

## GBCLONE ANTI "D" (IgG+IgM) (Monoclonal Blood grouping)

KIT NAME	KIT SIZE	CAT. NO
GBCLONE Anti - D (IgG+IgM)	1 X 10 ml	SGBD00010M



### INTRODUCTION

The Rho(D) antigen is found on erythrocytes of approximately 95% of the Indian population. The terms "Rh" positive or "Rh" negative are understood to refer solely to the presence or absence of this antigen accordingly. Anti D (Rho) monoclonal IgM is used for the detection of the presence of Rho antigen on the red blood cells.

### METHOD PRINCIPLE

Human red cells possessing RhoD antigen will be agglutinated by Anti-D directed towards the respective antigen (s), indicating positive test. Absence of agglutination cells with ANTI-D (IgM), ANTI-D (IgG + IgM), Anti - D (IgG), Anti D (Rho IgG + IgM) reagents is a negative test result and indicates the absence of the corresponding antigen.

### REAGENTS

Reagent Name	SGBD00010M
GBCLONE Anti - D (IgG+IgM)	1 X 10 ml

### WORKING REAGENT PREPARATION AND STABILITY

1. Store the reagent at 2-8°C. DO NOT FREEZE.
2. Unopened vial of Anti-D are stable at 2-8°C till the expiry date mentioned in the individual label.

### SAMPLE COLLECTION & STORAGE OR SPECIMEN AND STORAGE

Whole blood with anticoagulant. In case of delay in testing store sample at 2-8°C.

### PRECAUTIONS

1. Although MONOCLONAL SERA contain preservation care should be taken to avoid microbial contamination.
2. Do not interchange caps of vials and avoid use of turbid reagents.
3. Bring reagents and samples to room temperature before use.
4. Suppressed or diminished expression of certain blood group antigens may conversely give rise to false negative reactions.
5. Do not interpret peripheral drying or fibrin strands as agglutination.
6. All the samples should be considered as if potentially infectious and handle with due care at all times during testing and disposal.

### TITRE

1:256 Macroscopically & Average avidity < 10 seconds with whole blood.

### NOTE

It is advisable to include known positive and negative controls with every batch of tests. Observe the controls before reading the tests. The results are valid only if the result of controls are satisfactory do not observe beyond 2 minutes.

All Rh typing procedure must be adequately controlled by performing simultaneously a Negative control using a drop 22% Bovine Albumin instead of Anti-D reagent. Rh grouping test can be interpreted as positive only if the control tests result is negative. If control test is positive, the test procedure must be repeated using

Anti-D (Rho) are not from Human source hence contamination due to HBsAg (Hepatitis B) and HIV I & II antibodies is practically excluded.

### PROCEDURE

#### I. SLIDE TEST

1. Place one drop of Anti - D (IgM) or Anti - D (IgG+IgM) on clean and dry slide.
2. Add one drop of whole blood or 40% RBCs suspension prepared in the individuals own serum or in normal group compatible serum (Neutral serum)
3. Mix well with an applicator stick, leave them in contact for 30 seconds & rock the slide gently back and forth.
4. Observe for agglutination macroscopically within 2 minutes.

#### II. TUBE TEST

1. Prepare 5% suspension of the RBCs to be tested in isotonic saline.
2. Place one drop of Anti-D(IgM), Anti-D(IgG+IgM) into correspondingly labeled tubes.
3. Add one drop of cell suspension to each tube and mix well.
4. Centrifuge for 1-2 minutes at 1500 RPM or incubate at Room temperature for 45 - 60 minutes.
5. Gently dislodge cell button and observe for agglutination.

### INTERPRETATION OF RESULTS :

Agglutination indicates the presence of Anti D(Rho) antigen. No Agglutination is a negative test result and indicates the absence of Anti D(Rho) antigen.

### PRECAUTION

1. Blood obtained by finger puncture may be tested directly on a slide. Blood without anticoagulant should be mixed quickly with the Anti-D serum to avoid clotting.

In both methods agglutination indicate D (Rho) positive cell type absence of agglutination generally indicates D(Rho) Negative cell type. However, all negative doubtful or weak test results should be confirmed by Indirect Coomb's test (Du Test) to rule out the possibility or the presence of the rare Du variant using polyclonal Anti-D(Rho) serum or Anti-D (IgG+IgM).

### LITERATURE

1. Landsteiner Kizpur K. Lur Kenntnis der fermentativen Lytischen & Agglutinierenden Wirkungen des Blutsersum und Derlymphbezbl Bakt 27.357.1900
2. Kohler G. Milstein Nature 256 495 (1975)
3. Technical method & procedure of the American Association of Blood Bank VI Ed. 1947.



### Genuine Biosystem Private Limited

Plot No.97 & 98, Kattabomman street,  
Parvathy Nagar Extension,  
Old Perungalathur, Chennai - 600063, India.  
Ph: +91-44-48681845

Email: [genuinebiosystem@gmail.com](mailto:genuinebiosystem@gmail.com)  
website: [www.genuinebiosystem.com](http://www.genuinebiosystem.com)