

# Product Data Sheet

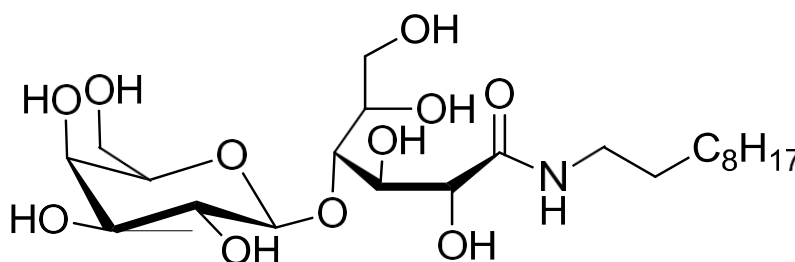
## DLAC

### Information

#### PRODUCT DETAILS

Compound Name	DLAC
Catalog Numbers	40-D203P-250MG
Category	Mild detergent
Physical State	White powder
Purity (HPLC, 230 nm)	97%
Molecular Formula	C <sub>22</sub> H <sub>43</sub> NO <sub>11</sub>
Retention time (RP <sub>18</sub> HPLC)	10.6 min
CAS	n/a
CMC	1.3 mM
MW	497.6 g/mol
Exact Mass	497.2836 g/mol
pKa	n/a
Percent Composition	C, 53.1; H, 8.71; N, 2.81; O, 35.37
Stability	Store at -20 °C, out of direct light for a long-term storage
Solubility	Soluble in methanol, DMSO and water (>100 mM)

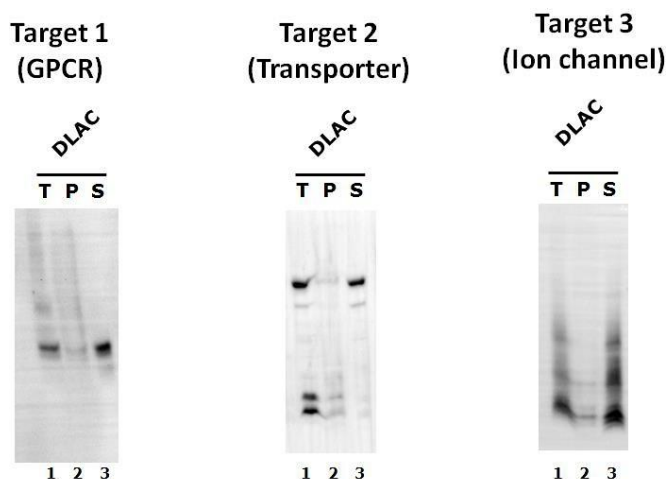
#### Structure



## Recommendations for Use

For membrane proteins solubilization, Eurofins CALIXAR proprietary mild detergents are typically used at a final concentration of 20 mM. This concentration over 2x CMC (critical micelle concentration) ensures micelles formation and enough detergent to solubilize isolated membranes at a final total protein concentration of 5 mg/mL.

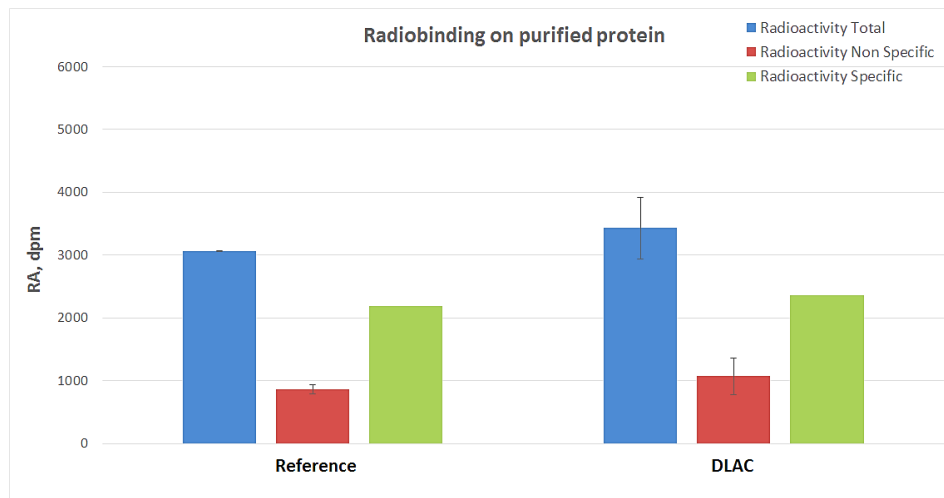
## Biochemical Validation



**Figure 1: Membrane proteins solubilization by DLAC reagent.**

The 3 targets were extracted from Sf9 membranes (GPCR), 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.



**Figure 2: 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

- Lebaupain et al., Langmuir, 2006, 22 (21), pp 8881–8890

## Additional Information

### Restricted use: Limited Use Label License

The purchase of this product conveys to the purchaser the limited, non-transferable right to use the purchased amount of the product and progeny, to perform internal research and development for the sole benefit of the purchaser.

### Safety

Not known as a hazardous substance or mixture. General industrial hygiene practices must be followed as the use of adapted personal protective equipment for skin and body.

### Technical support

For additional product and technical information email our Technical Support team at [contact@calixar.com](mailto:contact@calixar.com).

### Limited product warranty

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