

# Lipid Chemistry Capabilities

High-Purity Lipids, Expertly Synthesized



## Experience

- Highly skilled team with **over a decade of expertise** in lipid chemistry.
- Proficient in **linear, cyclic, and complex phosphoramidite-linked lipids** and **PEG linkers**.

## Synthesis & Analytical Capabilities

- **Custom synthesis** of scaffolds, expensive monomers, and final lipid compounds.
- Scale flexibility: **mg to multi-gram**, with capability to scale up to **Kg quantities**.
- Expertise in **aminolipids, cholesterol, and phospholipids**, covering molecular weight range **300–3500 Da**.
- Advanced characterization using **500 MHz NMR, GC-MS, and HRMS**.
- Cost optimization strategies for complex lipid projects.

## Polymer Chemistry

- Fully equipped to handle polymer chemistry, including larger molecules extended from lipids such as PEG-lipids.
- Established a platform for large-molecule synthesis with molecular weights 1500+ Da.
- Capability to design and synthesize functionalized polymers and lipid-polymer conjugates for advanced applications.

## Quality Control & Shipment

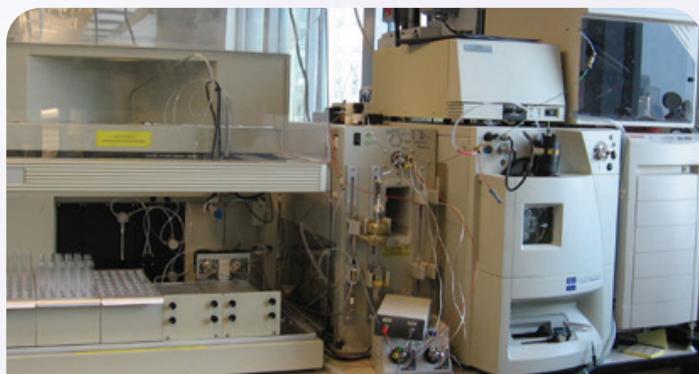
- Deliverables with **>95% purity** confirmed by **CAD analysis**.
- **No residual CH<sub>2</sub>Cl<sub>2</sub> or CHCl<sub>3</sub>**; absence of CHCl<sub>3</sub> verified via **<sup>1</sup>H NMR in CD<sub>3</sub>OD**.
- Comprehensive QC documentation provided with every shipment.
- **Cold-chain shipping** through **World Courier** for global delivery.

## Analysis & Purification

- **Method development** and purity analysis using **CAD coupled HPLC & SFC**.
- Quick screening and preparative scale-up with **reverse-phase and achiral SFC stationary phases**.
- **Mass-triggered purification** for accurate fractionation and high-purity yields.
- Purification from **mg to multi-gram or Kg scale**.



CAD detector



Preparative LC-MS system

## Why Aragen

- **Decade-plus experience** in complex lipids.
- **Expertise** in phosphoramidite and PEG linkers.
- Proven ability to deliver **high-purity lipids (>95%)** at any scale.
- Advanced analytical capabilities: **HPLC/SFC, mass-triggered fractionation, 500 MHz NMR, GC-MS, HRMS**.
- Commitment to **quality, scalability, and cold-chain logistics worldwide**.

From milligrams to kilograms high-purity lipids delivered under cold-chain, worldwide.

**Partner with us for precision, scalability, and reliability.**

