INTRODUCTION

Anti-Jk\(^a\) and anti-Jk\(^b\) were described in 1951 and 1953 respectively and define a pair of alleles on the long arm of chromosome 18. Whilst anti-Jk\(^a\) (Jk\(^a^b\)) and the phenotype Jk(a-b-) have been described, the system is relatively simple. Nevertheless, the Kidd system is particularly important in clinical practice. Anti-Jk\(^a\) and anti-Jk\(^b\) in patient samples are notoriously difficult to work with, often showing an inherent lack of stability and an inability to agglutinate cells which express a single dose of antigen. Not surprisingly Kidd antibodies have been implicated in cases of delayed haemolytic transfusion reactions.

INTERPRETATION OF LABEL SYMBOLS

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
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<tbody>
<tr>
<td>Z162</td>
<td>Product Code</td>
</tr>
<tr>
<td>0843</td>
<td>Manufacturer</td>
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<tr>
<td>IVD</td>
<td>In vitro diagnostic medical device</td>
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<tr>
<td>Consult instructions for use</td>
<td></td>
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<tr>
<td>2°C</td>
<td>Storage temperature limitation (2°C– 8°C)</td>
</tr>
<tr>
<td>8°C</td>
<td>Storage temperature limitation (2°C– 8°C)</td>
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<td>i</td>
<td>Copyright</td>
</tr>
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INTENDED PURPOSE

This Anti-Jk\(^a\) reagent is for the in vitro detection and identification of the human Jk\(^a\) blood group antigen by direct agglutination.

REAGENT DESCRIPTION

The main component of this reagent is derived from the in vitro culture of the IgM secreting human/mouse heterohybridoma P3HT7. The formulation also contains <0.1% sodium azide. The volume delivered by the reagent dropper bottle is approximately 40µl; bearing this in mind, care should be taken to ensure that appropriate serum: cell ratios are maintained in all test systems.

This reagent complies with the requirements of Directive 98/79/EC on in vitro Diagnostic Medical Devices and the recommendations contained in the Guidelines for Blood Transfusion Services in the United Kingdom.

STORAGE CONDITIONS

The reagent should be stored at 2°C - 8°C. Do not use if turbid. Do not dilute. The reagent is stable until the expiry date stated on the product label.

PRECAUTIONS FOR USE AND DISPOSAL

This reagent contains <0.1% sodium azide. Sodium azide may react with lead and copper plumbing to form explosive compounds. If discarded into sink, flush with a large volume of water to prevent azide buildup.

CAUTION: SOURCE MATERIAL FROM WHICH THIS PRODUCT IS DERIVED WAS FOUND NON-REACTIVE FOR HBsAg, ANTI-HIV 1/2 AND ANTI-HCV. NO KNOWN TEST METHODS CAN OFFER ASSURANCE THAT PRODUCTS DERIVED FROM HUMAN BLOOD WILL NOT TRANSMIT INFECTIOUS DISEASE. APPROPRIATE CARE SHOULD BE TAKEN IN THE USE AND DISPOSAL OF THIS PRODUCT.

This reagent is for in vitro professional use only.

SPECIMEN COLLECTION AND PREPARATION

Specimens should be collected by aseptic technique with or without an anticoagulant. The specimen should be tested as soon as possible after collection. If testing is delayed, the specimen should be stored at 2°C - 8°C. Blood specimens exhibiting gross haemolysis or contamination should not be used. Clotted samples or those collected in EDTA should be tested within seven days from collection. Donor blood stored in citrate anticoagulant may be tested until the expiry date of the donation.

TEST PROCEDURES

This reagent has been standardised for use by the techniques described below and therefore its suitability for use in other techniques cannot be guaranteed.

ADDITIONAL MATERIALS AND REAGENTS REQUIRED

- PBS pH 7.0 ± 0.2
- Reagent red cells suitable for the control of Anti-Jk\(^a\)
- 12 x 75mm glass test tubes
- Pipettes
- Centrifuge

RECOMMENDED TECHNIQUES

Tube Technique - Immediate Spin

- Add 1 volume of blood grouping reagent to a 12 x 75mm test tube.
- Add 1 volume of red cells suspended to 5% in PBS pH 7.0 ± 0.2.
- Mix the test well.
- Centrifuge at 500g for 1 minute.
- Gently shake the tube to dislodge the cell button from the bottom and observe macroscopically for agglutination.

INTERPRETATION OF RESULTS

<table>
<thead>
<tr>
<th>Agglutination</th>
<th>= positive test result</th>
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</thead>
<tbody>
<tr>
<td>No agglutination</td>
<td>= negative test result</td>
</tr>
</tbody>
</table>

QUALITY CONTROL

Quality control of reagents is essential and should be performed with each series of groups and with single groups. As a minimum a positive and a negative control should be used.

Jk (a+b-) red cells should be used as a positive control.
Jk (a-b+) red cells should be used as a negative control.
PERFORMANCE LIMITATIONS

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

Tests should be read by a ‘tip and roll’ procedure. Excessive agitation may disrupt weak agglutination and produce false negative results.

It is important to use the recommended g force during centrifugation as excessive centrifugation can lead to difficulty in resuspending the cell button, while inadequate centrifugation may result in agglutinates that are easily dispersed.

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.

UK frequencies:  Jk (a+b-) 25%;  Jk (a+b+) 50%
                Jk (a-b+) 25%

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For further information or advice please contact your local distributor.

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