

B-CELL LINE EXCHANGE #263

B-cell Lines 525-526

MAY 16, 2016

The results for B-cell Line Exchange #263 are summarized in Tables 1 - 2 and individual laboratory results reported for each sample are listed in Tables 3 - 8. We are grateful to the generosity of Franz Claas, Leiden University Medical Centre, Leiden, The Netherlands for providing the interesting cells

examined in this study.

The haplotype frequencies used in this report are from the NMDP Bioinformatics website, <http://bioinformatics.nmdp.org/>.

Ter-525. The consensus type for this sample from a Hispanic donor is DRB1*14:06-DRB1*16:02-DRB3*01:01-DRB5*02:02-DQA1*05:03-DQA1*05:05-DQB1*03:01-DPA1*01:03-DPB1*04:01-DPB1*04:02-A*02:01-A*31:01-B*35:16-B*39:02-C*04:01-C*07:02. One probable class II haplotype in this cell is DRB1*14:06-DRB3*01:01-DQA1*05:03-DQB1*03:01, observed in previous exchange cell Ter 313 (same as Ter 240). The other likely haplotype is DRB1*16:02-DRB5*02:02-DQA1*05:05-DQB1*03:01, observed in workshop cells IHW9365 (same as Ter 447, 326, 314, 262) and IHW#9016 (same as Ter 325 and 244).

DRB1*14:06 and DRB1*16:02 were each assigned by 100% of labs reporting at high resolution, with 9 labs assigning DRB1*14:06:01 and DRB1*16:02:01. Two subtypes of DQA1*05 were present in this cell, DQA1*05:03 (92%) and DQA1*05:05 (95%). DPB1*04:01 and DPB1*04:02 were each assigned by 100%, with 6 labs assigning DPB1*04:01:01 and 7 labs assigning DPB1*04:02:01.

This cell was previously typed for class I as extract 308 (2004), and as cells 1032 (2000) and 974 (1998). In this present retyping, B*35:16 and B*39:02 were reported in complete consensus. B*39:02:02 was assigned by 7 labs. By serology, the antigens encoded by B*35:16 and B*39:02 proved a challenge for serology labs to assign back in 1998. In that initial typing, labs were unable to resolve B35 from B70 and noted the reactivity of B39 was short. A*02:01:01:01, C*04:01:01:01, and C*07:02:01:01 were assigned by NGS.

1. Benmamer D, Martinez-Lasso J, Varela P, et al. Evolutionary relationships of HLA-DR8 alleles and description of a new subtype (DRB1*0806) in the Algerian Population. Hum Immunol 1993;36:172-178.

Ter-526. The consensus type for this sample from a Caucasian donor from Morocco is DRB1*03:01-DRB1*08:06-DRB3*01:01-DQA1*01:02-DQA1*05:01-DQB1*02:01-DQB1*06:02-DPA1*01:03-DPA1*02:01-DPB1*04:01-DPB1*11:01-A*24:02-A*26:01-B*35:02-B*38:01-C*04:01-C*12:03. A probable class II haplotype in this cell is DRB1*03:01-DRB3*01:01-DQB1*02:01-DQA1*05:01, observed in a number of previous exchange cells, most recently Ter 483 (same as Ter 298, 278, 217) and Ter 477 (same as Ter 402 and 352). The other likely class II haplotype in this cell is DRB1*08:06-DQA1*01:02-DQB1*05:01, observed in previous exchange cells Ter 506 (same as Ter 444 and 356) and Ter 420, also from Caucasian donors.

This cell was previously typed as Ter 409 (2008) and Ter 295 (2002), as astutely noted by Rao and Tiercy. It was also typed for class I in the International HLA DNA Exchange as DNA #507 (2007). In this present retyping, DRB1*08:06, was assigned by 94% of labs reporting at high resolution. One lab misassigned DRB1*08:04 and another misassigned DRB1*08:08. DRB1*08:06 is the most commonly observed DRB1*08 subtype in Algerian populations (1). DRB1*03:01 (100%) was reported as the second DRB1 type, with 2 NGS labs assigning DRB1*03:01:01:01. DQB1*02:01 and DQB1*06:02 were each assigned in complete consensus, with 8 labs assigning DQB1*02:01:01 and DQB1*06:02:01.

The class I types in this sample, A*24:02, A*26:01, B*35:02, B*38:01, C*04:01, and C*12:03, were all assigned in complete consensus. A*24:02:01, A*26:01:01, C*04:01:01, and C*12:03:01 were each assigned by 5 labs, and B*35:02:01 and B*38:01:01 were assigned by 6 labs.

