

Blood Coagulant (Alcohol-Based)

Cat. No.: C1520198 | Pack size: 100 mL / 1 L | Storage: Room temperature; protected from light

Overview

This product is an alcohol-based blood coagulant, using anhydrous ethanol as a solvent, combined with a variety of effective coagulation-promoting components. It is specifically designed for rapid blood clotting and efficient serum separation, suitable for the preparation of medical blood collection tubes and clinical testing.

Ingredients

The main components of this product include diatomaceous earth, kaolin, silica powder, anhydrous ethanol, etc. The proportions of each component are scientifically formulated to ensure stable coagulation-promoting effects without interfering with clinical test results.

Properties

This product is a light yellow turbid liquid. Sedimentation occurs upon standing, but it forms a uniform suspension after shaking. It rapidly accelerates blood coagulation without affecting clinical biochemical tests. The alcohol-based components are volatile and leave no residue after drying.

Scope of Application

It can be used for preparing vacuum blood collection tubes and syringe-based blood collection tubes, widely applied in clinical medical testing. Laboratory personnel can complete blood sample collection, rapid serum separation, and sample transfer in the same vessel, simplifying the testing process and improving work efficiency.

Coagulation Principle

By activating certain coagulation factors in plasma and platelets, it promotes the generation of thromboplastin and fibrin clots, accelerating blood clot contraction to achieve rapid serum separation. Anhydrous ethanol aids in dispersing the coagulation components, enhancing the uniformity of the coagulation effect.

Coagulation Capacity

At 25°C, adding 15-20 µL of this product (alcohol-based) can rapidly coagulate 5 mL of blood. After initial blood clotting, allow it to stand for about 30 minutes before centrifugation (centrifugal force: 1200-1500 g, centrifugation time: 8-10 minutes) for smooth serum separation. After centrifugation, the clot contracts well, yielding a large amount of serum with excellent separation, free from

impurities, and does not interfere with blood sample test results. When the ambient temperature is below 20°C, the standing time after blood collection can be appropriately extended to ensure full coagulation and achieve the best serum separation effect.

Usage and Dosage

- **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.
- **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.
- **Drying Treatment:** As an alcohol-based product, drying is required after addition (not necessary for water-based coagulants). Hot air drying is recommended, with the temperature controlled at 160-180°C. Dry three times through two sets of hot air tubes, each for 2 seconds, ensuring thorough drying and no alcohol residue.
- **Irradiation Sterilization:** If irradiation sterilization is required, the recommended dose is 8-25 kGy. After sterilization, check the product properties to ensure no abnormalities.
- **Dosage Standard:** Generally, 15-20 µL of this product can rapidly coagulate 5 mL of blood, with a dosage error range controlled within ±10%. The recommended dosage is as follows:

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

Precautions

- If blood coagulation is insufficient, it may cause blood cells and fibrin strands to adhere to the tube wall, or even mild hemolysis. If blood coagulation is incomplete in some patients, it may result in the cessation of coagulation, fibrin precipitation, or no serum separation after centrifugation. The operation process and dosage should be checked promptly.
- If centrifugation is performed less than 15 minutes after coagulation, secondary precipitation of fibrin strands may occur, floating in the serum and potentially blocking detection probes, affecting testing progress.
- This product is alcohol-based and volatile. During storage and use, ensure sealing to avoid ethanol evaporation, which may disrupt component ratios and affect the coagulation effect. Avoid contact with open flames and keep away from high-temperature environments.
- If severe stratification of the suspension occurs during addition, stir thoroughly before use to ensure uniform distribution of coagulation components.

- Store sealed in a cool, dry place, with the ambient temperature not exceeding 35°C. Due to its alcohol-based nature, low-temperature storage (0-10°C) is more effective in delaying component deterioration and maintaining stable coagulation performance. Avoid direct sunlight and humid environments.
- The shelf life is three years from the production date. Do not use beyond the expiration date. If abnormal turbidity, odor, or sedimentation that cannot be redispersed by shaking is observed, discard immediately.

Specifications

Attribute	Value
Synonyms	Alcohol-Based Blood Clot Activator Clot Activator (Alcohol Type) Serum Separation Coagulant (Alcohol-Based) Blood Clotting Accelerator (Alcohol Formulation)
Specifications & Purity	BioReagent
Stability And Storage	Store at room temperature long term (36 months). Store in the dark. Desiccated.
Storage Conditions	Protected from light, Room temperature
Shipped In	Normal
Grade	BioReagent

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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 & 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.

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, transportation, disposal, and emergency procedures.

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, this document must be revalidated before use.