

Product Information

Dulbecco's Phosphate Buffered Saline

DPBS Modified 10X, without calcium, without magnesium

CATALOG NO. 59331C

Description

Dulbecco's Phosphate Buffered Saline (DPBS) is intended for use in the maintenance of mammalian cells where a chemically defined balanced salt solution provides an environment that will maintain the structural and physiological integrity of cells *in vitro*. DPBS is commonly used in cell enumerations as a diluent, for rinsing cells and as a buffer in many chromatographic procedures. DPBS also is used to wash and resuspend cells during the dissociation process, where the presence of calcium and magnesium can inhibit trypsin activity. For this application, use DPBS Modified, which is formulated without calcium and magnesium salts.

Formulation

Component (all components measured in mg/L)	
INORGANIC SALTS	
Potassium chloride	2000.000
Potassium phosphate monobasic anhydrous	2000.000
Sodium chloride	80000.000
Sodium phosphate dibasic heptahydrate	21716.000

Precautions

Use aseptic technique when handling or supplementing this buffer after filtration. This product is for further manufacturing use. THIS PRODUCT IS NOT INTENDED FOR HUMAN OR THERAPEUTIC USE.

Storage

Store 10X buffer at 15 to 30 C. Do not use after the expiration date. Store 1X buffer at 15 to 30 C.

Indications of Deterioration

Buffer should be clear of particulates and flocculent material. Do not use if liquid buffer is cloudy or contains precipitate. Other evidence of deterioration may include color change or degradation of physical or performance characteristics.

Preparation Instructions

Supplements can be added prior to membrane filtration or added as sterile supplements using aseptic technique. Storage conditions and shelf life of the supplemented product may be affected by the nature of the supplements.

1. Dilute the 10X buffer 1:10 with cell culture grade water (Catalog No. 59900C). Water temperature should be 15 to 30 C. Do not heat water. Mix completely.
2. While stirring the solution, adjust the pH to 6.9 - 7.1 using NaOH 1N (Catalog No. 59223C) or HCl 1N. For most cells and culture conditions, the optimal pH of this salt solution after filtration is 7.0 - 7.4.
3. Add cell culture grade water to the solution to bring it to the final volume. To avoid fluctuations in pH, keep the vessel closed until the solution is filtered.
4. Sterilize the solution using a 0.22 µm filter. A peristaltic pump or an inert gas such as nitrogen can be used to provide positive pressure at 3 - 15 psi. Do not use CO₂ gas.
5. Sterile solutions should be dispensed aseptically into sterile containers. Store buffer solution at 15 to 30 C.

Characteristics

Appearance

Clear colorless solution

Endotoxin (LAL)

≤ 1.0 EU/mL

Osmolality (at 1X concentration)

260 - 300 mOsm/kg H₂O

pH (as supplied)

6.7 - 7.1

Sterility

No microbial growth detected

References

1. Dulbecco R and Vogt M. *J Exp Med* (1954) 99:167.

United States

SAFC Biosciences, Inc.
13804 W. 107th Street
Lenexa, Kansas 66215
USA
Phone +1 913-469-5580
Toll free-USA 1 800-255-6032
Fax +1 913-469-5584
E-mail info-na@sial.com

Europe

SAFC Biosciences Ltd.
Smeaton Road, West Portway
Andover, Hampshire SP10 3LF
UNITED KINGDOM
Phone +44 (0)1264-333311
Fax +44 (0)1264-332412
E-mail info-eu@sial.com

Asia Pacific

SAFC Biosciences Pty. Ltd.
18-20 Export Drive
Brooklyn, Victoria 3025
AUSTRALIA
Phone +61 (0)3-9362-4500
Toll free-AUS 1 800-200-404
Fax +61 (0)3-9315-1656
E-mail info-ap@sial.com

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United States

SAFC Biosciences, Inc.
13804 W. 107th Street
Lenexa, Kansas 66215
USA
Phone +1 913-469-5580
Toll free-USA 1 800-255-6032
Fax +1 913-469-5584
E-mail info-na@sial.com

Europe

SAFC Biosciences Ltd.
Smeaton Road, West Portway
Andover, Hampshire SP10 3LF
UNITED KINGDOM
Phone +44 (0)1264-333311
Fax +44 (0)1264-332412
E-mail info-eu@sial.com

Asia Pacific

SAFC Biosciences Pty. Ltd.
18-20 Export Drive
Brooklyn, Victoria 3025
AUSTRALIA
Phone +61 (0)3-9362-4500
Toll free-AUS 1 800-200-404
Fax +61 (0)3-9315-1656
E-mail info-ap@sial.com