

Instructions for use



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Anti-s AGT method

REF K1343

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For professional use only

Blood grouping reagent for the detection of the s antigen on human red cells

General information

This polyclonal rare blood grouping reagent is prepared from human serum containing the appropriate antibodies. This reagent meets the requirements of the concerned standards and guidelines. Performance characteristics are mentioned in the release documents, which are supplied with the product upon request. The principle of the test is the agglutination technique, which is based on antigen/antibody reaction. The inclusion of positive and negative controls with each series of blood group determinations is strongly recommended.

Precautions

For in vitro diagnostic use only. Reagents should be stored at 2–8°C. Leaking or damaged vials may not be used. Reagents (unopened or opened) should not be used beyond the expiration date, which is printed on the label of the vial. NaN₃ 0.1% (w/v) is used as preservative. Although all blood products are tested for infectious diseases and found negative, the reagents cannot be assumed to be free from infectious agents.

Care must be taken in the use and disposal of each container and its contents. Turbidity may indicate microbial contamination. To recognise reagent deterioration, testing of the reagent as part of the laboratory quality control program using appropriate controls is recommended. Waste-disposal, after completion of the test, should be performed according to your laboratory regulations.

Specimen collection and preparation

Blood samples should be withdrawn aseptically with or without the addition of anticoagulants. If testing of the blood samples is delayed, storage should be at 2–8°C.

Preparation of the specimen is described in the respective test procedures.

Test procedure

Indirect Antiglobulin Test (AGT method)

Tube requirements: round bottom glass tubes; size 75 x 10/12 mm.

1. Prepare a 3–5% cell suspension of erythrocytes to be tested, suspended in isotonic saline or in their own plasma or serum.
2. Add to a test tube:
 - 1 drop of AGT reagent
 - 1 drop of the 3–5% cell suspensionand mix well.
3. Incubate in a water bath for 15–20 minutes at 37°C.
4. Wash the tube 3 times in an excess of isotonic saline. Decant the last wash completely.
5. Add 2 drops of polyspecific anti-human globulin serum and mix well.
6. Centrifuge for 20 seconds at 1000 rcf or for a time appropriate to the calibration of the centrifuge.
7. Resuspend the cells by gentle agitation and read macroscopically for agglutination.
8. If there is no visible agglutination, add 1 drop of Coombs Control Cells and repeat steps 6 and 7; the reaction should now be positive. If the test remains negative the result is invalid and the test should be repeated.

Interpretation

A positive reaction (i.e. agglutination) indicates the presence of the corresponding antigen. A negative reaction (i.e. no visible agglutination) indicates the absence of the corresponding antigen.

Occurrence

s

Caucasians

89%

Negroids

94%

Limitations

Unexpected positive results due to: polyagglutination, autoagglutination, mixed field reaction.

Unexpected negative or weak results due to: weak antigens, mixed field reaction, decreased activity of the reagent.

False positive or false negative results may occur through contamination of test materials or any deviation from the recommended technique.

Red cells that have a positive direct antiglobulin test (DAT) produce a false positive test result. The use of AB serum (pooled) REF K1146, is recommended for detection of such invalid test results.

Ineffective washing of the red cells being tested can result in false negative results due to the neutralisation of the polyspecific anti-human serum by proteins (IgG) still present in the tube.

Polyclonal blood grouping reagents have been optimized for use by the technique recommended in this package insert. Unless otherwise stated their suitability for use by other techniques must be determined by the user.

References

1. Race R.R. and Sanger R.; Blood Groups in Man, 6th ed. Oxford Blackwell Scientific Publishers 1975.
2. Issitt P.D.; Applied Blood Group Serology, 3rd ed. Montgomery Scientific Publications, Miami, Florida, USA, 1985.
3. Daniels G.; Human Blood Groups. Blackwell Science Ltd. 1995.
4. Reid M.E. and Lomas-Francis C.; The Blood Group Antigen Facts Book. Facts Book Series, 1997.
5. Mollison P.L. et al.; Blood Transfusion In Clinical Medicine, 9th ed. Blackwell, Oxford, 1993.

Sanquin products are guaranteed to perform as described in the original manufacturer's instructions for use. Strict adherence to the procedures, test layouts and recommended reagents and equipment is essential. Sanquin declines all responsibility arising from any deviation thereof.