

CD38

Figure S1: Representative flow cytometry plots before and after polyclonal B cell stimulation. A) Percentage of CD19⁺ B cells within the live lymphocyte gate and **B**) Percentage of CD19⁺CD27⁺CD38^{high} cells increase significantly from day 0 to day 6 of polyclonal activation, followed by a decrease at day 10 and day 14. (n=9 [re-tx n=3, multi-parous n=1 and alloantigen non-exposed, n=5]). re-tx: repeat transplantation.



Figure S2: Tetanus toxoid-specific response in (A) d10 IgG isolated culture supernatants and (B) serum samples. To measure the TT-specific IgG responses, ELISA plates were coated with 10 Lf/ml TT antigen diluted in PBS (Dutch Vaccine Institute, Bilthoven, the Netherlands), incubated overnight and were blocked with 2% bovine serum albumin (BSA) in 0.025%Tween-20 in phosphate-buffered saline (PBS-T). Fifty µl of d10 IgG isolated supernatants (1:250 diluted) or serum samples (1:1000 diluted) were incubated for 1h at 37°C. After washing with PBS-T, biotinylated goat anti-human IgG (Novex Life Technologies) was added for 1h at 37°C. Following washing, plates were incubated with streptavidin conjugated to horse radish peroxidase (Thermo-Scientific) for 1h at 37°C. A color reaction was obtained by addition of 4.6 mM 2,2'-azine-bis(3-ethylbenzthiazoline-6-sulphonic acid) (ABTS, Sigma) in a citric acid/PBS buffer at pH 4.2 upon extensive washing. Color reaction was stopped by addition of 250 mM oxalic acid. Optic densitiy (OD) values were obtained by measuring plates at 450 nm. Wells coated only with PBS and wells coated with TT antigen but lacking incubation with the sample (blank) were regarded as negative controls. Results are expressed as mean OD values ± SD of duplicate wells. *Not tested due to insufficient sample material.



Figure S3: MFI values of self-HLA coated beads. A) Background corrected MFI values of self HLA class I and B) HLA class II-coated beads measured in d10 concentrated, d10 IgG isolated supernatants and paired serum samples (n=11 [re-tx n=9 and multi-parous n=2]). MFI: Mean fluorescence intensity, re-tx: repeat transplantation, d10 conc.: day 10 concentrated, d10 IgG isolated.



Figure S4: MFI values of samples from individuals without alloantigen exposure. A) Background corrected MFI values of HLA class I and B) HLA class II-coated beads measured in d10 concentrated, d10 IgG isolated supernatants and paired serum samples (n=5). MFI: Mean fluorescence intensity, d10 conc.: day 10 concentrated, d10 IgG iso.: day 10 IgG isolated.

Table S1: Immunological overview of alloantigen exposed individuals of the study cohort

Study code	AS 5
Sex	F
Study group	re-tx
Time (months)*	53
Self HLA class I	A*02:01:01, A*03:01:01:01, B*07:02:01, B*40:01:02, C*03:04:01:01, C*07:02:01:03
Self HLA class II	DRB1*04:07:01, DRB1*13:02:01, DRB3*03:01:01, DRB4*01:03:01:01, DQB1*03:01:01:01, DQB1*06:04:01, DQA1*01:02:01, DQA1*03, DPB1*03:01:01, DPA1*01:03:01:03, DPA1*01:03:01:03
Donor (D)/Partner (P)/Child (C) HLA	D: A2, A3, B7, B44, Cw2, Cw7, DR4, DR13, DQ6, DQ7
Serum positive class I SABs	A*23:01, A*24:02, A*24:03, B*13:02, B*14:01, B*14:02, B*15:01, B*15:02, B*15:03, B*15:12, B*15:13, B*15:16, B*15:18, B*18:01, B*27:03, B*27:05, B*27:08, B*35:01, B*35:08, B*37:01, B*38:01, B*39:01, B*44:02, B*44:03, B*45:01, B*46:01, B*47:01, B*49:01, B*50:01, B*51:01, B*52:01, B*53:01, B*54:01, B*55:01, B*56:01, B*57:01, B*58:01, B*59:01, B*67:01, B*78:01, B*82:02, C*02:02, C*04:03, C*05:01, C*06:02, C*15:02, C*17:01, C*18:01
Supernatant positive class I SABs	A*01:01, A*23:01, A*24:02, B*15:12, B*44:02, B*44:03, B*45:01, B*46:01, B*82:02
Serum positive class II SABs	DPA1*01:03-DPB1*02:01, DPA1*01:03-DPB1*04:01, DPA1*02:01-DPB1*04:01, DPA1*02:02-DPB1*04:01, DPA1*03:01-DPB1*04:01, DPA1*04:01-DPB1*04:01, DPA1*01:03-DPB1*04:02, DPA1*03:01-DPB1*04:02, DPA1*02:01-DPB1*15:01, DPA1*01:03-DPB1*18:01, DPA1*02:02-DPB1*28:01
Supernatant positive class II SABs	DRB1*11:01, DRB1*11:03, DRB1*11:04, DPA1*01:03-DPB1*02:01, DPA1*01:03-DPB1*04:02, DPA1*03:01-DPB1*04:02, DPA1*01:03-DPB1*18:01, DPA1*02:02-DPB1*28:01

