

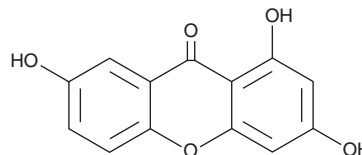
# PRODUCT INFORMATION



## Gentisein

Item No. 33877

**CAS Registry No.:** 529-49-7  
**Formal Name:** 1,3,7-trihydroxy-9H-xanthen-9-one  
**Synonym:** NSC 329491  
**MF:** C<sub>13</sub>H<sub>8</sub>O<sub>5</sub>  
**FW:** 244.2  
**Purity:** ≥95%  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years  
**Item Origin:** Synthetic



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Gentisein is supplied as a solid. A stock solution may be made by dissolving the gentisein in the solvent of choice, which should be purged with an inert gas. Gentisein is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of gentisein in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Gentisein is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, gentisein should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Gentisein has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Gentisein is a xanthone that has been found in *H. annulatum* and has diverse biological activities.<sup>1-3</sup> It scavenges DPPH (Item No. 14805) radicals and inhibits the activity of  $\alpha$ -glucosidase in cell-free assays ( $IC_{50}$ s = 23.3 and 14.7  $\mu$ M, respectively).<sup>1,2</sup> Gentisein is cytotoxic against K562 chronic multiple leukemia cells, drug-sensitive HL-60 acute promyelocyte leukemia cells, and multidrug-resistant HL-60/DOX cells ( $IC_{50}$ s = 102, 90.9, and 88.3  $\mu$ M, respectively).<sup>3</sup>

### References

1. Zhong, F.-F., Chen, Y., and Yang, G.-Z. Prenylated xanthenes from the bark of *Garcinia xanthochymus* and their 1,1-diphenyl-2-picrylhydrazyl (DPPH) radical scavenging activities. *Molecules* **15**(10), 7438-7449 (2008).
2. Liu, Y., Zou, L., Ma, L., et al. Synthesis and pharmacological activities of xanthone derivatives as  $\alpha$ -glucosidase inhibitors. *Bioorg. Med. Chem.* **14**(16), 5683-5690 (2006).
3. Biljali, S., Nedialkov, P., Zheleva-Dimitrova, D., et al. Cytotoxic effects and multidrug resistance modulation by five benzophenones and a xanthone isolated from *Hypericum annulatum* Moris SUBSP. *Annulatum*. *Biotechnol. Biotechnol. Equip.* **27**(1), 3561-3568 (2014).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM