

B-CELL LINE EXCHANGE #294

AUGUST 4, 2021

B-cell Line 587 - 588

The results for B-cell Line Exchange #294 are summarized in Tables 1 - 2 and individual laboratory results reported for each sample are listed in Tables 3 - 6. We would like to express our appreciation to Leiden University Medical Center, the Netherlands, for generously sharing the interesting cells

examined in this study. We would like to also acknowledge and thank the labs performing NGS for sharing their findings and encourage other NGS labs to do so as well. Haplotype frequencies used in this report are from the NMDP Bioinformatics website, <https://bioinformatics.bethematchclinical.org/>.

Ter-587. The reported HLA type for this cell from a Caucasian donor was A*02:01-A*24:02-B*07:02-B*13:02-C*06:02-C*07:02-DRB1*07:01-DRB1*11:19-DRB3*02:02-DRB4*01:03-DQA1*02:01-DQA1*05:05-DQB1*02:02-DQB1*03:01-DPA1*01:03-DPB1*02:01-DPB1*04:01. This cell was previously examined as Ter 544 (2017), Ter 502 (2014), Ter 408 (2008), and Ter 297 (2002). In this present retyping, good agreement (> 90%) was achieved for all allele assignments.

One possible haplotype present in this cell was A*02:01-B*13:02-C*06:02-DRB1*07:01-DRB4*01:03-DQA1*02:01-DQB1*02:02-DPA1*01:03. The association of A*02:01-B*13:02-C*06:02 was observed in Caucasians, with HF = 0.00818. The other association likely present was A*24:02-B*07:02-C*07:02-DRB1*11:19-DRB3*02:02-DQA1*05:05-DQB1*03:01-DPA1*01:03. A*24:02-B*07:02-C*07:02 was observed commonly in Caucasians, with HF = 0.01472.

References

1. Verduyn W, Anholts JD, Versluis LF, Parlevliet J, Drabbels J, De Meester J, Tilanus MG, Doxiadis II, Giphart MJ, Schreuder GM. Six newly identified HLA-DRB alleles: DRB1*1121, *1419, *1420, *1421, DRB3*0203 and DRB5*0103. *Tissue Antigens*. 1996 Aug;48(2):80-6.

Ter-588 The reported HLA type for this cell from a Caucasian donor was A*02:01-A*03:01-B*15-B*35:03-C*04:01-C*12:03-DRB1*04:03-DRB1*11:21-DRB3*02:02-DRB4*01:03-DQA1*03:01-DQA1*05:05-DQB1*03:01-DQB1*03:02-DPA1*01:03-DPB1*02:01-DPB1*04:02. This cell was examined previously as Ter 435 (2010), Ter 350 (2004), Ter 251 (1999), and extract 110 (1999). It was one of the reference cells for DRB1*11:21. Its primary name was MUL (1).

In this most recent study, good agreement was achieved for all allele assignments, except B*15. Sixteen labs assigned B*15:220, 4 labs assigned B*15:03, and 1 lab assigned B*15:03P. When examined as extract 110 in 1999, 68% (30/44) of labs reporting at high resolution assigned B*15:03. B*15:220 differs from B*15:03 in exon 1 by a single nucleotide substitution at position 47 (GCC → GTC), resulting in amino acid change from alanine to valine. B*15:220 is expressed serologically as B70 (2).

One likely association present was A*02:01-B*15:220-C*04:01-DRB1*04:03-DRB4*01:03-DQB1*03:02. This same association was observed in KW10593, a reference cell for B*15:220. The other likely association present was A*03:01-B*35:03-DRB1*11:21-DQB1*03:01. The A*03:01-B*35:03 association present in this cell was observed in Caucasians, with HF = 0.00398.