Specificities marked with red were found only in supernatants in the absence of serum specificities. HLA mismatches are marked with bold letters within the available resolution of the HLA typing. *Time from the last graft failure/delivery to the sampling date. SABs: Single antigen beads, re-tx: repeat transplantation.

Study code	AS 6
Sex	М
Study group	re-tx
Time (months)*	2
Self HLA class I	A*02:01:01, A*32:01:01:01, B*07:02:01, B*40:01:02, C*03:04:01:01, C*07:02:01:03
Self HLA class II	DRB1*13:02:01, DRB1*15:01:01, DRB3*03:01:01, DRB5*01, DQB1*06:02:01:01, DQB1*06:04:01, DQA1*01:02:01, DPB1*02:01:02, DPB1*04:02:01:02, DPA1*01:03:01, DPA1*01:03:01:01
Donor (D)/Partner (P)/Child (C) HLA	 D1: A*02:01, A*31:01, B*07:02, B*40:01, C*03:04, C*07:02, DRB1*13:02, DRB1*15, DQB1*06:02, DQB1*06:04 D2: A*02:01, A*02:01, B*13:02, B*40:01, C*03:04, C*06:02, DRB1*04:01, DRB1*08:01, DQB1*03:01, DQB1*04:02
Serum positive class I SABs	A*29:01, A*29:02, A33:01
Supernatant positive class I SABs	negative
Serum positive class II SABs	DRB1*04:01, DRB1*04:02, DRB1*04:03, DRB1*04:04, DRB1*04:05, DQA1*03:01-DQB1*03:01, DQA1*03:02-DQB1*03:01, DQA1*05:01-DQB1*03:01, DQA1*06:01-DQB1*03:01, DQA1*02:01-DQB1*03:02, DQA1*03:01-DQB1*03:02, DQA1*03:02-DQB1*03:02, DQA1*03:02-DQB1*03:03, DQA1*04:01-DQB1*03:03, DQA1*06:01-DQB1*03:03, DQA1*02:01-DQB1*04:01, DQA1*04:01-DQB1*04:01, DQA1*05:01-DQB1*04:01, DQA1*03:01-DQB1*04:02, DQA1*04:01-DQB1*04:02, DQA1*06:01-DQB1*04:02,
Supernatant positive class II SABs	negative

