

PRODUCT INFORMATION



Buprenorphine (hydrochloride)

Item No. 14025

CAS Registry No.: 53152-21-9
Formal Name: (αS,5α,7α)-17-(cyclopropylmethyl)-
α-(1,1-dimethylethyl)-4,5-epoxy-
18,19-dihydro-3-hydroxy-
6-methoxy-α-methyl-6,14-
ethenomorphinan-7-methanol,
monohydrochloride

Synonyms: CL 112,302, NIH 8805

MF: C₂₉H₄₁NO₄ • HCl

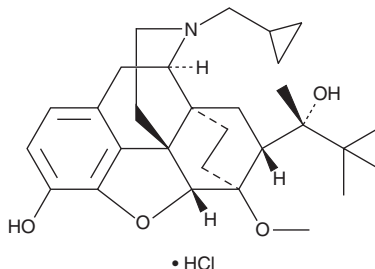
FW: 504.1

Purity: ≥98%

Supplied as: A neat solid

Storage: -20°C

Stability: ≥3 years



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

Description

Buprenorphine (hydrochloride) (Item No. 14025) is an analytical reference material that is structurally classified as an opioid. It is a partial agonist of the μ -opioid receptor ($K_i = 4.18$ nM) that less potently acts at δ - and κ -opioid receptors (K_i s = 25.8 and 12.9 nM, respectively).^{1,2} Buprenorphine is used, alone or with naloxone (Item Nos. ISO60191 | 15594), to counter opiate addiction.^{3,4} This product is intended for research and forensic applications.

This product is qualified as a Reference Material that has been manufactured and tested to ISO/IEC 17025 and ISO 17034 international standards.

References

1. Bart, G. Maintenance medication for opiate addiction: The foundation of recovery. *J. Addict. Dis.* **31(3)**, 207-225 (2012).
2. Codd, E.E., Shank, R.P., Schupsky, J.J., *et al.* Serotonin and norepinephrine uptake inhibiting activity of centrally acting analgesics: Structural determinants and role in antinociception. *J. Pharmacol. Exp. Ther.* **274(3)**, 1263-1270 (1995).
3. Tetrault, J.M. and Fiellin, D.A. Current and potential pharmacological treatment options for maintenance therapy in opioid-dependent individuals. *Drugs* **72(2)**, 217-228 (2012).
4. Chen, K.Y., Chen, L., and Mao, J. Buprenorphine-naloxone therapy in pain management. *Anesthesiology* **120(5)**, 1262-1274 (2014).

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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