
Sucrose Solution (0.25 M)

Cat. No.: S1527933 | Pack size: 100ml; 500ml | Storage: Store at 2-8°C

Overview

This product is an aqueous sucrose solution prepared to an accurate molar concentration of 0.25 M.

For density-gradient centrifugation applications, it acts as an essential supporting reagent for isolating subcellular particles and viruses with cell separation medium. Prepare the isotonic stock master solution by mixing stock cell-separation medium with 2.5 M Sucrose Solution (Aladdin Cat. No.: S1527934) at a 9:1 volume ratio, then dilute the master solution with this product to the target density for isopycnic density-gradient centrifugation of organelles including mitochondria, lysosomes and microsomes, as well as viruses and exosomes. The low-concentration sucrose system effectively maintains osmotic balance of subcellular components and preserves the structural and functional integrity of particles. Furthermore, this product can be applied to routine biochemical experiments for osmotic pressure adjustment, extraction-buffer preparation, washing solution formulation and reagent blank control.

Instructions for Use

1. Sterile handling: Inspect the bottle seal for integrity before the experiment. Aspirate the required volume using a pipette or sterile graduated cylinder inside a biosafety cabinet. Avoid repeated freeze-thaw cycles and repeated cross-contaminating withdrawals.

2. Dilute isotonic stock master solution to target working solution: Dilute the isotonic stock master solution (prepared by mixing stock cell-separation medium and 2.5 M sucrose solution at 9:1 ratio) with this product to the target working-solution density according to experimental requirements. Prepare diluted working solutions fresh before use to prevent contamination or density drift caused by prolonged storage. Refer to the cell-separation medium manual for detailed volume-calculation formulas.

3. Other applications: For osmotic adjustment, extraction-buffer preparation, washing solution and other purposes, use directly or further dilute following your experimental design. Perform strict aseptic manipulation and prepare fresh for immediate use.

Precautions

1. Tighten the cap firmly after opening to prevent concentration alteration due to water evaporation and microbial contamination.

- 2.If crystals precipitate after long-term storage (especially under low-temperature conditions), warm the bottle gently in lukewarm water and shake thoroughly until crystals are completely dissolved prior to use. Discontinue use immediately if turbidity or visible particulate matter is observed.
- 3.This product is intended for isolation systems of subcellular particles and viruses. For cell samples such as lymphocytes and monocytes, use NaCl-based systems (1.5 M NaCl Solution).
- 4.For laboratory research use only. Not for human diagnostic or clinical therapeutic applications.
- 5.Wear a lab coat and disposable gloves for personal safety and health during operation.

Specifications

Item	Information
Synonyms	Sterile 0.25M Sucrose stock solution
Specifications & Purity	Sterile-filtered, BioReagent, Ready-to-use, for Cell culture, 0.25 M in water
Stability And Storage	Store at 2-8°C long term (12 months).
Storage	Store at 2-8°C
Shipped In	Wet ice. This product requires cold chain shipping. Ground and other economy services are not available.

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

- For Research Use Only (RUO). Not for use in human or animal diagnostics, therapeutics, or in vivo applications. Not for food, cosmetic, or household use.
- 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 kit 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 kit for their specific application.
- Aladdin product labels, SDS, COA, and approved specifications take precedence over this document. If product formulation, label, SDS, storage conditions, pack size, or quality specifications change, this document would be reviewed and reissued.