

GBCLONE Anti-A, Anti-B, Anti AB (Monoclonal Blood grouping)

Kit Name	Kit Size	Cat No
GBCLONE Anti-A	1 x 10 ml	CAA000010M
GBCLONE Anti-B	1 x 10 ml	CAB000010M
GBCLONE Anti-AB	1 x 10 ml	CAAB00010M

INTRODUCTION

In 1900, Landsteiner discovered the serum of some people would agglutinate the red cells of others. Four common phenotypes are now recognised: O, A, B and AB. Subgroups of A and B have since been identified. The mouse monoclonal IgM Anti-A, Anti-B and Anti-AB antibodies are produced "in-vitro" as culture supernatant of selected hybridoma, obtained by the fusion of mouse antibody producing B-lymphocytes with mouse myeloma cells.

METHOD PRINCIPLE

The human ABO blood group system consists in the fact that persons lacking the A and/or B antigens from the red cells regularly have antibodies in the serum at the missing antigens. The following table shows the principle antigens and antibodies of ABO system.

REAGENTS

Reagent Name	Pack
GBCLONE Anti - A	1 x 10 ml
GBCLONE Anti - B	1 x 10 ml
GBCLONE Anti - AB	1 x 10 ml

WORKING REAGENT PREPARATION AND STABILITY

1. Store the reagent at 2-8°C. DO NOT FREEZE.
2. Unopened vial of MONOCLONAL sera are stable at 2-8°C till the expiry date mentioned in the individual label. Preferably use the content of opened vial within a month.

SAMPLE COLLECTION AND STORAGE

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

PRECAUTIONS:

1. Although Monoclonal sera contains preservative, 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.

NOTE:

Monoclonal Sera are not from human source, hence contamination due to HBsAg (Hepatitis B) and HIV 1 & 2 antibodies is practically excluded.

TITRE:

1:512 Macroscopically & Average avidity < 10 seconds with whole blood.

GBPL/SABO/04 12.20



PERFORMANCE CHARACTERISTICS

The reagent has been characterised by the recommended procedure. Before release, each of lot Anti A, B and AB reagent is tested by the recommended procedures against a panel of antigen positive red cells to ensure suitable reactivity.

The specificity of source monoclonal antibodies is shown using a panel of antigen-negative cells. Anti-B does not react with "Acquired-B" red cells. Monoclonal ABO reagents do not detect crypt antigens such as T, Tn or Cad.

PROCEDURE

SLIDE TEST:

1. Place one drop of Anti-A, or Anti-B, or Anti-AB on clean and dry slide.
2. Add one drop of whole blood or 40% RBC's suspension prepared in the individuals own serum
3. Mix well with an applicator stick; gently tilt the slide forward and backward at room temperature for a maximum of 2 minutes.

II. TUBE TEST:

1. Use 8x50 mm small glass test tube for each specimen, take a tube and label it with the name or code number of the patient
2. Prepare 5% suspension of the RBC's to be tested in isotonic saline.
3. Add one drop of Anti-A, or Anti-B, or Anti-AB reagent and saline to the respective tubes
4. Add one drop of cell suspension to each tube and mix well.
5. Shake each tube thoroughly and centrifuge for 1 minute at 1000 RPM (125g)

INTERPRETATION

Agglutination of red blood cells within two minutes indicates the corresponding antigens in the patient's red blood cells. Absence of agglutination indicates the absence of such antigens on the red blood cells.

Agglutination results are as interpreted follows for phenotyping.

Anti-A	Anti-B	Anti-AB	Saline	Results
+	-	+	-	'A' Group
-	+	+	-	'B' Group
+	+	+	-	'AB' Group
-	-	-	-	'O' Group
-	-	+	-	Weaker variants of 'A' or 'B' Group



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



Kit Name	Kit Size	Cat No
GBCLONE Anti-D	1 x 10 ml	CAD000010M

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 results and indicates the absence of the corresponding antigen.

REAGENTS

Reagent Name	SGBD00010ML
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

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 saline Anti-D(Rho) or Anti-D (IgG+IgM)
- 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% RBC's 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 labelled 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 fermentative Lytischen & Agglutinerenden Wirkungen des Blustserum und Derlymphbezbl Bakt 27.357.1900 Anti-D (Rho) are not from Human source hence contamination due to HBsAg (Hepatitis B) and HIV I & II antibodies is practically excluded.
2. Kohler G. Milstein Nature 256 495 (1975)
3. Technical method & procedure of the American Association of Blood Bank VI Ed. 1947.



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