

TECHNICAL DATA SHEET – DDG

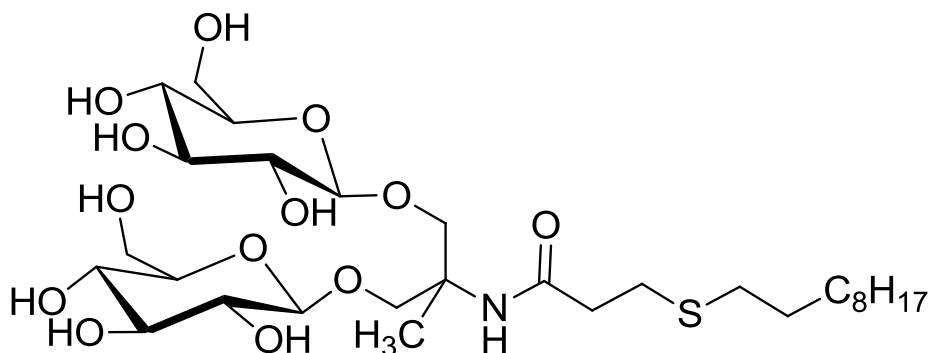
DDG

N-(2-methyl-1,3-bis(*O*-β-*D*-Glucose)propan-2-yl)-3-(decylthio)propanamide

2018

Information

Compound Name	<i>DDG</i>	Physical state	<i>White powder</i>
Catalogue Number	<i>DDG_250MG, DDG_500MG, DDG_1G</i>	Purity (HPLC, 214nm)	≤95%
Molec. Formula	<i>C₂₉H₅₅NO₁₃S</i>	Retention time (RP₁₈ HPLC)^b	<i>t_R = 14.6 min</i>
CAS	<i>nd</i>	CMC	<i>0.54 mM</i>
MW	<i>657.8 g/mol</i>	Exact Mass	<i>657.3394</i>
pKa	<i>na</i>		
Percent composition	<i>C, 52.95; H, 8.43; N, 2.13; O, 31.62; S, 4.87</i>		
Stability	<i>Store in <-20°C freezer for up to one year</i>		
Solubility	<i>Soluble in water (27mM), methanol and DMSO.</i>		
Structure			



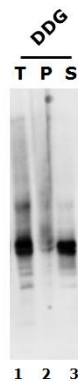
References

- 1- *Abla M et al. J Colloid Interface Sci 445: 127 (2015)*
- 2- *Abla M et al. J Org Chem 73: 8142 (2008).*
- 3- *Breyton C et al. J Biol Chem 288: 30763 (2013)*
- 4- *Abla M et al. J Fluorine Chem 134: 63 (2012).*

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Biochemical Validation Data

**Target 1
(GPCR)**



**Target 2
(Ion channel)**

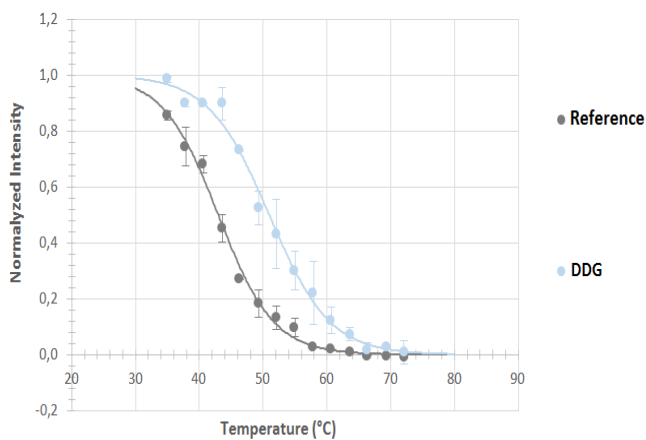


Membrane proteins solubilization.

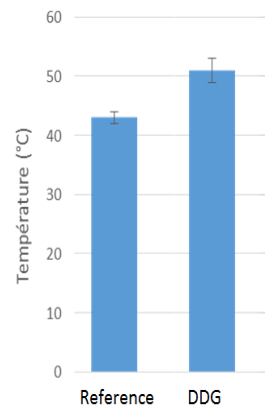
The 2 targets were extracted from Sf9 membranes (GPCR) or mammalian membranes (ion channel) by using DDG reagent at 10-fold the critical micelle concentration (cmc). After solubilization, samples were centrifuged at 100000g. Proteins from pellets (P) and supernatants (S) were separated on a 4-15% Tris-glycine SDS-PAGE, transferred to PVDF membrane and immunodetected with a specific antibody.

T = total, P = pellet, S = supernatant.

Thermostability curves



T_m



Stabilization of GPCR target

The GPCR protein was extracted using either reference detergent or DDG and heated at different temperatures for 30 min. After centrifugation at 20000g for 40 min, samples were separated on a 4-15% Tris-glycine SDS-PAGE, transferred to PVDF membrane and immunodetected with a specific antibody. Band intensity was measured and the resulting graph allowed T_m estimation.

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