SUMMARY AND EXPLANATION
Anti-Wra was first described in 1953 and detects a low incidence blood group antigen which has subsequently been shown to be part of the Diego blood group system. Anti-Wra is a frequent component of normal human serum, even in the absence of immunising episodes, and is commonly found in the serum of individuals with warm auto immune haemolytic anaemia. Anti-Wra has been associated with HDN and hemolytic transfusion reactions.

PRINCIPLE OF THE TEST
When used by the recommended technique, this reagent will cause agglutination (clumping) of red blood cells carrying the Wr® antigen. Lack of agglutination of the red blood cells demonstrates the absence of the Wr® antigen.

REAGENT DESCRIPTION
This reagent has been prepared from plasma collected from blood donors. ABO hemagglutinins were removed by adsorption. Conversion to serum was achieved by the addition of calcium chloride and where necessary, thrombin. Excess calcium was removed by the addition of sodium oxalate. The formulation also contains 1g/L sodium azide. The volume delivered by the reagent dropper bottle is approximately 40ul. Bearing this in mind, care should be taken to ensure that appropriate serum:cell ratios are maintained in all test systems.

STABILITY OF REACTION
37°C Indirect Antiglobulin
- Add 2 drops of blood grouping reagent to a test tube.
- Add 1 drop of red blood cells suspended 2-4% in isotonic saline.
- Mix the test well and incubate for 15-45 minutes at 36-38°C.
- Wash the test at least 3 times with a large excess isotonic saline. e.g. 4ml of saline per 12 (or 10) x 75mm glass tube)
- Add Anti-Human Globulin to each test tube in the amount specified in the manufacturer’s product insert.
- Mix the contents of the test tube well and centrifuge.
- Gentle shake the test tube to dislodge the cell button from the bottom and observe macroscopically for agglutination. Negative reactions may be examined with an optical aid.

INTERPRETATION OF LABEL SYMBOLS

INTERPRETATION OF RESULTS
Agglutination = positive test result
No agglutination = negative test result

STABILITY OF REACTION
Test results should be read and interpreted immediately after centrifugation. Delays may cause dissociation of antigen-antibody complexes resulting in weak positive or false negative reactions.

INTENDED USE
The Anti-Wra® reagent is for the in vitro detection and identification of human Wr® positive red blood cells by the indirect antiglobulin test.
QUALITY CONTROL
Quality control of reagents is essential and should be performed on each day of use and in accordance with local, state and federal regulations. We suggest that the following red blood cell samples are used to control the reactions of this reagent.

Wr(a+) red blood cells should be used as a positive control.
Wr(a-) red blood cells should be used as a negative control.

PERFORMANCE LIMITATIONS
Since the antibodies from which this product has been prepared were stimulated by red blood cells, extensive tests have been undertaken to exclude the presence of additional contaminating blood group antibodies. However, it is impossible to state categorically that reagents of this nature will only contain antibodies of the required specificity.

Direct antiglobulin test positive samples will react by the indirect antiglobulin test irrespective of their Wr status.

Driblocks and waterbaths promote better heat transfer and are recommended for 37°C tests, particularly where the incubation period is 30 minutes or less.

Gently resuspend tube tests before reading. Excessive agitation may disrupt weak agglutination and produce false negative results.

Excessive centrifugation can lead to difficulty in resuspending the cell button, while inadequate centrifugation may result in agglutinates that are easily dispersed.

The expression of certain red blood cell antigens may diminish in strength during storage, particularly in EDTA and clotted samples. Better results will be obtained with fresh samples.

Suppressed or weak expression of blood group antigens may give rise to false-negative reactions.

False positive or false negative results can occur due to contamination of test materials, improper reaction temperature, improper storage of materials, omission of test reagents and certain disease states.

SPECIFIC PERFORMANCE CHARACTERISTICS
Prior to release, each lot of ALBAsera® Anti-Wr® is tested by FDA recommended methods against a panel of antigen-positive and antigen-negative red blood cells to ensure suitable reactivity.

For additional information or technical support, contact Product Technical Support at 1-888-228-1990.

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BIBLIOGRAPHY

US Distributor
Quotient Biodiagnostics Inc.
41 University Drive
Newtown
PA 18940
USA
Customer Service Tel: 1-888-284-1901
Product Technical Support Tel: 1-888-228-1990
Customer Service Fax: 1-888-694-5208
E-Mail: customer.service@quotientbiodiagnostics.com
Web: www.quotientbiodiagnostics.com

Manufacturer:
Alba Bioscience Limited
Ellen’s Glen Road
Edinburgh
Scotland, UK
EH17 7QT
US License 1807

Tel: +44 (0) 131 536 5907
Fax: +44 (0) 131 536 5897
E-Mail: customer.services@albabioscience.co.uk

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