

Instructions for use



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Anti-H (lectin) saline method

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For professional use only

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

General information

Anti-H (lectin) saline method blood grouping reagent for the saline method is a stabilised extract prepared from the seeds of *Ulex europaeus*. 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 reagent has been optimised for use in the spin tube method. 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. 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Blood samples should be withdrawn aseptically with or without the addition of anticoagulants.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 procedures

Spin tube method

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

1. Prepare a 3–5% cell suspension of red cells to be tested in isotonic saline or in their own plasma or serum.
2. Add to a test tube:
 - 1 drop of anti-H (lectin) saline method
 - 1 drop of the 3–5% cell suspensionand mix well.
3. Centrifuge for 20 seconds at 1000 rcf or for a time appropriate to the calibration of the centrifuge.
4. Resuspend the cells by gentle agitation and read macroscopically for agglutination.

If no agglutination is visible, the test should be continued as follows:

5. Mix well and incubate the tube for 15–20 minutes at room temperature (18–25°C).
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.

Interpretation

A positive reaction (i.e. agglutination) indicates the presence of the H antigen on the red cells. A negative reaction (i.e. no visible agglutination) indicates the absence of the H antigen on the red cells.

The strength of the reaction with anti-H is correlated to the ABO blood group. Although significant variations are possible, the "reaction strength" of the H antigen can generally be seen to decrease according to the following order: O > A₂ > B > A₂B > A₁ > A₁B.

The very rare "Bombay" or O_h blood group is determined by genetic information containing instructions not to form any H antigen. Anti-H reagents do not agglutinate Bombay red cells.

Occurrence

H antigen

Caucasians

100%

Negroids

100%

Limitations

Unexpected positive results due to: pseudoagglutination, autoagglutination or the presence of Whartons jelly together with umbilical cord cells. Unexpected negative or weak results due to: low antigen expression, genetically determined conversion of the H antigen into other antigens or 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.

The anti-H (lectin) blood grouping reagent has been optimised 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. Issit 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.