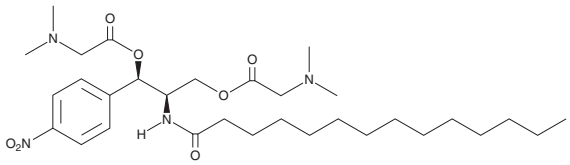
PRODUCT INFORMATION

LCL-521

Item No. 29738

CAS Registry No.:	1226851-11-1
Formal Name:	N,N-dimethyl-glycine, 1,1′-[(1R,2R)-1-(4-nitrophenyl)-2-[(1-oxotetradecyl)amino]-1,3-propanediyl] ester
MF:	$C_{31}H_{52}N_4O_7$
FW:	592.8
Purity:	≥95%
Supplied as:	A 10 mg/ml solution in ethanol
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

LCL-521 is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. LCL-521 is slightly soluble (0.1-1 mg/ml) in DMSO.

LCL-521 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of LCL-521 should be diluted with the aqueous buffer of choice. LCL-521 is slightly soluble (0.1-1 mg/ml) in PBS (pH 7.2). We do not recommend storing the aqueous solution for more than one day.

Description

LCL-521 is an inhibitor of acid ceramidase.[1,2] It inhibits acid ceramidase activity in MCF-7 breast cancer cell lysates when used at a concentration of 1 µM.[1] LCL-521 (1 and 10 µM) decreases sphingosine levels in MCF-7 cells. It inhibits the proliferation of MCF-7 cells (IC_{50} = 7.46 µM) and induces cell cycle arrest at the G_1 phase when used at a concentration of 2.5 µM.[2]

References

1. Bai, A., Szulc, Z.M., Bielawski, J., *et al.* Targeting (cellular) lysosomal acid ceramidase by B13: Design, synthesis and evaluation of novel DMG-B13 ester prodrugs. *Bioorg. Med. Chem.* **22(24)**, 6933-6944 (2014).
2. Bai, A., Mao, C., Jenkins, R.W., *et al.* Anticancer actions of lysosomally targeted inhibitor, LCL521, of acid ceramidase. *PLoS One* **12(6)**, e0177805 (2017).

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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