α-hydroxy Tamoxifen

Item No. 17204

CAS Registry No.: 97151-02-5
Formal Name: \((\beta\text{E})-[4-[2-(\text{dimethylamino})\text{ethoxy}]\text{phenyl}]\)
phenylmethylene-\(\alpha\)-methyl-benzeneethanol

MF: \(\text{C}_{26}\text{H}_{29}\text{NO}_{2}\)
FW: 387.5
Purity: ≥98%

UV/Vis.: \(\lambda_{\text{max}}\): 237 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

α-hydroxy Tamoxifen is supplied as a crystalline solid. A stock solution may be made by dissolving the α-hydroxy tamoxifen in the solvent of choice, which should be purged with an inert gas. α-hydroxy Tamoxifen is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of α-hydroxy tamoxifen in ethanol and DMF is approximately 20 mg/ml and approximately 2 mg/ml in DMSO. α-hydroxy Tamoxifen is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, α-hydroxy tamoxifen should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. α-hydroxy Tamoxifen has a solubility of approximately 0.3 mg/ml in a 1:2 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

α-hydroxy Tamoxifen is a reactive metabolite of the estrogen receptor (ER) modulator tamoxifen (Item No. 13258) that is formed by the action of cytochrome P450 3A4 in human liver.\(^1,2\) It can be further converted into genotoxic DNA adducts through a mechanism involving reversible O-sulfonation of the hydroxyl moiety, which in rats has been linked with hepatocarcinoma.\(^1,3-6\)

References