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Table 1: Summary of the 294th B-cell Line Exchange

Ter-587

Ter-587												
DNA Typing - class II	24 labs High; 22 labs low-DRB1	%(n)	18 labs High; 16 labs Low-DRB3/4/5	%(n)	19 labs High; 19 labs Low-DQA1	%(n)	23 labs High; 21 labs Low-DQB1	%(n)	15 labs High; 10 labs Low-DPA1	%(n)	22 labs High; 12 labs Low-DPB1	%(n)
	DRB1*07:01:01	29(7)	DRB3*02:02:01	17(3)	DQA1*02:01:01	21(4)	DQB1*02:02:01	22(5)	DPA1*01:03:01	27(4)	DPB1*02:01:02	27(6)
	DRB1*07:01	67(16)	DRB3*02:02	83(15)	DQA1*02:01	79(15)	DQB1*02:02	78(18)	DPA1*01:03:01G	7 (1)	DPB1*02:01:02G	9 (2)
	DRB1*07:01P	4 (1)	DRB3*02	81(13)	DQA1*02	100(19)	DQB1*02	100(21)	DPA1*01:03	66(10)	DPB1*02:01	64(14)
	DRB1*07	100(22)	DRB3*PRESENT	19(3)					DPA1*01	100(10)	DPB1*02(DP201)	42(5)
											DPB1*02	58(7)
DNA Typing - class I	24 labs High; 22 labs low-DRB1	%(n)	18 labs High; 16 labs Low-DRB3/4/5	%(n)	19 labs High; 19 labs Low-DQA1	%(n)	24 labs High; 21 labs Low-DQB1	%(n)			22 labs High; 12 labs Low-DPB1	%(n)
	DRB1*11:19:01	29(7)	DRB4*01:03:01	22(4)	DQA1*05:05:01	21(4)	DQB1*03:01:01	17(4)			DPB1*04:01:01	27(6)
	DRB1*11:19	81(17)	DRB4*01:03	78(14)	DQA1*05:05	79(15)	DQB1*03:01:01G	4 (1)			DPB1*04:01:01G	9 (2)
	DRB1*11	100(22)	DRB4*01	81(13)	DQA1*05	100(19)	DQB1*03:01	79(19)			DPB1*04:01	64(14)
			DRB4*PRESENT	19(3)			DQB1*03	95(20)			DPB1*04(DP401)	50(6)
							DQB1*03(DQ7)	5 (1)			DPB1*04	50(6)
DNA Typing - class I	19 labs High; 17 labs low- A	%(n)	19 labs High; 17 labs low- B	%(n)	19 labs High; 17 labs low- C	%(n)						
	A*02:01:01:01	5 (1)	B*07:02:01:01	5 (1)	C*06:02:01:01	5 (1)						
	A*02:01:01	26(5)	B*07:02:01	26(5)	C*06:02:01	26(5)						
	A*02:01P	5 (1)	B*07:02P	5 (1)	C*06:02P	5 (1)						
	A*02:01	63(12)	B*07:02	63(12)	C*06:02	63(12)						
	A*02	100(17)	B*07	100(17)	C*06	100(17)						
DNA Typing - class I	19 labs High; 17 labs low- A	%(n)	19 labs High; 17 labs low- B	%(n)	19 labs High; 17 labs low- C	%(n)						
	A*24:02:01:01	5 (1)	B*13:02:01:01	5 (1)	C*07:02:01:03	5 (1)						
	A*24:02:01	26(5)	B*13:02:01	26(5)	C*07:02:01	26(5)						
	A*24:02P	5 (1)	B*13:02P	5 (1)	C*07:02P	5 (1)						
	A*24:02	63(12)	B*13:02	63(12)	C*07:02	63(12)						
	A*24	100(17)	B*13	100(17)	C*07	100(17)						

