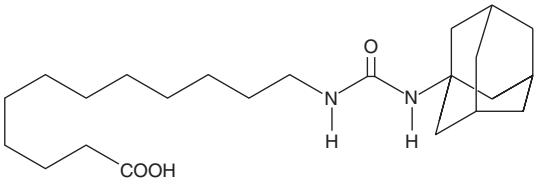
PRODUCT INFORMATION

AUDA

Item No. 10007927

CAS Registry No.:	479413-70-2
Formal Name:	12-[[(tricyclo[3.3.1.13,7]dec-1-ylamino)carbonyl]amino]-dodecanoic acid
MF:	$C_{23}H_{40}N_2O_3$
FW:	392.6
Purity:	≥98%
Supplied as:	A crystalline 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

AUDA is supplied as a crystalline solid. A stock solution may be made by dissolving the AUDA in the solvent of choice, which should be purged with an inert gas. AUDA is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of AUDA in these solvents is approximately 0.15, 1, and 2 mg/ml, respectively.

AUDA is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AUDA should first be dissolved in DMF and then diluted with the aqueous buffer of choice. AUDA has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Epoxyeicosatrienoic acid (EpETrE) metabolites of arachidonic acid such as 11(12)-EpETrE and 14(15)-EpETrE have been identified as endothelium derived hyperpolarizing factors with vasodilator activity.[1] Soluble epoxide hydrolase (sEH) catalyzes the conversion of EpETrEs to the corresponding dihydroxy eicosatrienoic acids (DiHETrEs) thereby diminishing their activity. AUDA is an inhibitor of sEH exhibiting IC_{50} values of 18 and 69 nM for the mouse and human enzymes, respectively.[2] In angiotensin-infused rats, a dose of 25 mg/l AUDA administered in drinking water decreased mean arterial blood pressure from 161 ± 4 mmHg to 140 ± 5 mmHg. This hypotensive effect was accompanied by an increase in urinary epoxide-to-diol ratios.[3] AUDA activates peroxisome proliferator-activated receptor α (PPARα) 3-fold at a concentration of 10 µM but exhibits no affect on PPARδ or PPARγ.[4]

References

1. Fleming, I. Cytochrome P450 epoxygenases as EDHF synthase(s). *Pharmacol. Res.* **49(6)**, 525-533 (2004).
2. 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).
3. Imig, J.D., Zhao, X., Zaharis, C.Z., *et al.* An orally active epoxide hydrolase inhibitor lowers blood pressure and provides renal protection in salt-sensitive hypertension. *Hypertension* **46(2)**, 975-981 (2005).
4. Fang, X., Hu, S., Watanabe, T., *et al.* Activation of peroxisome proliferator-activated receptor α by substituted urea-derived soluble epoxide hydrolase inhibitors. *J. Pharmacol. Exp. Ther.* **314(1)**, 260-270 (2005).

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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