

## TECHNICAL DATA SHEET – CALX8

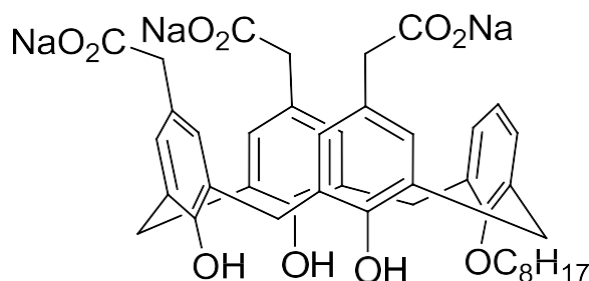
### CALX8

5,11,17-tris[(carboxy)methyl]-25-monoctyloxy-26,27,28-trihydroxycalix[4]arene

2021

#### Information

<b>Compound Name</b>	CALX8	<b>Physical state</b>	Beige powder
<b>Catalogue Number</b> <i>(check availability on CALIXAR's website)</i>	CALX8_50MG, CALX8_100MG, CALX8_250MG	<b>Purity (HPLC, 230nm)</b>	95%
<b>Molec. Formula</b>	$C_{42}H_{43}Na_3O_{10}$	<b>Retention time (RP<sub>18</sub> HPLC)</b>	17.75 min
<b>CAS</b>	nd	<b>CMC</b>	2.2 mM
<b>MW</b>	776.7 g/mol	<b>Exact Mass</b>	776.2549 g/mol
<b>pKa</b>	na		
<b>Percent composition</b>	C, 64.94; H, 5.58; N, 8.88; O, 20.60		
<b>Stability</b>	Store in <-20°C freezer out of direct light		
<b>Solubility</b>	Soluble in methanol, DMSO and water.		
<b>Structure</b>			



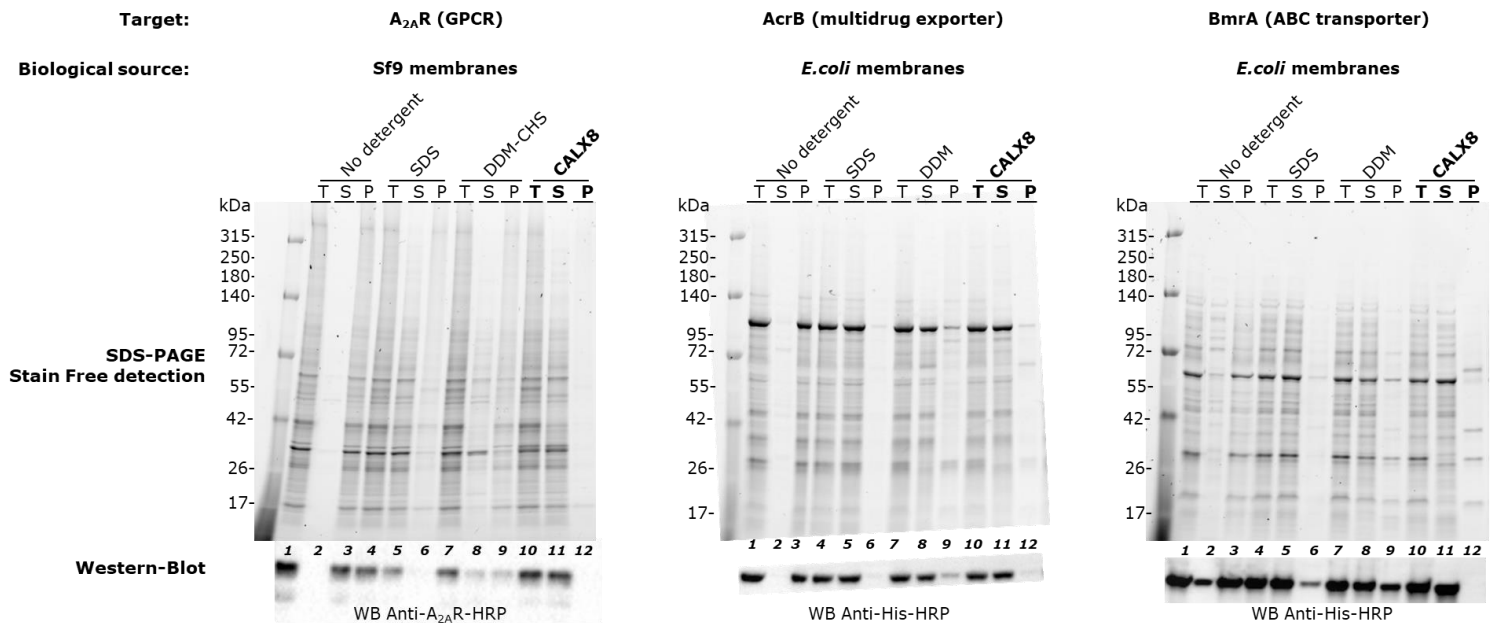
#### References

- 1- Desuzinges Mandon E. et al. Novel systematic detergent screening method for membrane proteins solubilization. *Anal Biochem.* 2017 Jan 15; 517:40-49
- 2- Flore Geillon et al. Peroxisomal ATP-binding cassette transporters form mainly tetramers. *JBC article.* 2017 March ; 292(17) 6965–6977

