



# LORNE LABORATORIES LTD. GREAT BRITAIN



## RED BLOOD CELL PRESERVATION SOLUTION DIRECTIONS FOR USE

### LISPreservacell: For Enhancement Of Serological Reactions.

#### SUMMARY

Low ionic strength solutions increases the rate of antibody association and thus enhances antigen/antibody reactions. The reagent contains antibiotics and purine bases which have a preserving function. The preservatives work by providing the metabolic requirements of the red cells whilst preventing infection.

#### PRINCIPLE

When used by the recommended technique, the reagent will enhance antibody-antigen reactions and whilst extending the shelf life of LISS suspended red cells by up to 1 week (See **Limitations**).

#### REAGENT

Lorne LISPreservacell is a glycine/phosphate buffered solution containing glucose, sodium chloride, and purine bases, with Sulfamethoxazole, Trimethoprim and Gentamycin sulphate as preservatives. Reagent is supplied at optimal dilution for use with all recommended techniques without need for further dilution or addition. For lot reference number and expiry date see Vial Label.

#### STORAGE

Do not freeze. Reagent vials should be stored at 2 - 8°C on receipt. Prolonged storage at temperatures outside this range may result in accelerated loss of reagent reactivity. This reagent has undergone transportation stability studies at 37°C and -25°C as described in document BS EN ISO 23640:2015.

#### SAMPLE COLLECTION AND PREPARATION

Specimens should be drawn into EDTA or citrate using an aseptic phlebotomy technique. The cells should be as fresh as possible when treated, preferably within 12 hours of collection.

#### PRECAUTIONS

1. The reagent is intended for *in vitro* diagnostic use only.
2. If the bottle is leaking, discard the contents immediately.
3. Do not use the reagent past the expiration date (see **Vial Label**).
4. Do not use the reagent if a precipitate is present.
5. Protective clothing should be worn when handling the reagent, such as disposable gloves and a laboratory coat.
6. The reagent has been filtered through a 0.2 µm capsule to reduce the bio-burden. Once a vial has been opened the contents should remain viable up until the expiry date as long as there is no marked turbidity, which can indicate reagent deterioration or contamination.

#### DISPOSAL OF REAGENT AND DEALING WITH SPILLAGES

For information on disposal of the reagent and decontamination of a spillage site see **Material Safety Data Sheets**, available on request.

#### REAGENTS AND MATERIALS REQUIRED

- Glass test tubes (10 x 75 mm or 12 x 75 mm).
- PBS solution (pH 6.8–7.2) or isotonic saline solution (pH 6.5–7.5).
- Test tube centrifuge.
- Volumetric pipettes.

#### RECOMMENDED TECHNIQUE

1. Wash cells at least twice in PBS or Isotonic saline and then wash once in Lorne LISPreservacell.
2. Resuspend red cells to desired concentration in Lorne LISPreservacell.

#### STABILITY OF CELL SUSPENSIONS

1. Following resuspension of test red cells in Lorne LISPreservacell the suspensions should remain stable for up to 1 week if stored in a fridge at 2–8°C.
2. Discard if visible haemolysis occurs.

#### LIMITATIONS

1. Deterioration of red cells suspended in Lorne LISPreservacell may occur if the saline used for washing is contaminated with microorganisms.
2. False positive results may occur if the test serum contains antibodies to components of Lorne LISPreservacell.
3. Cells stored in normal ionic strength preserving solutions containing aminoglycosides containing antibiotics (Neomycin, Gentamycin) and then suspended in Lorne LISPreservacell and then resuspended in LISS, may demonstrate accelerated deterioration of protease-labile antigens such as S, s, Fy<sup>a</sup> and Fy<sup>b</sup>.

#### SPECIFIC PERFORMANCE CHARACTERISTICS

1. Prior to release, each batch of Lorne LISPreservacell is tested by the **Recommended Techniques** and found to show no non-specific reactions with normal red cells.
2. Lorne LISPreservacell has been quality controlled to be within the following parameters:
  - pH: 6.6–6.8 at 22°C ± 1°C.
  - Conductivity: 3.4–4.0 mS/cm at 22 °C ± 1°C
  - Osmolality: 285 – 305 mOsmol/kg
3. The formulation does not interfere with complement-mediated haemolysis.

#### DISCLAIMER

1. The user is responsible for the performance of the reagent by any method other than those mentioned in the **Recommended Technique**.
2. Any deviations from the **Recommended Technique** should be validated prior to use<sup>5</sup>.

#### BIBLIOGRAPHY

1. Beutler E. Experimental blood preservatives for liquid storage. In "The Human Red Cell In Vitro". Edited by Greenwalt, TJ and Jamieson GA. Pub. Grune and Stratton, 1973: 189-217.
2. Snyder EL, Hezzey A, Joyner T, Davisson W, Buchholtz, DH. Stability of red cell antigens during prolonged storage in citrate-phosphate-dextrose and a new preservative solution. Transfusion 23: 165-166, 1982.
3. Loutit JF, Mollison PL, Young IM. Citric acid-sodium-citrate-glucose mixtures for blood storage. J Exp Physiol 32: 183-202, 1943.
4. Guidelines for the Blood Transfusion Service in the United Kingdom. H.M.S.O. Current Edition.
5. British Committee for Standards in Haematology, Blood Transfusion Task Force. Recommendations for evaluation, validation and implementation of new techniques for blood grouping, antibody screening and cross matching. Transfusion Medicine, 1995, 5, 145-150.

#### AVAILABLE REAGENT SIZES

Vial Size	Catalogue Number
500 mL	982500

For the availability of other sizes, please contact:

**Lorne Laboratories Limited**  
Unit 1 Cutbush Park Industrial Estate  
Danehill  
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#### TABLE OF SYMBOLS

	Batch Number		<i>in-vitro</i> Diagnostic
	Catalogue Reference		Store At
	Expiry Date		Manufacturer
	Read Pack Insert		