







SBio Anti-A, Anti-B, Anti-A,B

Monoclonal Blood Grouping Antibodies
for Slide and Tube Tests

| | Anti-A | | | | Anti-B | | | | Anti-A, B | | |
|------|-----------|------------|-------------|----------|-----------|------------|-------------|----------|-----------|-------------|----------|
| REF | 90110610 | 90220310 | 90220410 | 90110010 | 90120610 | 90220310 | 90220410 | 90120010 | 90130610 | 90220410 | 90130010 |
| Pack | 6 x 10 ml | 3 x 10 ml* | 4 x 10 ml** | 10 ml | 6 x 10 ml | 3 x 10 ml* | 4 x 10 ml** | 10 ml | 6 x 10 ml | 4 x 10 ml** | 10 ml |

* SBio ABD Combipack ** SBio ABD Total Combipack

| | | | |
|---|--|--|--|
|  Store at 2-8°C | LOT Batch Number | REAGENT Description of reagent |  <p>Harmful if swallowed. Do not breathe vapour. If swallowed, seek medical advice immediately and show this container or label. Avoid release to the environment. Refer to special instructions.</p> |
|  Use by (Last day of stated month) |  Consult Instructions for use |  This side up | |
|  Date of Manufacture | REF Catalogue Number | IVD In vitro Diagnostic Medical Device | |

INTENDED USE

SBio Anti-A, SBio Anti-B and SBio Anti A,B reagents are used for the in vitro detection and identification of human A, B and A,B blood group antigens by direct agglutination through slide or tube test method.

SUMMARY

Monoclonal antibodies are derived from hybridoma cell lines, created by fusing mouse antibody producing B lymphocytes with mouse myeloma cells. Each hybridoma cell line produces homogenous antibodies of only one immunoglobulin class, which are identical in their chemical structure and immunological activity.

Human red blood cell antigens can be divided into four groups A, B, AB and O depending on the presence or absence of the corresponding antigens on the red blood cells.

Approximately 41% of the Caucasian population have the A antigen, 9% have the B antigen, 4% have both A and B antigens, while the remaining have neither the A nor the B antigen.

REAGENTS

SBio Anti-A (Clone 11H5), SBio Anti-B (Clone 6F9), and SBio Anti-A,B (Clone 11H5+6F9+ES-15) are ready to use solutions of the respective specific agglutinating sera of the immunoglobulin class IgM prepared from the corresponding supernatants of mouse hybridoma cell cultures. Each batch of reagent undergoes rigorous quality control at various stages of manufacture for its specificity, avidity and performance.

REAGENT STORAGE AND STABILITY

1. Store the reagent at 2-8°C. DO NOT FREEZE.
2. The shelf life of the reagent is as per the expiry date mentioned on the reagent vial label. Once opened the shelf life of the reagent vial is as described on the reagent vial label provided it is not contaminated.

PRINCIPLE

Human red blood cells possessing A and/or B antigen will agglutinate in the presence of agglutinating sera directed towards the antigen. Agglutination of red blood cells with SBio Anti-A, SBio Anti-B, SBio Anti-A,B reagents is a positive test result and indicates the presence of the corresponding antigen.

Absence of agglutination of red blood cells with SBio Anti-A, SBio Anti-B, and SBio Anti-A,B reagents is a negative test result and indicates the absence of the corresponding antigen.

NOTE

1. In vitro diagnostic reagent for laboratory and professional use only. To be used by a qualified personnel. Not for medicinal use.

2. The reagent contains sodium azide 0.1% as preservative. Avoid contact with skin and mucosa. On disposal flush with large quantities of water.
3. Extreme turbidity may indicate microbial contamination or denaturation of protein due to thermal damage. Such reagents should be discarded.
4. Reagents are not from human source, hence contamination due to HBsAg, HIV and HCV is practically excluded.
5. It is necessary to use the dropper provided in the reagent vial to dispense a reagent drop.
6. It is advisable to wear gloves and safety spectacles and handle test specimens of human origin with caution.
7. Do not use damaged or leaking reagents.
8. Special protective measures, conditions for disposal and disinfection should be implemented in accordance with local regulations.