Table 2: Summary of the 294th B-cell Line Exchange

Ter-588												
DNA Typing - class II	<u>24 labs High; 23 labs low-DRB1</u>	%(n)	<u>18 labs High; 17 labs Low-DRB3/4/5</u>	%(n)	<u>20 labs High; 20 labs Low-DQA1</u>	%(n)	<u>24 labs High; 22 labs Low-DQB1</u>	%(n)	<u>15 labs High; 10 labs Low-DPA1</u>	%(n)	<u>23 labs High; 13 labs Low-DPB1</u>	%(n)
	DRB1*04:03:01	29(7)	DRB3*02:02:01	17 (3)	DQA1*03:01:01	20(4)	DQB1*03:01:01	17(4)	DPA1*01:03:01	27(4)	DPB1*02:01:02	17(4)
	DRB1*04:03	71(17)	DRB3*02:02	83(15)	DQA1*03:01	80(16)	DQB1*03:01:01G	4 (1)	DPA1*01:03:01G	7 (1)	DPB1*02:01:02G	17(4)
	DRB1*04	100(23)	DRB3*02	88(15)	DQA1*03	100(20)	DQB1*03:01	79(19)	DPA1*01:03	66(10)	DPB1*02:01P	4 (1)
			DRB3*PRESENT	12(2)			DQB1*03(DQ7)	5 (1)	DPA1*01	100(10)	DPB1*02:01	61(14)
							DQB1*03	95(21)			DPB1*02(DP201)	46(6)
											DPB1*02	54(7)

DNA Typing - class I	<u>19 labs High; 18 labs low- A</u>	%(n)	<u>21 labs High; 18 labs low- B</u>	%(n)	<u>19 labs High; 18 labs low- C</u>	%(n)
	A*02:01:01:01	5 (1)	B*15:220:01:01	5 (1)	C*04:01:01:14	5 (1)
	A*02:01:01	26(5)	B*15:220	71(15)	C*04:01:01	26(5)
	A*02:01P	5 (1)	B*15:03P	5 (1)	C*04:01P	5 (1)
	A*02:01	63(12)	B*15:03	19(4)	C*04:01	63(12)
	A*02	100(18)	B*15	83(15)	C*04	100(18)
			B*15(B70)	11(2)		
			B*15(B72)	6 (1)		
			<u>19 labs High; 18 labs low- A</u>	%(n)	<u>19 labs High; 18 labs low- C</u>	%(n)
	A*03:01:01:01	5 (1)	B*35:03:01:03	5 (1)	C*12:03:01:32	5 (1)
	A*03:01:01	26(5)	B*35:03:01	26(5)	C*12:03:01	26(5)
	A*03:01P	5 (1)	B*35:03P	5 (1)	C*12:03P	5 (1)
	A*03:01	63(12)	B*35:03	63(12)	C*12:03	63(12)
	A*03	100(18)	B*35	100(18)	C*12	100(18)

Table 3a: Individual laboratory results for B-cell #587 - Class II

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
278	*07	*11	3*02	4*01	*02	*05	*02	*03	*01	*01	*02	*04	SSP SSO	
725	*07	*11	3*PRESENT	4*PRESENT	*02	*05	*02	*03					SSP SSO	
747	*07	*11	3*02	4*01	*02	*05	*02	*03	*01	*01	*02	*04	SSP SSO NGS	
774	*07	*11	3*02	4*01	*02	*05	*02	*03			*02(DP201)	*04(DP401)	SSP SSO	
792	*07	*11	3*02	4*01	*02	*05	*02	*03	*01	*01	*02	*04	SSO NGS	
793	NT												SSP	
794	*07	*11	3*02	4*01	*02	*05	*02	*03	*01		*02	*04	SSP SSO NGS	
2400	*07	*11	3*02	4*01	*02	*05	*02	*03			*02	*04	RT-PCR	
2847	*07	*11											SSO NGS	
2847	*07	*11											SSO	
3519	*07	*11	3*02	4*01	*02	*05	*02	*03	*01		*02(DP201)	*04(DP401)	RT-PCR	
3753	*07	*11	3*PRESENT	4*PRESENT	*02	*05	*02	*03	*01	*01	*02	*04(DP401)	SSO	
4079	*07	*11	3*02	4*01	*02	*05	*02	*03	*01		*02(DP201)	*04(DP401)	SSO	
5130	*07	*11	3*02	4*01	*02	*05	*02	*03			*02	*04	SSO NGS	
5214	*07	*11	3*02	4*01	*02	*05	*02	*03(DQ7)	*01		*02(DP201)	*04(DP401)	RT-PCR	
5219	*07	*11			*02	*05	*02	*03					SSO NGS	
5451	*07	*11	3*02	4*01	*02	*05	*02	*03					SSO SBT	
5462	*07	*11	3*02	4*01	*02	*05	*02	*03	*01		NT	NT	RT-PCR	
5642	*07	*11	3*PRESENT	4*PRESENT			*02	*03					SSP	
6649	*07	*11					*02	*03					SSO	
8029	*07	*11			*02	*05	*02	*03					SSO	
8043	*07	*11			*02	*05	*02	*03					SSP SSO	
8068	*07	*11			*02	*05	*02	*03					SSO	
8123	*07	*11	3*02	4*01	*02	*05	*02	*03	*01	*01	*02(DP201)	*04(DP401)	RT-PCR	

