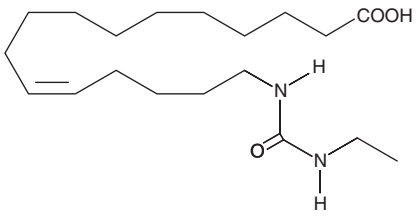
PRODUCT INFORMATION

CAY10662

Item No. 11042

CAS Registry No.:	1184844-74-3
Formal Name:	16-[[(ethylamino)carbonyl]amino]-11Z-hexadecenoic acid
MF:	$C_{19}H_{36}N_2O_3$
FW:	340.5
Purity:	≥98%
Supplied as:	A solution in methanol
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

CAY10662 is supplied as a solution in methanol. To change the solvent, simply evaporate the methanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as ethanol, DMSO, and dimethyl formamide (DMF) purged with an inert gas can be used. The solubility of CAY10662 in these solvents is approximately 2, 3, and 5 mg/ml, respectively.

CAY10662 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the methanolic solution of CAY10662 should be diluted with the aqueous buffer of choice. CAY10662 has a solubility of 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

17(R),18(S)-Epoxyeicosatetraenoic acid (17(R),18(S)-EpETE), a natural cytochrome P450 epoxygenase metabolite of eicosapentaenoic acid, is known to reduce the contraction rate of spontaneously beating heart cells and to protect neonatal rat cardiomyocytes against arrhythmias induced by β-adrenergic agonists (EC_{50} = ~ 1-2 nM).[1] CAY10662 is a 1,3 disubstituted urea derivative of 17(R),18(S)-EpETE that is more metabolically robust and reduces the contractility of cardiomyocytes with improved potency (EC_{50} < 1 nM) over its parent compound.[1] At concentrations 1,000-fold higher than required for the effect on cardiomyocytes, 1-5 µM CAY10662 exerts weak dose-dependent soluble epoxide hydrolase inhibition.[1]

Reference

1. Falck, J.R., Wallukat, G., Puli, N., *et al.* 17(R), 18(S)-epoxyeicosatetraenoic acid, a potent eicosapentaenoic acid (EPA) derived regulator of cardiomyocyte contraction: Structure-activity relationships and stable analogues. *J. Med. Chem.* **54(12)**, 4109-4118 (2011).

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