Product Information

Tropicamide
Item No. 16606

CAS Registry No.: 1508-75-4
Formal Name: N-ethyl-(hydroxymethyl)-N-(4-pyridinylmethyl)benzeneacetamide

Synonym: Ro 1-7683
MF: C17H20N2O2
FW: 284.4
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λmax = 256 nm

Laboratory Procedures

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

Tropicamide is supplied as a crystalline solid. A stock solution may be made by dissolving the tropicamide in the solvent of choice. Tropicamide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of tropicamide in these solvents is approximately 30 mg/ml.

Tropicamide is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, tropicamide should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Tropicamide 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.

Muscarinic receptors are G protein-coupled acetylcholine receptors that play diverse roles. Five subtypes (M1-5) have been identified, which preferentially couple to various effector systems based on their G protein interaction.1,2 Tropicamide is a muscarinic acetylcholine receptor (mAChR) antagonist (pKi = 7.2 in chicken heart) that displays 3-fold selectivity for M4.3,4 When applied drops, it produces temporary mydriasis (pupil dilation; EC50 = 6 µg/ml) and cycloplegia (ciliary muscle paralysis; EC50 = 25 µg/ml).5 Tropicamide has been used to probe mAChR activity in a mouse model of fragile X syndrome.6

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/16606

WARNING: This product is for laboratory research only; not for administration to humans. Not for human or veterinary diagnostic or therapeutic use.

Safety Data
The 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 organization.

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. 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.

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