Lamotrigine
Item No. 15428

CAS Registry No.: 84057-84-1
Formal Name: 6-(2,3-dichlorophenyl)-1,2,4-triazine-3,5-diamine
Synonyms: BW 430C, Epilepax, Lamictal, LTG
MF: C_{16}H_{14}Cl_{2}N_{5}
FW: 256.1
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λ_{max} 307 nm

Laboratory Procedures

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

Lamotrigine is supplied as a crystalline solid. A stock solution may be made by dissolving the lamotrigine in the solvent of choice. Lamotrigine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of lamotrigine in ethanol is approximately 2 mg/ml and approximately 10 mg/ml in DMSO and DMF.

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

Lamotrigine is an inhibitor of voltage-gated sodium channels (N_{a}), blocking human N_{a}1.2, N_{a}1.5, and N_{a}1.8 with IC_{50} values of 10, 62, and 96 μM, respectively. Presumably through this action, lamotrigine acts as an anticonvulsant and has applications in many diseases that feature seizures, including epilepsy and autism spectrum disorder.\textsuperscript{3,4}

References


Related Products

For a list of related products please visit: www.caymanchem.com/catalog/15428

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.

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