

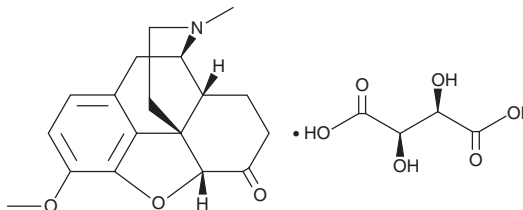
# PRODUCT INFORMATION



## Hydrocodone (bitartrate)

Item No. 22166

**CAS Registry No.:** 143-71-5  
**Formal Name:** 4,5 $\alpha$ -epoxy-3-methoxy-17-methyl-morphinan-6-one, (2R,3R)-2,3-dihydroxybutanedioate  
**Synonyms:** Dihydrocodeinone, (-)-Hydrocodone  
**MF:** C<sub>18</sub>H<sub>21</sub>NO<sub>3</sub> • C<sub>4</sub>H<sub>6</sub>O<sub>6</sub>  
**FW:** 449.5  
**Purity:** ≥98%  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥5 years



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

### Description

Hydrocodone (bitartrate) (Item No. 22166) is an analytical reference standard categorized as an opioid.<sup>1,2</sup> It is a metabolite of codeine (Item Nos. ISO60140 | 15459 | 26514).<sup>3</sup> Like other opioid analgesics, hydrocodone is commonly abused.<sup>4</sup> Hydrocodone is regulated as a Schedule II compound in the United States. This product is intended for research and forensic applications.

### References

1. Trescot, A.M., Datta, S., Lee, M., *et al.* Opioid pharmacology. *Pain Physician* **11(2 Suppl.)**, S133-S153 (2008).
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. Oyler, J.M., Cone, E.J., Joseph, R.E., Jr., *et al.* Identification of hydrocodone in human urine following controlled codeine administration. *J. Anal. Toxicol.* **24(7)**, 530-535 (2000).
4. Atluri, S.A., Sudarshan, G., and Manchikanti, L. Assessment of the trends in medical use and misuse of opioid analgesics from 2004 to 2011. *Pain Physician* **17(2)**, E119-E128 (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.

#### WARRANTY AND LIMITATION OF REMEDY

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM