

## 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
- 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
- 7- Allow to stand at room temperature 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:  
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
- 7- Agitate the tube gently and examine macroscopically for agglutination. Negatives can be checked microscopically

#### 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 saline
- 3- Mix on a clean tile or slide:  
1 drop of Spectrum anti-human globulin reagent  
1 drop of 3 % red cell suspension

### SYMBOLS IN PRODUCT LABELLING

	For in-vitro diagnostic use		Use by/Expiration Date
	Batch Code/Lot number		CAUTION. Consult instructions for use
	Catalogue Number		Manufactured by
	Consult instructions for use Temperature Limitation		

- 4- Allow to stand at room temperature 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
- 2- Spectrum anti-human globulin reagent is suitable for use with automated Coombs washing equipment
- 3- This reagent is prepared by blending the serum from rabbits which have been immunized with different human globulin preparations
- 4- Preservative :0.1% sodium azide store at 2 - 8 °C

### Warranty

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

### Precautions and Warnings

Do not ingest or inhale. In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.

### Waste Disposal

This product is made to be used in professional laboratories. Please consult local regulations for a correct waste disposal.  
**S56:** dispose of this material and its container at hazardous or special waste collection point.  
**S57:** use appropriate container to avoid environmental contamination.  
**S61:** avoid release in environment. refer to special instructions/safety data sheets.

### References

1. Kohler C, & Milstein C. (1975), Continuous cultures of fused cells secreting antibody of predefined specificity, Nature, 256, 495-497.
2. Lee H. H., Rouger P., Germain C., Muller A & Salmon C. (1983), The production and standardisation of monoclonal antibodies as AB blood group typing reagents, Symposium of International Association of Biological Standardisation on monoclonal antibodies.
3. Human Blood Groups, by Geoff Daniels, 1st Ed., Blackwell Science, Oxford 1995.
4. HMSO, Guidelines for the Blood Transfusion Services., 2nd Ed., 1994.