RED CELL PRESERVING SOLUTION FOR SEROLOGICAL APPLICATIONS

SUMMARY
In blood group serology, known red cell panels are of immense value in confirming the results of forward grouping, antibody screening and detection of rare phenotypes. A red cell preserving solution is utilized to preserve the red cells of interest. ERYWELL® red cell preservation solution is formulated specifically for enhanced preservation of red cells carrying clinically important phenotype or genotype, which are required for routine immunohaematological practice.

REAGENT
In vitro diagnostic reagent. NOT FOR MEDICINAL USE.
ERYWELL® red cell preserving solution is a standardized Alsever’s solution for maintaining red cell integrity and survival.

STORAGE AND STABILITY
Store the reagent at 2-8°C.
Stability of unopened vial: 24 months from the date of manufacturing.

PRINCIPLE
Red blood cell shrinkage and loss of antigenic properties are observed on storage. To preserve the red cells for a longer time and ensure enhanced usage life for serological procedures the ERYWELL® solution supplies the necessary nutrients, salts and preservatives for maintaining red cell integrity and antigenic properties useful during serological procedures.

NOTE
1. In vitro diagnostic reagent. Not for medicinal use.
2. Extreme turbidity may indicate microbial contamination. Such reagents must be discarded.

ADDITIONAL MATERIAL REQUIRED
1. Freshly collected red blood cells in EDTA di-potassium salt (1.5 mg/ml of whole blood).
2. Test tubes 12 x 75 mm, scrupulously clean and dry.
3. 10 ml pipettes, scrupulously clean and dry.
4. 500 µl micropipette and micropipette tips.
5. Freshly prepared normal saline (0.9% NaCl).
6. Table centrifuge.
7. Sterile 10 ml vials.

PROCEDURE
a) Quick method for whole blood preservation
1. Collect 5 ml whole blood in EDTA di-potassium salt (1.5 mg/ml of whole blood). Add equal volume of ERYWELL® solution to it. Gently mix the solution.
2. Before using the red cells prepared by the Quick method, it is recommended to wash the red cells three times with normal saline before use for testing purpose.

b) Preparation of 2/3/5% stabilized Red Blood cell suspension in ERYWELL® solution
1. Collect 2 ml of freshly drawn venous blood in a clean and dry test tube containing 3 mg of EDTA di-potassium salt.
2. Add 5 ml of normal saline solution and mix well.
3. Centrifuge the tube at 3000 r.p.m. for 2-3 minutes to form a red cell button.
4. Discard the supernatant.
5. Resuspend the red cell button in normal saline solution.
6. Centrifuge the tube at 3000 r.p.m. for 2-3 minutes.
7. Repeat the washing of the red cells (step 4 & 5) one more time in normal saline.
8. After centrifugation, remove the supernatant without disturbing the red cell button.
9. Now resuspend the red cell button in 5 ml of ERYWELL® solution.
10. Centrifuge the tube at 3000 r.p.m. for 2-3 minutes.
11. After the centrifugation, remove the supernatant without disturbing the red cell button.
12. Take 0.2/0.3 ml of packed red cells from the above cell button and resuspend them in 10 ml of ERYWELL® solution for preparation of 2/3% red cell suspension. To obtain a 5% red cell suspension resuspend 0.5 ml of packed red cells from the above cell button in 10 ml of ERYWELL® solution.
13. Store the red cell suspension in a sterile 10 ml vial.
14. The red cell suspension so obtained is ready to use for testing.
STORAGE
1. The whole blood preserved in ERYWELL® solution prepared by the Quick method can be stored up to 4 weeks at 2-8°C.
2. The ready to use 2/3/5 % stabilized red blood cell suspension in ERYWELL® solution should be stored at 2-8°C and can be utilized or 6 weeks from the date of preparation.

PRECAUTIONS
1. Store ERYWELL® at 2-8°C with cap tightly closed.
2. Do not contaminate the solution as it may subsequently effect the stability of red cell suspension.
3. Glassware used to retrieve the ERYWELL® red cell suspension should be scrupulously clean and sterile.

WARRANTY
This product is designed to perform as described on the label and package insert. The manufacturer disclaims any implied warranty for use and sale for any other purpose.

BIBLIOGRAPHY
3. Data on File: Tulip Diagnostics (P) Ltd.