

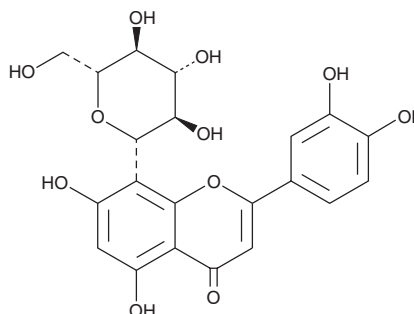
PRODUCT INFORMATION



Orientin

Item No. 25143

CAS Registry No.: 28608-75-5
Formal Name: 2-(3,4-dihydroxyphenyl)-8-β-D-glucopyranosyl-5,7-dihydroxy-4H-1-benzopyran-4-one
MF: C₂₁H₂₀O₁₁
FW: 448.4
Purity: ≥95%
UV/Vis.: λ_{max}: 258, 351 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



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

Description

Orientin is a flavone glycoside originally isolated from *P. orientale* that has diverse biological activities, including antioxidant, antibacterial, and anti-inflammatory properties.¹⁻⁴ Orientin scavenges 2,2-diphenyl-1-picryl-hydrazyl (DPPH; Item No. 14805) radicals with an IC₅₀ value of 316.21 μg/ml.² It also decreases the cytopathic effects of parainfluenza type 3 virus with an IC₅₀ value of 11.7 μg/ml and a cytotoxic concentration (CC₅₀) value of 375 μg/ml in Hep-2 cells.³ Orientin (5-40 μM) inhibits LPS-induced barrier disruption, decreases the expression of toll-like receptor 4 (TLR4), phosphorylated p38, and NF-κB, and decreases TNF-α production and IL-6 secretion in a dose-dependent manner in human umbilical vein endothelial cells (HUVECs).⁴ It also prolongs survival in a mouse model of LPS-induced lethal endotoxemia when administered at a dose of 36 μg/animal 12 hours after LPS administration.

References

1. Horhammer, L., Wagner, H., and Gloggeniesser, F. A new glycoside type of flavone series. I. Isolation of luteolin & apigenine glycosides from *Polygonum orientale*. *Arch. Pharm. Ber. Dtsch. Pharm. Ges.* **291/63(3)**, 126-137 (1958).
2. Wu, N., Fu, K., Fu, Y.J., et al. Antioxidant activities of extracts and main components of Pigeonpea [*Cajanus cajan* (L.) Millsp.] leaves. *Molecules* **14(3)**, 1032-1043 (2009).
3. Li, Y.L., Ma, S.C., Yang, Y.T., et al. Antiviral activities of flavonoids and organic acid from *Trollius chinensis* Bunge. *J. Ethnopharmacol.* **79(3)**, 365-368 (2002).
4. Lee, W., Ku, S.K., and Bae, J.S. Vascular barrier protective effects of orientin and isoorientin in LPS-induced inflammation *in vitro* and *in vivo*. *Vascul. Pharmacol.* **62(1)**, 3-14 (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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