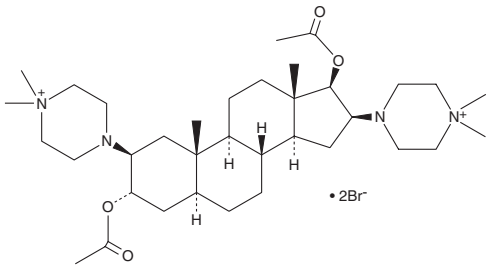
PRODUCT INFORMATION

Pipecuronium (bromide)

Item No. 45701

CAS Registry No.:	52212-02-9
Formal Name:	4,4′-[(2β,3α,5α,16β,17β)-3,17-*bis*(acetyloxy)androstane-2,16-diyl]*bis*[1,1-dimethyl-piperazinium, dibromide
MF:	$C_{35}H_{62}N_4O_4 \bullet 2Br$
FW:	762.7
Purity:	≥95%
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

Pipecuronium (bromide) is supplied as a solid. A stock solution may be made by dissolving the pipecuronium (bromide) in the solvent of choice, which should be purged with an inert gas. Pipecuronium (bromide) is soluble (≥10 mg/ml) in ethanol and DMSO.

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 pipecuronium (bromide) can be prepared by directly dissolving the solid in aqueous buffers. Pipecuronium (bromide) is soluble (≥10 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

Pipecuronium is a steroidal nondepolarizing neuromuscular blocking agent.[1] It binds to nicotinic acetylcholine receptors (nAChRs; apparent K_d = 3.06 µM).[2] Pipecuronium reverses pilocarpine-induced decreases in electric field stimulation-induced contractions in human bronchial rings, indicating that it acts as a muscarinic AChR (mAChR) antagonist.[3] It induces neuromuscular block in pigs (ED_{95} = 150 µg/kg).[4] Formulations containing pipecuronium have previously been used as neuromuscular blocking agents.

References

1. Mirakhur, R. New developments in nondepolarizing muscle relaxants. *Yale J. Biol. Med.* **66(5)**, 463-471 (1994).
2. Töröcsik, A., Oberfrank, F., Sershen, H., *et al.* Characterization of somatodendritic neuronal nicotinic receptors located on the myenteric plexus. *Eur. J. Pharmacol.* **202(3)**, 297-302 (1991).
3. Zappi, L., Song, P., Nicosia, S., *et al.* Do pipecuronium and rocuronium affect human bronchial smooth muscle? *Anesthesiology* **91(6)**, 1616-1621 (1999).
4. Pittet, J.F., Tassonyi, E., Schopfer, C., *et al.* Dose requirements and plasma concentrations of pipecuronium during bilateral renal exclusion and orthotopic liver transplantation in pigs. *Br. J. Anaesth.* **65(6)**, 779-785 (1990).

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.

WARRANTY AND LIMITATION OF REMEDY
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