UK NEQAS
International Quality Expertise

Histocompatibility & Immunogenetics

Educational Crossmatching Scheme
Dispatched on the 16th July 2024

Summary of Results

A total of 33 reports were received but not all laboratories reported results for all tests.

Consensus HLA Type of whole blood donor sample EDXM 01/2024:

	A*	B*	C*	DRB1*	DRB4*	DQA1*	DQB1*	DPA1*	DPB1*
	02:01	40:01	03:04	04:04	01:03	03:01	03:02	01:03	04:02
	32:01	51:01	15:02	09:01		03:02	03:03	02:01	11:01
Number of reports	32	32	32	32	24	29	32	21	29
% Labs in consensus	100%	100%	100%	100%	100%	100%	100%	100%	100%

EDXM 01 Serum 1/2024 Results

HLA Antibody Detection and Definition
(Based on 75% Consensus)

		HLA Class I	No of labs	% consensus	HLA Class II	No of labs	% consensus
Detection	IgG	No Consensus	19/33 Neg	58%	Negative	25/33	76%
Detection	IgM	Negative	1/1	N/A*	Negative	1/1	N/A*
Definition[1]	Total Number of Specificities Reported (by ≥ 1 lab, >1,000 MFI)	2			3		
Definition[1]	Number of Specificities Absent (reported by < 5% labs)	87			43		
Definition[1]	Number of Specificities Present (reported by ≥ 75% labs)	0			0		
Definition[1]	MFI >10000	N/A	32	N/A	N/A	32	N/A
Definition[1]	MFI 5000 - 9999	N/A		N/A	N/A		N/A
Definition[1]	MFI 2000 - 4999	N/A		N/A	N/A		N/A
Definition[1]	MFI 1000-1999	N/A		N/A	N/A		N/A

[1] 75% consensus 'present' specificities are displayed within the MFI value range reported by the **majority** of participants. Class I specificities n=89, Class II specificities n=46.
* Does not meet minimum number requirements for establishing a consensus result.

Crossmatching
(Based on 75% Consensus)

	CDC						Flow Cytometry	
	PBL		T Cells		B Cells		T Cells	B Cells
	Without DTT	With DTT	Without DTT	With DTT	Without DTT	With DTT		
	Negative	Negative	Negative	Negative	*No Consensus*	Negative	Negative	Negative
Number of reports	4/4	3/3	10/10	9/9	*5/7 Neg*	6/6	27/28	25/26
% Labs in consensus	100%	100%	100%	100%	*71%*	100%	96%	96%

Interpretation

Identification of Donor Specific Antibodies:

Specificity	No of Participants (n=31)	MFI Range Reported
None	31 (100%)	N/A

Crossmatch interpretation:

	The most common responses included:
Interpretation based on results	• CDC crossmatch negative • Flow cytometry crossmatch negative • Patient has no donor specific antibodies
Assigned risk	Low 97% (n=29/30) Medium 3% (n=1/30)
Immunological advice	• Suitable for direct transplantation • HLA antibody present but no donor directed
If advice is not to transplant, recommendations for future transplants	• Proceed to transplant • Standard immunosuppression and post-transplant monitoring • Post-transplant monitoring if clinical indication of rejection

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EDXM 01 Serum 2/2024 Results

HLA Antibody Detection and Definition
(Based on 75% Consensus)

		HLA Class I	No of labs	% consensus	HLA Class II	No of labs	% consensus
Detection	IgG	Positive	33/33	100%	Negative	28/33	85%
	IgM	Negative	1/1	N/A*	Negative	1/1	N/A*
Definition [1]	Total Number of Specificities Reported (by ≥ 1 lab, >1,000 MFI)	41			1		
	Number of Specificities Absent (reported by < 5% labs)	48			45		
	Number of Specificities Present (reported by ≥ 75% labs)	30			0		
	MFI >10000	B7 B27 B42 B48 B54 B55 B56 B59 B60 B67 B73 B81 B82 Cw1	32	75-100%	N/A	32	N/A
	MFI 5000 - 9999	A1 A26 A29 A36 A43 A80 B13 B39 B64 Cw14		91-100%	N/A		N/A
	MFI 2000 - 4999	B8 B57 B61 B63		75-100%	N/A		N/A
	MFI 1000-1999	N/A		N/A	N/A		N/A

[1] 75% consensus 'present' specificities are displayed within the MFI value range reported by the **majority** of participants. Class I specificities n=89, Class II specificities n=46.
* Does not meet minimum number requirements for establishing a consensus result.