Table 3b: Individual laboratory results for B-cell #587 - Class II

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
230	*07:01	*11:19	3*02:02	4*01:03	*02:01	*05:05	*02:02	*03:01	*01:03	*01:03	*02:01	*04:01	SSO NGS	
278	*07:01	*11:19	3*02:02	4*01:03	*02:01	*05:05	*02:02	*03:01	*01:03	*01:03	*02:01	*04:01	SSP SSO	
747	*07:01:01	*11:19:01	3*02:02:01	4*01:03:01	*02:01:01	*05:05:01	*02:02	*03:01	*01:03:01	*01:03:01	*02:01:02	*04:01:01	SSP SSO NGS	DQB1*03:297 DQB1*03:419 DQB1*02:156
762	*07:01	*11:19	3*02:02	4*01:03	*02:01	*05:05	*02:02	*03:01	*01:03		*02:01	*04:01	NGS	
774	*07:01	*11:19	3*02:02	4*01:03	*02:01	*05:05	*02:02	*03:01			*02:01	*04:01	SSP SSO	DRB1*07:31 DRB1*07:33 DRB1*07:35
792	*07:01	*11:19	3*02:02	4*01:03	*02:01	*05:05	*02:02	*03:01	*01:03	*01:03	*02:01	*04:01	SSO NGS	
793													SSP	
794	*07:01:01	*11:19:01	3*02:02	4*01:03:01	*02:01:01	*05:05:01	*02:02:01	*03:01:01	*01:03:01		*02:01:02	*04:01:01	SSP SSO NGS RT-PCR	
2344	*07:01:01	*11:19:01	NT	NT	NT	NT	*02:02:01	*03:01:01	NT	NT	*02:01:02	*04:01:01	NGS	
2400	*07:01	*11:19	3*02:02	4*01:03	*02:01	*05:05	*02:02	*03:01			*02:01:02G	*04:01:01G	SSO NGS	DQB1*03:419 DQB1*02:156 DQB1*02:163N DQB1*03:297
3135	*07:01P	*11:19	3*02:02	4*01:03	*02:01	*05:05	*02:02	*03:01	*01:03		*02:01	*04:01		DQA1*05:09
3224	*07:01	*11:19	3*02:02	4*01:03	*02:01	*05:05	*02:02	*03:01	*01:03		*02:01	*04:01	NGS	
3511	*07:01	*11:19	3*02:02	4*01:03	*02:01	*05:05	*02:02	*03:01	*01:03	*01:03	*02:01	*04:01	SSP SSO	
3519	*07:01	*11:19	3*02:02	4*01:03	*02:01	*05:05	*02:02	*03:01	*01:03		*02:01	*04:01	SSP NGS RT-PCR	
4337	*07:01	*11:19					*02:02	*03:01			*02:01	*04:01	SSP SBT NGS	
5130	*07:01	*11:19	3*02:02	4*01:03	*02:01	*05:05	*02:02	*03:01			*02:01	*04:01	SSO NGS	
5133	*07:01:01	*11:19:01	3*02:02:01	4*01:03:01	*02:01:01	*05:05:01	*02:02:01	*03:01:01	*01:03:01		*02:01:02	*04:01:01	NGS	
5214											*02:01:02G	*04:01:01G	RT-PCR	
5219	*07:01:01	*11:19:01					*02:02:01	*03:01:01			*02:01:02	*04:01:01	SSO NGS	
5451	*07:01:01	*11:19:01											SSO SBT	
5488	*07:01:01	*11:19:01	3*02:02:01	4*01:03:01	*02:01:01	*05:05:01	*02:02:01	*03:01:01G	*01:03:01		*02:01:02	*04:01:01	SSO SBT NGS	
5642	*07:01	*11:19					*02:02	*03:01					SSP	
8021	*07:01	*11:19	3*02:02	4*01:03	*02:01	*05:05	*02:02	*03:01	*01:03		*02:01	*04:01	SSO NGS	
8043	*07:01	*11:19			*02:01	*05:05	*02:02	*03:01					SSP SSO	
8086	*07:01	*11:19	3*02:02	4*01:03	*02:01	*05:05	*02:02	*03:01	*01:03:01G	*01:03:01G	*02:01	*04:01		
8122	*07:01	*11:19	3*02:02	4*01:03	*02:01	*05:05	*02:02	*03:01	*01:03	*01:03	*02:01	*04:01	NGS	DPB1*939:01
8123								*03:01					RT-PCR	

