BLOOD GROUPING REAGENTS
Vial dropper 10 ml Monoclonal Antisera
Ref 401 Anti-A
402 Anti-B
403 Anti-AB
Monocl. Antisera for Slide and Tube Method

Anti-A, Anti-B, Anti-AB

Reagents for ABO Blood Grouping

Murine monoclonal IgM Blood Grouping Reagents.
Store between 2° and 8°C. Inappropriate storage impairs efficacy of the reagent. Preservative < 0,1 % NaN3.
The reagents have been optimised for use as supplied by the recommended techniques without further dilution or additions.
Diagnostic reagents for professional in-vitro diagnostic use only.

Reagent

The test procedures recommended for this reagent are based upon the agglutination (clumping) of red blood cells which carry a specific antigen in the presence of a corresponding specific antibody. The Cypress'-ABO blood grouping reagents contains mouse monoclonal IgM antibodies. When used by the recommended techniques these reagents will cause direct agglutination of red cells carrying the specific antigen. The reagents contain the colours: Anti-A (blue), Anti-B (yellow), Anti-AB (pale yellow).

Precautions

- **The reagent cannot be assumed to be free from infectious agents. Care must be taken in the use and disposal of each container and its contents.**
- **With each testing, the result of red cells grouping should be confirmed by reverse grouping the individual's serum with known A, and B red cells. Both results have to correspond.**
- **Centrifugation highly different from appointed relative centrifugal force may lead to false results.**
- **The procedures identified below are for manual testing only. When using automated or semi-automated instruments, follow the procedures that are contained in the operator's manual provided by the device manufacturer. Laboratories must follow approved validation procedures to demonstrate compatibility of this product on automated systems.**
- **Strength of positive reactions also depends on age of used blood.**

Sample collection

Blood samples should be used as soon as possible. If testing the blood samples is delayed storage should be at 2°-8°C. Samples collected into heparin or oxalate should be tested within two days. Blood drawn into sodium citrate or EDTA should be tested within 14 days. Blood obtained by finger puncture may be tested directly by the slide method but, to avoid clotting, blood collected in this manner should be mixed quickly with the reagent.

Not provided material, additionally needed:

at Slide Method: Glass slide, Pasteur pipette, Mixing stick
at Tube Centrifugation Method: Test tubes (10x75mm or 12x75 mm), Pipettes designed to deliver approximately 100 µL, Centrifuge, Isotonic saline (with 0,85 - 0,9% sodium chloride)

Test procedure

A. Slide Technique

1. **Use erythrocyte sediment or whole blood only.**
2. **On a clean prelabelled glass slide add 1 drop (± 50 µl) of Cypress ABO reagent and, using a Pasteur pipette, 1 drop (± 50 µl) of erythrocyte sediment or whole blood.**
3. **Mix the reagent and the cells with a stick over an area about 2 cm in diameter.**
4. **By slightly rotating the slide check for agglutination within 1 minute (reaction starts within seconds). Unspecific reactions might appear due to drying of the reaction-formation or if the slide is heated.**

B. Tube technique – with centrifugation

1. **Use a 2% to 5% suspension of red blood cells in isotonic saline (cells washed one time or up to three times with isotonic saline) only.**
2. **To 100 µl (alternative 1 drop = ± 50 µl) of reagent in a labelled test tube, add an equal volume of suspension of test red blood cells.**
2. **Mix well by slightly shaking and incubate at room temperature (15 - 30°C) for a 1 – 15 minutes**
3. **Centrifuge at 1000 rpm (± 180 – 270 g) for 1 minute**
4. **Gently agitate the tube to dislodge the red cells and examine macroscopically for agglutination within 3 minutes.**

Interpretation of the results

After slightly rotating / shaking at Slide Method and at Tube Centrifugation Method:
Positive results (+): visible agglutination of erythrocytes is a positive result and indicates the presence of the corresponding antigen.
Negative results (-): No visible agglutination of erythrocytes is a negative result and indicates the absence of the corresponding antigen.

