Bavachin

Item No. 11685

CAS Registry No.: 19879-32-4

Formal Name: (2S)-2,3-dihydro-7-hydroxy-2-(4-hydroxyphenyl)-6-(3-methyl-2-buteryl)-4H-1-benzopyran-4-one

Synonym: Corylifolin

MF: C_{20}H_{20}O_{4}

FW: 324.4

Purity: ≥98%

UV/Vis.: λ_{max}: 221, 236, 278, 322 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**

Bavachin is supplied as a crystalline solid. A stock solution may be made by dissolving the bavachin in the solvent of choice. Bavachin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of bavachin in these solvents is approximately 20, 30, and 50 mg/ml, respectively.

Bavachin is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, bavachin should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Bavachin has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

**Description**

Bavachin is a flavonoid first isolated from seeds of *P. corylifolia*. It is a phytoestrogen that activates the estrogen receptors ER\(\alpha\) and ER\(\beta\) (EC_{50}s = 320 and 680 nM, respectively).\(^1,2\) Through this action, bavachin stimulates osteoblast proliferation and differentiation and prevents bone loss following ovariectomy in rats.\(^3,4\) Bavachin less potently inhibits acyl-coenzyme A:cholesterol acyltransferase (IC_{50} = 86 µM).\(^5\)

**References**