

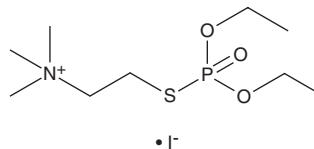
PRODUCT INFORMATION



Echothiophate (iodide)

Item No. 24029

CAS Registry No.: 513-10-0
Formal Name: 2-[(diethoxyphosphiny)thio]-N,N,N-trimethyl-ethanaminium, monoiodide
MF: C₉H₂₃NO₃PS • I
FW: 383.2
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Echothiophate (iodide) is supplied as a solid. A stock solution may be made by dissolving the echothiophate (iodide) in the solvent of choice, which should be purged with an inert gas. Echothiophate (iodide) is slightly soluble in methanol and DMSO.

Echothiophate (iodide) is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

Echothiophate is an organophosphate and acetylcholinesterase (AChE) inhibitor.¹ It is more active at ocular acetylcholinesterases than those isolated from rabbit brain, liver, or blood. *In vivo*, topical ocular administration of echothiophate (0.125 and 0.25% w/v) reduces intraocular pressure and induces miosis in dogs with normotensive eyes and those with inherited glaucoma.² It also induces formation of subcapsular cataracts in cynomolgus monkeys.³ Formulations containing echothiophate have been used for the treatment of glaucoma.

References

1. Ellis, P.P. Ocular tissue cholinesterases kinetics of enzyme activity and inhibition. *Trans. Am. Ophthalmol. Soc.* **69**, 358-382 (1971).
2. Gum, G.G., Gelatt, K.N., Gelatt, J.K., *et al.* Effect of topically applied demecarium bromide and echothiophate iodide on intraocular pressure and pupil size in beagles with normotensive eyes and beagles with inherited glaucoma. *Am. J. Vet. Res.* **54(2)**, 38287-293 (1993).
3. Kaufman, P.L., Axelsson, U., and Bárány, E.H. Induction of subcapsular cataracts in cynomolgus monkeys by echothiophate. *Arch. Ophthalmol.* **95(3)**, 499-504 (1977).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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