SAMPLE COLLECTION AND PREPARATION

No special preparation of the patient is required prior to sample collection by approved techniques. Samples should be stored at 2-8°C if not tested immediately. For optimal results, freshly collected sample should be used. Anticoagulants like EDTA, CPD-A and Citrate can be used. Do not use haemolysed samples.

ADDITIONAL MATERIAL REQUIRED FOR SLIDE AND TUBE TESTS

Glass slides (60 x 85 mm), Test tubes (12 x 75 mm), Pasteur pipettes, Isotonic saline, Centrifuge, Timer, Mixing sticks, test tube rack.

TEST PROCEDURE

Bring reagents and samples to room temperature before testing.

Slide Test

1. Place one drop of SBio Anti-A, SBio Anti-B, SBio Anti-A,B reagents using the reagent vial dropper separately on a clean glass slide.
2. To each reagent drop, add 50 µl of whole blood.
3. Mix well with a mixing stick uniformly over an area of approximately 2.5 cm².
4. Rock the slide gently, back and forth.
5. Observe for agglutination macroscopically at two minutes.

Tube test

1. Prepare a 2-3% suspension of the red cells to be tested in isotonic saline.
2. Place one drop of SBio Anti-A, SBio Anti-B, SBio Anti-A,B reagents using the reagent vial dropper into corresponding labeled test tubes.

3. Pipette into each of the test tubes, 50µl of the test red cell suspension and mix well.
4. Centrifuge for 1 minute at 1000 RPM (125g) or 20 seconds at 3400 RPM (1000g).
5. Gently suspend the cell button, observing for agglutination macroscopically.

INTERPRETATION OF RESULTS

Slide and tube tests

Agglutination is a positive test result and indicates the presence of A and/or B antigen. Do not interpret peripheral drying or fibrin strands as agglutination. No agglutination is a negative test result and indicates the absence of A and/or B antigen.

REMARKS

1. (a) SBio Anti-A and Anti-A,B reagent reacts with Tn. Tn positive person must be excluded from donating blood as the occurrence of Tn is considered to be a symptom of a preleukaemic state and the red blood cells are polyagglutinable.
- (b) SBio Anti-B is truly negative reacting with acquired B characteristics.
2. In the tube test procedure, it is recommended that tubes with negative reactions should be centrifuged once again (for the same centrifugation speed and time) and results read so that weak antigens are not overlooked.
3. As undercentrifugation or overcentrifugation could lead to erroneous results, it is recommended that each laboratory calibrate its own equipment and determine the time required for achieving the desired results.
4. Results of forward grouping obtained by using SBio Anti-A, SBio Anti-B and SBio Anti-A,B reagents should always be reconfirmed by performing reverse grouping with known red cells. If there is discordance, do not report the result and pursue blood identification in compliance with current recommendations and protocols or forward the sample to an expert laboratory.

5. It is strongly recommended that red cells with known ABO characteristics should be occasionally run, preferably on a daily basis to validate the reagent performance.
6. After usage the reagents should be immediately recapped and replaced to 2-8°C storage.
7. In certain cases (transfusion recipients, certain weak phenotypes A or B (A₃, B₃, ...), certain hemopathological modifications, mosaics or chimeras, etc.), an image of a double population may be observed.

PERFORMANCE CHARACTERISTICS

The performance of SBio Anti-A, SBio Anti-B, SBio Anti-A,B comply with the common technical specifications of in-vitro diagnostic medical devices under the recommended methods.

The performance of SBio Anti-A, SBio Anti-B, SBio Anti-A,B was evaluated on over 3275 samples (from donors, patients and neonates) drawn on the recommended anticoagulants. The evaluation demonstrated 100% specificity of each reagent versus the expected results with common known phenotypes A₁, A₂, A₃, B, A₃B, B and O.

WARRANTY

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

BIBLIOGRAPHY

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 Blood Transfusion Services., 2nd Ed., 1994.

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