Polydatin
Item No. 21246

CAS Registry No.: 65914-17-2
Formal Name: 3-hydroxy-5-[(2-(4-hydroxyphenyl)ethenyl)phenyl β-D-glucopyranoside
Synonyms: Piceid, Resveratrol 3-β-mono-D-Glucoside, Resveratrol 3-O-β-D-Glucopyranoside, Trihydroxystilbene-3-β-D-Glucopyranoside
MF: C_{20}H_{22}O_{8}
FW: 390.4
Purity: ≥98%
UV/Vis.: λ_{max}: 217, 307, 320 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly

Laboratory Procedures

Polydatin is supplied as a crystalline solid. A stock solution may be made by dissolving the polydatin in the solvent of choice. Polydatin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of polydatin in ethanol and DMSO is approximately 30 mg/ml and approximately 50 mg/ml in DMF.

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 polydatin can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of polydatin in PBS, pH 7.2, is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Polydatin is a natural stilbene originally isolated from the rhizome of *P. cuspidatum*, which is used in traditional Chinese medicine for analgesic, antipyretic, and diuretic effects. Like other stilbenes, this resveratrol glucoside has antioxidant activity. Polydatin has diverse effects in cells, tissues, and animals, including reducing cytotoxicity, inflammation, and atherosclerosis.

References