Hydroxy Bupropion

CAS Registry No.: 357399-43-0
Formal Name: 2-(3-chlorophenyl)-3,5,5-trimethyl-2-morpholinol
MF: C13H18ClNO2
FW: 255.7
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid

Laboratory Procedures

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

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

Hydroxy bupropion is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, hydroxy bupropion should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Hydroxy bupropion has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Bupropion (Item No. 10488) is an inhibitor of the reuptake of dopamine and norepinephrine and is also an antagonist of neuronal acetylcholine nicotinic receptors. Because of its effects on nicotinic receptors, it is used to promote smoking cessation. Hydroxy bupropion is a mixture of enantiomers produced by the metabolism of bupropion by cytochrome P450 2B6.1,2 Compared with bupropion, this racemic mixture produces equal inhibition of norepinephrine reuptake (IC50 = 1.7 µM) and much weaker inhibition of dopamine reuptake (IC50 > 10 µM).3 Moreover, hydroxybupropion isomers are potent antagonists of nicotinic receptors, suggesting that they may substitute for bupropion in smoking cessation.2,4

References


Related Products

For a list of related products please visit: www.caymanchem.com/catalog/9000522

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 to your institution.

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