Avanti Research
A CRODA BRAND

MERCK

research products

The Highest Purity Lipid Reagents

The Life Science business of Merck operates as MilliporeSigma in the U.S. and Canada.

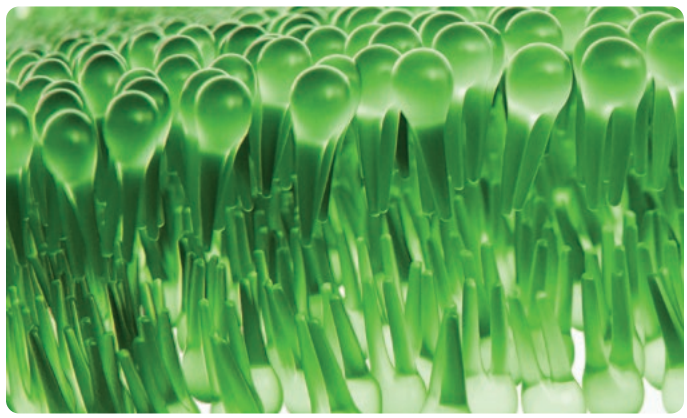
* Merck is the exclusive supplier of Avanti Research™ to customers outside the United States and Canada.

The Avanti Research™ 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.

Vision & Philosophy

The Avanti™ team is continually developing and enhancing solutions for your entire product cycle, while maintaining ethical standards. They provide the highest purity products so you can do amazing things. The exclusive global distribution agreement with Merck ensures customers outside of the United States also have easy access to Avanti™ products through the strong e-commerce and logistics capabilities of SigmaAldrich.com.



Immunotherapy & Vaccine Research

Vaccine adjuvants using heterogeneous monophosphoryl lipid A (MPL) derived from Salmonella minnesota R595 have proven to be safe and effective at inducing Th-1 type immune responses to heterologous proteins in animal and human vaccines. The Avanti Research™ team revolutionized immunotherapy and vaccine development with the introduction of synthetic MPL derivatives and adjuvant systems. We also offer multiple Avanti™ synthetic analogs of MPL containing a single molecular species that are as effective and safe at inducing an immune response as their natural product predecessor.

PHAD™, 3D-PHAD™, and 3D(6A)-PHAD™ adjuvants have been tested extensively in animals using a variety of antigens. In all cases, these adjuvants exhibit a similar activity and safety profile to bacterially derived MPL.

Monophosphoryl Lipid A (MPL) Adjuvants

Product	Description
699855P	3D-(6-acyl) PHAD™ Monophosphoryl Hexa-acyl Lipid A, 3-Deacyl (Synthetic), powder
890810C	18:0 DDAB Dimethyldioctadecylammonium (Bromide Salt), chloroform
890810P	18:0 DDAB Dimethyldioctadecylammonium (Bromide Salt), powder
699500P	Kdo2-Lipid A (KLA) Di[3-deoxy-D-manno-octulosonyl]-lipid A (ammonium salt), powder
699200P	Lipid A - Purified Lipid A Detoxified (Salmonella minnesota R595), powder
699851P	3A-MPLA Monophosphoryl Tri-acyl Lipid A (Synthetic), powder
699854P	4A-MPLA (isomer C3) Monophosphopdyl Tetra-acyl Lipid A, powder
699800P	MPLA (PHAD™) Monophosphoryl Lipid A (Synthetic) (PHAD™), powder
699852P	3D-PHAD™ Monophosphoryl 3-Deacyl Lipid A (Synthetic) Pat No. 9,241,988, powder
699810P	PHAD™-504 Monophosphoryl Lipid A-504, powder
890808P	22:0 Trehalose D-(+)-trehalose 6,6’- dibehenate, powder
890809P	Trehalose monooleate D-(+)-trehalose 6-monooleate, powder

Discover the following at 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)

Product Showcase

Browse SigmaAldrich.com/Avanti to explore more than 2,400 Avanti Research™ products with 99% purity. All products are manufactured by Avanti Research™ and backed by the same quality standards and informed techniques. Because they're available from Merck, 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

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Polar Bear photo provided by: Kyriakos Kaziras