

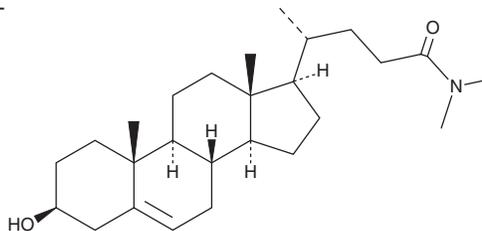
# PRODUCT INFORMATION



## DMHCA

Item No. 37712

**CAS Registry No.:** 79066-03-8  
**Formal Name:** (3 $\beta$ )-3-hydroxy-N,N-dimethyl-chol-5-en-24-amide  
**Synonym:** Dimethyl-HCA,  
N,N-Dimethyl-3 $\beta$ -hydroxycholelamide  
**MF:** C<sub>26</sub>H<sub>43</sub>NO<sub>2</sub>  
**FW:** 401.6  
**Purity:**  $\geq$ 98%  
**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

DMHCA is supplied as a solid. A stock solution may be made by dissolving the DMHCA in the solvent of choice, which should be purged with an inert gas. DMHCA is soluble in the organic solvent dimethyl formamide at a concentration of approximately 1 mg/ml.

### Description

DMHCA is a liver X receptor (LXR) agonist.<sup>1</sup> It activates LXR $\alpha$  and LXR $\beta$  in CV-1 cells expressing the human receptors in reporter assays (EC<sub>50</sub> = 2  $\mu$ M for both). DMHCA also inhibits  $\Delta$ <sup>24</sup>-dehydrocholesterol reductase (DHCR24; IC<sub>50</sub> = 0.7 nM).<sup>2</sup> It does not induce steatosis or increase liver triglyceride levels compared with the LXR agonist T0901317 (Item No. 71810) in mice when administered at a dose of 80 mg/kg.<sup>3</sup> DMHCA (8 mg/kg) reduces the size of atherosclerotic lesions in ApoE<sup>-/-</sup> mice fed a Western diet. It decreases proteinuria and hepatic cholesterol levels in a mouse model of diabetic nephropathy induced by streptozotocin (Item No. 13104).<sup>4</sup>

### References

1. Janowski, B.A., Grogan, M.J., Jones, S.A., *et al.* Structural requirements of ligands for the oxysterol liver X receptors LXR $\alpha$  and LXR $\beta$ . *Proc. Natl. Acad. Sci. USA* **96**(1), 266-271 (1999).
2. Müller, C., Hemmers, S., Bartl, N., *et al.* New chemotype of selective and potent inhibitors of human delta 24-dehydrocholesterol reductase. *Eur. J. Med. Chem.* **140**, 305-320 (2017).
3. Kratzer, A., Buchebner, M., Pfeifer, T., *et al.* Synthetic LXR agonist attenuates plaque formation in apoE<sup>-/-</sup> mice without inducing liver steatosis and hypertriglyceridemia. *J. Lipid. Res.* **50**(2), 312-326 (2009).
4. Patel, M., Wang, X.X., Magomedova, L., *et al.* Liver X receptors preserve renal glomerular integrity under normoglycaemia and in diabetes in mice. *Diabetologia* **57**(2), 435-436 (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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#### 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