

Product Data Sheet

Product Name: MEGA-10

Cat. No.: GC44151

Chemical Properties

Cas. No. 85261-20-7

Chemical Name 1-deoxy-1-[methyl(1-oxodecyl)amino]-D-glucitol

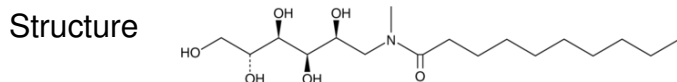
SMILES OC[C@@H](O)[C@@H](O)[C@H](O)[C@@H](O)CN(C)C(CCCCCCCCCC)=O

Formula C₁₇H₃₅NO₆ M.Wt 349.5

Solubility 1mg/mL in ethanol, 30mg/mL in DMSO or in DMF Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.



Background

MEGA-10 is a nonionic detergent that can be used to solubilize membrane proteins. [1] It has a critical micelle concentration (CMC) of 4.88 mM under no salt conditions, which decreases in the presence of sodium chloride. [2] MEGA-10 has been used to reconstitute amino acid transporters from rat liver plasma membrane vesicles into artificial phospholipid membranes. [3] It has also been used to solubilize the melibiose transport carrier from E. coli membranes and reconstitute it into liposomes. [4]

Reference:

[1]. Hildreth, J.E.K. N-D-Gluco-N-methylalkanamide compounds, a new class of non-ionic detergents for membrane biochemistry. Biochem. J. 207(2), 363-366 (1982).

[2]. Molina-Bolívar, J.A., Hierrezuelo, J.M., and Carnero Ruiz, C. Self-assembly, hydration, and structures in N-decanoyl-N-methylglucamide aqueous solutions: Effect of salt addition and

Caution: Product has not been fully validated for medical applications. For research use only.

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temperature. J. Colloid. Interface Sci. 313(2), 656-664 (2007).

[3]. Quesada, A.R., and McGivan, J.D. A rapid method for the functional reconstitution of amino acid transport systems from rat liver plasma membranes. Partial purification of System A. Biochem J. 255(3), 963-969 (1988).

[4]. Hanatani, M., Nishifuji, K., Futai, M., et al. Solubilization and reconstitution of membrane proteins of Escherichia coli using alkanoyl-N-methylglucamides. J. Biochem. 95(5), 1349-1353 (1984).

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