

## Kaempferol Datasheet

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

### [ Product Information ]

**Name:** Kaempferol

**Catalog No.:** CFN98838

**Cas No.:** 520-18-3

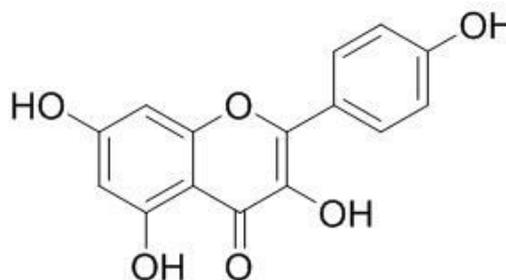
**Purity:** > 98%

**M.F:** C<sub>15</sub>H<sub>10</sub>O<sub>6</sub>

**M.W:** 286.2

**Physical Description:** Yellow powder

**Synonyms:** 3,5,7-Trihydroxy-2-(4-hydroxyphenyl)-1-benzopyran-4-one.



### [ Intended Use ]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Cosmetic research;
5. Synthetic precursor compounds;
6. Care and daily chemicals;
7. Intermediates & Fine Chemicals;
8. Ingredient in supplements, beverages;
9. Aromatics;
10. Others.

## **[ Source ]**

The rhizomes of *Kaempferia galanga* L.

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

Kaempferol is a polyphenol antioxidant found in fruits and vegetables, has beneficial effects in reducing the risk of chronic diseases, especially cancer, it may help to promote the development of cancer by augmenting the body's antioxidant defence against free radicals, and inhibit cancer cell growth and angiogenesis and induce cancer cell apoptosis.<sup>[1]</sup>

Kaempferol and quercetin have anti-inflammatory effects by modulating of iNOS, COX-2 and CRP, and involving blockade of NF- $\kappa$ B activation and the resultant up-regulation of the pro-inflammatory genes.<sup>[2]</sup>

Kaempferol is an autophagic enhancer, has a more general protection in Parkinson's disease, can mediate antiapoptotic and antioxidant effects is the enhancement of mitochondrial turnover by autophagy.<sup>[3]</sup>

Kaempferol and quercetin at concentrations ranging from 0.1 to 100 microM reduce bone resorption in a time and dose-dependent manner, have significant inhibitory effects at concentrations as low as 0.1 microM especially with kaempferol, they exert a potent inhibitory effect on in vitro bone resorption.<sup>[4]</sup>

## **[ Solvent ]**

Chloroform, Dichloromethane, DMSO, Acetone, etc.

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

Mobile phase: Acetonitrile : 0.2% Phosphoric acid H<sub>2</sub>O=42:58;

Flow rate: 1.0 ml/min;

Column temperature: Room temperature;

The wave length of determination: 370 nm.

## **[ Storage ]**

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

## **[ References ]**

- [1] Chen A Y, Chen Y C. *Food Chem.*, 2013, 138(4):2099-107.
- [2] García-Mediavilla V, Crespo I, Collado P S, *et al. Eur. J. Pharmacol.*, 2007, 557(2-3): 221-9.
- [3] Filomeni G, Graziani I, Zio D D, *et al. Neurobiol. Aging*, 2012, 33(4):767-85.
- [4] Wattel A, Kamel S, Mentaverri R, *et al. Biochem. Pharmacol.*, 2003, 65(1):35-42.
- [5] Fu Y Q, Mo F W, Liao H. *Medicinal Plant*, 2013(1):42-43, 46.

## **[ 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)