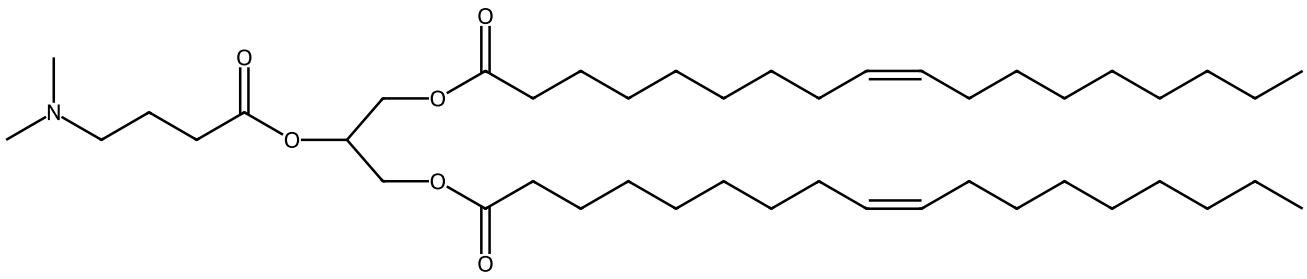
3-TG-OA

DCL0069 Triglyceride-mimetic ionizable lipid



Chemical identity

Molecular formula	$C_{45}H_{83}NO_6$
Average molecular weight	734.16 g/mol
ESI-MS, observed [M+H]+	m/z 734.6288
PubChem CID	88236423
InChIKey	WOFDMCCXWBBDTM-WRBBJXAJSA-N

Description & Application

3-TG-OA has two oleoyl esters at the outer positions of glycerol and a 4-(dimethylamino)butanoyl group at its central position. Tan and colleagues at Shenyang Pharmaceutical University studied this lipid in siRNA-loaded nanoparticles in preclinical models of acute liver failure.

Published study

In the cell assay, TNF-α levels were approximately 42% of the stimulated control with OA-LNPs and 45% with MC3-LNPs (Fig. S10A). Both formulations lowered serum AST and ALT in the mouse model (Fig. 7B,C).

Pack sizes 25 mg / 50 mg / 100 mg **Price on request**

Reference

Tan J, Liu F, Gao L, Sun J, Jiang Q. Journal of Medicinal Chemistry (2026).

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