

## Reconstitution of LH2 in liposomes

Egg PC (20 mg) was dissolved in 1 ml of chloroform. Bath sonicate for a few minutes

The solvent was evaporated under a flow of dry nitrogen gas for several hours. If you can do it under vacuum it is better.

After adding buffer A (10 mM Tris-HCl (pH 8.0), 400 mM NaCl), resulting in a lipid concentration of 2.5 mg/ml, the hydrated films were sonicated in a bath sonicator for at least 15 min. All the big chunks of lipids will have disappeared

The solution was freeze-thawed. Place in liquid nitrogen and then let it thaw to room temperature. You can also take a baker with warm water if you do not want to wait

Then sonicated with a microtip sonicator (Sonics & Materials Inc., Danbury, CT) until it was almost transparent. You need a good bath sonicator or a tip sonicator

Freeze-thaw again the solution at least for three times.

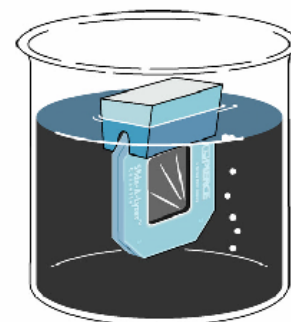
LH2 from *Rps.acidophila*, strain 10050, complexes were diluted to 5 mg/ml in buffer B (10 mM Tris-HCl (pH 8.0), 400 mM NaCl, 0.6% LDAO).

The protein solution was added to the lipid solution at a lipid-to-protein ratio of 0.4 (w/w).

The solution was further diluted twofold with detergent-free buffer, buffer A.

The mixed solution was freeze-thawed once again and transferred to dialysis cassettes<sup>1</sup>.

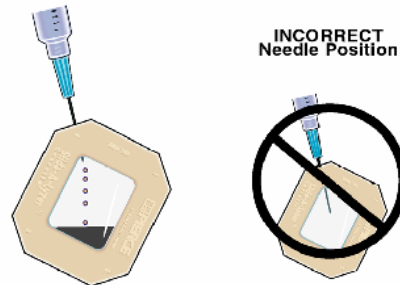
You first hydrate the cassette for 30 sec.



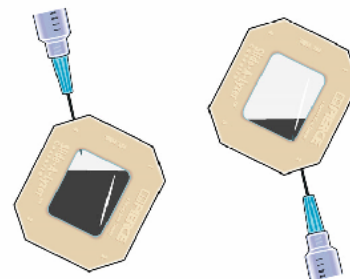
**Figure 1.** Membrane hydration

<sup>1</sup> <http://www.piercenet.com/resources/browse.cfm?fldID=0A2CDD8E-26CD-4719-A6A8-9A60DA35F970>

Add the solution. Note with of the four corners you will inject the solution.



It was dialyzed against 1.5 liters with detergent-free buffer for 4 days at 4 C in the dark. You need to steer the solution. And then remove the solution from the cassette.



**Figure 3.** Sample removal

The dialysis buffer was renewed two times. Otherwise the process will stop.

### Materials

Egg phosphatidylcholine (egg PC) was purchased from Avanti Polar Lipids (Alabaster, AL), Lauryldimethylamine N-oxide (LDAO) from Fluka (Buchs, Switzerland). 500-m l Slide-A-Lyzer dialysis cassettes with a cutoff of 10 kDa were purchased from Pierce (Rockford, IL). All other chemicals were purchased from Sigma Chemicals (Western, Australia). The protein concentration was determined from the absorbance at 850 nm, using an extinction coefficient per Bchl of 382 mM 13 cm<sup>1</sup> and a value of 129 kDa for the molecular weight of the LH2 complex.