

Proline (PRO) Extraction Reagent

Cat. No.: P1509599 | Pack size: 500 mL | Storage: Room temperature

Product Information

Item	Description
Product Name	Proline (PRO) Extraction Reagent
Cat. No.	P1509599
Pack Size	500 mL
Grade & Purity	BioReagent, for amino acid analysis, Suitable for plant cell and tissue extracts
Application	Cell fractionation
Storage	Room temperature
Shipped In	Normal
Synonyms	Proline Extraction Reagent PRO Extraction Reagent

Overview

Proline (Pro) is a cyclic α -imino acid. It is neutral with an isoelectric point of 6.30 and has a higher solubility in water than any other amino acid - approximately 162 g can be dissolved in 100 g of water at 25°C. It is hygroscopic and difficult to crystallize, with a sweet taste. When heated together with ninhydrin solution, it forms a yellow compound. Once incorporated into the peptide chain, proline can undergo hydroxylation to form 4-hydroxyproline, which is an important component of animal collagen. Hydroxyproline also exists in various plant proteins and is particularly associated with cell wall formation. Under normal conditions, the proline content is relatively low, but it often accumulates significantly under stress conditions (drought, heat, cold, freezing, salinization, etc.). The accumulation index is related to the stress resistance of plants. Proline has a wide range of applications in clinical practice, biomaterials, industry, and other fields.

This Proline (PRO) Extraction Reagent is mainly used for extracting proline from plants. 500 mL of the reagent can be used for approximately 100 sample extractions. Note: This reagent is intended for research purposes only and not for clinical diagnosis or any other applications.

Materials to Be Prepared by the User

1. Distilled water
2. Mortar or homogenizer, centrifuge tubes or test tubes, filter paper or gauze, water bath

Operating Procedures (For Reference Only)

1. Take fresh plant tissues, rinse them thoroughly, dry them, cut them into small pieces, and weigh 0.5 g of the samples quickly. Add 5 mL of PRO Extraction Reagent, homogenize or grind the mixture, heat it in a boiling water bath for 10 min (shake frequently during heating), and mix well.
2. Filter the mixture with filter paper or gauze. The filtrate is the proline extract, which can be stored at 4°C for later use.

Precautions

1. The Proline (PRO) Extraction Reagent should be stored in a sealed container to avoid volatilization of active ingredients.
2. Please use the reagent as soon as possible after opening to prevent affecting the subsequent experimental results.
3. For your safety and health, wear a lab coat and disposable gloves during operation.

Specifications

Item	Description
Synonyms	Proline Extraction Reagent PRO Extraction Reagent
Specifications & Purity	BioReagent, Suitable for plant cell and tissue extracts, for amino acid analysis
Stability and Storage	Store at room temperature long term (12 months).
Storage	Room temperature
Shipped In	Normal
Grade	BioReagent, for amino acid analysis, Suitable for plant cell and tissue extracts

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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 & Regulatory Status

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 professional users.

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, disposal, and emergency measures.

Performance depends on sample type, sample condition, handling, and operator technique. Users are responsible for validating the product 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, the current approved Aladdin documentation supersedes this manual.