



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic)

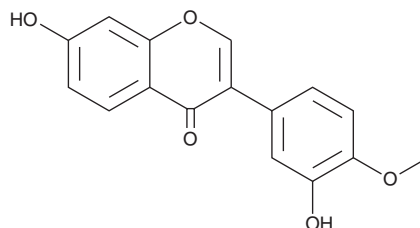
# PRODUCT INFORMATION



## Calycosin

Item No. 25091

**CAS Registry No.:** 20575-57-9  
**Formal Name:** 7-hydroxy-3-(3-hydroxy-4-methoxyphenyl)-4H-1-benzopyran-4-one  
**MF:** C<sub>16</sub>H<sub>12</sub>O<sub>5</sub>  
**FW:** 284.3  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 219, 249, 291 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥2 years



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

### Laboratory Procedures

Calycosin is supplied as a crystalline solid. A stock solution may be made by dissolving the calycosin in the solvent of choice. Calycosin is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of calycosin in these solvents is approximately 25 and 30 mg/ml, respectively.

### Description

Calycosin is an isoflavone and phytoestrogen with diverse biological activities.<sup>1-6</sup> It is an estrogen receptor (ER) partial agonist that inhibits 17β-estradiol binding to ERα and ERβ (IC<sub>50</sub>s = 83.14 and 40.38 μM, respectively).<sup>1</sup> Calycosin induces tube formation by human umbilical vein endothelial cells (HUVECs) in a Matrigel™ assay and angiogenesis in zebrafish *via* activation of ERs and ERK1/2. It has antiplasmodial and antiprotozoal activities, reducing the growth of the poW and Dd2 strains of *P. falciparum* (IC<sub>50</sub>s = 4.2 and 9.8 μg/ml, respectively) and exhibiting selective toxicity for *T. brucei* over Vero cells (IC<sub>50</sub>s = 12.7 and 159 μM, respectively).<sup>2,3</sup> Calycosin scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) free radicals in a cell-free assay and inhibits xanthine/xanthine oxidase-induced toxicity in PC12 cells (EC<sub>50</sub> = 50 ng/ml).<sup>4</sup> *In vivo*, calycosin (12.5 and 25 mg/kg) reduces alanine aminotransferase (ALT) and aspartate aminotransferase (AST) activity, triglyceride accumulation, and hepatic fibrosis in a mouse model of non-alcoholic steatohepatitis (NASH).<sup>5</sup> It also decreases infarct volume and brain edema in a rat model of focal cerebral ischemia and reperfusion injury.<sup>6</sup>

### References

1. Tang, J.Y., Li, S., Li, Z.H., et al. *PLoS One* **5(7):e11822**, (2010).
2. Kraft, C., Jenett-Siems, K., Siems, K., et al. *J. Ethnopharmacol.* **73(1-2)**, 131-135 (2000).
3. Salem, M.M. and Werbovets, K.A. *J. Nat. Prod.* **69(1)**, 43-49 (2006).
4. Yu, D.-H., Bao, Y.-M., Wei, C.-L., et al. *Biomed. Environ. Sci.* **18(5)**, 297-301 (2005).
5. Duan, X., Meng, Q., Wang, C., et al. *Phytomedicine* **25**, 83-92 (2017).
6. Wang, Y., Ren, Q., Zhang, X., et al. *Cell Physiol. Biochem.* **45(2)**, 537-546 (2018).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 06/06/2018

#### 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