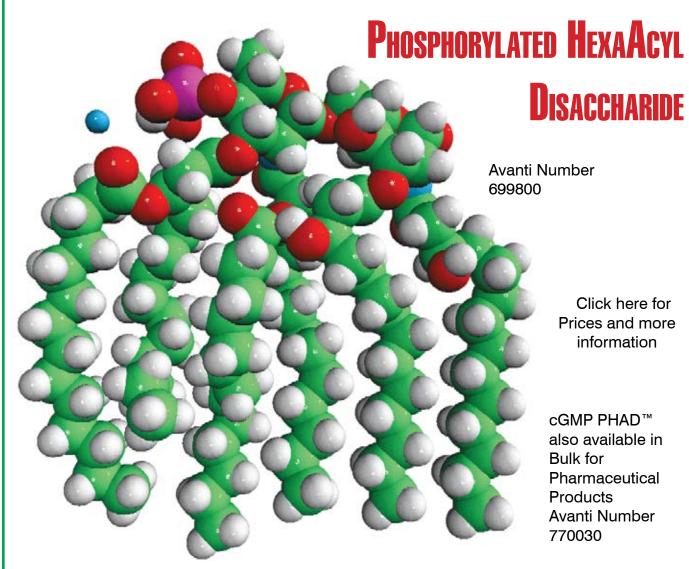
# Avanti's New Synthetic Vaccine Adjuvant

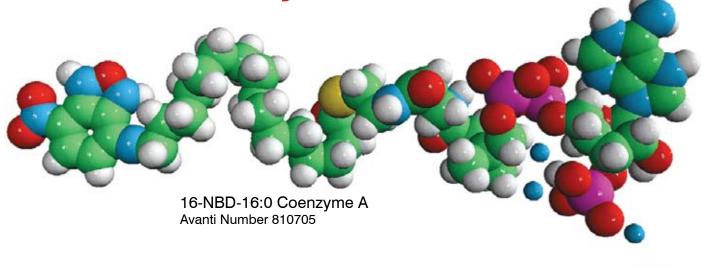


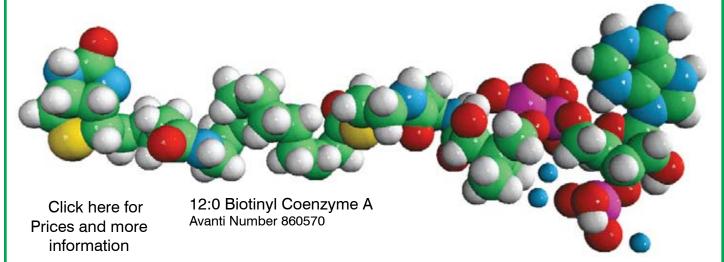
Vaccination is well-accepted as an effective method to prevent infections by mounting pathogen-specific immune responses prior to the infection. Usually, immunization with vaccine antigens alone is not able to induce robust or long-lasting immune responses — resulting in failure of protective immunity against infections. Thus, adjuvants are required to enhance cellular or humoral immune responses upon immunization. Because vaccine adjuvants using Lipid A have proven to be safe and effective in inducing Th-1 type immune responses to heterologous proteins in animal and human vaccines, we explored the use of Phosphorylated Hexa Acyl Disaccharide (PHAD™) as a potential adjuvant.

Avanti's adjuvant PHAD™, a synthetic replacement for monophosphoryl Lipid A, is being used in several Preclinical Trials

# New Bioactive Lipid Acyl Coenzyme A

No more tedious clean-up! >99% pure - right out of the bottle.
Only from Avanti®





#### Also in stock:

Free Acid Coenzyme A & Lithium Salt Coenzyme A. 03:0, 04:0, 06:0, 08:0, 10:0, 12:0, 14:0, 15:0, 16:0, 17:0, 17:1, 18:0, 18:0( $\alpha$  hydroxy), 18:1(n7, n9, & n12), 18:2, 18:3(n3, & n6), 19:0, 20:0, 20:4, 21:0, 22:0, 22:6, 23:0, 24:0, 24:1, 25:0, & 26:0 Acyl Coenzyme A. Pyrene Coenzyme A & 14:0 Ether Coenzyme A.

#### **New Products**

As always the Avanti scientists have been hard at work developing many exciting new lipids.

For the latest list

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# Preparation of Liposomes

### Mechanism of Vesicle Formation

Liposomes (lipid vesicles) are formed when thin lipid films or lipid cakes are hydrated and stacks of liquid crystalline bilayers become fluid and swell. The hydrated lipid sheets detach during agitation and self-close to form large, multilamellar vesicles (LMV) which prevents interaction of water with the hydrocarbon core of the bilayer at the edges. Once these particles have formed, reducing the size of the particle requires energy input in the form of sonic energy (sonication) or mechanical energy (extrusion).

## Method of Liposome Preparation

Properties of lipid formulations can vary depending on the composition (cationic, anionic or neutral lipid species); however, the same preparation method can be used for all lipid vesicles regardless of composition. The general elements of the procedure involve preparation of the lipid for hydration, hydration with agitation and sizing to a homogeneous distribution of vesicles.

Click here for more complete instructions

#### **Avanti Road Show**

- 43rd Southeastern Regional Lipid Conference Avanti will be Exhibiting November 5 - 7 Cashiers, NC
- Sphingolipid Club 7th Annual Meeting November 14 - 16
   Leiden, The Netherlands
- AAPS Annual Meeting and Exposition
   Avanti will be Exhibiting
   November 16 - 20
   Atlanta, GA