Sex F Study group re-tx Time (months)* 27 Self HLA class I A*01:01:01:01, A*03:01:01:01, B*08:01:01:01, B*15:01:01:03, C*03:04:01:01, C*07:01:01:01 Self HLA class II DRB1*04:08:01, DRB1*13:01:01, DRB3*02:02:01:02, DRB4*01:03:01:01, DQB1*03:04:01, DQB1*06:03:01, DQA1*01:03:01, DQA1*03:03:01:01, DPB1*04:01:01, DPB1*15:01:01, DPA1*01:03:01:02, DPA1*01:04 Donor (D)/Partner (P) /Child (C) HLA D: A*01:01, A*68:01, B*08:01, B*18:01, C*07:01, DRB1*04:03, DRB1*13:01, DQB1*03:02, DQB1*06:03 P: A*26:01, A*68:01, B*44:02, B*55:01, C*03:03, C*07:04, DRB1*13:01, DRB1*14:54, DQB1*05:03
Study group re-tx Time (months)* 27 Self HLA class I A*01:01:01:01, A*03:01:01:01, B*08:01:01:01, B*15:01:01:03, C*03:04:01:01, C*07:01:01:01 Self HLA class II DRB1*04:08:01, DRB1*13:01:01, DRB3*02:02:01:02, DRB4*01:03:01:01, DQB1*03:04:01, DQB1*06:03:01, DQA1*01:03:01, DQA1*03:03:01:01, DPB1*04:01:01, DPB1*15:01:01, DPA1*01:03:01:02, DPA1*01:04 Donor (D)/Partner (P) /Child (C) HLA D: A*01:01, A*68:01, B*08:01, B*18:01, C*07:01, DRB1*04:03, DRB1*13:01, DQB1*03:02, DQB1*06:03 P: A*26:01, A*68:01, B*44:02, B*55:01, C*03:03, C*07:04, DRB1*13:01, DRB1*14:54, DQB1*05:03
Time (months)* 27 Self HLA class I A*01:01:01:01, A*03:01:01:01, B*08:01:01:01, B*15:01:01:03, C*03:04:01:01, C*07:01:01:01 Self HLA class II DRB1*04:08:01, DRB1*13:01:01, DRB3*02:02:01:02, DRB4*01:03:01:01, DQB1*03:04:01, DQB1*06:03:01, DQA1*01:03:01, DQA1*03:03:01:01, DPB1*04:01:01, DPB1*15:01:01, DPA1*01:03:01:02, DPA1*01:04 Donor (D)/Partner (P) /Child (C) HLA D: A*01:01, A*68:01, B*08:01, B*18:01, C*07:01, DRB1*04:03, DRB1*13:01, DQB1*03:02, DQB1*06:03 P: A*26:01, A*68:01, B*44:02, B*55:01, C*03:03, C*07:04, DRB1*13:01, DRB1*14:54, DQB1*05:03
Self HLA class I A*01:01:01:01, A*03:01:01:01, B*08:01:01:01, B*15:01:003, C*03:04:01:01, C*07:01:01:01 Self HLA class II DRB1*04:08:01, DRB1*13:01:01, DRB3*02:02:01:02, DRB4*01:03:01:01, DQB1*03:04:01, DQB1*06:03:01, DQA1*01:03:01, DQA1*03:03:01:01, DPB1*04:01:01, DPB1*15:01:01, DPA1*01:03:01:02, DPA1*01:04 Donor (D)/Partner (P) /Child (C) HLA D: A*01:01, A*68:01, B*08:01, B*18:01, C*07:01, DRB1*04:03, DRB1*13:01, DQB1*03:02, DQB1*06:03 P: A*26:01, A*68:01, B*44:02, B*55:01, C*03:03, C*07:04, DRB1*13:01, DRB1*14:54, DQB1*05:03
B*15:01:01:03, C*03:04:01:01, C*07:01:01:01 Self HLA class II DRB1*04:08:01, DRB1*13:01:01, DRB3*02:02:01:02, DRB4*01:03:01:01, DQB1*03:04:01, DQB1*06:03:01, DQA1*01:03:01:01, DQB1*04:01:01, DQA1*01:03:01:01, DPB1*04:01:01, DPB1*15:01:01, DPA1*01:03:01:02, DPA1*01:04 Donor (D)/Partner (P) /Child (C) D: A*01:01, A*68:01, B*08:01, B*18:01, C*07:01, DRB1*04:03, DRB1*13:01, DQB1*03:02, DQB1*06:03 P: A*26:01, A*68:01, B*44:02, B*55:01, C*03:03, C*07:04, DRB1*13:01, DRB1*14:54, DQB1*05:03
Self HLA class II DRB1*04:08:01, DRB1*13:01:01, DRB3*02:02:01:02, DRB4*01:03:01:01, DQB1*03:04:01, DQB1*06:03:01, DQA1*01:03:01, DQA1*03:03:01:01, DPB1*04:01:01, DPB1*15:01:01, DPA1*01:03:01:02, DPA1*01:04 Donor (D)/Partner (P) /Child (C) HLA D: A*01:01, A*68:01, B*08:01, B*18:01, C*07:01, DRB1*04:03, DRB1*13:01, DQB1*03:02, DQB1*06:03 P: A*26:01, A*68:01, B*44:02, B*55:01, C*03:03, C*07:04, DRB1*13:01, DRB1*14:54, DQB1*05:03
DRB4*01:03:01:01, DQB1*03:04:01, DQB1*06:03:01, DQA1*01:03:01, DQA1*03:03:01:01, DPB1*04:01:01, DPB1*15:01:01, DPA1*01:03:01:02, DPA1*01:04 Donor (D)/Partner (P) /Child (C) HLA D: A*01:01, A*68:01, B*08:01, B*18:01, C*07:01, DRB1*04:03, DRB1*13:01, DQB1*03:02, DQB1*06:03 P: A*26:01, A*68:01, B*44:02, B*55:01, C*03:03, C*07:04, DRB1*13:01, DRB1*14:54, DQB1*05:03
DQA1*01:03:01, DQA1*03:03:01:01, DPB1*04:01:01, DPB1*15:01:01, DPA1*01:03:01:02, DPA1*01:04 Donor (D)/Partner (P) /Child (C) HLA D: A*01:01, A*68:01, B*08:01, B*18:01, C*07:01, DRB1*04:03, DRB1*13:01, DQB1*03:02, DQB1*06:03 P: A*26:01, A*68:01, B*44:02, B*55:01, C*03:03, C*07:04, DRB1*13:01, DRB1*14:54, DQB1*05:03
DPB1*15:01:01, DPA1*01:03:01:02, DPA1*01:04 Donor (D)/Partner (P) /Child (C) D: A*01:01, A*68:01, B*08:01, B*18:01, C*07:01, DRB1*04:03, DRB1*13:01, DQB1*03:02, DQB1*06:03 HLA DRB1*04:03, DRB1*13:01, DQB1*03:02, DQB1*06:03 P: A*26:01, A*68:01, B*44:02, B*55:01, C*03:03, C*07:04, DRB1*13:01, DRB1*14:54, DQB1*05:03
Donor (D)/Partner (P) /Child (C) D: A*01:01, A*68:01, B*08:01, B*18:01, C*07:01, HLA DRB1*04:03, DRB1*13:01, DQB1*03:02, DQB1*06:03 P: A*26:01, A*68:01, B*44:02, B*55:01, C*03:03, C*07:04, DRB1*13:01, DRB1*14:54, DQB1*05:03
HLA DRB1*04:03, DRB1*13:01, DQB1*03:02, DQB1*06:03 P: A*26:01, A*68:01, B*44:02, B*55:01, C*03:03, C*07:04, DRB1*13:01, DRB1*14:54, DQB1*05:03
P: A*26:01, A*68:01, B*44:02, B*55:01, C*03:03, C*07:04, DRB1*13:01, DRB1*14:54, DQB1*05:03
C*07:04, DRB1*13:01, DRB1*14:54 , DQB1*05:03
Serum positive class I SABs A*02:01, A*02:02, A*02:03, A*02:05, A*11:01, A*11:02,
A^23:01, A^24:02, A^24:03, A^25:01, A^26:01, A^33:01,
A*33:03, A*34:02, A*43:01, A*66:01, A*66:02, A*68:01,
A*68:02, A*69:01, B*07:02, B*15:16, B*27:03, B*27:05,
B [*] Z7:08, B [*] 4Z:01, B [*] 54:01, B [*] 55:01, B [*] 50:01, B [*] 57:01,
B*38:01, B*39:01, B*07:01, B*73:01, B*81:01, B*82:02
Supernatant positive class I A*02:01, A*02:02, A*02:03, A*02:05, A*11:01, A*11:02, A*04:02, A*04:02, A*05:01, A*06:01, A
SADS A 24.02, A 24.03, A 25.01, A 20.01, A 25.01, A 25.01, A 25.01, A 25.01, A 25.01, A 25.01, A 25.01
A 32.01, A 33.01, A 33.03, A 34.02, A 30.01, A 43.01, A*66.01 A*66.02 A*69.01 A*69.02 A*60.01 A*74.01
B*07:02 B*07:03 B*15:13 B*15:16 B*27:03 B*27:05
B*27:08 B*35:01 B*35:08 B*37:01 B*38:01
B*39.01 B*41.01 B*42.01 B*44.02 B*44.03
B*47:01 B*49:01 B*51:01 B*52:01 B*53:01
B*54:01, B*55:01, B*56:01, B*57:01, B*58:01, B*59:01
B*67:01, B*73:01, B*81:01, B*82:02
Serum positive class II SABs negative
SABs

