



RED BLOOD CELL PRESERVATION SOLUTION
DIRECTIONS FOR USE

Alsevers: For Preservation Of Red Blood Cells.

SUMMARY

Red cell suspensions can have their shelf life extended by being prepared in a suspending medium shown to extend their viability. Such preservative solutions work by providing the metabolic requirements of the red cells whilst preventing infection and maintaining antigenic expression.

PRINCIPLE

When used by the recommended technique, the reagent will extend the shelf life of red cells by up to 10 weeks (See **Limitations**).

REAGENT

Lorne Alsevers is a citrate buffered solution containing glucose, sodium chloride, and purine bases, with Chloramphenicol and Neomycin 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 Alsevers.
2. Resuspend red cells to desired concentration in Lorne Alsevers.

STABILITY OF CELL SUSPENSIONS

1. Following resuspension of test red cells in Lorne Alsevers the suspensions should remain stable for up to 10 weeks if stored in a fridge at 2-8°C.
2. Discard if visible haemolysis occurs.

LIMITATIONS

1. Deterioration of red cells suspended in Lorne Alsevers 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 Alsevers.
3. Cells stored in Lorne Alsevers and then resuspended in LISS, may demonstrate accelerated deterioration of protease-labile antigens such as S, s, Fy^a and Fy^b.

SPECIFIC PERFORMANCE CHARACTERISTICS

1. Prior to release, each batch of Lorne Alsevers is tested by the **Recommended Techniques** and found to show no non-specific reactions with normal red cells.
2. Lorne Alsevers has been quality controlled to be within the following parameters:
 - pH 6.8–7.3 at 22°C ± 1°C.
 - Conductivity: 11.5-13.0 mS/cm at 22 °C ± 1°C
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 use⁵.

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, 1983.
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
1000 mL	983000

For the availability of other sizes, please contact:

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

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