Table 4: Individual laboratory results for B-cell #587- Class I

Table 4: Individual laboratory results for B-cell #587- Class I														
Center	Low resolution						High resolution						METHOD	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
230							*02:01	*24:02	*07:02	*13:02	*06:02	*07:02	SSO NGS	
278	*02	*24	*07	*13	*06	*07	*02:01	*24:02	*07:02	*13:02	*06:02	*07:02	SSP SSO	
725	*02	*24	*07	*13	*06	*07							SSP SSO	
747							*02:01:01	*24:02:01	*07:02:01	*13:02:01	*06:02:01	*07:02:01	SSP SSO NGS	
774	*02	*24	*07	*13	*06	*07							SSP SSO	
792	*02	*24	*07	*13	*06	*07	*02:01	*24:02	*07:02	*13:02	*06:02	*07:02	SSO NGS	A*02:01:01:02L
793	NT												SSP	
794	*02	*24	*07	*13	*06	*07	*02:01:01	*24:02:01	*07:02:01	*13:02:01	*06:02:01	*07:02:01	SSP SSO NGS	
2344							*02:01:01	*24:02:01	*07:02:01	*13:02:01	*06:02:01	*07:02:01	RT-PCR	
2400	*02	*24	*07	*13	*06	*07	*02:01	*24:02	*07:02	*13:02	*06:02	*07:02	NGS	
2847	*02	*24	*07	*13	*06	*07							SSO NGS	
3135													SSO	
3224							*02:01P	*24:02P	*07:02P	*13:02P	*06:02P	*07:02P		
3511							*02:01	*24:02	*07:02	*13:02	*06:02	*07:02	NGS	
							*02:01	*24:02	*07:02	*13:02	*06:02	*07:02	SSP SSO	
3519	*02	*24	*07	*13	*06	*07	*02:01	*24:02	*07:02	*13:02	*06:02	*07:02	SSP NGS	
3753	*02	*24	*07	*13	*06	*07							RT-PCR	
4079	*02	*24	*07	*13	*06	*07							SSO	
4337							*02:01	*24:02	*07:02	*13:02	*06:02	*07:02	SSO	
5130	*02	*24	*07	*13	*06	*07	*02:01	*24:02	*07:02	*13:02	*06:02	*07:02	SSP SBT NGS	
5133							*02:01	*24:02	*07:02	*13:02	*06:02	*07:02	SSO NGS	
5214	*02	*24	*07	*13	*06	*07	*02:01:01:01	*24:02:01:01	*07:02:01:01	*13:02:01:01	*06:02:01:01	*07:02:01:03	NGS	
5219	*02	*24	*07	*13	*06	*07							RT-PCR	
5462	*02	*24	*07	*13	*06	*07	*02:01:01	*24:02:01	*07:02:01	*13:02:01	*06:02:01	*07:02:01	SSO NGS	
5488													RT-PCR	
8021							*02:01:01	*24:02:01	*07:02:01	*13:02:01	*06:02:01	*07:02:01	SSO SBT NGS	
8029	*02	*24	*07	*13	*06	*07	*02:01	*24:02	*07:02	*13:02	*06:02	*07:02	SSO NGS	
8068	*02	*24	*07	*13	*06	*07							SSO	
8086							*02:01	*24:02	*07:02	*13:02	*06:02	*07:02	SSO	
8122							*02:01	*24:02	*07:02	*13:02	*06:02	*07:02	NGS	
8123	*02	*24	*07	*13	*06	*07							RT-PCR	

