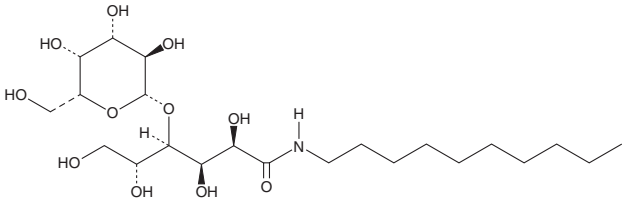
PRODUCT INFORMATION

DLAC

Item No. 24780



CAS Registry No.:	70803-56-4
Formal Name:	N-decyl-4-O-β-D-galactopyranosyl-D-gluconamide
MF:	$C_{22}H_{43}NO_{11}$
FW:	497.6
Purity:	≥97%
Supplied as:	A powder
Storage:	-20°C
Stability:	≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

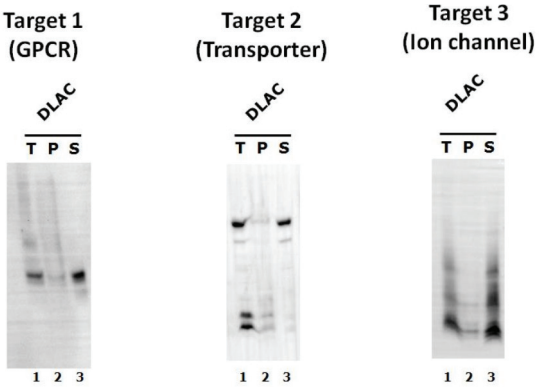
Laboratory Procedures

DLAC is supplied as a powder. A stock solution may be made by dissolving the DLAC in the solvent of choice, which should be purged with an inert gas. DLAC is soluble in organic solvents such as methanol and DMSO. DLAC is also soluble in water at a concentration of approximately 65 mM. We do not recommend storing the aqueous solution for more than one day.

Description

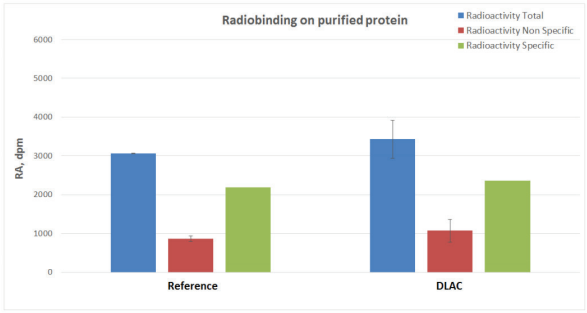
DLAC is a detergent synthesized from lactobionic acid.[1,2] It can be used to solubilize membrane proteins and has a critical micelle concentration (CMC) of 1.3 mM.

Images



Membrane proteins solubilization.

The 3 targets were extracted from Sf9 membranes (GCPR), E. coli membranes (Transporter) and mammalian membranes (ion channel) by using DLAC reagent at 10-fold the critical micelle concentration (cmc). After solubilization, samples were centrifuged at 100000g. Proteins from pellets (P) and supernatants (S) were separated on a 4-15% Tris-glycine SDS-PAGE, transferred to PVDF membrane and immunodetected with a specific antibody
T = total, P = pellet, S = supernatant.



Binding of radioligand on GPCR protein, purified in reference detergent or in DLAC.

Purified protein was incubated with radioligand in absence (total, blue bars) or presence (Non Specific signal, red bars) of an excess of cold ligand. After filtration on GF/C membranes and washing, scintillation agent was added and radioactivity was detected using a Microbeta2. Specific radioactivity (green bars) corresponds to (total signal) – (non-specific signal).

References

1. El Ghoul, M., Escoula, B., Rico, I., *et al. J. Fluorine Chem.* **59(1)**, 107-112 (1992).
2. Lebaupain, F., Salvay, A.G., Oliver, B.B., *et al. Langmuir* **22(21)**, 8881-8890 (2006).

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