

# JBScreen Detergents 1

## A Supplement for JBScreen Membrane

**JBScreen Detergents** can be used throughout the protein purification process or can be added afterwards by dialysis or ion-exchange chromatography (detergent exchange). Detergent exchange can be vital for obtaining well-diffracting membrane-protein crystals<sup>1</sup>. The **JBScreen Detergents** kits are also valuable for additive screening with detergents and detergent mixtures<sup>2,3</sup> in combination with the **JBScreen Membrane** kit.

Each **JBScreen Detergents** kit contains 12 detergents, supplied as stock solution at 5 or 10 times the reported CMC (Critical Micellar Concentration).

The recommended final detergent concentration in a hanging-drop experiment (prior to equilibration) is 1 to 3 x the CMC.

Storage: 4 °C

- [1] Rosenow *et al.* (2003) The influence of detergents and amphiphiles on the solubility of the light harvesting complex. *Acta Cryst.* **D59**, 1422.  
 [2] JAdir (1999) Crystallization of the oxygen-evolving reaction centre of photosystem II in nine different detergent mixtures. *Acta Cryst.* **D55**, 891.  
 [3] Koronakis *et al.* (2000) Crystal structure of the bacterial membrane protein TolC central to multidrug efflux and protein export. *Nature* **405**, 914.

No.	Detergent	CMC (mM)	conc. stock solution (mM) (5 or 10 x CMC)	Amount
D 1 - 1	3-(N,N-Dimethylpalmitylammonio)propane-sulfonate (ZWITTERGENT®3-16)	0.06	0.6	100 µl
D 1 - 2	Nonaethylene glycol monododecyl ether (C12E9)	0.08	0.8	100 µl
D 1 - 3	Octaethylene glycol monododecyl ether (C12E8)	0.11	1.1	100 µl
D 1 - 4	Dodecyl-β-D-glucopyranoside	0.13	1.3	100 µl
D 1 - 5	3-(N,N-Dimethylmyristylammonio)propane-sulfonate (ZWITTERGENT®3-14)	0.4	4	100 µl
D 1 - 6	Dodecyl- β -D-maltoside	0.6	6	100 µl
D 1 - 7	Decyl- β -D-maltopyranoside	1.8	18	100 µl
D 1 - 8	N,N-Dimethyldodecylamine N-oxide (LDAO)	2.0	20	100 µl
D 1 - 9	3-(Dodecyldimethylammonio)propane-sulfonate (ZWITTERGENT® 3-12)	4.0	40	100 µl
D 1 - 10	Nonyl- β -D-glucopyranoside	6.5	65	100 µl
D 1 - 11	N-Decanoyl-N-methylglucamine (MEGA-10)	7.0	70	100 µl
D 1 - 12	Tetraethylene glycol monoethyl ether (C8E4)	7.0	70	100 µl

**JBScreen Membrane & JBScreen Detergents:  
A Winning Combination!**