Table 5a: Individual laboratory results for B-cell #588 - Class II

Low resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
278	*04	*11	3*02	4*01	*03	*05	*03	*03	*01	*01	*02	*04	SSP SSO	
725	*04	*11	3*PRESENT	4*PRESENT	*03	*05	*03	*03					SSP SSO	
747	*04	*11	3*02	4*01	*03	*05	*03	*03	*01	*01	*02	*04	SSP SSO NGS	
774	*04	*11	3*02	4*01	*03	*05	*03	*03			*02(DP201)	*04(DP402)	SSP SSO	
792	*04	*11	3*02	4*01	*03	*05	*03	*03	*01	*01	*02	*04	SSO NGS	
793	*04	*11	3*02	4*01	*03	*05	*03	*03			*02(DP201)	*04(DP402)	SSP	
794	*04	*11	3*02	4*01	*03	*05	*03		*01		*02	*04	SSP SSO NGS RT-PCR	
2400	*04	*11	3*02	4*01	*03	*05	*03	*03			*02	*04	SSO NGS	
2847	*04	*11											SSO	
3519	*04	*11	3*02	4*01	*03	*05	*03		*01		*02(DP201)	*04(DP402)	SSP NGS RT-PCR	
3753	*04	*11	3*02	4*01	*03	*05	*03	*03	*01	*01	*02	*04(DP402)	SSO	
4079	*04	*11	3*02	4*01	*03	*05	*03	*03	*01		*02(DP201)	*04(DP402)	SSO	
5130	*04	*11	3*02	4*01	*03	*05	*03	*03			*02	*04	SSO NGS	
5214	*04	*11	3*02	4*01	*03	*05	*03(DQ7)	*03(DQ8)	*01		*02(DP201)	*04(DP402)	RT-PCR	
5219	*04	*11			*03	*05	*03	*03					SSO NGS	
5451	*04	*11	3*02	4*01	*03	*05	*03	*03					SSO SBT	
5462	*04	*11	3*02	4*01	*03	*05	*03	*03	*01		NT	NT	RT-PCR	
5642	*04	*11	3*PRESENT	4*PRESENT			*03	*03					SSP	
6649	*04	*11					*03	*03					SSO	
8029	*04	*11			*03	*05	*03	*03					SSO	
8043	*04	*11			*03	*05	*03	*03					SSP SSO	
8068	*04	*11			*03	*05	*03	*03					SSO	
8123	*04	*11	3*02	4*01	*03	*05	*03	*03	*01	*01	*02(DP201)	*04(DP402)	RT-PCR	

