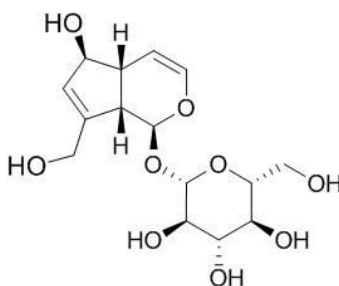


## Aucubin Datasheet

4<sup>th</sup> Edition (Revised in July, 2016)**[ Product Information ]****Name:** Aucubin**Catalog No.:** CFN98530**Cas No.:** 479-98-1**Purity:** >=98%**M.F:** C<sub>15</sub>H<sub>22</sub>O<sub>9</sub>**M.W:** 346.33**Physical Description:** White powder**Synonyms:** 5-Hydroxy-7-(hydroxymethyl)-1,4a,5,7a-tetrahydrocyclopenta[c]pyran-1-yl  
beta-D-glucopyranoside.**[ Intended Use ]**

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

**[ Source ]**The herbs of *Galium aparine* L.

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

Aucubin has antioxidant and pancreas-protective effect on rats with streptozotocin-induced diabetes, it may have value as a safe preventive or therapeutic agent against diabetes mellitus.<sup>[1]</sup>

Aucubin is a specific inhibitor of NF-kappaB activation in mast cells, which may explain its beneficial effect in the treatment of chronic allergic inflammatory diseases.<sup>[2]</sup>

Aucubin may play an important role in the cellular defense mechanism against UV radiation-induced photoaging, an understanding of the antioxidant properties of aucubin could, in part, act to elucidate its protective mechanism on the human skin photoaging. <sup>[3]</sup>

Aucubin shows high liver-protective activity against carbon tetrachloride-induced hepatic damage in mice, it also shows significant protective activity against alpha-amanitin-induced hepatic damage in mice, and it prevents a depression of liver RNA biosynthesis caused by alpha-amanitin administration; it suppresses hepatitis B viral DNA replication in vitro, conversion of aucubin to its aglycone form appeared to be a prerequisite step for an exhibition of such antiviral activity.<sup>[4]</sup>

Aucubin and geniposidic acid in *Eucommia ulmoides* Oliver leaves have promoting effects on collagen synthesis.<sup>[5]</sup>

Aucubin has neuroprotective in primary diabetic encephalopathy, it can effectively inhibit apoptosis by modulating the expressions of Bcl-2 and Bax genes.<sup>[6]</sup>

Aucubin has antispasmodic activity, it antagonizes the uterine muscular contractions induced by acetylcholine and calcium, in a similar way to papaverine.<sup>[7]</sup>

## **[ Solvent ]**

Pyridine, Methanol, Ethanol, etc.

## **[ HPLC Method ]<sup>[8]</sup>**

Mobile phase: Methanol -H<sub>2</sub>O=15:85 ;

Flow rate: 0.5 ml/min;

Column temperature: 30 °C;

The wave length of determination: 204 nm.

## **[ Storage ]**

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

## **[ References ]**

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- [2] Jeong H J, Koo H N, Na H J, *et al. Cytokine*, 2002, 18(5):252-9.
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- [4] Chang I M. *Res. Commun. Mol.Path.* 1998, 102(2):189-204.
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- [8] Fa L I, Yang J, Tian X. *Chinese Traditional & Herbal Drugs*, 2003, 34(8):754-6.

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