

## Broussonin A Datasheet

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

### [ Product Information ]

**Name:** Broussonin A

**Catalog No.:** CFN97694

**Cas No.:** 73731-87-0

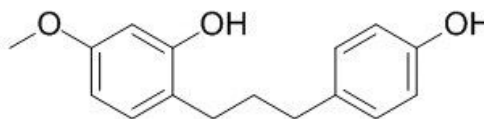
**Purity:** > 95%

**M.F:** C<sub>16</sub>H<sub>18</sub>O<sub>3</sub>

**M.W:** 258.32

**Physical Description:** Powder

**Synonyms:** 2-[3-(4-Hydroxyphenyl)propyl]-5-methoxyphenol.



### [ Intended Use ]

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

### [ Source ]

The branch of *Broussonetia papyrifera*.

### [ Biological Activity or Inhibitors ]

Broussonins A and B, new phytoalexins from diseased paper mulberry.<sup>[1]</sup>

Broussonin A and niasol suppress lipopolysaccharide (LPS)-stimulated inducible nitric oxide synthase (iNOS) expression at the transcriptional level through modulating NF- $\kappa$ B and down-regulation of the Akt and ERK signaling pathways, these findings indicate that the suppressive effects of broussonin A and niasol on iNOS expression may provide one possible mechanism for their anti-inflammatory activities.<sup>[2]</sup>

Broussonin A , tupichinol C , kazinol U , and (+)-(2R) kazinol I show estrogenic activity with ligand-binding activity of estrogen receptor, transcriptional activity of estrogen-responsive element-luciferase reporter genes, they also control the cellular gene expression levels of estrogen-responsive genes, phytoestrogens from B. kazinoki may have beneficial effects in the treatment of menopausal symptoms. <sup>[3]</sup>

Broussonin A can significantly inhibit adipocyte differentiation in 3T3-L1 cells as measured fat accumulation using Oil Red O assay.<sup>[4]</sup>

### **[ Solvent ]**

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

### **[ HPLC Method ]<sup>[5]</sup>**

Mobile phase: Acetonitrile-0.03%Phosphoric acid H<sub>2</sub>O,gradient elution ;

Flow rate: 0.5 ml/min;

Column temperature: 30 °C;

The wave length of determination: 210 nm.

### **[ Storage ]**

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

### **[ References ]**

[1] Takasugi M, Anetai M, Masamune T, *et al. Chem. Lett.*, 1980(3):339-40.

[2] Jin L E, Chung H J, Pyee Y, *et al. Chem. Biodivers.*, 2014, 11(5):749-59.

[3] Dayeon L, Dohee K, Hwajin L, *et al. ChemInform*, 2010, 20(45):3764-7.

[4] Ahn J H, Liu Q, Lee C, *et al. ChemInform*, 2012, 43(35):2760-3.

[5] Luo J, Shi S H, Zhang L Q, *et al. Chinese Pharmaceutical Journal*, 2012, 47(22):1856-9.

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