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Arlene Locke, David Gjertson, Qiheng Zhang, and Elaine F. Reed

Table 1: Summary of the 263rd B-cell Line Exchange

Ter-525

DNA Typing - class II																		
DNA Typing - class II	<u>35 labs High; 38 labs low-DRB1</u>		%(n)	<u>22 labs High; 28 labs Low-DRB3/4/5</u>		%(n)	<u>24 labs High; 27 labs Low-DQA1</u>		%(n)	<u>33 High Labs; 36 labs Low-DQB1</u>		%(n)	<u>14 High Labs; 15 labs Low-DPA1</u>		%(n)	<u>31 High Labs; 18 labs Low-DPB1</u>		%(n)
	DRB1*14:06:01		26(9)	DRB3*01:01:02		5 (1)	DQA1*05:01:01G		8 (2)	DQB1*03:01:01:01		9 (3)	DPA1*01:03:01:02		7 (1)	DPB1*04:01:01:01		3 (1)
	DRB1*14:06		74(26)	DRB3*01:01		95(21)	DQA1*05:03		92(22)	DQB1*03:01:01		15(5)	DPA1*01:03:01		7 (1)	DPB1*04:01:01		16(5)
	DRB1*14		100(38)	DRB3*01		79(22)	DQA1*05		100(27)	DQB1*03:01		76(25)	DPA1*01:03		86(12)	DPB1*04:01:01G		13(4)
				DRB3*PRESENT		21(6)				DQB1*03(DQ7)		6 (2)	DPA1*01		100(15)	DPB1*04:01P		3 (1)
										DQB1*03		94(34)				DPB1*04:01		65(20)
																DPB1*04(DP0401)		67(12)
																DPB1*04		33(6)
	<u>34 labs High; 38 labs low-DRB1</u>		%(n)	<u>21 labs High; 28 labs Low-DRB3/4/5</u>		%(n)	<u>22 labs High; 20 Labs Low-DQA1</u>		%(n)			%(n)			%(n)	<u>31 High Labs; 17 labs Low-DPB1</u>		%(n)
	DRB1*16:02:01		26(9)	DRB5*02:02P		5 (1)	DQA1*05:05:01:03		4.5 (1)							DPB1*04:02:01:02		10(3)
	DRB1*16:02		74(25)	DRB5*02:02		95(20)	DQA1*05:05:01		4.5 (1)							DPB1*04:02:01		13(4)
	DRB1*16		100(38)	DRB5*02		75(21)	DQA1*05:05:01G		4.5 (1)							DPB1*04:02:01G		16(5)
				DRB5*PRESENT		25(7)	DQA1*05:05		82(18)							DPB1*04:02P		3 (1)
							DQA1*05:01		4.5 (1)							DPB1*04:02		58(18)
							DQA1*05		100(20)							DPB1*04(DP402)		76(13)
																DPB1*04		24(4)

DNA Typing - class I									
DNA Typing - class I	<u>19 labs High; 27 labs low- A</u>		%(n)	<u>22 labs High; 27 labs low- B</u>		%(n)	<u>18 labs High; 27 labs low- C</u>		%(n)
	A*02:01:01:01		21(4)	B*35:16		100(22)	C*04:01:01:01		17(3)
	A*02:01:01		16(3)	B*35		100(27)	C*04:01:01		11(2)
	A*02:01		63(12)				C*04:01:01G		6 (1)
	A*02		100(27)				C*04:01P		6 (1)
							C*04:01		61(11)
							C*04		100(27)
	<u>19 labs High; 27 labs low- A</u>		%(n)	<u>21 labs High; 27 labs low- B</u>		%(n)	<u>18 labs High; 28 labs low- C</u>		%(n)
	A*31:01:02G		5 (1)	B*39:02:02		33(7)	C*07:02:01:01		17(3)
	A*31:01:02		32(6)	B*39:02		67(14)	C*07:02:01		11(2)
	A*31:01		63(12)	B*39		100(27)	C*07:02:01G		11(2)
	A*31		100(27)				C*07:02		61(11)
							C*07		100(28)

