

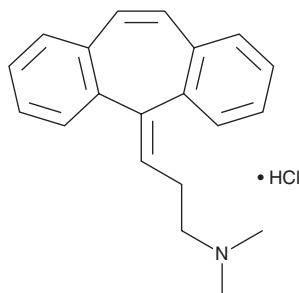
# PRODUCT INFORMATION



## Cyclobenzaprine (hydrochloride)

Item No. 15885

**CAS Registry No.:** 6202-23-9  
**Formal Name:** 3-(5H-dibenzo[a,d]cyclohepten-5-ylidene)-N,N-dimethyl-1-propanamine, monohydrochloride  
**Synonym:** MK-130  
**MF:** C<sub>20</sub>H<sub>21</sub>N • HCl  
**FW:** 311.9  
**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

Cyclobenzaprine is a skeletal muscle relaxant that also has sedative properties.<sup>1-3</sup> It has been shown to antagonize muscarinic receptors ( $K_i$ s = 25, 60, and 6 nM for M<sub>1</sub>, M<sub>2</sub>, and M<sub>3</sub>, respectively), serotonin 5-HT<sub>2</sub> receptors ( $K_i$ s = 56 and 330 nM for 5-HT<sub>2C</sub> and 5-HT<sub>2B</sub>, respectively), and histamine H<sub>1</sub> receptor (IC<sub>50</sub> = 20 nM).<sup>4-6</sup>

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

### References

1. Trivedi, R.K. and Patel, M.C. Development of a stability-indicating RP-UPLC method for rapid determination of metaxalone and its degradation products in solid oral dosage form. *Sci. Pharm.* **80(2)**, 353-366 (2012).
2. Chou, R., Peterson, K., and Helfand, M. Comparative efficacy and safety of skeletal muscle relaxants for spasticity and musculoskeletal conditions: A systematic review. *J. Pain Symptom Manage.* **28(2)**, 140-175 (2004).
3. See, S. and Ginzburg, R. Choosing a skeletal muscle relaxant. *Am. Fam. Physician* **78(3)**, 365-370 (2008).
4. Gregori-Puigjané, E., Setola, V., Hert, J., et al. Identifying mechanism-of-action targets for drugs and probes. *Proc. Natl. Acad. Sci. USA* **109(28)**, 11178-11183 (2012).
5. Honda, M., Nishida, T., and Ono, H. Tricyclic analogs cyclobenzaprine, amitriptyline and cyproheptadine inhibit the spinal reflex transmission through 5-HT<sub>2</sub> receptors. *Eur. J. Pharmacol.* **458(1-2)**, 91-99 (2003).
6. Lounkine, E., Keiser, M.J., Whitebread, S., et al. Large scale prediction and testing of drug activity on side-effect targets. *Nature* **486(7403)**, 361-367 (2012).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 10/25/2023

#### 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