

# PRODUCT INFORMATION



## Hexadecyl Methyl Glycerol

Item No. 60930

CAS Registry No.: 96960-92-8

Formal Name: 1-O-hexadecyl-2-O-methyl-sn-Glycerol

Synonym: HMG

MF: C<sub>20</sub>H<sub>42</sub>O<sub>3</sub>

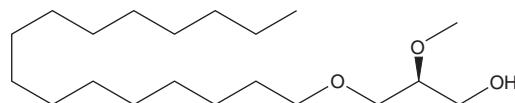
FW: 330.6

Purity: ≥98%

Supplied as: A solution in ethanol

Storage: -20°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Hexadecyl methyl glycerol (HMG) is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO or dimethyl formamide purged with an inert gas can be used. The solubility of HMG in these solvents is approximately 8.3 mg/ml.

HMG is sparingly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

### Description

HMG is an ether-linked structural analog of diacylglycerol (DAG), the natural activator of protein kinase C. HMG is a synthetic DAG with a hexadecyl chain at the *sn*-1 position and a methyl group at the *sn*-2 position. It inhibits protein kinase C (PKC) activity in human neutrophils, resulting in prevention of the respiratory burst induced by both phorbol 12,13-dibutyrate and fMLP.<sup>1</sup> In intact cells, 125 μM HMG inhibits PKC activity by 85-90%. In cell-free systems, HMG does not effect the activity of cAMP-dependent or Ca<sup>2+</sup>/calmodulin protein kinases but selectively inhibits PKC in a concentration-dependent manner.<sup>1</sup>

### Reference

1. Kramer, I.M., van der Bend, R.L., Tool, A.T.J., et al. 1-O-hexadecyl-2-O-methylglycerol, a novel inhibitor of protein kinase C, inhibits the respiratory burst in human neutrophils. *J. Biol. Chem.* **264**, 5876-5884 (1989).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 - USA

PHONE: [800] 364-9897  
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM