**Natural Products** 



# **Ononin Datasheet**

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

#### [ Product Information ]

Name: Ononin

Catalog No.: CFN99136

Cas No.: 486-62-4

**Purity:** > 98%

**M.F:** C<sub>22</sub>H<sub>22</sub>O<sub>9</sub>

**M.W:** 430.4

Physical Description: Powder.

Synonyms: Glucosyl-7-O-Formononetin; 4',7-Dihydroxy-7-O-Glucosylisoflavone;

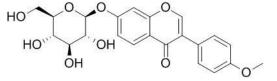
Formononetin-7-glucoside.

#### [ Intended Use ]

- 1. Reference standards;
- 2. Pharmacological research;
- 3. Food and cosmetic research;
- 4. Synthetic precursor compounds;
- 5. Pharmaceutical Intermediates;
- 6. Others.

#### [Source]

The herb of Ononis natrix L.



#### [Biological Activity or Inhibitors]

Ononin, an isoflavonoid, was isolated from the soils of cultivated areas associated with the perennial weed,Pluchea lanceolata, aqueous solutions of this compound can significantly inhibit root and shoot growth of mustard at  $1 \times 10^{(-4)}$  M,  $5 \times 10^{(-4)}$  M, and  $1 \times 10^{(-3)}$ M.<sup>[1]</sup> Ononin has weak DPPH free radical and the superoxide anion free radical scavenging capacity.<sup>[2]</sup>

Ononin, from Astragalus membranaceus, has an effect on the expression of HIF-1 in a concentration-dependent manner, low concentration could elevate the expression of HIF-1 while high concentration down-regulated the expression; the study provide reference for the anti-tumor effect of A. membranaceus and therapeutic effect of it for other disease.<sup>[3]</sup>

#### [Solvent]

Pyridine, DMSO, Ethanol, Methanol.

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

Mobile phase: Acetonitrile- 0.1% Formic acid H2O, gradient elution ; Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 251nm.

### [Storage]

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

#### [References]

[1] Inderjit, Dakshini K M M. J. Chem. Ecol., 1992, 18(5):713-8.

[2] Yang H, Han K, Wan X C, et al. J. Anhui Agricul. Universit., 2011, 38(2):151-5.

[3] Liang L J, Zhao K J, Dong T X, et al. China Pharm., 2010(47):4422-4.

[4] Zhou Q, Li Y, Dai Y P, et al. Chinese Trad. Patent Med., 2014, 36(8):1674-7.

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