

NG Class



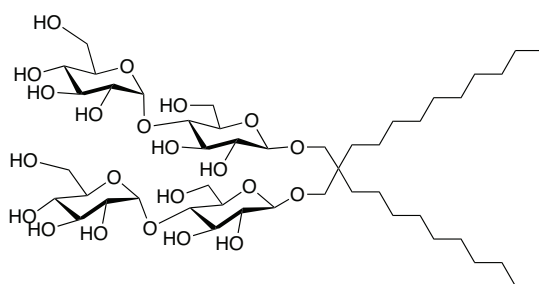
Conventional detergents like DDM, DM, and OG have been indispensable for labs studying membrane proteins for over 20 years. Now Anatrace® offers an alternative that could improve protein structural stability and increase the likelihood of crystallization. The Anatrace NG class detergents are modeled after the most popular alkyl glycoside detergents. Architecturally, the difference lies where the carbon attaches to the ether linkage. The design converts the carbon from a standard, secondary bonding configuration to a quaternary configuration with two sugar head groups and two alkyl chains bonded to it.

This distinctive design gives the Anatrace NG detergents unique benefits and characteristics compared to conventional derivatives like DDM, DM, and OG:

- ★ Lower CMC values
- ★ Increased protein stability after dilution below CMV values
- ★ Stabilization of the first ligand bound GPCR leading to its structure

As with other detergents, our NG class detergent performance will vary with each membrane protein. To see which works the best for your research, we recommend you run parallel experiments with your current conventional detergent and the corresponding new Anatrace NG detergent. Simply use the same concentration and protocol, and then compare the results.

FIG. 1. LAURYL MALTOSE NEOPENTYL GLYCOL



New NG with two hydrophilic heads and two lipophilic tails built around a central quaternary carbon.

PROD. NO.	DESCRIPTION	COMPARABLE CONVENTIONAL DETERGENT
NG310	Lauryl Maltose Neopentyl Glycol	Dodecyl Maltoside (Prod. No. D310)
NG311	Octyl Glucose Neopentyl Glycol	Octyl Glucoside (Prod. No. O311)
NG318	Lauryl Glucose Neopentyl Glycol	Dodecyl Glucoside, Anagrade® (Prod. No. D318)
NG321	Decyl Glucose Neopentyl Glycol	Decyl Glucoside, Anagrade (Prod. No. D321)
NG322	Decyl Maltose Neopentyl Glycol	Decyl Maltoside (Prod. No. D322)
NG325	CYMAL®-5 Neopentyl Glycol	CYMAL-5, Anagrade (Prod. No. C325)
NG326	CYMAL-6 Neopentyl Glycol	CYMAL-6, Anagrade (Prod. No. C326)
NG327	CYMAL-7 Neopentyl Glycol	CYMAL-7, Anagrade (Prod. No. C327)

Anatrace and CYMAL are registered trademarks of Anatrace Products, LLC. The CYMAL detergents are covered by US Patent 5,674,987 and US Patent 5,763,586.