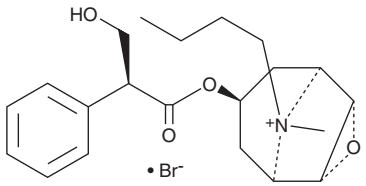
PRODUCT INFORMATION

Scopolamine N-butyl (bromide)

Item No. 27223

CAS Registry No.: 149-64-4
Formal Name: (1α,2β,4β,5α,7β)-9-butyl-7-[(2S)-3-hydroxy-1-oxo-2-phenylpropoxy]-9-methyl-3-oxa-9-azoniatricyclo[3.3.1.$0^{2,4}$]nonane, monobromide
Synonyms: Hyoscine butobromide, N-butyl Hyoscine
MF: $C_{21}H_{30}NO_4$ • Br
FW: 440.4
Purity: ≥95%
UV/Vis.: λ_{max}: 273 nm
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

Scopolamine N-butyl (bromide) is supplied as a solid. A stock solution may be made by dissolving the scopolamine N-butyl (bromide) in the solvent of choice, which should be purged with an inert gas. Scopolamine N-butyl (bromide) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of scopolamine N-butyl (bromide) in these solvents is approximately 2.5, 5, and 3 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 scopolamine N-butyl (bromide) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of scopolamine N-butyl (bromide) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Scopolamine N-butyl is an antispasmodic agent.[1,2] *In vivo*, scopolamine N-butyl inhibits electrically induced urinary bladder contractions in dogs (ED_{50}s = 0.07-4.7 mg/kg).[1] It also decreases the ileal phasic motility index (PMI) as well as colonic motility in canine models of ileal and colonic fistulas, respectively.[2] Formulations containing scopolamine N-butyl have been used in the treatment of pain induced by abdominal cramps and bladder spasms.

References

1. Bauer, R. and Wick, H. Comparative spasmolytic potencies of atropine sulphate and N-butyl hyoscine bromide following intravenous injection, injection into a mesenteric vein, and intraduodenal instillation. *J. Pharm. Pharmacol.* **21(10),** 706-708 (1969).
2. Sagrada, A., Schiavone, A., Cefalá, A., *et al.* N-butyl hyoscine exerts local spasmolytic effect in the small and large bowel of the conscious dog. *Arch. Int. Pharmacodyn. Ther.* **287(2),** 237-247 (1987).

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