PRODUCT INFORMATION

Inotilone
Item No. 10010089

CAS Registry No.: 906366-79-8
Formal Name: (2Z)-2-[(3,4-dihydroxyphenyl)methylene]-5-methyl-3(2H)-furanone
MF: C_{12}H_{10}O_{4}
FW: 218.2
Purity: ≥98%
UV/Vis.: λ_{max} 246, 265, 386 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Inotilone is supplied as a crystalline solid. A stock solution may be made by dissolving the inotilone in the solvent of choice, which should be purged with an inert gas. Inotilone is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of inotilone in ethanol is approximately 1 mg/ml and approximately 30 mg/ml in DMSO and DMF.

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

Description

Inotilone is a cyclooxygenase (COX) inhibitor found in mushrooms of Phellinus and Inonotus sps. that inhibits COX-2 over COX-1 with IC_{50} values of 0.03 and 0.36 µM, respectively.\textsuperscript{1,2} It is a poor inhibitor of hydroxysteroid dehydrogenase and xanthine oxidase (IC_{50} s = 50.4 and 9.1 µM, respectively).\textsuperscript{1,2} Inotilone demonstrates anti-inflammatory, antiviral, and antioxidant effects in various experimental models.\textsuperscript{3-5}

References