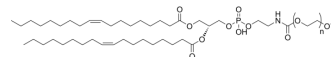


## DOPE-mPEG, MW 2000

<b>Cat. No.:</b>	HY-W440988		
<b>Target:</b>	Liposome		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (Need ultrasonic)
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (Infinity mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (Infinity mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (Infinity mM); Clear solution</li> </ol>

### BIOLOGICAL ACTIVITY

<b>Description</b>	DOPE-mPEG, MW 2000 is a phospholipid polydisperse PEG (or DOPE liposome), can be used for preparation of targeted delivery of liposomal drug and giant unilamellar vesicles (GUVs). DOPE-mPEG, MW 2000 significantly reduces the pH-sensitivity of the liposome in a concentration dependent manner <sup>[1][2][3]</sup> .
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### REFERENCES

- Shin J, et al. Acid-labile mPEG-vinyl ether-1,2-dioleoylglycerol lipids with tunable pH sensitivity: synthesis and structural effects on hydrolysis rates, DOPE liposome release performance, and pharmacokinetics. *Mol Pharm*. 2012 Nov 5;9(11):3266-76.
- Su WC, et al. Pulsatile Gating of Giant Vesicles Containing Macromolecular Crowding Agents Induced by Colligative Nonideality. *J Am Chem Soc*. 2018 Jan 17;140(2):691-699.
- Xu H, et al. Enhanced pH-Responsiveness, Cellular Trafficking, Cytotoxicity and Long-circulation of PEGylated Liposomes with Post-insertion Technique Using Gemcitabine as a Model Drug. *Pharm Res*. 2015 Jul;32(7):2428-38.

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

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