1. **Principle**

Inhibition (neutralisation) of Lewis and P1 antibodies may be achieved by exposing the antibody to soluble antigen of the same specificity.

1. **Scope and Related Policies**
   1. Commercially prepared substances should be used for the inhibition of Lewis and P1 antibodies.
2. **Specimen**

Patient plasma (suspected to contain antibodies to Lewis or P1 antigens)

1. **Material**

**Equipment:** Cell Washer

Serological centrifuge

Block for test tubes

Microscope

Water bath/Heating block at 37°C

**Supplies:** Test tubes – 10 x 75 mm

Serological pipettes

**Reagents:** 0.9% saline

Anti-IgG

IgG-coated cells

Commercially prepared Lewis or P1 blood group substance

1. **Quality Control – N/A**
2. **Procedure**

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| * 1. To each of two tubes, add adequate plasma to perform the desired tests (usually 1mL is sufficient). |
| * 1. To one tube, add Lewis or P1 substance in a ratio of 1 part substance to 10 parts plasma. |
| * 1. To second tube, add same volume of saline as substance previously added in step 6.2 (dilution control). |
| * 1. Mix, allow to stand at room temperature for at least 5 minutes. |
| * 1. Test untreated, undiluted plasma by appropriate procedure in parallel with neutralized plasma and control. |

1. **Reporting**

Interpretation of results:

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| --- | --- | --- |
| TEST PLASMA | CONTROL PLASMA | INTERPRETATION |
| Non Reactive | Reactive | Lewis or P1 antibodies present |
| Reactive | Reactive | Antibodies not Lewis or P1 specificity |
| Non Reactive | Non Reactive | Antibody diluted out  No conclusion |

1. **Procedural Notes – N/A**
2. **References**
   1. Immucor, Inc. Insert 9002G December 2000 or most current (Lewis Substance).
   2. Immucor, Inc. Insert 3004-1 October 2007 or most current (P1 Substance).
   3. Judd, WJ ed. Judd’s Methods in Immunohematology, 3rd ed, Bethesda, MD; 2008: 323-326.
3. **Revision History**

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| **Revision Date** | **Summary of Revision** |
| September 1, 2014 | * Revised name of manual * Added “suspected to contain antibodies to Lewis or P1 antigens” to section 3.0 * Replaced “Normal Saline” with “0.9% Saline” in section 4.0- Reagents * Revised wording of section 6.1 to include “usually 1 mL is sufficient.” * Updated list of references to include most recent editions |