

1/2 MS Medium (without agar, sucrose, 2.47g/L)

Cat. No.: M1524316 | Pack size: 250g | Storage: Protected from light, Room temperature

Overview

1/2 MS medium is a low-salt basal medium powder modified on the basis of the classic MS medium. Its core modification lies in halving the content of macroelements. Agar and sucrose are removed from its formula, eliminating interference from coagulants and exogenous carbon sources. As a universal basal medium for plant tissue culture, it meets the diverse experimental requirements of tissue culture, featuring strong versatility and high experimental fault tolerance.

Product Composition:

Composition	(mg/L)
Potassium Nitrate	950
Ammonium Nitrate	825
Potassium Phosphate Monobasic	85
Magnesium Sulfate	185
Calcium Chloride	220
Potassium Iodide	0.83
Boric Acid	6.2
Manganese Sulfate	22.3
Zinc Sulfate	8.6
Sodium Molybdate	0.25
Cupric Sulfate	0.025
Cobalt Chloride.6H ₂ O	0.025
Na ₂ EDTA	37.3
Ferrous Sulfate	27.8

Composition	(mg/L)
Myo-Inositol	100
Glycin	2
Thiamine.HCl	0.1
Pyridoxine.HCl	0.5
Nicotinic Acid	0.5

Instructions for Use:

1. Preparation and Dissolution: Accurately weigh 2.47 g of this product, add it to 1 L of distilled or deionized water, and stir thoroughly until the powder dissolves completely to prepare a homogeneous medium solution.
2. pH Adjustment (Optional): If pH adjustment is required, finely tune the pH with **dilute** NaOH or dilute **HCl** solution before sterilization. The commonly applicable pH range for plant tissue culture is 5.5~5.8, subject to specific experimental protocols. Add the solution dropwise while stirring and monitor the pH in real time to avoid over-adjustment.
3. Sterilization Treatment: Dispense the prepared medium into appropriate culture vessels, then autoclave at 116 °C under high-pressure steam for 30 minutes.
4. Cooling and Application: After sterilization, let the medium cool naturally to room temperature in a clean sterile environment, mix gently, and maintain aseptic technique throughout all operations. The medium is then ready for plant tissue culture experiments.

Precautions:

1. This product is a full inorganic salt medium for plant tissue culture. It is recommended to dissolve the powder in room-temperature water prior to autoclaving; heating for dissolution is not advised. Minor precipitation after sterilization is normal and will not interfere with experimental results.
2. Store the product hermetically sealed at room temperature away from light. The shelf life is 3 years.
3. This product is for research laboratory use only. It is strictly prohibited for medical purposes, clinical diagnosis and treatment, food, cosmetics and other related fields. Do not store it in residential areas.

4. Our company shall not be liable for any accidents or losses arising from improper operation or unauthorized use of this product by users.

Specifications

Specification	Details
Synonyms	1/2 MS Basal Medium (No Sucrose, No Agar)
Specifications & Purity	BioReagent, Suitable for plant cell culture
Sensitivity	Light-sensitive
Stability And Storage	Store at room temperature long term (36months). Store in the dark.
Storage	Protected from light, Room temperature
Shipped In	Normal

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.

NORTH AMERICAN SALES, SUPPORT & GENERAL INQUIRIES Aladdin Scientific Corporation 14078 Meridian Parkway, Riverside, CA 92518, USA Phone: 1-833-552-7181 Sales: sales@aladdinsci.com Customer Service: custserv@aladdinsci.com	EU SALES, LOGISTICS & LOCALIZED SUPPORT Aladdin Biochem Deutschland GmbH Westring 2, 33142 Büren, Germany Phone: +02951 9383958 Support: support.eu@aladdinsci.com
--	---

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.