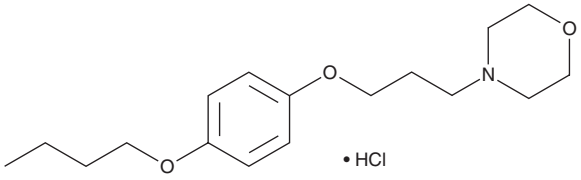
PRODUCT INFORMATION

Pramoxine (hydrochloride)

Item No. 30077

CAS Registry No.:	637-58-1
Formal Name:	4-[3-(4-butoxyphenoxy)propyl]-morpholine, monohydrochloride
Synonym:	Pramocaine
MF:	$C_{17}H_{27}NO_3$ • HCl
FW:	329.9
Purity:	≥98%
UV/Vis.:	λ_{max}: 227 nm
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

Pramoxine (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the pramoxine (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Pramoxine (hydrochloride) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of Pramoxine (hydrochloride) in ethanol is approximately 15 mg/ml and approximately 5 mg/ml in DMSO and DMF.

Pramoxine (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, pramoxine (hydrochloride) should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. Pramoxine (hydrochloride) has a solubility of approximately 0.16 mg/ml in a 1:5 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Pramoxine is a local anesthetic.[1] It reduces electrically induced peak compound action potential (CAP) amplitudes in isolated frog sciatic nerve (IC_{50} = 0.21 mM).[2] Topical administration of pramoxine (0.35 and 0.6%) inhibits winking in a rabbit corneal test, indicating anesthetic activity.[1] It inhibits the pinprick-induced cutaneous trunci muscle reflex (CTMR) in the skin of rats (ED_{50} = 42.1 µmol, s.c.).[3]

References

1. Schmidt, J.L., Blockus, L.E., and Richards, R.K. The pharmacology of pramoxine hydrochloride: A new topical local anesthetic. *Curr. Res. Anesth. Analg.* **32(6:1)**, 418-425 (1953).
2. Hirao, R., Fujita, T., Sakai, A., *et al.* Compound action potential inhibition produced by various antidepressants in the frog sciatic nerve. *Eur. J. Pharmacol.* **819**, 122-128 (2018).
3. Chou, A.-K., Chiu, C.-C., Chen, Y.-W., *et al.* Skin nociceptive block with pramoxine delivery by subcutaneous injection in rats. *Pharmacol. Rep.* **70(6)**, 1180-1184 (2018).

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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