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### Biochemical Validation Data

**CALX8 solubilizes eukaryotic and prokaryotic membrane proteins with near total efficiency including GPCRs and transporters.**

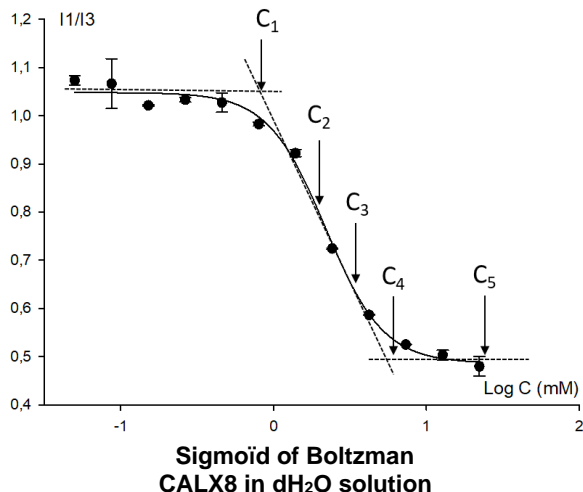


### Membrane proteins solubilization by CALX8 reagent.

The target was extracted from isolated membranes by using 20 mM CALX8. After solubilization, samples were centrifuged at 150,000  $xg$  for 15 min. Proteins from pellets (P) and supernatants (S) were separated on BioRad 4-20% TGX gel by SDS-PAGE, transferred to LF-PVDF membrane and immunodetected with a specific antibody. T= total, P= pellet, S= supernatant.

### CMC Determination Data

Measurements of fluorescence with pyrene as probe at various concentrations of CALX8 in water for the determination of critical micelle concentration<sup>1</sup>.

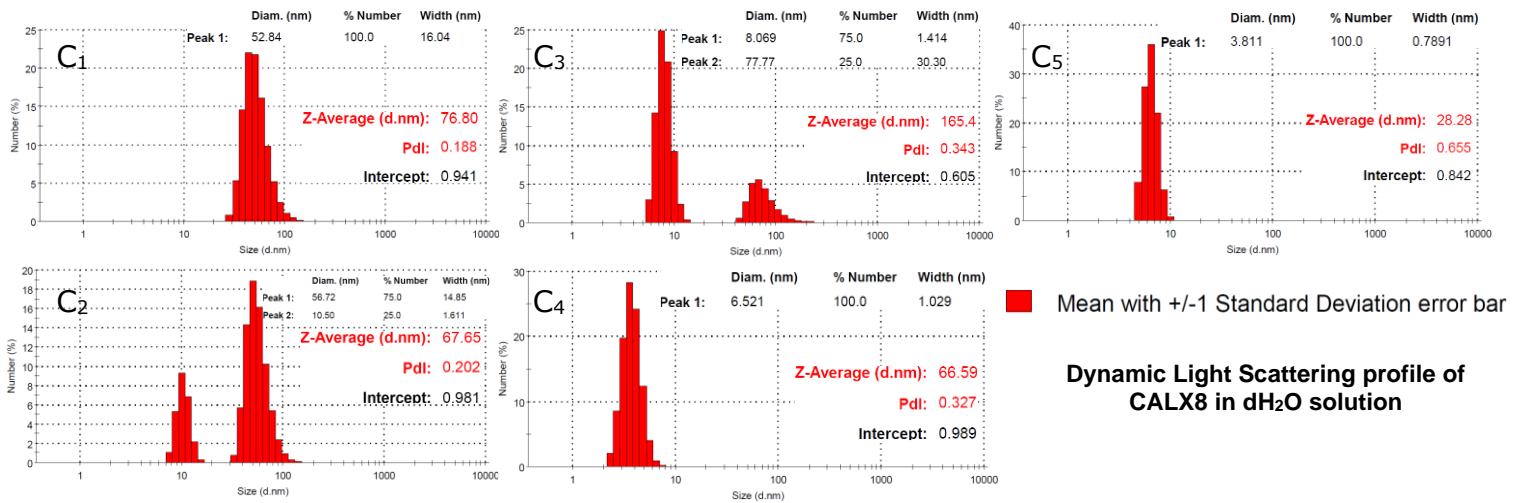


Measurements of particle dispersions of CALX8 in solution with MilliQ water by dynamic light scattering (Malvern Zetasizer Nanoseries Nano-S) at concentrations  $C_1$  to  $C_5$  corresponding, respectively, to different points on x-line of the curve besides.

- $C_1$ : intersection between the top plate and the tangent of sigmoid
- $C_2$ : center of the sigmoid
- $C_3$ :  $(C_2 + C_4)/2$
- $C_4$ : intersection between the bottom plate and the tangent of sigmoid
- $C_5$ : concentration 2 times greatest than  $C_4$

<sup>1</sup>. Aguiar, P. Carpena, J.A. Molina-Bolivar and C.C. Ruiz, *J. Coll. Inter. Sci.*, **2003**, 258, 116-122.

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CMC (H<sub>2</sub>O): 2,191 ± 0,023 mM  
(0,176 ± 0,009 % wt.)

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