Study code	AS 14
Sex	F
Study group	multi-parous
Time (months)*	108
Self HLA class I	A*02:01:01, A*24:02:01:01, B*07:02:01, C*07:02:01:03
Self HLA class II	DRB1*04:04:01, DRB1*15:01:01, DRB4*01:03:01:01, DRB5*01:01:01, DQB1*03:02:01, DQB1*06:02:01:01, DQA1*01:02:01, DQA1*03:01:01, DPB1*04:01:01, DPA1*01:03:01:04
Donor (D)/Partner (P)/Child (C) HLA	C: A*02:01, A*24, B*07, B*40:01, C*03:04, C*07:02, DRB1*04:04, DRB1*15:01, DRB4, DRB5, DQB1*03:02, DQB1*06:02
Serum positive class I SABs	B*13:02, B*14:01, B*15:01, B*15:02, B*15:03, B*15:12, B*15:13, B*15:18, B*18:01, B*35:01, B*35:08, B*37:01, B*38:01, B*39:01, B*40:01, B*40:02, B*41:01, B*44:02, B*44:03, B*45:01, B*47:01, B*48:01, B*49:01, B*50:01, B*51:01, B*52:01, B*53:01, B*54:01, B*55:01, B*56:01, B*59:01, B*78:01
Supernatant positive class I SABs	B*13:02, B*15:01, B*15:12, B*27:05, B*27:08 , B*40:01, B*40:02, B*41:01, B*44:02, B*44:03, B*45:01, B*47:01, B*49:01, B*50:01
Serum positive class II SABs	negative
Supernatant positive class II SABs	negative

