

Avanti's Detergents for Membrane Protein Solubilization

• We have investigated the effect of ionic strength on the aggregation behavior of n-dodecyl phosphocholine. On the basis of the classical Corrin-Harkins relation, the critical micellar concentration of this detergent decreases with a biphasic trend on lithium chloride addition. It is nearly constant below 150 mM salt, with a mean value of 0.91 mM, whereas it undergoes a dramatic 80-fold decrease in 7 M LiCl. Such a drop in the critical micellar concentration could be explained by the effect of salting out and the implication of phosphocholine head groups on the organization of surrounding water. Knowledge of the effective critical micellar concentration of n-dodecyl phosphocholine could be useful in the purification of membrane proteins in non-denaturing conditions.

Palladino P, Rossi F, Ragone R. Effective critical micellar concentration of a zwitterionic detergent: a fluorimetric study on n-dodecyl phosphocholine. *J Fluoresc.* 2010 Jan;20(1):191-6.

• Vasudevan SV, Schulz J, Zhou C, Cocco MJ. Protein folding at the membrane interface, the structure of Nogo-66 requires interactions with a phosphocholine surface.

Proc Natl Acad Sci U S A. 2010 Apr 13;107(15):6847-51.

- Liang B, Tamm LK. Structure of outer membrane protein G by solution NMR spectroscopy. *Proc Natl Acad Sci U S A*. 2007 Oct 9;104(41):16140-5.
- Brunecky R, Lee S, Rzepecki PW, Overduin M, Prestwich GD, Kutateladze AG, Kutateladze TG. Investigation of the binding geometry of a peripheral membrane protein.

Biochemistry. 2005 Dec 13;44(49):16064-71.

continued overleaf

Pure Lipid Detergents



Avanti Number 850500

HOW!! HOW!! OH

OH

Also in Stock: CHAPSO & LDAO

BRANCHED CHAIN DETERGENTS

MAL-12.1 HO HO OH Avanti Number 850529

Also in Stock: MAL-11.1 & MAL-11.2

NONIONIC DETERGENTS

10 MAG Avanti Number 850544 ОН

Also in Stock:

MEGA-8 MEGA-9 Facade®-EM Fa

GA-9 MEGA-10 Facade®-TEM GDN DDM Facade®-TEG

OGP Facade®-EPC NGP Facade®-TFA1

LIPID MESOPHASE CRYSTALLIZATION

18:0 Dibromo MG Avanti Number 860777 Br Br O OHO H

Also in Stock: 7.7 MAG, 7.8 MAG, 7.9 MAG, 8.6 MAG, 8.7 MAG, 8.8 MAG, 8.9 MAG & 9.7 MAG and (2S,3S)-Phytantriol & Phytantriol (mixed isomers)

ANIONIC DETERGENTS

CHEMS Avanti Number 850524

H

Also from Avanti: SHORT CHAIN PC LYSO PC LYSO PG



www.avantilipids.com

Phone: 800-227-0651 Email: info@avantilipids.com













