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A Geno Technology, Inc. (USA) brand name

# DDG

**(Cat. # 786-1502, 786-1503, 786-1504 & 786-1505)**



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## ITEM(S) SUPPLIED

Cat. #	Description	Size
786-1502	DDG	100 mg
786-1503	DDG	250 mg
786-1504	DDG	500mg
786-1505	DDG	1 g

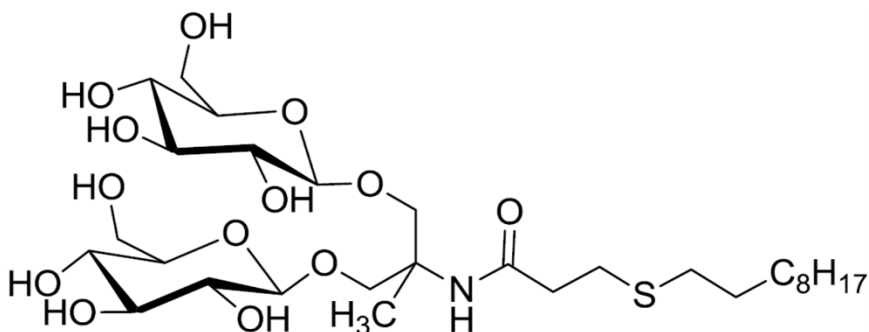
## REAGENT INFORMATION

- Compound Name: DDG
- IUPAC Name: N-(2-methyl-1,3-bis(O-β-D-Glucose)propan-2-yl)-3-(decylthio)propanamide
- Application: Membrane Protein Extraction
- Molecular Formula: C<sub>29</sub>H<sub>55</sub>NO<sub>13</sub>S
- Molecular Weight: 657.8 g/mol
- Percent composition: C, 52.95; H, 8.43; N, 2.13; O, 31.62; S, 4.87
- Physical state: White powder
- Purity (HPLC, 214nm): <95%
- Retention Time (RP<sub>18</sub> HPLC): t<sub>R</sub> = 14.6 min
- Critical Micelle Concentration: 0.54mM

## STORAGE AND HANDLING

- Storage conditions: Store in <-20°C freezer for up to one year
- Solubility: Soluble in water (27mM), methanol and DMSO.

## STRUCTURE

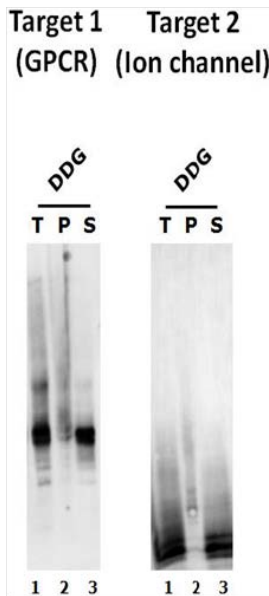


## BIOCHEMICAL VALIDATION DATA

### Membrane proteins solubilization.

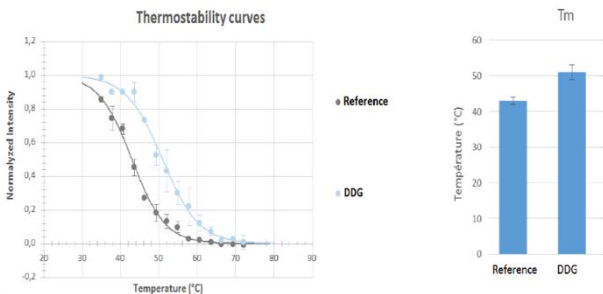
The 2 targets were extracted from Sf9 membranes (GPCR) or mammalian membranes (ion channel) by using DDG reagent at 10-fold the critical micelle concentration (cmc). After solubilization, samples were centrifuged at 100000g. Proteins from pellets (P) and supernatants (S) were separated on a 4- 15% Tris-glycine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

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



### 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.



## REFERENCES

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

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