Echothiophate (iodide)

Item No. 24029

CAS Registry No.: 513-10-0
Formal Name: 2-[(diethoxyphosphinyl)thio]-N,N,N-trimethyl-ethanaminium, monoiode

MF: C₉H₂₃NO₃PS • I
FW: 383.2
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥2 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. 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. It also induces formation of subcapsular cataracts in cynomolgus monkeys. Formulations containing echothiophate have been used for the treatment of glaucoma.

References