Table 5b: Individual laboratory results for B-cell #588 - Class II

High resolution														
Center	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
230	*04:03	*11:21	3*02:02	4*01:03	*03:01	*05:05	*03:01	*03:02	*01:03	*01:03	*02:01	*04:02	SSO NGS	
278	*04:03	*11:21	3*02:02	4*01:03	*03:01	*05:05	*03:01	*03:02	*01:03	*01:03	*02:01	*04:01	SSP SSO	
747	*04:03:01	*11:21	3*02:02:01	4*01:03:01	*03:01:01	*05:05:01	*03:01	*03:02	*01:03:01	*01:03:01	*02:01	*04:02	SSP SSO NGS	DQB1*03:419 DQB1*03:289 DQB1*03:416 DQB1*03:297 DPB1*105:01 DPB1*416:01
762	*04:03	*11:21	3*02:02	4*01:03	*03:01	*05:05	*03:01	*03:02	*01:03		*02:01	*04:02	NGS	DPB1*105:01 DPB1*416:01
774	*04:03	*11:21	3*02:02	4*01:03	*03:01	*05:05	*03:01	*03:02			*02:01	*04:02	SSP SSO	DRB1*04:93 DRB1*04:163 DRB1*04:165 DRB1*04:181 B*15:282 DRB1*04:96 DRB1*04:109 DRB1*04:142N DRB1*04:148 DQB1*03:45
792	*04:03	*11:21	3*02:02	4*01:03	*03:01	*05:05	*03:01	*03:02	*01:03	*01:03	*02:01:02G	*04:02:01G	SSO NGS	
793					*03:01	*05:05					*02:01	*04:02	SSP	
794	*04:03:01	*11:21	3*02:02	4*01:03:01	*03:01:01	*05:05:01	*03:01:01	*03:02:01	*01:03:01		*02:01:02	*04:02:01	SSP SSO NGS RT-PCR	
2344	*04:03:01	*11:21	NT	NT	NT	NT	*03:01:01	*03:02:01	NT	NT	*02:01:02	*04:02:01	NGS	DPB1*416:01 DPB1*105:01 DPB1*665:01
2400	*04:03	*11:21	3*02:02	4*01:03	*03:01	*05:05	*03:01	*03:02			*02:01:02G	*04:02:01G	SSO NGS	DQB1*03:289 DQB1*03:416 DQB1*03:297 DQB1*03:419
3135	*04:03	*11:21	3*02:02	4*01:03	*03:01	*05:05	*03:01	*03:02	*01:03		*02:01	*04:02		DQA1*05:09
3224	*04:03	*11:21	3*02:02	4*01:03	*03:01	*05:05	*03:01	*03:02	*01:03		*02:01	*04:02	NGS	
3511	*04:03	*11:21	3*02:02	4*01:03	*03:01	*05:05	*03:01	*03:02	*01:03	*01:03	*02:01	*04:02	SSP SSO	
3519	*04:03	*11:21	3*02:02	4*01:03	*03:01	*05:05	*03:01	*03:02	*01:03		*02:01P	*04:02P	SSP NGS RT-PCR	DPB1*416:01 DPB1*665:01
4337	*04:03	*11:21					*03:01	*03:02			*02:01	*04:02	SSP SBT NGS	
5130	*04:03	*11:21	3*02:02	4*01:03	*03:01	*05:05	*03:01	*03:02			*02:01	*04:02	SSO NGS	DQB1*03:02
5133	*04:03:01	*11:21	3*02:02:01	4*01:03:01	*03:01:01	*05:05:01	*03:01:01	*03:02:01	*01:03:01		*02:01:02	*04:02:01	NGS	DPB1*105:01:01 DPB1*416:01:01
5214											*02:01:02G	*04:02:01G	RT-PCR	
5219	*04:03:01	*11:21					*03:01:01	*03:02:01			*02:01:02	*04:02:01	SSO NGS	
5451	*04:03:01	*11:21											SSO SBT	
5488	*04:03:01	*11:21	3*02:02:01	4*01:03:01	*03:01:01	*05:05:01	*03:01:01G	*03:02:01	*01:03:01		*02:01:02G	*04:02:01G	SSO SBT NGS	
5642	*04:03	*11:21					*03:01	*03:02					SSP	
8021	*04:03	*11:21	3*02:02	4*01:03	*03:01	*05:05	*03:01	*03:02	*01:03		*02:01	*04:02	SSO NGS	
8043	*04:03	*11:21			*03:01	*05:05	*03:01	*03:02					SSP SSO	
8086	*04:03	*11:21	3*02:02	4*01:03	*03:01	*05:05	*03:01	*03:02	*01:03:01G	*01:03:01G	*02:01	*04:02		
8122	*04:03	*11:21	3*02:02	4*01:03	*03:01	*05:05	*03:01	*03:02	*01:03	*01:03	*02:01	*04:02	NGS	DPB1*105:01 DPB1*665:01 DPB1*416:01
8123							*03:01	*03:02					RT-PCR	

