sci.*, 2016, 17(4):527.
- [5] Ji W F, Fu Y B, Lu WC. *Journal of Emergency in Traditional Chinese Medicine*, 2014, 23(9):1585-8.
- [6] Zhao L H, Huang C Y, Ying T U, *et al. Chinese Journal of Natural Medicines*, 2005, 3(4):242-4.

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