

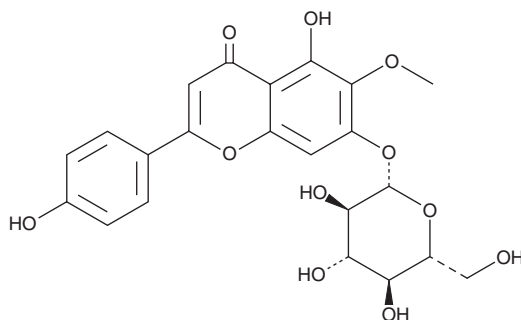
PRODUCT INFORMATION



Homoplantagin

Item No. 29853

CAS Registry No.: 17680-84-1
Formal Name: 7-(β-D-glucopyranosyloxy)-5-hydroxy-2-(4-hydroxyphenyl)-6-methoxy-4H-1-benzopyran-4-one
Synonym: Hispidulin-7-O-D-glucoside
MF: C₂₂H₂₂O₁₁
FW: 462.4
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Item Origin: Plant/*Salvia plebeia* R. Br.



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

Laboratory Procedures

Homoplantagin is supplied as a solid. A stock solution may be made by dissolving the homoplantagin in the solvent of choice, which should be purged with an inert gas. Homoplantagin is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of homoplantagin in these solvents is approximately 20 and 25 mg/ml, respectively.

Description

Homoplantagin is a flavonoid glycoside that has been found in *S. plebeia* and has antioxidant and anti-inflammatory activities.¹⁻³ It scavenges 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) radicals with an IC₅₀ value of 0.35 μg/ml in a cell-free assay.² Homoplantagin reverses hydrogen peroxide-induced decreases in glutathione (GSH) levels and glutathione peroxidase (GPX) and superoxide dismutase (SOD) activity in HL-7702 cells when used at concentrations ranging from 1 to 100 μg/ml. It reduces protein levels of toll-like receptor 4 (TLR4), MyD88, caspase-1, and IL-1β induced by palmitic acid (Item No. 10006627) in human umbilical vein endothelial cells (HUVECs) when used at concentrations of 1 and 10 μM.³ Homoplantagin (50 and 100 mg/kg) decreases serum alanine aminotransferase (ALT), aspartate aminotransferase (AST), TNF-α, and IL-1 levels, as well as reduces liver inflammatory cell infiltration and hepatocyte necrosis in a mouse model of immunological liver injury induced by Bacillus Calmette-Guérin (BCG) vaccine and LPS.²

References

1. Weng, X.C. and Weng, W. Antioxidant activity of compounds isolated from *Salvia plebeia*. *Food Chem.* **71**(4), 489-493 (2000).
2. Qu, X.-J., Xia, X., Wang, Y.-S., et al. Protective effects of *Salvia plebeia* compound homoplantagin on hepatocyte injury. *Food Chem. Toxicol.* **47**(7), 1710-1715 (2009).
3. He, B., Zhang, B., Wu, F., et al. Homoplantagin inhibits palmitic acid-induced endothelial cells inflammation by suppressing TLR4 and NLRP3 inflammasome. *J. Cardiovasc. Pharmacol.* **67**(1), 93-101 (2016).

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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