

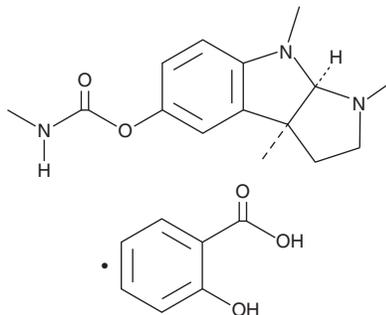
PRODUCT INFORMATION



(-)-Physostigmine (salicylate)

Item No. 33106

CAS Registry No.: 57-64-7
Formal Name: (3aS,8aR)-1,3a,8-trimethyl-1,2,3,3a,8,8a-hexahydropyrrolo[2,3-b]indol-5-yl methylcarbamate, 2-hydroxybenzoic acid
Synonyms: Eserine salicylate, Eserine sulfate
MF: C₁₅H₂₁N₃O₂ • C₇H₆O₃
FW: 413.5
Purity: ≥95%
UV/Vis.: λ_{max}: 240 nm
Supplied as: A crystalline 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

(-)-Physostigmine (salicylate) is supplied as a crystalline solid. A stock solution may be made by dissolving the (-)-physostigmine (salicylate) in the solvent of choice, which should be purged with an inert gas. (-)-Physostigmine (salicylate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of (-)-physostigmine (salicylate) in these solvents is approximately 1, 10, and 30 mg/ml, respectively.

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 (-)-physostigmine (salicylate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of (-)-physostigmine (salicylate) in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

(-)-Physostigmine is an alkaloid that has been found in Calabar beans and a cholinergic agent.^{1,2} It inhibits acetylcholinesterase (AChE; IC₅₀ = 0.67 nM).² (-)-Physostigmine (10 μM) inhibits ChE and increases vagal stimulation-induced ACh output in isolated chicken heart.³ *In vivo*, (-)-physostigmine (200 and 400 μg/kg) induces decentralized lower eyelid contractions and increases blood pressure in anesthetized rats.⁴

References

1. Proudfoot, A. *Toxicol. Rev.* **25**(2), 99-138 (2006).
2. Ogura, H., Kosasa, T., Kuriya, Y., *et al. Methods Find. Exp. Clin. Pharmacol.* **22**(8), 609-613 (2000).
3. Dieterich, H.A., Kaffel, H., Kilbinger, H., *et al. J. Pharmacol. Exp. Ther.* **199**(1), 236-246 (1976).
4. Szeberényi, J., Varga, A., Pongrácz, M.F., *et al. J. Pharm. Pharmacol.* **24**(1), 85-86 (1972).

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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