Table 6: Individual laboratory results for B-cell #588- Class I

Center	Low resolution						High resolution						METHOD	Other Alleles
	HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
230							*02:01	*03:01	*15:220	*35:03	*04:01	*12:03	SSO NGS	
278	*02	*03	*15	*35	*04	*12	*02:01	*03:01	*15:03	*35:03	*04:01	*12:03	SSP SSO	
725	*02	*03	*15	*35	*04	*12							SSP SSO	
747							*02:01:01	*03:01:01	*15:220	*35:03:01	*04:01:01	*12:03:01	SSP SSO NGS	
774	*02	*03	*15	*35	*04	*12			*15:03				SSP SSO	B*15:220
792	*02	*03	*15	*35	*04	*12	*02:01	*03:01	*15:220	*35:03	*04:01	*12:03	SSO NGS	A*02:01:01:02L
793	*02	*03	*15(B70)	*35	*04	*12							SSP	
794	*02	*03	*15	*35	*04	*12	*02:01:01	*03:01:01	*15:220	*35:03:01	*04:01:01	*12:03:01	SSP SSO NGS	
2344							*02:01:01	*03:01:01	*15:220	*35:03:01	*04:01:01	*12:03:01	RT-PCR	
2400	*02	*03	*15	*35	*04	*12	*02:01	*03:01	*15:220	*35:03	*04:01	*12:03	NGS	
2847	*02	*03	*15	*35	*04	*12							SSO NGS	
3135													SSO	
3224							*02:01P	*03:01P	*15:03P	*35:03P	*04:01P	*12:03P		
3511							*02:01	*03:01	*15:220	*35:03	*04:01	*12:03	NGS	
							*02:01	*03:01	*15:220	*35:03	*04:01	*12:03	SSP SSO	
3519	*02	*03	*15(B70)	*35	*04	*12	*02:01	*03:01	*15:220	*35:03	*04:01	*12:03	SSP NGS	
3753	*02	*03	*15	*35	*04	*12							RT-PCR	
4079	*02	*03	*15	*35	*04	*12							SSO	
4337							*02:01	*03:01	*15:03	*35:03	*04:01	*12:03	SSO	
5130	*02	*03	*15	*35	*04	*12	*02:01	*03:01	*15:220	*35:03	*04:01	*12:03	SSP SBT NGS	
5133							*02:01	*03:01	*15:220	*35:03	*04:01	*12:03	SSO NGS	
5214	*02	*03	*15(B72)	*35	*04	*12	*02:01:01:01	*03:01:01:01	*15:220:01:01	*35:03:01:03	*04:01:01:14	*12:03:01:32	NGS	
5219	*02	*03	*15	*35	*04	*12							RT-PCR	
5462	*02	*03	*15	*35	*04	*12	*02:01:01	*03:01:01	*15:220	*35:03:01	*04:01:01	*12:03:01	SSO NGS	
5488													RT-PCR	
8021							*02:01:01	*03:01:01	*15:220	*35:03:01	*04:01:01	*12:03:01	SSO SBT NGS	
8029	*02	*03	*15	*35	*04	*12	*02:01	*03:01	*15:220	*35:03	*04:01	*12:03	SSO NGS	
8068	*02	*03	*15	*35	*04	*12							SSO	
8086							*02:01	*03:01	*15:220	*35:03	*04:01	*12:03	SSO	
8122							*02:01	*03:01	*15:220	*35:03	*04:01	*12:03	SSO	
8123	*02	*03	*15	*35	*04	*12			*15:03				NGS	
													RT-PCR	