α-hydroxy Tamoxifen
Item No. 17204

CAS Registry No.: 97151-02-5
Formal Name: \((\beta E)-[4-[2-(dimethylamino)ethoxy]phenyl]phenylmethylene]-\alpha\)-methyl-benzeneethanol
MF: C_{26}H_{29}NO_{2}
FW: 387.5
Purity: \(\geq 98\%\)

Stability:
≥2 years at -20°C

Purity:
≥98%

Said product is supplied as:
A crystalline solid

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

Laboratory Procedures

For long term storage, we suggest that α-hydroxy tamoxifen be stored as supplied at -20°C. It should be stable for at least two years.

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. α-hydroxy Tamoxifen is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. 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.

Tamoxifen (Item No. 13258) is a selective estrogen receptor (ER) modulator that is widely used in the therapeutic and chemopreventive treatment of breast cancer. Although it is an antagonist of ER action in breast tissue, it acts as an ER agonist in bone and blood vessels and a partial ER agonist in uterine tissues. α-hydroxy Tamoxifen is a reactive metabolite of tamoxifen that is formed by the action of cytochrome P450 3A4 in human liver. It can be further converted into genotoxic DNA adducts though a mechanism involving reversible O-sulfonation of the hydroxyl moiety, which in rats has been linked with hepatocarcinoma.1,3-6

References


Related Products

For a list of related products please visit: www.caymanchem.com/catalog/17204

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow or inhale. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Cayman Chemical Company makes no warranty or guarantee of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only to the original customer that the material will meet our specifications at the time of delivery.

Cayman will carry out its delivery obligations with due care and skill. Thus, in no event will Cayman have any obligation or liability, whether in tort (including negligence) or in contract, for any direct, indirect, incidental or consequential damages, even if Cayman is informed about their possible existence.

This limitation of liability does not apply in the case of intentional acts or negligence of Cayman, its directors or its employees.

Buyer’s exclusive remedy and Cayman’s sole liability hereunder shall be limited to a refund of the purchase price, or at Cayman’s option, the replacement, at no cost to Buyer, of all material that does not meet our specifications.

For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.