

Sperm Dilution (Counting Solution)

Cat. No.: S1511112 | Pack size: 100ml | Storage: Room temperature

Product Description

Sperm Dilution (Counting Solution) works by diluting semen with the diluent at a specific ratio. After loading the mixture into a counting chamber, the number of sperm in a defined volume is counted under a phase-contrast microscope, and the sperm concentration per milliliter of semen is calculated via conversion. This diluent is for research use only and not intended for clinical diagnosis or any other applications.

Operating Procedures (For Reference Only):

1. Take a clean small test tube, add the sperm diluent, then add liquefied semen to the diluent and mix thoroughly.
2. Dispense the mixture onto a modified Neubauer hemocytometer, let it stand for 1–2 minutes until the sperm settle, and count the sperm with the sperm head as the reference standard.
3. If the number of sperm in each central square is $< 10^{**}$, count the sperm in all 25 central squares; if the number is $^{**}10\text{--}40^{**}$ per central square, count the sperm in 10 central squares; if the number is $^{**}> 40$ per central square, count the sperm in 5 central squares.
4. Calculation: Sperm concentration = $(\text{Count result} / \text{Number of counted central squares}) \times (1 / \text{Number of counted central squares}) \times 20 \times 10^5 / \text{mL}$.

Precautions:

1. Abstain from sexual activity for 3–7 days before semen collection, and examine the semen sample within 1 hour after collection.
2. In case of an abnormal result in a single test, recheck after an interval of 1 week; repeated examinations for 2–3 times are required to obtain a relatively accurate result.
3. If no sperm are observed under both low and high power microscopy, centrifuge the semen for sedimentation and then prepare a smear for recheck. Report "azoospermia" if no sperm are found in two consecutive tests.

Product Information

Item	Information
Cat. No.	S1511112
Product Name	Sperm Dilution (Counting Solution) - BioReagent, Biological Stain, for microscopy
Synonyms	Sperm Counting Solution Semen diluent Sperm counting diluent
Application	Cell analysis
Storage	Room temperature
Shipped In	Normal

Specifications

Parameter	Specification
Synonyms	Sperm Counting Solution Semen diluent Sperm counting diluent
Specifications & Purity	BioReagent, Biological Stain, for microscopy
Stability And Storage	Store at room temperature long term (12 months).
Storage	Room temperature
Shipped In	Normal

Safety & Precautions

- Read the current Safety Data Sheet (SDS) before use and follow local laboratory safety and EHS requirements.
- Wear appropriate personal protective equipment, including lab coat, gloves, and eye protection.
- Use only for research and laboratory applications. Do not use for human or animal diagnostics, therapeutics, food, household, or cosmetic applications.

Quality Control

QC Item	Method	Acceptable Range
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QC Item	Method	Acceptable Range
Appearance	Visual inspection	Solution should be clear and free from visible contamination unless otherwise stated on the COA.
Product identity and specifications	Lot-specific quality testing	Conforms to the approved product specification and certificate of analysis.
Storage and packaging	Label and packaging inspection	Pack size, storage condition, lot number, and expiry information are verified before release.

Troubleshooting

Issue	Possible Causes	Corrective Action
Unexpected cell response	Incorrect working concentration, unsuitable cell type, or temperature deviation	Verify the recommended application, equilibrate reagent as required, and optimize incubation conditions for the cell type.
Reduced performance	Repeated freeze-thaw, expired reagent, or inappropriate storage	Store according to the label and aliquot when recommended. Avoid repeated freeze-thaw cycles.
Visible contamination	Aseptic handling failure or compromised container	Do not use contaminated reagent. Use sterile technique and inspect the container before use.

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 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 should be reviewed and reissued.