

Synthetic Phospholipids

Designed for reproducibility.
Built for discovery.

Why choose Avanti Research™?

For decades, researchers worldwide have trusted Avanti Research™ for high-purity synthetic phospholipids designed to support reproducible, high-performance research. With defined compositions, controlled acyl chains, and rigorous quality standards, we provide the consistency scientists need to build reliable membrane models, optimize liposome and LNP formulations, and advance complex analytical workflows. Backed by one of the industry's most comprehensive phospholipid portfolios and deep expertise in lipid science, we help researchers move from early discovery to advanced applications with greater confidence and control.

Why synthetic phospholipids?



Defined composition

Controlled headgroups and acyl chains for reproducible systems.



Reliable performance

Consistent purity and batch-to-batch reliability for dependable results.



Research flexibility

Build membrane models, liposomes, LNPs, and analytical workflows with confidence.

Our phospholipid classes

Phosphatidylcholine (PC & Lyso PC)

Stable bilayer-forming phospholipids widely used in liposomes, model membranes, and LNP formulations due to their predictability and stability.

Phosphatidylethanolamine (PE & Lyso PE)

Curvature-promoting lipids essential for membrane fusion, endosomal escape, and nucleic acid delivery systems.

Phosphatidylserine (PS & Lyso PS)

Negatively charged phospholipids involved in apoptosis, coagulation, and immune signaling research.

Phosphatidylglycerol (PG & Lyso PG)

Commonly found in bacterial membranes and lung surfactant systems for respiratory and innate immunity studies.

PA, PI & PIPs

Critical signaling phospholipids involved in vesicular trafficking, growth signaling, and membrane dynamics.

Cardiolipins

Mitochondrial membrane phospholipid supporting respiratory chain activity and apoptosis regulation.

Specialty phospholipids

Includes Bis(Monoacylglycero)Phosphate (BMPs), ether phospholipids, oxidized lipids, and PAF analogues for advanced research workflows.



Research Applications

- Membrane biophysics
- Drug delivery & LNP formulation
- Structural biology
- Lipidomics
- And additional emerging applications across lipid science!



Scan to explore
the possibilities!

What will you build next?

Synthetic phospholipids from Avanti Research™ help researchers design membrane systems with precision, reproducibility, and confidence.



Non-warranty

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