

## Product Showcase

**Browse [SigmaAldrich.com/Avanti](https://www.sigmaaldrich.com/Avanti) to explore more than 2,000 Avanti® Polar Lipids products with 99% purity.**

All products are manufactured by Avanti® Polar Lipids and backed by the same quality standards and informed techniques. Because they're available from MilliporeSigma, ordering is easy, inventory is reliable and support is always within reach.

- Phospholipids
- Natural and synthetic lipids
- Sphingolipids
- Sterols
- Fluorescent lipids
- Detergents
- Lipidomics
- Bioactive lipids
- Fatty acid modified lipids
- Headgroup modified lipids
- Coenzyme A and derivatives
- Stable isotopes and ESR probes
- Polymers and polymerizable lipids
- Cationic lipids (transfection)
- Neutral lipids
- Aurora® gold probes



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Polar Bear photo provided by: Kyriakos Kaziras



**Avanti®**  
POLAR LIPIDS, INC.  
**Lipidomics**

**Connecting Lipids, Technology  
and Cellular Biology**

The life science business of Merck KGaA, Darmstadt, Germany operates as MilliporeSigma in the United States and Canada.  
\*MilliporeSigma is the exclusive supplier of Avanti® Polar Lipids to customers in Canada.

# The Avanti® Mission

Whether you specialize in lipidomics or are new to the field, you know the critical role lipids play and the inherent challenges they present. You don't need to be a lipid specialist to know that you should order from one.

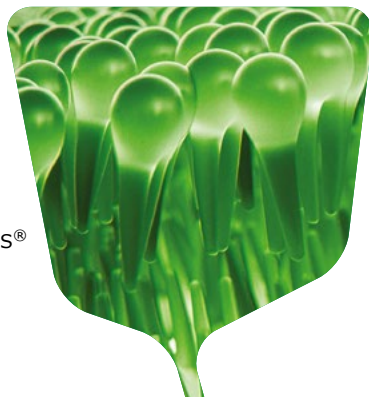
## Mass Spec Standards

Identifying the structure or determining the accurate concentration of each molecular species in mass spectrometry-based research requires well-defined internal standards. Whatever your application, Avanti® chemically pure synthetic lipid standards are available for your precise quantization or identification of major lipid classes, including glycerolipids, glycerophospholipids, sphingolipids, and sterols.

**Quantitative standards** are characterized and prepackaged in unit containers at defined concentrations. A detailed certificate of analysis accompanies each standard, and the stability is monitored by our QC staff.

**Qualitative standards** aid in the general identification of lipids by mass spec analysis.

Avanti® is the exclusive licensed manufacturer and supplier of LIPID MAPS® Mass Spec Standards for lipid analysis.



## Lipid Binding Antibodies

Studying the role of lipids as cofactors, agonists, or antagonists in cellular signaling events is increasingly common. Avanti® monoclonal antibodies are selected against bioactive lipids to detect the presence of these species or the downstream signals that they stimulate. Add them to your basic signaling and disease research.

**E06** discriminates between native LDL and OxLDL by binding to the phosphocholine headgroup of oxidized phospholipid that is present in OxLDL but is absent from native LDL.

**WR304** can be used to probe the presence of PIP and PIP2.

## Lipid Toolbox

### Build a Better Understanding of Lipid Functions

A lipid toolbox of integrated methodologies is essential in understanding the functional role of lipids in biological systems. Avanti® novel tools for probing protein-lipid interactions, enhanced systems for the cellular delivery of lipids, and robust assay kits are the perfect complement to your research.

**Lipid Snoopers®** nitrocellulose membranes or 8-well ELISA strips are ideal for investigating protein-lipid interactions.

**Huzzah®** improves the cellular delivery of lipid species through their conjugation with human serum albumin (HSA).

**CerS Assay Kit** is easy to use in measuring ceramide synthase (CerS) activity in biological samples.

And many more methodologies to build your lipid toolbox including:

- Monoclonal antibodies
- LIPID MAPS® mass spec standards

### Discover the following at [SigmaAldrich.com/Avanti](https://www.sigmaaldrich.com/Avanti)

- Storage and Handling of Lipids
- Fatty Acid Distribution
- Phase Transition Temperatures
- Miscibility of Phospholipid Binary Mixtures
- Ionization Constants of Phospholipids
- Critical Micelle Concentrations (CMCs)