

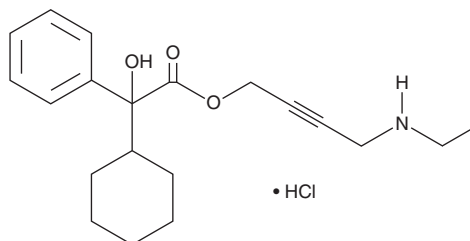
PRODUCT INFORMATION



rac-Desethyl Oxybutynin (hydrochloride)

Item No. 34262

CAS Registry No.: 81039-77-2
Formal Name: α -cyclohexyl- α -hydroxy-benzeneacetic acid, 4-(ethylamino)-2-butyn-1-yl ester, monohydrochloride
Synonym: (R,S)-DEOB
MF: C₂₀H₂₇NO₃ • HCl
FW: 365.9
Purity: \geq 95%
Supplied as: A solid
Storage: -20°C
Stability: \geq 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

rac-Desethyl oxybutynin (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the *rac*-desethyl oxybutynin (hydrochloride) in the solvent of choice, which should be purged with an inert gas. *rac*-Desethyl oxybutynin (hydrochloride) is slightly soluble in methanol and chloroform.

Description

rac-Desethyl oxybutynin is an active metabolite of the muscarinic acetylcholine receptor (mAChR) antagonist oxybutynin (Item No. 23825).¹⁻³ *rac*-Desethyl oxybutynin is formed from oxybutynin by the cytochrome P450 (CYP) isoform CYP3A4.² It binds to mAChRs in isolated rat bladder, submaxillary gland, heart, and colon with K_i values of 5.38, 3.12, 16, and 5.59 nM, respectively. *rac*-Desethyl oxybutynin (0.4 and 0.8 mg/kg) reduces micturition pressure in rats.³

References

1. Lindeke, B., Hallström, G., Johansson, C., *et al.* Metabolism of oxybutynin: Establishment of desethyloxybutynin and oxybutynin *N*-oxide formation in rat liver preparation using deuterium substitution and gas chromatographic mass spectrometric analysis. *Biomed. Mass Spectrom.* **8(10)**, 506-513 (1981).
2. Oki, T., Kawashima, A., Uchida, M., *et al.* In vivo demonstration of muscarinic receptor binding activity of *N*-desethyl-oxybutynin, active metabolite of oxybutynin. *Life Sci.* **76(21)**, 2445-2456 (2005).
3. Mizushima, H., Kinoshita, K., Abe, K., *et al.* Pharmacokinetics/pharmacodynamics analysis of the relationship between the *in vivo* micturition pressure and receptor occupancy of (*R*)-oxybutynin and its metabolite in rats. *Biol. Pharm. Bull.* **30(5)**, 955-962 (2007).

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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