Table 2: Summary of the 263rd B-cell Line Exchange

Ter-526

DNA Typing - class II	35 labs High; 38 labs low-DRB1	%(n)	21 labs High; 28 labs Low-DRB3	%(n)	22 labs High; 27 labs Low-DQA1	%(n)	32 High Labs; 36 labs Low-DQB1	%(n)	13 High Labs; 15 labs Low-DPA1	%(n)	31 High Labs; 18 labs Low-DPB1	%(n)
	DRB1*03:01:01:01	6 (2)	DRB3*01:01:02	5 (1)	DQA1*01:02:01	9 (2)	DQB1*02:01:01	25(8)	DPA1*01:03:01:04	8 (1)	DPB1*04:01:01:01	3 (1)
	DRB1*03:01:01	14(5)	DRB3*01:01	95(20)	DQA1*01:02P	5 (1)	DQB1*02:01	75(24)	DPA1*01:03:01	8 (1)	DPB1*04:01:01	16(5)
	DRB1*03:01:01G	3 (1)	DRB3*01	79(22)	DQA1*01:02	77(17)	DQB1*02	100(36)	DPA1*01:03	84(11)	DPB1*04:01:01G	10(3)
	DRB1*03:01	77(27)	DRB3*PRESENT	21(6)	DQA1*01:01/02	9 (2)	DQB1*02	100(15)	DPA1*01	100(15)	DPB1*04:01	71(22)
	DRB1*03(DR17)	8 (3)			DQA1*01	100(27)					DPB1*04(DP401)	72(13)
	DRB*03	92(35)									DPB1*04	28(5)
	35 labs High; 37 labs low-DRB1	%(n)			25 labs High; 27 labs Low-DQA1	%(n)	32 High Labs; 33 labs Low-DQB1	%(n)	14 High Labs; 13 labs Low-DPA1	%(n)	31 High Labs; 18 labs Low-DPB1	%(n)
	DRB1*08:06	94(33)			DQA1*05:01:01:01	4 (1)	DQB1*06:02:01	25(8)	DPA1*02:01:01	14(2)	DPB1*11:01:01	23(7)
	DRB1*08:04	3 (1)			DQA1*05:01:01	4 (1)	DQB1*06:02	75(24)	DPA1*02:01	86(12)	DPB1*11:01	77(24)
	DRB1*08:08	3 (1)			DQA1*05:01:01G	4 (1)	DQB1*06	100(36)	DPA1*02	100(15)	DPB1*11	100(18)
	DRB1*08	100(35)			DQA1*05:01	88(22)						
					DQA1*05	100(27)						

DNA Typing - class I	18 labs High; 28 labs low- A	%(n)	20 labs High; 27 labs low- B	%(n)	18 labs High; 28 labs low- C	%(n)
	A*24:02:01:01	17(3)	B*35:02:01	30(6)	C*04:01:01:01	6 (1)
	A*24:02:01	11(2)	B*35:02	70(14)	C*04:01:01	22(4)
	A*24:02	72(13)	B*35	100(27)	C*04:01:01G	6 (1)
	A*24	100(28)			C*04:01P	6 (1)
					C*04:01	61(11)
					C*04	100(28)
	18 labs High; 28 labs low- A	%(n)	19 labs High; 27 labs low- B	%(n)	18 labs High; 28 labs low- C	%(n)
	A*26:01:01	28(5)	B*38:01:01	32(6)	C*12:03:01:01	17(3)
	A*26:01	72(13)	B*38:01:02	5 (1)	C*12:03:01	11(2)
	A*26	100(28)	B*38:01	63(12)	C*12:03:01G	11(2)
			B*38	100(27)	C*12:03	61(11)
					C*12	100(28)

