

Blood Coagulant (Water-Based)

Cat. No.: C1520196 | Pack size: 100 mL | Storage: Protected from light, room temperature

Overview

This product is a water-based blood coagulant using purified water as solvent and multiple effective coagulation-promoting components. It is designed for rapid blood clotting and efficient serum separation.

It is suitable for the preparation of vacuum blood collection tubes and syringe-based blood collection tubes used in clinical medical testing workflows.

Key Features

- White turbid water-based suspension that becomes uniform after shaking
- Rapidly accelerates blood coagulation without affecting routine clinical biochemical test items
- No drying step required after addition to tubes
- Typical dosage: 15-20 µL per 5 mL blood at 25 °C

Product Information

Item	Description
Synonyms	Water-Based Blood Clot Activator Clot Activator (Water Type) Serum Separation Coagulant (Water-Based) Blood Clotting Accelerator (Water Formulation)
Specifications & Purity	BioReagent
Stability & Storage	Store at room temperature long term (36 months). Store in the dark. Desiccated.
Storage Conditions	Protected from light, room temperature
Shipping	Normal
Grade	BioReagent

Contents & Storage

Cat. No.	Product	Size	Storage
C1520196-100mL	Blood Coagulant (Water-Based)	100 mL	RT, protect from light

Materials Required But Not Supplied

Item	Recommended Specification	Purpose
Personal protective equipment	Lab coat, disposable gloves, eye protection	Safe handling
Blood collection tubes	Vacuum or syringe-based tube format	Tube preparation
Spraying/addition equipment	Validated machine spraying system	Addition of coagulant to tubes
Stirring equipment	Mechanical, electromagnetic or pneumatic stirring	Maintain uniform suspension
Centrifuge	1200-1500 x g capability	Serum separation

Preparation Before Use

1. Shake or stir thoroughly before use to obtain a uniform suspension.
2. During continuous addition, keep the product under mechanical, electromagnetic or pneumatic stirring to prevent stratification.
3. This product is water-based; no drying treatment is required after addition to blood collection tubes.

Protocol

Usage and Dosage

1. Addition Method: Add to blood collection tubes using machine spraying. Continuous stirring is required during the addition process to maintain the uniformity of the suspension, ensuring consistent addition of effective components and avoiding stratification that may affect the coagulation effect.

2. Stirring Method: Mechanical stirring, electromagnetic stirring, or pneumatic stirring can be used to maintain the uniformity of the suspension. The stirring speed should be adjusted according to the actual equipment and operation scenario to ensure no significant sedimentation and uniform suspension.
3. Drying Treatment: This product is water-based. No drying treatment is required after addition (different from alcohol-based coagulants). Subsequent preparation of blood collection tubes can proceed directly.
4. Irradiation Sterilization: If irradiation sterilization is required, the recommended dose is 8-25kGy. After sterilization, check the product properties to ensure no abnormalities.
5. Dosage Standard: Generally, 15-20 μ L of this product can rapidly coagulate 5mL of blood, with a dosage error range controlled within $\pm 10\%$. The recommended dosage is as follows:

Blood Sample Volume	Recommended Dosage
3-4 mL	15 μ L
5-7 mL	20 μ L
8-15 mL	30 μ L

Storage & Handling

Store as indicated on the product label: Protected from light, room temperature.

Shelf life: Store at room temperature long term (36 months). Store in the dark. Desiccated.

Safety & Precautions

1. If blood coagulation is insufficient, blood cells and fibrin strands may adhere to the tube wall, mild hemolysis may occur, or serum separation may fail after centrifugation. Check the operation process and dosage promptly.
2. If centrifugation is performed less than 15 minutes after coagulation, secondary precipitation of fibrin strands may occur in the serum and affect testing.
3. Keep sealed during storage and use to avoid moisture loss or contamination. Avoid contact with oily substances.
4. Store sealed in a cool, dry place; ambient temperature should not exceed 35 °C. Low-temperature storage (0-10 °C) is more effective for maintaining stable coagulation performance.
5. Do not use if abnormal turbidity, odor, mold, or sedimentation that cannot be redispersed by shaking is observed.

Quality Control

QC Item	Method	Acceptable Range
Appearance	Visual inspection	White turbid liquid; uniform suspension after shaking; no mold or abnormal odor.
Coagulation capacity	Whole-blood test at 25 °C	15-20 µL coagulates 5 mL blood and supports serum separation after standing and centrifugation.
Tube compatibility	Prepared tube trial	No interference with target biochemical test results under validated conditions.

Troubleshooting

Issue	Possible Causes	Corrective Action
Incomplete coagulation	Insufficient dosage or poor suspension uniformity	Verify dosage, ensure continuous stirring and extend standing time if temperature is below 20 °C.
Fibrin precipitation after centrifugation	Centrifugation too soon after clotting	Allow sufficient standing time, generally about 30 minutes after blood collection.
Stratification during addition	Suspension not stirred adequately	Stir thoroughly before and during addition.
Poor stability	Improper sealing or excessive temperature/humidity	Store sealed, protected from light, in a dry environment.

Recommended Applications

Research preparation and evaluation of blood-collection tubes · Rapid blood clotting · Serum separation workflows · Coagulant-additive process development

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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- 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.
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