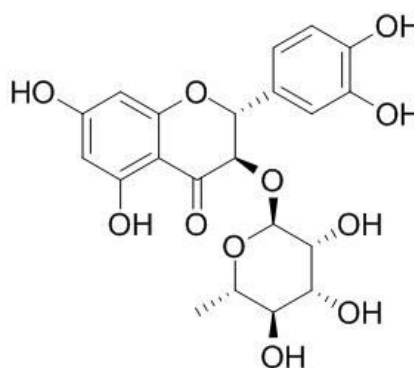


# Astilbin Datasheet

5<sup>th</sup> Edition (Revised in January, 2017)

## [ Product Information ]

**Name:** Astilbin**Catalog No.:** CFN98371**Cas No.:** 29838-67-3**Purity:** >=98%**M.F:** C<sub>21</sub>H<sub>22</sub>O<sub>11</sub>**M.W:** 450.4**Physical Description:** Powder**Synonyms:** Taxifolin 3-O-rhamnoside; 3-O-alpha-1-rhamnosyl-(2R,3R)-dihydroquercetin.

## [ Intended Use ]

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

## [ Source ]

The rhizomes of *Astilbe chinensis* (Maxim.) Franch. et Sav.

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

Astilbin may act as an efficient therapeutic agent for arthritis like cyclosporine A but with less toxicity, its mechanism includes a selective suppression on lymphocyte functions via reducing MMP and NO production.<sup>[1]</sup>

Astilbin can selectively facilitate the apoptosis of interleukin-2-dependent phytohemagglutinin-activated Jurkat cells, the characteristic of astilbin may be of great significance for the treatment of a variety of immunologically related diseases.<sup>[2]</sup>

Astilbin has insecticidal activity.<sup>[3]</sup>

Astilbin shows strong antioxidant activity.<sup>[4]</sup>

Astilbin alleviates contact hypersensitivity through a unique mechanism involving a negative cytokine regulation through stimulating IL-10, which is distinct from the immunosuppressant cyclosporin A.<sup>[5]</sup>

Astilbin prevents concanavalin A-induced liver injury by reducing TNF- $\alpha$  production and T lymphocyte adhesion.<sup>[6]</sup>

Astilbin has antibacterial activity, the minimal inhibitory quantity (MIQs) of astilbin ranges from 50 to 100 microg.<sup>[7]</sup>

Astilbin can exert an early renal protective role to diabetic nephropathy (DN), inhibit production of transforming growth factor-beta1 (TGF-beta1) and connective tissue growth factor (CTGF).<sup>[8]</sup>

## **[ Solvent ]**

Pyridine, Methanol, Ethanol, etc.

## **[ HPLC Method ]**<sup>[9]</sup>

Mobile phase: 0.1% Acetic acid in water- Methanol, gradient elution;

Flow rate: 1.2 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 300 nm.

## **[ Storage ]**

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

## **[ References ]**

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- [4] Zhang Q F, Zhang Z R, Cheung H Y. *Food Chem.*,2009,115(1):297-303.
- [5] Fei M, Wu X, Xu Q. *J. Allergy Clin. Immunol.*,2005 Dec;116(6):1350-6.
- [6] Wang J, Ying Z, Qiang X. *J. Pharm. Pharmacol.*,2004 Apr;56(4):495-502.
- [7] Moulari B, Pellequer Y, Lboutounne H, et al. *J. Ethnopharmacol.*,2006 Jun 30;106(2):272-8.
- [8] Li G S, Jiang W L, Yue X D, et al. *Planta Med.*,2009 Nov;75(14):1470-5.
- [9] Zhao R Z, Zhao Y, Zhang L Q, et al. *Pak. J. Pharm. Sci.*,2013 Jan;26(1):1-6.

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