

Soluble Pectin (SP) Extraction Reagent

Cat. No.: S1509597 | Pack size: 500 mL | Storage: Room temperature

Product Information

Item	Description
Product Name	Soluble Pectin (SP) Extraction Reagent
Cat. No.	S1509597
Pack Size	500 mL
Grade & Purity	BioReagent, Suitable for plant cell and tissue extracts
Application	Cell fractionation
Storage	Room temperature
Shipped In	Normal
Synonyms	Soluble Pectin Extraction Reagent SP Extraction Reagent

Overview

Natural pectin substances exist extensively in the fruits, roots, stems and leaves of plants in the forms of protopectin, pectin and pectic acid. As a component of plant cell walls, they coexist with cellulose and form the intercellular cement between adjacent cells, thus tightly binding plant tissue cells together. Protopectin is a water-insoluble substance, but it can be hydrolyzed into water-soluble pectin under the action of chemical reagents such as acids, alkalis, salts and enzymes. Pectin, also known as polygalacturonic acid, is a linear polymer formed by the linkage of D-galacturonic acid via α -1,4 glycosidic bonds. Essentially, it is a linear polysaccharide polymer containing hundreds to about 1,000 anhydrogalacturonic acid residues, with a corresponding average relative molecular mass ranging from 50,000 to 150,000.

This Soluble Pectin (SP) Extraction Reagent is mainly used for extracting soluble pectin from plant tissues or fruits. 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. Experimental materials: Fruits such as peaches, plums, apples, apricots, or other plant tissues
3. Balance, scissors, mortar or homogenizer, centrifuge, water bath, test tubes or centrifuge tubes

Operating Procedures (For Reference Only)

1. Take the fruits or other plant tissues, rinse and dry them thoroughly, weigh 0.2 g of the cut fresh samples, and place them in a mortar or homogenizer.
2. Add 1-2 mL of the Soluble Pectin Extraction Reagent, grind or homogenize the mixture thoroughly, and then transfer it into a 10 mL test tube. Rinse the mortar or homogenizer with the Soluble Pectin Extraction Reagent and transfer the rinsing solution into the test tube, then add additional Soluble Pectin Extraction Reagent to make the total volume up to 10 mL.
3. Place the test tube in a boiling water bath for 30 min. During boiling, timely replenish the Soluble Pectin Extraction Reagent to maintain the volume at 10 mL. Take out the test tube and cool it down to room temperature. Centrifuge the mixture at 8,000 r/min for 15 min and discard the supernatant. Repeat this step twice to remove sugars and other substances from the sample.
4. Take the test tube containing the precipitate, add 4 mL of distilled water, and place it in a 50°C water bath for 30 min to dissolve the pectin. Take out the test tube and cool it to room temperature. Centrifuge the mixture at 8,000 r/min for 15 min and transfer the supernatant into a new test tube. Wash the precipitate with a small amount of distilled water, centrifuge again at 8,000 r/min for 15 min, transfer the supernatant into the aforementioned new test tube, and add distilled water to make the total volume up to 10 mL. This is the soluble pectin extract.

Precautions

1. The sampling amount and reagent dosage should be adjusted appropriately according to the pectin content.
2. Soluble sugars have a significant impact on the determination results, so it is necessary to completely remove soluble sugars from the sample.
3. Please use the reagent as soon as possible after opening to avoid affecting the subsequent experimental results.
4. For your safety and health, wear a lab coat and disposable gloves during operation.

Specifications

Item	Description
Synonyms	Soluble Pectin Extraction Reagent SP Extraction Reagent
Specifications & Purity	BioReagent, Suitable for plant cell and tissue extracts
Stability and Storage	Store at room temperature long term (24 months).
Storage	Room temperature
Shipped In	Normal
Grade	BioReagent, Suitable for plant cell and tissue extracts

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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.



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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.