Crossmatching Results
(Based on 75% Consensus)

	CDC						Flow Cytometry	
	PBL		**T Cells**		**B Cells**		**T Cells**	**B Cells**
	Without DTT	With DTT	Without DTT	With DTT	Without DTT	With DTT		
	Negative	No Consensus	Negative	Negative	Negative	Negative	Positive	Positive
Number of reports	3/4	2/3 Neg	10/10	9/9	6/7	5/6	25/28	21/26
% Labs in consensus	75%	67%	100%	100%	86%	83%	89%	81%

Interpretation

Identification of Donor Specific Antibodies:

Specificity	No of Participants (n=31)	MFI Range Reported
B60	31 (100%)	5,927-20,080
Cw10	4 (39%)	619-1,756
Cw3	1 (3%)	1,500

Crossmatch interpretation:

	The most common responses included:
Interpretation based on results	• CDC crossmatch negative • Flow cytometry crossmatch positive • Class I donor specific antibodies present
Assigned risk	Medium 16% (n = 5/31) High/Contraindication 84% (n = 26/31)
Immunological advice	• Not suitable for direct transplantation • Patient at risk of antibody mediated rejection • Possible antibody removal pre-transplant • If transplant proceeds use frequent post-transplant monitoring • Test for presence of autologous and non-HLA antibodies
If advice is not to transplant, recommendations for future transplants	• Seek alternative donor (live or deceased) or via a kidney sharing scheme • Consider de-sensitisation • Investigate whether the patient is a suitable for a higher risk transplant • Discuss risk with patient • Obtain patient's sensitisation history

EDXM 01 Serum 3/2024 Results

HLA Antibody Detection and Definition
(Based on 75% Consensus)

		HLA Class I	No of labs	% consensus	HLA Class II	No of labs	% consensus
Detection	IgG	Positive	33/33	100%	Positive	33/33	100%
	IgM	Negative	1/1	N/A*	Negative	1/1	N/A*
Definition[1]	Total Number of Specificities Reported (by ≥ 1 lab, >1,000 MFI)	39			12		
	Number of Specificities Absent (reported by < 5% labs)	50			34		
	Number of Specificities Present (reported by ≥ 75% labs)	30			10		
	MFI >10000	B35 B46 B49 B50 B51 B52 B53 B56 B57 B58 B62 B63 B71 B72 B75 B77 B78 Cw1 Cw8 Cw9 Cw10 Cw12 Cw14	32	100%	DP9 DP17	32	94%
	MFI 5000 - 9999	Cw16		100%	DR4 DP6 DP20		81-97%
	MFI 2000 - 4999	B13 B76 Cw5 Cw6 Cw15 Cw18		81-100%	DQ7 DQ8 DQ9 DP3 DP14		94-97%
	MFI 1000-1999	N/A		N/A	N/A		N/A

[1] 75% consensus 'present' specificities are displayed within the MFI value range reported by the **majority** of participants. Class I specificities n=89, Class II specificities n=46.
* Does not meet minimum number requirements for establishing a consensus result.

Crossmatching
(Based on 75% Consensus)

	CDC						Flow Cytometry	
	PBL		T Cells		B Cells		T Cells	B Cells
	Without DTT	With DTT	Without DTT	With DTT	Without DTT	With DTT		
	No Consensus	No Consensus	Negative	Negative	Positive	Positive	Positive	Positive
Number of reports	2/4 Pos	2/3 Pos	7/10	7/9	6/7	5/6	28/28	24/26
% Labs in consensus	50%	67%	70%	78%	86%	83%	100%	92%

Interpretation

Identification of Donor Specific Antibodies:

Specificity	No of Participants (n=31)	MFI Range Reported
B51	31 (100%)	1,500-19,005
DR4	31 (100%)	4,048-16,121
Cw10	30 (97%)	12,647-33,162
DQ8	30 (97%)	966-11,109
DQ9	29 (94%)	847-9,732
Cw15	26 (84%)	1,424-9,484
DR9	14 (45%)	643-3,866
DR53	3 (10%)	780-1,495
DQA1*03:02	1 (3%)	5,000

Crossmatch interpretation:

	The most common responses included:
Interpretation based on results	• CDC crossmatch positive • Flow cytometry crossmatch positive • Class I and II donor specific antibodies detected
Assigned risk	High/Contraindication 100% (n = 31/31)
Immunological advice	• Not suitable for direct transplantation • Patient at risk of hyperacute rejection • Possible antibody removal pre-transplant • If transplant proceeds use enhanced immunosuppression and post-transplant monitoring • Test for presence of autologous and non-HLA antibodies
If advice is not to transplant, recommendations for future transplants	• Seek alternative donor (live or deceased) or via a kidney sharing scheme • Consider de-sensitisation • Perform additional testing such as autologous crossmatching or antibody testing using additional kits • Discuss risk with patient