

Antibody Identification, Blood and Serum

## **Overview**

#### **Useful For**

Assessing positive pretransfusion antibody screens, transfusion reactions, hemolytic disease of the newborn, and autoimmune hemolytic anemias

This test is **not useful** for monitoring the efficacy of Rh-immune globulin administration.

This test is **not useful** for identifying antibodies detected only at 4 degrees C or only after extended room temperature incubation.

#### **Reflex Tests**

Test Id	Reporting Name	Available Separately	Always Performed
DCTR	Direct Antiglobulin Test	Yes	No
	(Poly)		
SPAGR	Special Red Cell Ag Typing	Yes	No
ABIDR	Antibody Identification,	Yes	No
	RBC		
DC3TR	Direct Antiglobulin Test	No	No
	(C3)		
DIGTR	Direct Antiglobulin Test	No	No
	(IgG)		
DATR	Direct Antiglobulin Tst	No	No
	(Poly)		
ABTIR	Antibody Titer, RBC	Yes	No
STTX25	Antibody Elution	No, (Bill Only)	No
STTX31	Antibody Adsorption	No, (Bill Only)	No
STTX32	Red Cell Antigen Typing	No, (Bill Only)	No

#### **Additional Tests**

Test Id	Reporting Name	Available Separately	Always Performed
STTX26	Antibody Panel	No, (Bill Only)	Yes

## **Testing Algorithm**

The following tests may be ordered and performed (at an additional charge) as needed for antibody identification: direct antiglobulin testing (polyspecific), including its reflex tests and special red blood cell antigen typing.

If certain antibodies are detected and the patient is known to be pregnant, an antibody titration will be performed at an additional charge.



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#### **Method Name**

Hemagglutination

#### **NY State Available**

Yes

## Specimen

## **Specimen Type**

Varies

### **Shipping Instructions**

Specimen must arrive within 72 hours of collection.

## **Specimen Required**

Both blood and serum are required.

**Supplies:** Sarstedt Aliquot Tube, 5 mL (T914)

Specimen Type: Plasma/Blood

Collection Container/Tube: 6-mL Pink-top (EDTA)

Submission Container/Tube: Plastic vial

**Specimen Volume:** 

3 mL Plasma

3 mL Red blood cells (RBCs)

## **Collection Instructions:**

- 1. Centrifuge and aliquot plasma into a plastic vial.
- 2. Label specimen as EDTA plasma or EDTA RBCs as appropriate.
- 3. Send both tubes.

Specimen Type: Serum/Blood

**Collection Container/Tube:** 10-mL Red top **Submission Container/Tube:** Plastic vial

**Specimen Volume:** 

5 mL Serum 5 mL RBCs

## **Collection Instructions:**

- 1. Centrifuge and aliquot serum into a plastic vial.
- 2. Label specimen as serum or clotted RBCs as appropriate.
- 3. Send both tubes.

#### **Specimen Minimum Volume**

Blood: 6 mL in EDTA



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Pediatric: 2 mL Serum

## **Reject Due To**

Gross	OK
hemolysis	

## **Specimen Stability Information**

Specimen Type	Temperature	Time	Special Container
Varies	Ambient (preferred)	4 days	
	Refrigerated	4 days	

### Clinical & Interpretive

#### **Clinical Information**

After exposure to foreign red blood cells (RBCs) via transfusion or pregnancy, some people form antibodies that are capable of the destruction of transfused RBCs or of fetal RBCs in utero. It is important to identify the antibody specificity to assess the antibody's capability of causing clinical harm and, if necessary, to avoid the antigen on transfused RBCs.

Autoantibodies react against the patient's own RBCs as well as the majority of cells tested. Autoantibodies can be clinically benign or can hemolyze the patient's own RBCs, such as in cold agglutinin disease or autoimmune hemolytic anemia.

## **Reference Values**

Negative

If positive, antibodies will be identified and corresponding special red cell antigen typing on patient's red blood cells will be performed.

#### Interpretation

Specificity of alloantibodies will be stated.

The patient's red blood cells will be typed for absence of the corresponding antigens or as an aid to identification in complex cases.

A consultation service is offered, at no charge, regarding the clinical relevance of red cell antibodies.

#### **Cautions**

Recent administration of Rh-immune globulin may cause anti-D to be identified and appear falsely as an alloantibody.

### **Clinical Reference**

Cohn CS, Delaney M, Johnson ST, Katz LM, Schwartz J, eds: Technical Manual. 21st ed. AABB; 2023



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## **Performance**

#### **Method Description**

A panel of reagent type O erythrocytes, with known antigenic determinants and the patient's cells are tested with the patient's serum/plasma. This panel should yield a distinct pattern of agglutination or hemolysis that identifies the autoor alloantibody specificity. Elution, absorption, neutralization, and other special techniques may be necessary to complete antibody identification. (Cohn CS, Delaney M, Johnson ST, Katz LM, Schwartz J. eds: Technical Manual. 21st ed. AABB; 2023)

## **PDF Report**

No

## Day(s) Performed

Monday through Friday, Sunday

## **Report Available**

1 to 5 days

## **Specimen Retention Time**

14 days

## **Performing Laboratory Location**

Rochester

## **Fees & Codes**

#### **Fees**

- Authorized users can sign in to <u>Test Prices</u> for detailed fee information.
- Clients without access to Test Prices can contact <u>Customer Service</u> 24 hours a day, seven days a week.
- Prospective clients should contact their account representative. For assistance, contact <u>Customer Service</u>.

#### **Test Classification**

This test has been cleared, approved, or is exempt by the US Food and Drug Administration and is used per manufacturer's instructions. Performance characteristics were verified by Mayo Clinic in a manner consistent with CLIA requirements.

#### **CPT Code Information**

86870

86860-(if appropriate)

86886-(if appropriate)

86880 x 3 (if appropriate)

86905-(if appropriate)

86978-(if appropriate)



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## **LOINC®** Information

Test ID	Test Order Name	Order LOINC® Value
ABIDR	Antibody Identification, RBC	888-8

Result ID	Test Result Name	Result LOINC® Value
ABDR1	Antibody Identification, RBC	888-8