

Simulated Lung Fluid

Cat. No.: S1520398 | Pack size: 500 mL | Storage: 2-8 °C

Overview

Simulated Lung Fluid, also known as Gamble's Solution, is mainly composed of magnesium chloride, sodium chloride, disodium hydrogen phosphate, sodium sulfate, calcium chloride, sodium citrate, citric acid, glycine, sodium hydroxide, and related components. It is intended for in vitro simulation and particle-dissolution/inhalation-toxicology research workflows.

Key Features

- Ready-to-use simulated lung fluid formulation
- Suitable for in vitro simulation, inhalation toxicology, particle dissolution, and pulmonary administration research workflows
- Stored at 2-8 °C and shipped on wet ice
- BioReagent grade

Contents & Storage

Cat. No.	Component	Size	Storage
S1520398-500mL	Simulated Lung Fluid	500 mL	2-8 °C

Materials Required But Not Supplied

Item	Recommended Specification	Purpose
Test material	Particles, formulation, or sample according to study design	In vitro exposure/dissolution
Incubator/shaker	Study-specific conditions	Simulation
Analytical instrumentation	Selected according to endpoint	Measurement

Protocol

Procedure (Reference Only)

Operate according to specific experimental requirements and validated laboratory study design. Equilibrate the solution to the required experimental temperature if needed before sample exposure.

Storage & Handling

Store at 2-8 °C for up to 12 months. Keep container tightly closed and avoid contamination.

Safety & Precautions

1. Wear a lab coat and disposable gloves during operation.
2. For research use only, not for other purposes.

Quality Control

QC Item	Method	Acceptable Range
Appearance	Visual inspection	No leakage, abnormal precipitation, or container damage on receipt
Use performance	Application-specific test	Meets laboratory acceptance criteria under validated conditions
Storage condition	Label and storage check	Stored according to label and this instruction document

Troubleshooting

Issue	Possible Causes	Corrective Action
Unexpected assay results	Study conditions not optimized	Validate temperature, exposure time, sample mass, and analytical endpoint
Contamination	Improper handling after opening	Use aseptic or clean technique and close container promptly
Precipitation or abnormal appearance	Storage outside recommended range	Inspect before use and replace if abnormal

Recommended Applications

In vitro lung simulation · inhalation toxicology · particle dissolution · pulmonary administration research

Contact & Global Offices

Whether you have a technical question, need help with a quotation, or want to inquire about an order, our regional teams are ready to assist. Please contact the office for your region; for general inquiries, the North American office is the corporate primary.

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Limitations & Disclaimer

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This product is not a CE-marked in vitro diagnostic device under IVDR (EU) 2017/746 and is not an FDA-cleared device under 21 CFR. Use is restricted to verified businesses, institutions, and qualified professionals for research and development purposes.

Where any product component is classified as hazardous under CLP (EC) 1272/2008 or OSHA HCS (29 CFR 1910.1200), the product Safety Data Sheet (SDS) takes precedence over this document for handling, storage, and disposal information.

Performance depends on sample type, sample condition, handling, and operator technique. Users are responsible for validating the product for their specific application.

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