

Platelet Dilution (Counting Solution)

Cat. No.: P1511110 | Pack size: 100ml / 500ml | Storage: Room temperature

Product Information

Item	Description
Product name	Platelet Dilution (Counting Solution)
Catalog No.	P1511110
Pack size	100ml / 500ml
Specifications & Purity	BioReagent, Biological Stain, for microscopy
Synonyms	Platelet dilution Platelet counting solution
Storage	Room temperature
Shipped in	Normal
Application	Cell analysis
Stability and storage	Store at room temperature long term (12 months).

Overview

Platelets are one of the formed elements in the blood of mammals. They are small, biologically active cytoplasmic fragments shed from the cytoplasm of mature megakaryocytes in the bone marrow through lysis. Platelets possess a specific morphological structure and biochemical composition, and play a crucial role in physiological and pathological processes such as hemostasis, wound healing, inflammatory response, thrombosis, and organ transplant rejection.

Platelet Diluent is a type of solution that can lyse red blood cells in the blood while preserving the intact morphology of platelets. It is used to dilute blood samples, which are then loaded into a hemocytometer for the direct counting of platelets under a high-power microscope. This platelet diluent is for research use only and not intended for clinical diagnosis or any other applications.

Operating Procedures (For Reference Only):

1. Take a small test tube and add 0.38 mL of platelet diluent to it.

2. Use a clean, dry micropipette to draw 20 μL of capillary blood. Wipe off excess blood from the outside of the pipette, add the blood to the platelet diluent, aspirate the supernatant gently three times, and mix the solution thoroughly immediately.
3. After complete hemolysis, mix the solution again for 1 minute. Take one drop of the well-mixed platelet suspension and load it into the hemocytometer, taking care to avoid bubble formation or overflow. Let it stand at room temperature for 10–15 minutes to allow platelets to settle completely.
4. Place the hemocytometer under the high-power microscope of a light microscope, and count the number of platelets in five medium squares in total—i.e., the four corner medium squares and the central medium square within the large central counting square—one by one.

Calculation:

Platelet count/L = Number of platelets in 5 medium squares $\times 10^9/\text{L}$

Safety & Precautions

1. The needle puncture should be slightly deep. After wiping off the first drop of blood, collect blood for platelet counting first. Perform all operations rapidly to prevent platelet aggregation.
2. Complete platelet counting within 1 hour after blood collection to avoid interfering with the test results.
3. Ensure the small test tubes and hemocytometers are thoroughly clean to prevent misidentification of foreign particles as platelets.
4. Use moderate light during counting, and take care to distinguish refractive platelets from impurities.
5. Counting with a phase-contrast microscope yields better and more accurate results.
6. For your safety and health, wear a lab coat and disposable gloves during all operations.
7. Read the current SDS before use and handle the product according to local laboratory safety and EHS procedures.
8. Avoid direct contact with staining solutions. Protect light-sensitive products from light as indicated on the label.
9. For research use only. Do not use for clinical diagnosis, treatment, food, cosmetic, or household applications.

Quality Control

QC Item	Method	Acceptable Range
Appearance and color	Visual inspection	Product-consistent color with no visible microbial contamination or abnormal precipitation
Staining performance	Use on representative samples according to the procedure	Expected staining intensity and contrast are obtained
Storage condition	Review label and COA before use	Stored under recommended conditions, protected from light when indicated

Troubleshooting

Issue	Possible Causes	Corrective Action
Weak staining	- Insufficient staining time - Reagent deterioration or improper storage - Sample preparation not optimized	- Extend staining time within the recommended range - Confirm storage condition and protect from light where required - Optimize sample preparation and washing steps
High background or overstaining	- Excessive staining time - Inadequate washing or decolorization - Excess reagent carried over	- Shorten staining time - Increase washing/decolorization as appropriate - Use clean tools and recommended volumes
Precipitate or uneven staining	- Reagent not mixed well - Contaminated sample or container	- Mix gently before use - Use clean containers and filter only if validated for the assay

Recommended Applications

Cell analysis.

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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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 product 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 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 would be reviewed and reissued.