



PROFICIENCY TESTING SERVICE  
 AMERICAN ASSOCIATION OF BIOANALYSTS  
 205 West Levee St. • Brownsville, TX 78520-5596  
 800-234-5315 • 281-436-5357 • Fax 713-781-5008

**PARTICIPANT STATISTICS**

**IMMUNOHEMATOLOGY**

**THIRD QUADRIMESTER 2011**

**ABO Group**

Method	Specimen 1			Specimen 2			Specimen 3			Specimen 4				Specimen 5			
	A	B	O	A	B	O	A	A1	A1B	A	B	A1	O	A	A1	B	O
Biotest Tube			16			16	12	3	1			16					16
Gamma Tube			23			23	22	1			23						23
Immucor Tube			98			98	92	6			98						98
Ortho Gel			110			110	104	6			108	2					110
Ortho Tube			56			56	55	1			56						56
Other Tube			8			8	8				8						8
<b>Total Population</b>	<b>0</b>	<b>0</b>	<b>322</b>	<b>0</b>	<b>0</b>	<b>322</b>	<b>303</b>	<b>18</b>	<b>1</b>	<b>0</b>	<b>320</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>322</b>
<b>Flagging</b>	<b>*****</b>	<b>*****</b>		<b>*****</b>	<b>*****</b>				<b>*****</b>	<b>*****</b>		<b>*****</b>	<b>*****</b>	<b>*****</b>	<b>*****</b>	<b>*****</b>	<b>*****</b>

**D (Rho) Typing**

Method	Specimen 1			Specimen 2			Specimen 3			Specimen 4				Specimen 5		
	POS	Neg, weak D (Du) not performed	NEG	Weak D (Du) Positive	Neg, weak D (Du) not performed	NEG	POS	Neg, weak D (Du) not performed	NEG	POS	Weak D (Du)- Positive	Neg, weak D (Du) not performed	NEG	POS	Neg, weak D (Du) not performed	NEG
Biotest Tube	18				5	13	18			18				17	1	
Eldon Biologicals	10				5	5	10			10				9	1	
Gamma Slide	11				1	10	11			11				11		
Gamma Tube	29		1		10	20	30			30				30		
Immucor Slide	14					14	14			14				14		
Immucor Tube	103				14	89	103			103				103		
Ortho Gel	109			1	52	56	109			109				109		
Ortho Slide	49		1		34	16	50			50				50		
Ortho Tube	61				18	43	61			61				61		
Other Slide	3				2	1	3			3				3		
Other Tube	11	1			5	7	11	1		11	1			11	1	
<b>Total Population</b>	<b>429</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>148</b>	<b>283</b>	<b>431</b>	<b>1</b>	<b>0</b>	<b>431</b>	<b>1</b>	<b>0</b>		<b>429</b>	<b>3</b>	<b>0</b>
<b>Flagging</b>		<b>*****</b>	<b>*****</b>	<b>***</b>				<b>*****</b>	<b>*****</b>		<b>*****</b>	<b>*****</b>			<b>*****</b>	<b>*****</b>



**Third Quadrimester 2011****Antibody Detection/ Identification and Compatibility Testing**

Specimens #2 and #4 both had a positive antibody screen test. Overall performance was excellent as only a small number of participants failed to detect the antibodies. In addition, all participants performing antibody identification correctly identified the antibodies as anti-D (Specimen #2) and anti-E (Specimen #4). Both of these antibodies are directed against antigens of the Rh blood group system and represent two of the most common antibodies seen in patient samples. Anti-D can cause severe and fatal hemolytic transfusion reactions and hemolytic disease of the fetus and newborn (HDFN). In contrast, anti-E typically only causes mild hemolytic transfusion reactions or HDFN. Of interest, anti-E can appear to be “naturally occurring” in that no exposure to E+ red cells can be documented in the individual.

The RBC specimen used for compatibility testing was group O Positive. Therefore, the expected result of compatibility testing performed with Specimen #2 was Not Compatible. If participants performed an immediate-spin crossmatch only, the crossmatch would be Compatible since anti-D reacts optimally at the antiglobulin phase. However, one should never crossmatch an Rh-positive RBC for an Rh-negative recipient (unless, of course, the patient is in dire need of transfusion, no ABO-compatible Rh-negative RBCs are available, and the pathologist and patient’s physician agree to do so). The group O Positive RBC specimen used for compatibility testing lacked the E-antigen; therefore, the expected result of compatibility testing performed with Specimen #4 was Compatible.