Dextromethorphan (hydrobromide hydrate)

Item No. 13950

CAS Registry No.: 6700-34-1
Formal Name: (9α,13α,14α)-3-methoxy-17-methyl-morphinan, hydrobromide monohydrate
Synonyms: DXM, D-Methorphan
MF: C_{23}H_{25}NO • HBr [H_{2}O]
FW: 570.3
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λ_{max} = 227, 280 nm

Laboratory Procedures

For long term storage, we suggest that dextromethorphan (DXM) (hydrobromide hydrate) be stored as supplied at -20°C. It should be stable for at least two years.

DXM (hydrobromide hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the DXM (hydrobromide hydrate) in the solvent of choice. DXM (hydrobromide hydrate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of DXM (hydrobromide hydrate) in ethanol and DMF is approximately 20 mg/ml and approximately 12 mg/ml in DMSO.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of DXM (hydrobromide hydrate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of DXM (hydrobromide hydrate) in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

DXM is a dextratrorotatory morphinan with structural similarity to levorphanol, codeine, and morphine. Because of its strong antitussive effects, dextromethorphan is widely used as a cough suppressant. However, it does not provoke opioid activity as is characteristic of several other morphine derivatives. DXM binds to and inhibits NMDA receptors. DXM (hydrobromide hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the DXM (hydrobromide hydrate) in the solvent of choice. DXM (hydrobromide hydrate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of DXM (hydrobromide hydrate) in ethanol and DMF is approximately 20 mg/ml and approximately 12 mg/ml in DMSO.

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References


Safety Data Sheet

Safety Data Sheet, 50 email to your institution. 25 α and Θ However, it does not 1-3 of the purchase price, or at Cayman’s option, the 0 of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular use, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman warrants only at the time of delivery 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. Said refund or replacement is conditioned on Buyer giving written notice to Cayman within thirty (30) days after arrival of the material at its destination. Failure of Buyer to give said notice within thirty (30) days shall constitute a waiver by Buyer of all claims hereunder with respect to said material. For further details, please refer to our Warranty and Limitation of Remedy located on our website and in our catalog.