Study code	AS 16
Sex	F
Study group	multi-parous
Time (months)*	346
Self HLA class I	A*11:01:01:01, A*25:01:01, B*15:01:01:01, B*18:01:01, C*03:03:01:01, C*12:03:01:01
Self HLA class II	DRB1*08:01/08*77, DRB1*13:01:01, DRB3*02:02:01:02, DQB1*04:02:01, DQB1*06:03:01, DQA1*01:03/01:10/01:14, DQA1*04:01/04:02/04:03N, DPB1*02:01, DPB1*04:01:01, DPA1*01:03:01
Donor (D)/Partner (P)/Child (C) HLA	P: A*02, A*02, B*39, B*40 , C*03, C*07, DRB1*08, DRB1*13, DRB3, DQB1*04, DQB1*06, DQA1*01:02 , DQA1*04:01
Serum positive class I SABs	negative
Supernatant positive class I SABs	negative
Serum positive class II SABs	DQA1*03:01-DQB1*03:02, DQA1*03:02-DQB1*03:02
Supernatant positive class II SABs	DQA1*03:01-DQB1*03:01, DQA1*03:01-DQB1*03:02, DQA1*03:02-DQB1*03:02, DQA1*03:02-DQB1*03:03

Study code	AS 19
Sex	M
Study group	re-tx
Time (months)*	114
Self HLA class I	A*01:01:01:01, A*26:01:01:01, B*15:01:01:01, B*38:01:01, C*03:03:01:01, C*12:03:01:01
Self HLA class II	DRB1*13:02:01, DRB1*15:01:01, DRB3*03:01:01, DRB5*01:01:01, DQB1*06:02:01:01, DQB1*06:09:01:01, DQA1*01:02:01, DPB1*04:01:01, DPA1*01:03:01:04
Donor (D)/Partner (P)/Child (C) HLA	D: A1, A11, B8, B62, Cw3, DR3, DR15, DQ1, DQ2
Serum positive class I SABs	not available
Supernatant positive class I SABs	negative
Serum positive class II SABs	not available
Supernatant positive class II SABs	DQA1*05:01-DQB1*02:01, DQA1*03:02-DQB1*02:02, DQA1*05:01-DQB1*02:02, DQA1*03:01-DQB1*03:01, DQA1*03:02-DQB1*03:01, DQA1*05:01-DQB1*03:01, DQA1*06:01-DQB1*03:01, DQA1*03:01-DQB1*03:02, DQA1*03:02-DQB1*03:02, DQA1*03:02-DQB1*03:03, DQA1*04:01-DQB1*03:03, DQA1*06:01-DQB1*03:03, DQA1*04:01-DQB1*04:01, DQA1*05:01-DQB1*04:01, DQA1*04:01-DQB1*04:02, DQA1*06:01-DQB1*04:02

