Picroside I
Item No. 15431

CAS Registry No.: 27409-30-9
Formal Name: 6-[(2E)-3-phenyl-2-propenoate]-1αS,1βS,2S,5aR,6S,6aS-hexahydro-6-hydroxy-1α-(hydroxymethyl)oxireno[4,5]cyclopenta[1,2-c]pyran-2-yl-β-D-glucopyranoside
Synonym: 6'-Cinnamoylcatalpol
MF: C24H28O11
FW: 492.5
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_max: 216, 222, 276 nm

Laboratory Procedures

For long term storage, we suggest that picroside I be stored as supplied at -20°C. It should be stable for at least two years.

Picroside I is supplied as a crystalline solid. A stock solution may be made by dissolving the picroside I in the solvent of choice. Picroside I is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of picroside I in these solvents is approximately 10 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of picroside I can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of picroside I in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Picroliv is a hepatoprotective mixture of compounds that is isolated from an herb native to the Himalayas. Picroside I is an iridoid glycoside found in picroliv. By itself, picroside I blocks changes in acid phosphatase activity, phospholipid levels, and lipid peroxide production induced by D-galactosamine in rat liver. Picroside I also enhances neurite outgrowth in PC12D cells induced by basic fibroblast growth factor and 7S nerve growth factor when given at 60 μM. At concentrations as low as 5 μM, picroside I enhances the ATPase activity of the efflux transporter P-glycoprotein.

References