

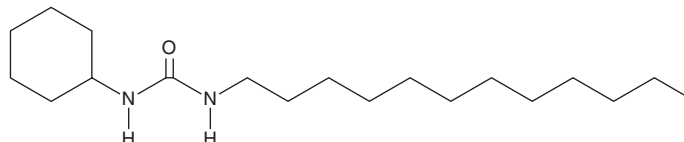
PRODUCT INFORMATION



CDU

Item No. 43102

CAS Registry No.: 402939-18-8
Formal Name: N-cyclohexyl-N'-dodecyl-urea
Synonym: NCND
MF: $C_{19}H_{38}N_2O$
FW: 310.5
Purity: $\geq 95\%$
Supplied as: A solid
Storage: -20°C
Stability: ≥ 4 years



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

Laboratory Procedures

CDU is supplied as a solid. A stock solution may be made by dissolving the CDU in the solvent of choice, which should be purged with an inert gas. CDU is slightly soluble (0.1-1 mg/ml) in chloroform.

Description

CDU is an inhibitor of soluble epoxide hydrolase (sEH; IC_{50} s = 9.8 and 85.2 nM for the mouse and human enzymes, respectively).¹ It inhibits the proliferation of, and decreases the levels of cyclin D1 in, primary human vascular smooth muscle cells (VSMCs) when used at a concentration of 10 μM .² CDU (10 μM) induces relaxation in isolated rat precontracted mesenteric resistance vessels.³ It decreases tail cuff blood pressure and urinary excretion of 14(15)-dihydroxyeicosatrienoic acid in a rat model of angiotensin II infusion-induced hypertension.⁴

References

1. Morisseau, C., Goodrow, M.H., Newman, J.W., *et al.* Structural refinement of inhibitors of urea-based soluble epoxide hydrolases. *Biochem. Pharmacol.* **63**(9), 1599-1608 (2002).
2. Davis, B.B., Thompson, D.A., Howard, L.L., *et al.* Inhibitors of soluble epoxide hydrolase attenuate vascular smooth muscle cell proliferation. *Proc. Natl. Acad. Sci. USA* **99**(4), 2222-2227 (2002).
3. Olearczyk, J.J., Field, M.B., Kim, I.H., *et al.* Substituted adamantyl-urea inhibitors of the soluble epoxide hydrolase dilate mesenteric resistance vessels. *J. Pharmacol. Exp. Ther.* **318**(3), 1307-1314 (2006).
4. Imig, J.D., Zhao, X., Capdevila, J.H., *et al.* Soluble epoxide hydrolase inhibition lowers arterial blood pressure in angiotensin II hypertension. *Hypertension* **39**, 690-694 (2002).

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