

# Phospholipids

## Naturally-derived Phospholipids

**Lecithin from Egg**

25g / 100g [L0022]

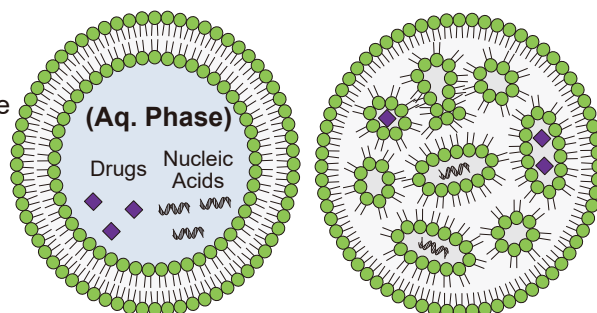
**Lecithin from Soybean**

25g / 500g [L0023]

## Phospholipids for Liposomes / Lipid Nanoparticles

### Liposomes

- Vesicles comprised of an inner aqueous phase encapsulated by a lipid bilayer.



### Lipid Nanoparticles

- Small, solid lipid particles with a more complex inner structure than liposomes.
- Perfect for use with payloads which are unstable in aqueous solution.

- Encapsulates and protects cargo (pharmaceuticals, nucleic acids, proteins, etc.) for delivery to cells.
- Varying composition allows for tunable biocompatibility, molecular targeting, and improved stability.

## Lipid Mixture for Easy Preparation of Liposomes

**Presome® ACD-1**

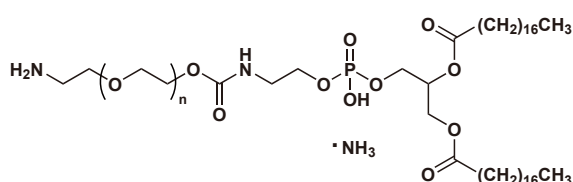
100mg [P2807]

- Advantages**
- Homogeneous 3:1:1 mixture of Hydrogenated Soy Phospholipid : Cholesterol : MPEG2000-DPSE
  - Allows for quick and easy preparation of liposomes without the use of organic solvents. Just mix and stir with an aqueous solution of the substance to be encapsulated.

**References**

Nippon Fine Chemical Website <https://www.nipponseika.co.jp/en/business/lipid/>  
N. Maeda, K. Ikeda, M. Matsumoto, Y. Namba, *J. Liposome Res.* **2017**, 27, 221. <https://doi.org/10.1080/08982104.2016.1224898>

## PEGylated Phospholipids



**DSPE-PEG(2000)-Amine Ammonium Salt**

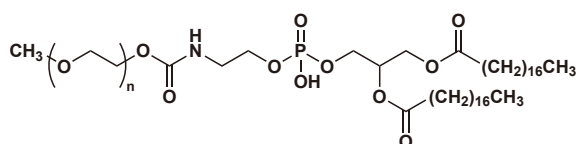
10mg

**New** [D6011]

- Advantages**
- Optimal for both the self-assembly of liposomes and the preparation of lipid nanoparticles.
  - Excellent biocompatibility due to the presence of PEG groups on the liposomal/nanoparticle surface.
  - Allows for easy conjugation to your molecule-of-interest via the terminal amino group.

**References**

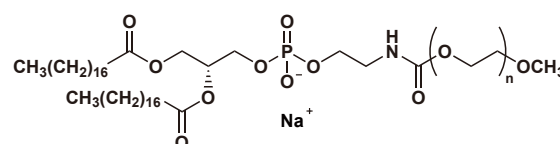
S. Biswas, V. P. Torchilin, *et al.*, *J. Control. Release* **2012**, 159, 393. <https://doi.org/10.1016/j.jconrel.2012.01.009>  
H. J. Kwon, T. Hyeon, I. Mook-Jung, *et al.*, *ACS Nano* **2016**, 10, 2860. <https://doi.org/10.1021/acsnano.5b08045>  
B. Li, D. Gao, C. Xing *et al.*, *Adv. Healthc. Mater.* **2022**, 11, 2102506. <https://doi.org/10.1002/adhm.202102506>



**Methyl-PEG2000-DSPE**

250mg

[M3264]