Study code	AS 20
Sex	F
Study group	re-tx
Time (months)*	74
Self HLA class I	A*23:01:01:01, A*31:01:02:01, B*40:01:02, B*50:02, C*03:04:01:01, C*06:02:01:02
Self HLA class II	DRB1*04:04:01, DRB1*04:06:02, DRB4*01:03:01:01, DQB1*03:02:01, DQB1*04:02:01, DQA1*03:01:01, DQA1*03:03:01:01, DPB1*03:01/124:01, DPB1*04:01/350:01, DPA1*01:03:01:02, DPA1*01:03:01:03
Donor (D)/Partner (P)/Child (C) HLA	D: A1, A24, B8 , B60, Cw3, Cw7, DR1 , DR4, DQ1 , DQ3
Serum positive class I SABs	A*01:01, B*08:01, B*35:01, B*35:08, B*37:01, B*42:01, B*51:01, B*53:01, B*59:01
Supernatant positive class I SABs	negative
Serum positive class II SABs	DRB1*01:01, DRB1*01:02, DRB1*01:03, DRB1*04:02, DRB1*08:01, DRB1*08:02, DRB1*11:01, DRB1*11:03, DRB1*11:04, DRB1*12:01, DRB1*12:02, DRB1*13:01, DRB1*13:03, DRB1*13:05, DRB1*14:03, DRB1*16:01, DRB1*16:02, DRB5*01:01, DRB5*02:02, DQA1*01:01-DQB1*05:01, DQA1*01:02-DQB1*05:01, DQA1*01:02-DQB1*05:02, DQA1*01:04-DQB1*05:03, DQA1*01:03-DQB1*06:01, DQA1*01:04-DQB1*06:01, DQA1*02:01-DQB1*06:01, DQA1*01:02-DQB1*06:02, DQA1*01:03-DQB1*06:03, DQA1*01:02-DQB1*06:04
Supernatant positive class II SABs	DQA1*01:01-DQB1*05:01, DQA1*01:02-DQB1*05:01, DQA1*01:02-DQB1*05:02, DQA1*01:04-DQB1*05:03, DQA1*01:03-DQB1*06:01, DQA1*01:04-DQB1*06:01, DQA1*02:01-DQB1*06:01, DQA1*01:02-DQB1*06:02, DQA1*01:03-DQB1*06:03, DQA1*01:02-DQB1*06:04

Study code	AS 21
Sex	F
Study group	re-tx
Time (months)*	72
Self HLA class I	A*02:01:01, A*29:02:01:01, B*44:03:01, B*73:01, C*15:05:01, C*16:01:01:01
Self HLA class II	DRB1*04:05:01, DRB1*13:02:01, DRB3*03:01:01, DRB4*01:03:01:01, DQB1*02:02:01:02, DQB1*06:04:01, DQA1*01:02:01, DQA1*03:03:01:01, DPB1*02:01:02, DPB1*13:01/107:01, DPA1*01:03:01:01, DPA1*02:01:01
Donor (D)/Partner (P)/Child (C) HLA	D1: unknown D2: A2, B44, B50, DR4, DR13, DQ7 D3: A2, B44, DR4, DR13, DQ1, DQ3
Serum positive class I SABs	negative
Supernatant positive class I SABs	negative
Serum positive class II SABs	DQA1*03:01-DQB1*03:01, DQA1*03:02-DQB1*03:01, DQA1*05:01-DQB1*03:01, DQA1*06:01-DQB1*03:01, DQA1*02:01-DQB1*03:02, DQA1*03:01-DQB1*03:02, DQA1*03:02-DQB1*03:02, DQA1*03:02-DQB1*03:03, DQA1*04:01-DQB1*03:03, DQA1*06:01-DQB1*03:03
Supernatant positive class II SABs	DQA1*02:01-DQB1*03:02, DQA1*03:01-DQB1*03:02, DQA1*03:02-DQB1*03:02, DQA1*03:02-DQB1*03:03, DQA1*04:01-DQB1*03:03

