

PRODUCT DATA SHEET

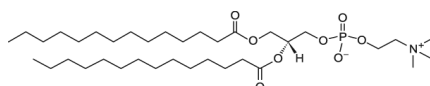
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DMPC (1,2-Dimyristoyl-sn-glycero-3-phosphocholine) (14:0 PC)

Cat. No.: IAX-700-400

Lot. No.:

Formula



Molecular Formula C₃₆H₇₂NO₈P

Size 50mg / 1g

MW 677.9

CAS 18194-24-6

Purity >98%

Application

1,2-Dimyristoyl-sn-glycero-3-phosphocholine (DMPC) is a synthetic phospholipid utilized in liposomes and lipid bilayers for the study of biological membranes. Its utility extends to investigating the influence of lipids on enzymatic activity and protein function when formulated into nanodiscs, LNP or liposomes. Phosphatidylcholines are zwitterionic phospholipids containing choline as part of the polar head group. At physiological pH, phosphocholine has an overall neutral charge. Furthermore, this compound has proven valuable in exploring the interplay between lipids and proteins, elucidating their interactions, and unraveling the impact of lipids on protein structure and functionality.

Formulation

Lipodisq[™] are nanosized lipid-based discoidal particles that can be manufactured with P(SMA)/SMALP and lipids such as DMPC (1,2-Dimyristoyl-sn-glycero-3-phosphocholine) (14:0 PC) (DMPC: IAX-700-400) to incorporate hydrophobic, poorly water-soluble active compounds, such as peptides, lipids, lipoproteins, transmembrane proteins and glycolipids. Applications of Lipodisq[™] include functional and structural characterisation of the cargo and drug delivery with improved bioavailability, and biological half-life in vivo (PD/PK) or delivery of antigens preserved in their native conformation for immunization purposes.

Appearance

White powder

Handling

Keep dry. Avoid skin and eye contact.

Shipping

Blue Ice or ambient

Storage

-15-25°C

Stability

Upon receipt, store product at -15-25°C. In its unopened original vial, the product is stable for at least 24 months when stored at -15-25°C. Once the glass vial is opened, or an emulsion is prepared in sterile, endotoxin-free ddWater (IAX-900-902) and aliquoted into sterile vials under sterile conditions, the lipid emulsion (e.g. at 2.5%) remains stable for an additional one week when stored at 2-8°C and kept sterile.

Solubility

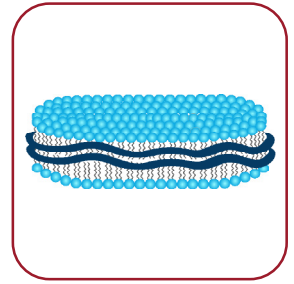
Insoluble in water and DMSO. Soluble in Ethanol, Methanol and Chloroform

MSDS

Available on request

Document No.: IAX-700-400 | **Version:** 1.2 | **Issue Date:** 30/10/2024

DISCLAIMER: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN, DIAGNOSTICS, OR VETERINARY USE. THIS PRODUCT IS FOR RESEARCH USE ONLY (RUO).
MATERIAL SAFETY DATA: This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, inhale or allow to enter the bloodstream. Avoid contact with the eyes, or the skin, or clothing. Wash thoroughly after handling. Access to this material must be restricted to personnel, who are appropriately experienced, qualified, competent, and properly trained to use it.



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Related Powered by Lipodisq™ Products for Nano-formulated Drug Delivery

| | |
|-------------|--|
| IAX-700-100 | Lipodisq™ Control Sterile Solution |
| IAX-700-101 | Curcumin Lipodisq™ Sterile Solution |
| IAX-700-102 | Melatonin Lipodisq™ Sterile Solution |
| IAX-700-103 | Metformin Lipodisq™ Sterile Solution |
| IAX-700-104 | Oxyresveratrol Lipodisq™ Sterile Solution |
| IAX-700-105 | Resveratrol Lipodisq™ Sterile Solution |
| IAX-700-106 | Umifenovir Lipodisq™ Sterile Solution |
| IAX-700-107 | Dexamethasone Lipodisq™ Sterile Solution |
| IAX-700-108 | Ambroxol Lipodisq™ Sterile Solution |
| IAX-700-109 | Retinoic Acid Lipodisq™ Sterile Solution |
| IAX-700-201 | Lipodisq™ Styrene:Maleic Acid Copolymer 1:1 [SMA-100] |
| IAX-700-202 | Lipodisq™ Styrene:Maleic Acid Copolymer 2:1 [SMA-200] |
| IAX-700-203 | Lipodisq™ Styrene:Maleic Acid Copolymer 3:1 [SMA-300] |
| IAX-700-204 | Lipodisq™ Styrene:Maleic Acid Copolymer 4:1 [SMA-400] |
| IAX-700-400 | DMPC (1,2-Dimyristoyl-sn-glycero-3-phosphocholine) (14:0 PC) |

Endotoxin-free and Sterile Buffers and Related Products

| | |
|---------------|--|
| IAX-900-001 | PBS Endotoxin-free (sterile) |
| IAX-900-001DC | PBS Endotoxin-free (sterile) [For Nano-formulated Drug Analysis] |
| IAX-900-002 | ddWater Endotoxin-free (sterile) |
| IAX-900-002DC | ddWater Endotoxin-free (sterile) [For Nano-formulated Drug Analysis] |
| IAX-900-003 | Physiological Saline [Sodium Chloride 0.9% Endotoxin-free] (sterile) |
| IAX-900-003DC | Physiological Saline [Sodium Chloride 0.9% Endotoxin-free] (sterile) [For Nano-formulated Drug Analysis] |
| IAX-900-004 | PBS with EDTA Endotoxin-free (sterile) |
| IAX-900-005 | TRIS with EDTA [TE Buffer] (100x) Endotoxin-free (sterile) |
| IAX-900-006 | EDTA (400mM) Endotoxin-free (sterile) |
| IAX-900-007 | HEPES Buffer (500mM) Endotoxin-free (sterile) |
| IAX-900-008 | DNA Loading Buffer with TRIS and EDTA (6x) (Blue) |
| IAX-900-009 | HEPES Buffer (50mM) with NaCl [Sodium Chloride] (150mM) Endotoxin-free (sterile) |
| IAX-900-010 | NaCl [Sodium Chloride] (1.5M) Endotoxin-free (sterile) |
| IAX-900-011 | TRIS Buffer (1.5M) Endotoxin-free (sterile) |
| IAX-900-012 | TRIS Buffer (30mM) with NaCl [Sodium Chloride] (150mM) Endotoxin-free (sterile) |
| IAX-900-013 | PBS with Magnesium and Calcium Endotoxin-free (sterile) |
| IAX-900-014 | ddWater with 0.9% Benzyl Alcohol [Bacteriostatic Water] Endotoxin-free (sterile) |

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