General Observations

1. **No valid conclusion concerning the test result can be reached, if controls with uncertain or false results occur.**
2. **Enzyme treated erythrocytes may react unspecifically.**
3. **The test serum anti-B doesn't react with "aquired B".**
4. **Due to variability of antigen expression, reactivity of these reagents against certain phenotypes may give weaker reactivity compared to control cells. Anti-A will not detect all examples of A_x cells.**
5. **Red blood cells coated with alloantibodies or autoantibodies of the same or similar specificity as the reagent (i.e., cells that are positive in the direct antiglobulin-test (DAT)) may give weak reactions. In extreme cases, false-negative results may occur.**

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BLOOD GROUPING REAGENT
Vial dropper 10 ml
Monoclonal IgM antibody
Ref 404 Anti D
For Slide and Tube Method

Anti-D

The Rh blood group system

The observations of Levine and Stetson in 1939 and of Landsteiner and Weiner in 1940 provided the basis for current understanding of the clinical significance and laboratory detection of RhD antigen.
Approximately 15% of Caucasians lack the RhD antigen and are easily stimulated by RhD+ve pregnancy or blood transfusion to produce Anti-D. This may cause haemolytic disease of the newborn or severe haemolytic transfusion reactions.

Principle of the reagents and test procedure

The test procedures recommended for the use of this reagent are based upon the agglutination (clumping) of red cells carrying the D antigen in the presence of an Anti-D antibody. This test serum reacts negatively with erythrocytes of category D^{VI}.

Reagent

Human monoclonal IgM Blood Grouping Reagent.
Store between 2° and 8°C. Inappropriate storage impairs efficacy of the reagent. Preservative < 0,1 % NaN_3.
The reagents have been optimised for use as supplied by the recommended techniques without further dilution or additions.
This reagent is for professional in-vitro diagnostic use only.

Precautions

- The reagent cannot be assumed to be free from infectious agents. Care must be taken in the use and disposal of each container and its contents.
- With each testing positive and negative controls should be performed.
- Centrifugation highly different from appointed relative centrifugal force may lead to false results.
- The procedures identified below are for manual testing only. When using automated or semi-automated instruments, follow the procedures that are contained in the operator's manual provided by the device manufacturer. Laboratories must follow approved validation procedures to demonstrate compatibility of this product on automated systems.
- Strength of positive reactions also depends on age of used blood

Sample collection

Blood samples should be used as soon as possible. If testing the blood samples is delayed storage should be at 2°-8°C. Samples collected into heparin or oxalate should be tested within two days. Blood drawn into sodium citrate or EDTA should be tested within 14 days. Blood obtained by finger puncture may be tested directly by the slide method but, to avoid clotting, blood collected in this manner should be mixed quickly with the reagent.

Not provided material, additionally needed:

at Slide Method: Glass slide, Pasteur pipette, Mixing stick
at Tube Centrifugation Method: Test tubes (10x75mm or 12x75 mm), Pipettes designed to deliver approximately 100 µL, Centrifuge, Isotonic saline (with 0,85 - 0,9% sodium chloride)

Test procedure

A. Slide Technique

1. Use erythrocyte sediment or whole blood only.
2. On a clean prelabelled glass slide add 1 drop (± 50 µl) of anti-D reagent and, using a Pasteur pipet, 1 drop (± 50 µl) of erythrocyte sediment or whole blood.
3. Mix the reagent and the cells with a stick over an area about 2 cm in diameter.
4. By slightly rotating the slide, check for agglutination within 1 minute (reaction starts within seconds). Unspecific reactions might appear due to drying of the reaction-formation or if the slide is heated.

B. Tube technique – with centrifugation

1. Use a 2% to 5% suspension of red blood cells in isotonic saline (cells washed one time or up to three times with isotonic saline) only.
2. To 100 µl (alternative 1 drop = ± 50 µl) of reagent in a labelled test tube, add an equal volume of suspension of test red blood cells.
2. Mix well by slightly shaking and incubate at room temperature (15 - 30°C) for a 1 – 15 minutes.
3. Centrifuge at 2000 rpm (± 800 – 1000 g) for 1 minute.
4. Gently agitate the tube to dislodge the red cells and examine macroscopically for agglutination within 3 minutes.

Interpretation of the results

After slightly rotating / shaking at Slide Method and at Tube Centrifugation Method:
Positive results (+): visible agglutination of erythrocytes is a positive result and indicates the presence of the corresponding antigen.
Negative results (-): No visible agglutination of erythrocytes is a negative result and indicates the absence of the corresponding antigen.

General Observations

1. No valid conclusion concerning the test result can be reached, if controls with uncertain or false results occur.
2. Enzyme treated erythrocytes may react unspecifically.
3. Due to variability of antigen expression, reactivity of these reagents against certain phenotypes may give weaker reactivity compared to control cells.
4. Red blood cells coated with alloantibodies or autoantibodies of the same or similar specificity as the reagent (i.e., cells that are positive in the direct antiglobulin-test (DAT)) may give weak reactions. In extreme cases, false-negative results may occur.
5. With slide method most of weak D-antigens (D^{weak}) and categories are not recognized.
6. This testserum reacts negatively with erythrocytes of category D^{VI}.

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