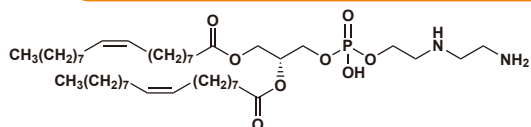


**MPEG2000-DSPE Sodium Salt**

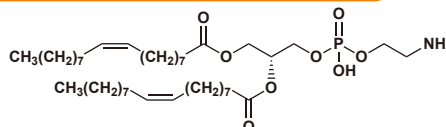
100mg

[M3330]

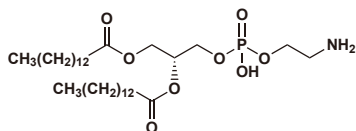
## Other Phospholipids



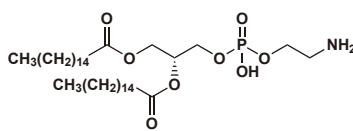
**DOP-DEDA**  
50mg  
[D5882]



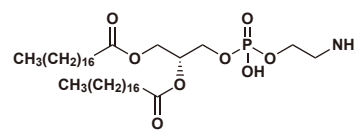
**DOPE**  
250mg  
[D4251]



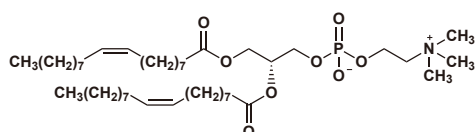
**L-DMPE**  
250mg  
[D4249]



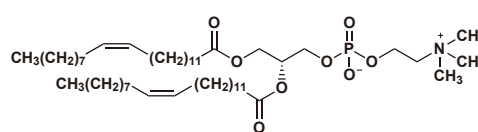
**L-DPPE**  
250mg  
[D4213]



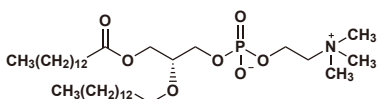
**DSPE**  
250mg  
[D4214]



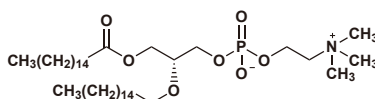
**DOPC**  
250mg / 1g  
[D4250]



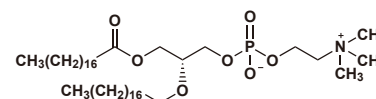
**DEPC**  
250mg  
[D5319]



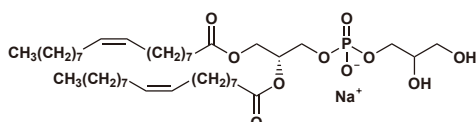
**DMPC**  
200mg / 1g  
[D3924]



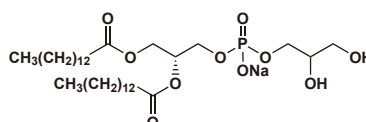
**L-DPPC**  
200mg / 1g  
[D3925]



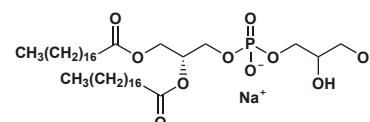
**DSPC**  
200mg / 1g  
[D3926]



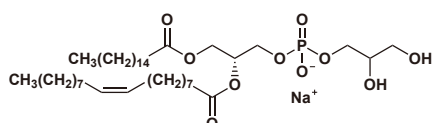
**DOPG Sodium Salt**  
250mg  
[D5318]



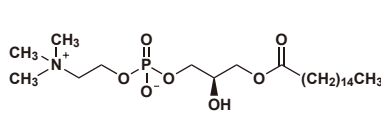
**DMPG Sodium Salt**  
1g  
[D3946]



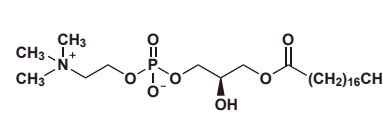
**DSPG Sodium Salt**  
250mg  
[D5648]



**POPG Sodium Salt**  
250mg  
[P2522]



**1-Palmitoyl-*sn*-glycero-3-phosphocholine**  
250mg  
[P2694]



**1-Stearoyl-*sn*-glycero-3-phosphocholine**  
250mg  
[T3808]

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E-mail : Sales-DE@TCIchemicals.com

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Tel : 800-988-0390 / 021-67121386  
Fax : 021-6712-1385  
E-mail : Sales-CN@TCIchemicals.com

#### TOKYO CHEMICAL INDUSTRY CO., LTD.

Tel : +81 (0)3-5640-8878  
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