

## Gartanin Datasheet

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

### [ Product Information ]

**Name:** Gartanin

**Catalog No.:** CFN98428

**Cas No.:** 33390-42-0

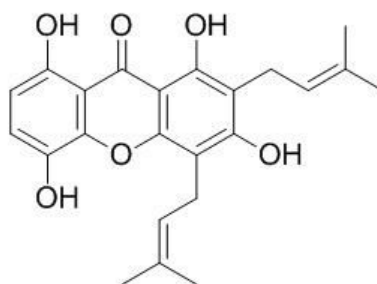
**Purity:** > 95%

**M.F:** C<sub>23</sub>H<sub>24</sub>O<sub>6</sub>

**M.W:** 396.4

**Physical Description:** Yellow powder

**Synonyms:** 1,3,5,8-Tetrahydroxy-2,4-bis(3-methyl-2-butenyl)-9H-xanthen-9-one.



### [ Intended Use ]

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

### [ Source ]

The stem bark of *Garcinia mangostana*.

### [ Biological Activity or Inhibitors ]

Gartanin possesses potent antioxidant, anti-inflammatory, antifungal and antineoplastic

properties, it induces autophagy through JNK activation which extenuates caspase-dependent apoptosis, the JNK-Bcl-2 pathway is the critical regulator of gartanin-induced protective autophagy and a potential drug target for chemotherapeutic combination.<sup>[1]</sup>

Gartanin is an androgen receptor degradation enhancer.<sup>[2]</sup>

Gartanin is a potential neuroprotective agent against glutamate-induced oxidative injury partially through increasing Nrf-2-independed HO-1 and AMPK/SIRT1/PGC-1 $\alpha$  signaling pathways. <sup>[3]</sup>

Gartanin has anti-proliferation effect in T98G cells, which is most likely via cell cycle arrest modulated by autophagy, which is regulated by PI3K/Akt/mTOR signalling pathway, while its anti-migration effect is most likely via suppression of MMP-2/-9 activity which is involved in MAPK signalling pathway.<sup>[4]</sup>

## **[ Solvent ]**

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

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

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

Flow rate: 1.0 ml/min;

Column temperature: Room Temperature;

The wave length of determination: 254 nm.

## **[ Storage ]**

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

## **[ References ]**

[1] Kim M O, Lee H S, Chin Y W, *et al. Oncol. Rep.*, 2015, 34(1):139-46.

[2] Li G, Petiwala S M, Yan M, *et al. Mol. Nutr. Food Res.*, 2016, 60(6):1458-69.

[3] Gao X Y, Wang S N, Yang X H, *et al. Neurochem. Res.*, 2016, 41(9):2267-77.

[4] Luo M, Liu Q, He M, *et al. J. Cell Mol. Med.* ,2017,21(1):46-57.

[5] Walker E B. *J.Sep. Sci.*, 2007, 30(9):1229-34.

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