PRODUCT INFORMATION

Calycosin 7-O-β-D-Glucoside
Item No. 25095

CAS Registry No.: 20633-67-4
Formal Name: 7-(β-D-glucopyranosyloxy)-3-(3-hydroxy-4-methoxyphenyl)-4H-1-benzopyran-4-one
MF: C_{22}H_{22}O_{10}
FW: 446.4
Purity: ≥98%
UV/Vis.: λ_{max}: 221, 261 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years

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.

Product Information

Calycosin 7-O-β-D-glucoside is supplied as a crystalline solid. A stock solution may be made by dissolving the calycosin 7-O-β-D-glucoside in the solvent of choice. Calycosin 7-O-β-D-glucoside is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of calycosin 7-O-β-D-glucoside in these solvents is approximately 30 mg/ml.

Calycosin 7-O-β-D-glucoside is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, calycosin 7-O-β-D-glucoside should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Calycosin 7-O-β-D-glucoside has a solubility of approximately 0.12 mg/ml in a 1:7 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Calycosin 7-O-β-D-glucoside is an isoflavone glycoside that has been isolated from A. mongholicus and A. membranaceus and has antioxidant, anti-inflammatory, and neuroprotective biological activities.\(^1\)\(^-\)\(^3\) It scavenges 34.5% of generated 2,2-diphenyl-1-picrylhydrazyl (DPPH; Item No. 14805) radicals compared to a vehicle control when used at a concentration of 100 μg/ml in a cell-free assay.\(^1\) Calycosin 7-O-β-D-glucoside (10 μg/ml) inhibits cytotoxicity, intracellular reactive oxygen species (ROS) production, and cytoskeletal defects induced by LPS in human umbilical vein endothelial cells (HUVECs).\(^2\) In vivo, calycosin 7-O-β-D-glucoside (26.8 mg/kg) reduces brain infarct volume in a rat model of ischemia-reperfusion injury induced by middle cerebral artery occlusion (MCAO).\(^3\)

References