Neobavaisoflavone
Item No. 19852

CAS Registry No.: 41060-15-5
Formal Name: 7-hydroxy-3-[4-hydroxy-3-(3-methyl-2-buten-1-yl)phenyl]-4H-1-benzopyran-4-one
MF: C_{20}H_{18}O_{4}
FW: 322.4
Purity: ≥98%
UV/Vis.: \( \lambda_{\text{max}} \) 249 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

Neobavaisoflavone is supplied as a crystalline solid. A stock solution may be made by dissolving the neobavaisoflavone in the solvent of choice. Neobavaisoflavone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of neobavaisoflavone in these solvents is approximately 1, 10, and 20 mg/ml, respectively.

Neobavaisoflavone is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, neobavaisoflavone should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Neobavaisoflavone has a solubility of approximately 0.1 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Neobavaisoflavone is a natural isoflavone that was first isolated from seeds of *P. corylifolia*, which are used in traditional herbal medicine to treat various skin diseases. Neobavaisoflavone has been found to have diverse effects in isolated mammalian cells, including inhibiting DNA polymerase and carboxylesterase 1 (\( K_i = 5.3 \mu M \)).\(^1\)\(^2\) It also displays antibiotic activity against Gram-negative multidrug resistant bacteria.\(^3\)

References