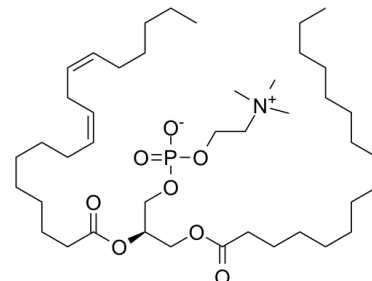


## Data Sheet

<b>Product Name:</b>	Lecithin
<b>Cat. No.:</b>	CS-7874
<b>CAS No.:</b>	8002-43-5
<b>Molecular Formula:</b>	C <sub>42</sub> H <sub>80</sub> NO <sub>8</sub> P
<b>Molecular Weight:</b>	758.06
<b>Target:</b>	Endogenous Metabolite
<b>Pathway:</b>	Metabolic Enzyme/Protease
<b>Solubility:</b>	H <sub>2</sub> O : 3.33 mg/mL (4.39 mM; Need ultrasonic); DMSO : 5 mg/mL (6.60 mM; Need ultrasonic)



### BIOLOGICAL ACTIVITY:

Lecithin is regarded as a safe, conventional phospholipid source. Phospholipids are reported to alter the fatty acid composition and microstructure of the membranes in animal cells. **In Vitro:** After culturing in MRS broth with 0.2 to 1.0% soy Lecithin, the survival rate of harvested cells increases significantly ( $P < 0.05$ ) in the 0.3% bile challenge compare with the no added soy Lecithin group. The cells incubated with 0.6% soy Lecithin are able to grow in an MRS broth with a higher bile salt content. The cell surface hydrophobicity is enhanced and the membrane integrity in the bile challenge increases after culturing with soy Lecithin. A shift in the fatty acid composition is also observed, illustrating the cell membrane changes in the soy Lecithin culture<sup>[1]</sup>.

### PROTOCOL (Extracted from published papers and Only for reference)

**Cell Assay:** Soy Lecithin is added to MRS broth to a final concentration of 1% (w/v).<sup>[1]</sup> MRS broths are supplemented with soy Lecithin concentrations of 0, 0.2, 0.4, 0.6, 0.8 and 1.0%. Each broth is inoculated with a tested strain culture (2%, v/v) and anaerobically incubated at 37°C for 20 h. After incubation, the bacterium cells are harvested by centrifugation at 8000 g for 10 min at 4°C and washed twice in PBS (pH 6.5) plus ethanol (5%, v/v). Strain bile resistance is assessed. The numbers of viable cells are counted by the pouring plate method, and each batch is tested three times<sup>[1]</sup>.

### References:

[1]. Hu B, et al. Enhancement of bile resistance in *Lactobacillus plantarum* strains by soy lecithin. *Lett Appl Microbiol.* 2015 Jul;61(1):13-9.

### CAIndexNames:

Lecithins

### SMILES:

O=P(OC[C@@H](COC(CCCCCCCCCCCCCC)=O)OC(CCCCCC/C=C\C/C=C\CCCCC)=O)(OCC[N+](C)(C)C)[O-]

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

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