

<b>Blood Bank Manual</b> <b>Department of Pathology</b>	<b>Document No. TRAN 6102 R</b> <b>Page 1 of 2</b>
<b>Transfusion Services</b> <b>Cold Antibody Screen</b>	<b>Origination: 06/2014</b> <b>Version: 0</b>

<b>Policy Statement</b>	A cold antibody screen may be performed to assist in the resolution of a blood type discrepancy or to confirm the presence of a cold reacting antibody during antibody identification.
<b>Purpose</b>	This procedure provides instructions for performing a cold antibody screen.
<b>Scope</b>	This applies to all testing personnel in the Transfusion Service.
<b>Responsibility</b>	This applies to all testing personnel in the Transfusion Service.

### Preanalytical Considerations

- The cells tested with the screen are dependent on the patient's blood type.
  - Test screening cells 1, 2, 3 and an autocontrol for all screens.
  - For A patients test A<sub>1</sub> and A<sub>2</sub> cells.
  - For B patients test B cells.
  - For AB patients test A<sub>1</sub>, A<sub>2</sub>, and B cells.
  - If a particular cold antibody specificity is suspected, screening cells 1, 2, and 3 should be swapped out for antigen-negative 3% panel cells.
- Cold antibody screens are performed using tube method.
- Room temperature and/or refrigerated temperature incubations aren't required for all cold antibody screens depending on the observed reactions and the reason for performing the screen.
- Cold panel results are documented on TRAN 6006 Fb, the antigram worksheet for the screening cells tested, and into the LIS under the mnemonic COLD.

### Procedure

1. All testing supplies used during cold antibody screening must be clearly labeled with identifying information for both reagent and patient.
2. Use washed patient's cells to make an approximate 3% cell suspension for use as an autocontrol.
3. Add two drops of plasma to each labeled tube.
4. Add one drop of reagent red blood cells to each labeled tube.
5. Mix well and centrifuge for the calibrated time.
6. Grade reactions and concurrently record results.

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7. Incubate all of the tubes at room temperature (~22°C) for 15 minutes.
8. Centrifuge for the calibrated time.
9. Grade reactions and concurrently record results.
10. Incubate all of the tubes at refrigerated temperature (~4°C) for 15 minutes.
11. Centrifuge for the calibrated time.
12. Grade reactions and concurrently record results.

### **Postanalytical Considerations**

- There is no routine need to identify the cold reactive antibody specificity (e.g. anti-I, anti-IH) unless the presumed specificity is one that may interfere with subsequent 37°C/IAT testing (e.g. anti-Le<sup>a</sup>, anti-P1).
- If a pattern of reactivity is noted that suggests a clinically significant antibody, additional testing should be performed to rule out this antibody specificity.