

# ANTI-HUMAN GLOBULIN SERUM (COOMBS)

**REF**: 819 001 (1 X 10 ml) REF: 819 002 (10 X 10 ml)

# **Intended Use**

Spectrum Diagnostics Anti-Human Globulin Serum is intended for the in-vitro detection of antibody coating on human erythrocytes

# Background

Antibodies immunoglobulins may become attached to human red cells either "in-vivo" or "in-vitro"

"In-vivo" coating can occur if the body produces an auto-antibody against a self antigen located on its own red cells.

"In-vitro" coating can occur during blood grouping tests compatibility testing prior to transfusion or when testing to detect and investigate atypical antibodies

#### Recommended Procedure

# Indirect Test - Tile method

- 1- Prepare 2 4 % suspension of red cells to be used in the test in physiological saline (85% Nacl pH 7.0)
- 2- Place in a small Test tube:
  - Two volumes of serum to be tested
  - 1 volume of 3% red cell suspension
- 1 volume of 22% or 30 % spectrum Bovine albumin 3- Mix well and incubate at 37°C for 30 minutes
- 4- Wash the cells 4 times in large volumes in physiological saline Decant completely the last wash
- 5- Re-suspend the cell to a 3% suspension in physiological saline
- 6- Mix on a clean tile or slide:
  - 1 volume of Spectrum anti-human globulin reagent 1 volume of 3 % suspension washed cells
- Allow to stand at room tempereature for 5 minutes 8-Rock the tile gently and examine for agglutination over a light source

## Indirect Test - Tube method

- 1- Prepare 2 -4 % suspension of the cells to be used in the test in physiological saline (0.85% Nacl pH 7.0)
- 2- Place in small Test tube:

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- Two volumes of serum to be tested
- 1 volume of 3% red cell suspension
- 1 volume of 22% or 30 % spectrum Bovine albumin 3- Mix well and incubate at 37 °C for 30 minutes
- 4- Wash the cells 4 times in large volumes of physiological saline Decant completely the last wash
- 5- Add 2 volumes of Spectrum anti-human globulin reagent 6- Mix well and centrifuge at 1000 rpm (100 RDF) for 1 minute
- Agitate the tube gently and examine macroscopically for agglutination. Negatives can be checked microscopically

#### SYMBOLS IN PRODUCT LABELLING ECREP Authorised Representative Use by/Expiration Date For in-vitro diagnostic use 🔼 CAUTION. Consult instructions Batch Code/Lot number for use Catalogue Number Manufactured by Consult instructions for use X (Xi) - Irritant Temperature Limitation

## **Direct Test - Tile method**

- 1- Wash the red cells to be tested in large volumes of physiological saline. Decant completely the last wash
- 2- Prepare a 3% suspension of washed red cells in physiological
- 3- Mix on a clean tile or slide:
  - drop of Spectrum anti-human globulin reagent 1 drop of 3 % red cell suspension
- 4- Allow to stand at room tempereature for 5 minutes
- 5- Rock the tile gently and examine for agglutination over a light source

# **Direct Test - Tube method**

- 1- Wash the red cells 4 times in large volumes in physiological saline. Decant completely the last wash
- 2- Re-suspend the cells to 5% suspension in physiological saline
- 3- Place in a small Test tube:
  - 2 volumes of Spectrum anti-human globulin reagent 1 volume of 3% suspension test red cells
- 4- Mix well and centrifuge at 1000 rpm (100 RDF) for 1 minute
- 5- Agitate the tube gently and examine macroscopically for agglutination. Negatives can be checked microscopically

#### **Notes**

- 1- Appropriate positive and negative controls must be used with each test or batch of test
- Spectrum anti-human globulin reagent is suitable for use with automated Coombs washing equipment
- This reagent is prepared by blending the serum from rabbits which have been immunized with different human globulin
- 4- Preservative :0.1% sodium azide store at 2 8 °C