Table 3a: Individual laboratory results for B-cell #525-Class II

Center	Investigator	Low resolution												METHOD	Other Alleles
		DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1			
5488	Adams , Sharon			3*01	5*02									SSP SSO SBT	
5462	Arnold , Paula	*14	*16	3*01	5*02	*05	*05	*03		*01	*01	*04(DP401)	*04(DP402)	SSP SSO SBT RT-PCR	
5133	Askar , Medhat	*14	*16	3*01	5*02	*05	*05	*03		*01		*04(DP401)	*04(DP402)	SSO SBT NGS	
774	Cecka , J. Michael	*14	*16	3*01	5*02	*05	*05	*03				*04(DP401)	*04(DP402)	SSP SSO	
9916	Charlton , Ronald K	*14	*16	3*PRESENT	5*PRESENT			*03						SSP SBT	
3224	Chen , Dong-Feng	*14	*16	3*PRESENT	5*PRESENT	*05		*03		*01		*04	*04(DP402)	SBT RT-PCR	
3632	Colombe , Beth W.	*14	*16	3*01	5*02	*05	*05	*03		*01		*04	*04	SSP SSO	
5130	Costeas , Paul A.	*14	*16					*03	*03					SSP SSO	
779	Daniel , Claude	*14	*16	3*01	5*02	*05	*05	*03		*01		*04(DP401)	*04(DP402)		
5219	Daniel , Dolly	*14	*16					*03	*03						
1108	DeConinck , Martha	*14	*16	3*01	5*02	*05	*05	*03	*03	*01	*01			SSO	
87	Di Paola , Nicholas	*14	*16	3*01	5*02	*05		*03(DQ7)		*01		*04(DP401)	*04(DP402)	SSP	
5214	Eckels/CPMC ,	*14	*16	3*01	5*02	*05	*05	*03(DQ7)		*01		*04(DP401)	*04(DP402)	SSO	
4079	Fort , Marylise	*14	*16					*03						SSP SSO	
792	Gandhi , Manish	*14	*16	3*01	5*02	*05	*05	*03		*01	*01	*04	*04	SSP SSO SBT	
8087	Guerra , Q.F.B. Elb	*14	*16			*05	*05	*03	*03					SSO	
1694	Hesse , Nicole	*14	*16	3*PRESENT	5*PRESENT			*03						SSP	
8043	Hod , Reut	*14	*16			*05	*05	*03						SSP SSO	
771	Israel , Shoshana	*14	*16					*03						SSP SSO	
794	Jaatinen , Taina	*14	*16	3*01	5*02	*05		*03		*01		*04		SSP SSO SBT RT-PCR	
725	Lardy , N.M.	*14	*16	3*PRESENT	5*PRESENT	*05		*03						SSP SSO	
278	Lee , Jar-How	*14	*16	3*01	5*02	*05	*05	*03	*03	*01	*01	*04(DP401)	*04(DP402)		
6649	Lim , Young Ae	*14	*16	3*PRESENT	5*PRESENT									SSP	
2400	Liu , Chang	*14	*16	3*01	5*02	*05	*05	*03				*04	*04		
731	Loewenthal , Ron	*14	*16					*03						SSO SBT	
206	McAlack , Robert	*14	*16	3*01	5*02	*05	*05	*03	*03	*01	*01	*04	*04		
8042	Muncher , Liora	*14	*16	3*01	5*02	NT	NT	*03	*03	NT	NT	NT	NT	SSP SSO	
2847	Murase , Junko	*14	*16											SSO	
54	Pancoska , Carol	*14	*16	3*01	5*02	*05		*03		*01		*04(DP401)	*04(DP402)	SSO	
8001	Rao , Prakash					*05								SSP SSO	
3519	Renac , Virginie	*14	*16					*03				*04(DP401)	*04(DP402)	SSP SBT	
1160	Rosen-Bronson , Sa	*14	*16	3*01	5*02	*05		*03		*01				SSO	
793	Rubocki , Ronald	*14	*16	3*01	5*PRESENT	*05	*05	*03				*04(DP401)	*04(DP402)	SSP	
4251	Schiller , Jennifer	*14	*16	3*01	5*02	*05	*05	*03	*03	*01	*01	*04(DP401)	*04(DP402)	SSO SBT	
8068	Shanmugam , Hem	*14	*16	3*01	5*02	*05	*05	*03	*03					SSO	
8029	Tarigopula , Anil	*14	*16			*05	*05	*03	*03					SSO	
747	Tiercy , Jean-Marie	*14	*16	3*01	5*02	*05	*05	*03				*04(DP401)	*04(DP402)	SSP SSO SBT	
5451	Tilanus , Marcel G.	*14	*16	3*01	5*02	*05	*05	*03						SSO SBT	
5642	Varnavidou-Nicolaï	*14	*16	3*PRESENT	5*PRESENT			*03						SSP	
8052	Yanina Marcos , Cir	*14	*16			*05	*05	*03	*03					SSO	

