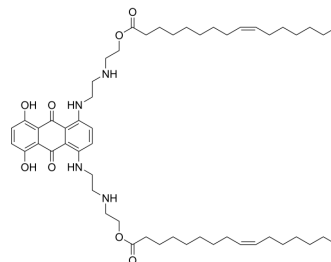


## di-Pal-MTO

Cat. No.:	HY-148702
CAS No.:	1349197-90-5
Molecular Formula:	C <sub>54</sub> H <sub>84</sub> N <sub>4</sub> O <sub>8</sub>
Molecular Weight:	917.27
Target:	Liposome
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	di-Pal-MTO is a palm oil-based lipid produced by combining the anticancer agent mitoxantrone (MTO) with palmitoleic acid. When nanoparticles of mono-Pal-MTO and di-Pal-MTO are combined in a molar ratio of 1:1, they show effective siRNA cell delivery and enhance anticancer activity <sup>[1]</sup> .
<b>In Vitro</b>	Delivery of Mcl-1-specific anticancer siRNA (siMcl-1) using nanoparticles of mono-Pal-MTO and di-Pal-MTO (md11-Pal-MTO) in a 1:1 molar ratio enhances in vitro antitumour activity, reducing tumour cell viability by 81% and tumour size by 83%. Lipofectamine 2000-mediated transfection with siMcl-1 reduces tumour cell viability by 68% <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Rae Sung Chang, et al. Cationic drug-derived nanoparticles for multifunctional delivery of anticancer siRNA. *Biomaterials*. 2011 Dec;32(36):9785-95.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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