bis(7)-Tacrine
Item No. 10005836

CAS Registry No.: 224445-12-9
Formal Name: N,N′-bis(1,2,3,4-tetrahydro-9-acridinyl)-1,7-heptanediamine, dihydrochloride
Synonym: 1,7-N-hepelylene-bis-9,9′-amino-1,2,3,4-tetrahydro-acridine
MF: C33H40N4 • 2HCl
FW: 565.6
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λ

Laboratory Procedures
For long term storage, we suggest that bis(7)-tacrine be stored as supplied at -20°C. It should be stable for at least two years.

bis(7)-Tacrine is supplied as a crystalline solid. A stock solution may be made by dissolving the bis(7)-tacrine in an organic solvent purged with an inert gas. bis(7)-Tacrine is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of bis(7)-tacrine in these solvents is approximately 20 mg/ml.

bis(7)-Tacrine is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, bis(7)-tacrine should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. bis(7)-Tacrine has a solubility of approximately 0.5 mg/ml in a 1:6 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Tacrine is an amino acridine compound that inhibits acetylcholinesterase (AChE), and has been proposed as a clinical treatment for Alzheimer’s disease. bis(7)-Tacrine is a tacrine dimer, linked via a 7-carbon alkyl spacer. It inhibits AChE with an IC50 of 0.40 nM, making it more than 1,000 times more potent than tacrine. bis(7)-Tacrine also protects against hydrogen peroxide induced apoptosis in rat pheochromocytoma cells.

References

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/10005836