Study code	AS 22
Sex	Μ
Study group	re-tx
Time (months)*	132
Self HLA class I	A*01:01:01:01, A*02:01:01, B*08:01:01:01, B*15:01:01:01, C*03:04:01:01, C*07:01:01:01
Self HLA class II	DRB1*03:01:01, DRB1*04:01:01:02, DRB3*01:01:02, DRB4*01:03:01:01, DQB1*02:01:01, DQB1*03:02:01, DQA1*03:01:01, DQA1*05:01:01:02, DPB1*04:01:01, DPA1*01:03:01:02, DPA1*01:03:01:04
Donor (D)/Partner (P)/Child (C) HLA	D: A2, A11 , B8, B62, DR17, DR4, DQ2, DQ8
Serum positive class I SABs	negative
Supernatant positive class I SABs	negative
Serum positive class II SABs	DPA1*01:03-DPB1*01:01, DPA1*02:01-DPB1*01:01, DPA1*02:02-DPB1*01:01, DPA1*03:01-DPB1*01:01, DPA1*01:03-DPB1*03:01, DPA1*02:01-DPB1*04:01, DPA1*02:02-DPB1*04:01, DPA1*04:01-DPB1*04:01, DPA1*02:01-DPB1*05:01, DPA1*02:02-DPB1*05:01, DPA1*03:01-DPB1*05:01, DPA1*01:03-DPB1*06:01, DPA1*02:01-DPB1*09:01, DPA1*02:01-DPB1*11:01, DPA1*02:01-DPB1*13:01, DPA1*04:01-DPB1*13:01, DPA1*02:01-DPB1*14:01, DPA1*02:01-DPB1*15:01, DPA1*02:01-DPB1*14:01, DPA1*01:03-DPB1*18:01, DPA1*02:01-DPB1*19:01, DPA1*02:02-DPB1*28:01
Supernatant positive class II SABs	DPA1*01:03-DPB1*01:01, DPA1*02:01-DPB1*01:01, DPA1*02:02-DPB1*01:01, DPA1*03:01-DPB1*01:01, DPA1*01:03-DPB1*03:01, DPA1*02:01-DPB1*04:01, DPA1*02:02-DPB1*04:01, DPA1*04:01-DPB1*04:01, DPA1*02:01-DPB1*05:01, DPA1*02:02-DPB1*05:01, DPA1*03:01-DPB1*05:01, DPA1*01:03-DPB1*06:01, DPA1*02:01-DPB1*09:01, DPA1*02:01-DPB1*11:01, DPA1*02:01-DPB1*13:01, DPA1*04:01-DPB1*13:01, DPA1*02:01-DPB1*14:01, DPA1*02:01-DPB1*15:01, DPA1*02:01-DPB1*14:01, DPA1*02:01-DPB1*15:01, DPA1*02:01-DPB1*17:01, DPA1*01:03-DPB1*18:01, DPA1*02:01-DPB1*19:01, DPA1*02:02-DPB1*28:01

Study code	AS 23
Sex	F
Study group	re-tx
Time (months)*	2
Self HLA class I	A*01:01:01:01, A*02:01:01, B*08:01:01:01, B*40:01:02, C*03:04:01:01, C*07:01:01
Self HLA class II	DRB1*03:01:01, DRB1*13:02:01, DRB3*01:01:02, DRB3*03:01:01, DQB1*02:01:01, DQB1*06:04:01, DQA1*01:02:01, DQA1*05:01:01:02, DPB1*03:01/124:01, DPB1*04:01/350:01, DPA1*01:03:01:02, DPA1*01:03:01:03
Donor (D)/Partner (P)/Child (C) HLA	D1: A1, A2, B8, B15 D2: A1, A24, B8, B41 , Cw7, DR3, DR13, DQ2, DQ7
Serum positive class I SABs	negative
Supernatant positive class I SABs	negative
Serum positive class II SABs	DRB1*04:04, DRB1*04:05, DRB4*01:01, DQA1*03:02-DQB1*02:02,DQA1*03:01-DQB1*03:01, DQA1*03:02-DQB1*03:01, DQA1*05:01-DQB1*03:01, DQA1*06:01-DQB1*03:01, DQA1*02:01-DQB1*03:02, DQA1*03:01-DQB1*03:02, DQA1*03:02-DQB1*03:02, DQA1*03:02-DQB1*03:03, DQA1*04:01-DQB1*03:03, DQA1*06:01-DQB1*03:03, DQA1*03:01-DQB1*04:02
SABs	

Study code	AS 24
Sex	F
Study group	re-tx
Time (months)*	3
Self HLA class I	A*02:01:01, B*08:01:01:01, B*18:01:01, C*07:01:01:01, C*12:03:01:01
Self HLA class II	DRB1*15:01:01, DRB5*01:01:01, DQB1*06:02:01:01, DQA1*01:02:01, DPB1*01:01:01, DPB1*13:01/107:01, DPA1*02:01:01:01, DPA1*02:02:02
Donor (D)/Partner (P)/Child (C) HLA	D: A1, A2, B18, B57, Cw6, Cw12, DR13, DR15, DR51, DR52, DQ3, DQ6
Serum positive class I SABs	not available
Supernatant positive class I SABs	A*01:01, A*11:01, A*11:02, A*23:01, A*24:02, A*25:01, A*26:01, A*30:01, A*32:01, A*34:02, A*36:01, A*66:01, A*66:02, B*15:12, B*15:13, B*15:16, B*44:02, B*44:03, B*45:01, B*57:01, B*58:01
Serum positive class II SABs	not available
Supernatant positive class II SABs	DQA1*05:01-DQB1*02:01, DQA1*03:02-DQB1*02:02, DQA1*05:01-DQB1*02:02, DQA1*03:01-DQB1*03:01, DQA1*03:02-DQB1*03:01, DQA1*05:01-DQB1*03:01, DQA1*06:01-DQB1*03:01, DQA1*02:01-DQB1*03:02, DQA1*03:01-DQB1*03:02, DQA1*03:02-DQB1*03:02, DQA1*03:02-DQB1*03:03, DQA1*04:01-DQB1*03:03, DQA1*06:01-DQB1*03:03, DQA1*04:01-DQB1*04:01, DQA1*05:01-DQB1*04:01, DQA1*03:01-DQB1*04:02, DQA1*04:01-DQB1*04:02, DQA1*06:01-DQB1*04:02

