

PRODUCT INFORMATION



MEL-C

Item No. 34660

Formal Name: (2R,3S,4S,5R,6R)-5-acetoxy-6-(hydroxymethyl)-2-((2S,3R)-2,3,4-trihydroxybutoxy)tetrahydro-2H-pyran-3,4-diyl dipropionate

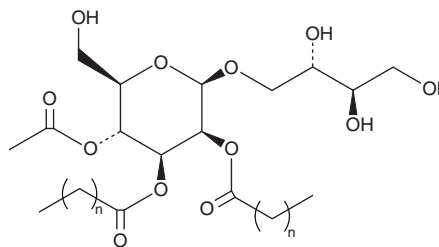
Synonym: Mannosylerythritol Lipid C

Purity: ≥95% (mixture of congeners)

Supplied as: A neat solid

Storage: -20°C

Stability: ≥4 years



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

Laboratory Procedures

MEL-C is supplied as a neat solid. A stock solution may be made by dissolving the MEL-C in the solvent of choice, which should be purged with an inert gas. MEL-C is sparingly soluble (1-10 mg/ml) in ethanol and DMSO.

Description

MEL-C is a glycolipid biosurfactant that is produced from vegetable oils by *Pseudozyma* yeasts.¹ Mixtures of MEL-C isoforms have been used as moisturizing agents in cosmetics and have antioxidant activity.^{2,3} They also spontaneously form giant unilamellar and multilamellar vesicles.⁴ This product is a mixture of MEL-C isoforms with variable fatty acid chain lengths.

References

1. Mawani, J., Jadhav, J., and Pratap, A. Fermentative production of mannosylerythritol lipids using sweetwater as waste substrate by *Pseudozyma antarctica* (MTCC 2706). *Tenside. Surf. Det.* **58(4)**, 246-258 (2021).
2. Morita, T., Fukuoka, T., Imura, T., et al. Production of mannosylerythritol lipids and their application in cosmetics. *Appl. Microbiol. Biotechnol.* **97(11)**, 4691-4700 (2013).
3. Takahashi, M., Morita, T., Fukuoka, T., et al. Glycolipid biosurfactants, mannosylerythritol lipids, show antioxidant and protective effects against H₂O₂-induced oxidative stress in cultured human skin fibroblasts. *J. Oleo. Sci.* **61(8)**, 457-464 (2012).
4. Kitamoto, D., Ghosh, S., Ourisson, G., et al. Formation of giant vesicles from diacylmannosylerythritols, and their binding to concanavalin A. *Chem. Commun.* 861-862 (2000).

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.

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