Study code	AS 25
Sex	F
Study group	re-tx
Time (months)*	121
Self HLA class I	A*01:01:01:01, B*37:01:01, B*57:01:01, C*06:02:01:01
Self HLA class II	DRB1*04:02:01, DRB1*07:01:01, DRB4*01:03:01:01, DRB4*01:03:01:02N, DQB1*03:02:01, DQB1*03:03:02:01, DQA1*02:01:01, DQA1*03:01:01, DPB1*04:01:01, DPB1*13:01/107:01, DPA1*01:03:01:04, DPA1*02:01:01:01
Donor (D)/Partner (P)/Child (C) HLA	D: A1, A32, B17, B40, Cw3, Cw6, DR3, DR7, DQ2
Serum positive class I SABs	A*02:01, A*02:02, A*02:03, A*02:05, A*11:02, A*68:01, A*68:02, B*13:02, B*40:01, B*82:02
Supernatant positive class I SABs	negative
Serum positive class II SABs	DRB1*03:01, DRB1*03:02, DRB1*03:03, DRB3*01:01, DQA1*02:01-DQB1*02:01, DQA1*05:01-DQB1*02:01, DQA1*02:01-DQB1*02:02, DQA1*03:02-DQB1*02:02, DQA1*05:01-DQB1*02:02, DQA1*05:01-DQB1*03:01, DQA1*06:01-DQB1*03:01, DQA1*04:01-DQB1*03:03, DQA1*06:01-DQB1*03:03, DQA1*04:01-DQB1*04:01, DQA1*05:01-DQB1*04:01, DQA1*04:01-DQB1*04:02, DQA1*06:01-DQB1*04:02, DQA1*01:02-DQB1*05:02
Supernatant positive class II SABs	DRB1*03:01, DRB1*03:02, DRB1*03:03, DRB3*01:01, DQA1*05:01-DQB1*02:01, DQA1*05:01-DQB1*02:02, DQA1*05:01-DQB1*03:01, DQA1*04:01-DQB1*03:03, DQA1*06:01-DQB1*03:03, DQA1*04:01-DQB1*04:01, DQA1*05:01-DQB1*04:01, DQA1*04:01-DQB1*04:02, DQA1*06:01-DQB1*04:02

Study code	AS 26
Sex	F
Study group	re-tx
Time (months)*	56
Self HLA class I	A*11:01:01:01, A*29:02:01:01, B*18:01:01, B*50:01:01:02, C*04:01:01:01, C*05:01:01:01
Self HLA class II	DRB1*03:01:01, DRB1*10:01:01, DRB3*02:02:01:01, DQB1*02:01:01, DQB1*05:01:01, DQA1*01:05:01, DQA1*05:01:01:01, DPB1*04:02:01:02, DPB1*30:01, DPA1*01:03:01:02, DPA1*02:01:01
Donor (D)/Partner (P)/Child (C) HLA	D: A1, A33, B18, B50, Cw5, Cw6 , DR17, DR7, DR53, DQ2
Serum positive class I SABs	A*01:01, A*23:01, A*24:02, A*36:01, A*80:01, B*15:12, B*44:02, B*44:03, B*45:01, B*82:02
Supernatant positive class I SABs	A*01:01, A*24:02, A*36:01, A*66:02
Serum positive class II SABs	DRB1*04:02, DRB1*07:01, DRB1*08:02, DRB1*09:01, DRB1*11:04, DRB1*12:01, DRB1*13:03, DRB1*14:03, DRB1*16:02, DRB4*01:01, DQA1*02:01-DQB1*02:01, DQA1*02:01-DQB1*02:02, DQA1*03:01-DQB1*03:01, DQA1*03:02-DQB1*03:01, DQA1*06:01-DQB1*03:01, DQA1*02:01-DQB1*03:02, DQA1*03:02-DQB1*03:03, DQA1*02:01-DQB1*04:01, DQA1*03:01-DQB1*04:02, DQA1*02:01-DQB1*06:01
SABs	DQA1*03:02-DQB1*03:03