Table 3b: Individual laboratory results for B-cell #525-Class II

Center	Investigator	High resolution											METHOD	Other Alleles	
		DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1			
5488	Adams , Sharon	*14:06:01	*16:02:01			*05:03	*05:05	*03:01:01				*04:01:01	*04:02:01	SSP SSO SBT	DPB1*105:01, DPB1*126:01
5462	Arnold , Paula	*14:06	*16:02	3*01:01	5*02:02P	*05:03	NT	*03:01		*01:03	*01:03	*04:01P	*04:02P	SSP SSO SBT RT-PCR	DPB1*105:01, DPB1*126:01, DRB5*02:06, DQA1*05:07, DQA1*05:05, DQA1*05:09, DQA1*05:11, DRB3*01:16, DPA1*01:13
5133	Askar , Medhat	*14:06:01	*16:02:01	3*01:01:02	5*02:02	*05:03	*05:05:01	*03:01:01		*01:03:01		*04:01:01	*04:02:01	SSO SBT NGS	
4492	Caillat-Zucman , S	*14:06:01	*16:02:01	3*01:01	5*02:02	*05:03	*05:05	*03:01:01:01	*03:01:01	*01:03	*01:03	*04:01:01	*04:02:01:02	SSO NGS	DPA1*01:13, DQA1*05:07, DQA1*05:09, DQA1*05:11, DPB1*105:01, DPB1*126:01
774	Cecka , J. Michael	*14:06	*16:02	3*01:01	5*02:02	*05:03	*05:05	*03:01				*04:01	*04:02	SSP SSO	DRB3*01:16, DRB5*02:06
8070	Chang , Uckjin	*14:06	*16:02											SBT	
9916	Charlton , Ronald	*14:06:01	*16:02:01	3*01:01	5*02:02			*03:01:01				*04:01:01	*04:02:01	SSP SBT	DPB1*105:01, DPB1*126:01
3224	Chen , Dong-Feng	*14:06	*16:02	3*01:01	5*02:02	*05:01:01G		*03:01				*04:01	*04:02:01G	SBT RT-PCR	
8021	Clark , Brendan	*14:06	*16:02	3*01:01	5*02:02	*05:03	*05:01	*03:01		*01:03		*04:01	*04:02	SSO	
3632	Colombe , Beth W	*14:06	*16:02	3*01:01	5*02:02	*05:03	*05:05	*03:01		*01:03		*04:01	*04:02	SSP SSO	DPB1*105:01, DPB1*126:01
5130	Costeas , Paul A.	*14:06	*16:02	3*01:01	5*02:02	*05:03	*05:05	*03:01	*03:01					SSP SSO	
779	Daniel , Claude	*14:06		3*01:01		*05:03	*05:05	*03:01		*01:03		*04:01	*04:02		
5214	Eckels/CPMC									*01:03		*04:01:01G	*04:02:01G	SSO	
3135	Enczmann , J	*14:06	*16:02	3*01:01	5*02:02			*03:01	*03:01			*04:01	*04:02		
762	Fischer , Gottfried	*14:06	*16:02	3*01:01	5*02:02	*05:03	*05:05	*03:01				*04:01	*04:02	SSP SSO SBT	DRB3*01:04/ *01:16, DRB5*02:06, DQB1*03:19/ *03:115, DQB1*03:182/ *03:191, DQB1*03:29/ *03:84N, DPB1*105:01, DPB1*126:01
4079	Fort , Marylise											*04:01	*04:02	SSP SSO	
792	Gandhi , Manish	*14:06	*16:02			*05:03	*05:05	*03:01				*04:01	*04:02	SSP SSO SBT	DQA1*05:09, DPB1*105:01, DPB1*126:01
810	Hamdi , Nuha	*14:06	*16:02	3*01:01	5*02:02	*05:03	*05:05	*03:01	*03:01					SSO	
8043	Hod , Reut	*14:06	*16:02			*05:03	*05:05	*03:01		*01:03		*04:01	*04:02	SSP SSO	

Table 3b: Individual laboratory results for B-cell #525-Class II

		High resolution													
Center	Investigator	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
2344	Hurley , Hartzman	*14:06:01	*16:02:01			*05:03	*05:05:01:03	*03:01:01:01	*03:01:01:01	*01:03:01:02	*01:03:01:05	*04:01:01:01	*04:02:01:02	NGS	DQB1*03:01:01:02/*03:01:01:03, DQB1*03:01:01:02/*03:01:01:03, DPB1*DPB1*04:01:01:02/*126:01, DPB1*105:01
771	Israel , Shoshana	*14:06	*16:02					*03:01						SSP SSO	
794	Jaatinen , Taina	*14:06	*16:02	3*01:01	5*02:02	*05:03	*05:05	*03:01		*01:03		*04:01	*04:02	SSP SSO SBT RT-PCR	DRB1*16:35, DQA1*05:07, DQA1*05:09, DQA1*05:11, DPB1*105:01, DPB1*350:01, DPB1*415:01/*459:01/*436:01/*464:01
8086	Keming , Du	*14:06	*16:02			*05:03	*05:05	*03:01	*03:01	*01:03	*01:03	*04:01	*04:02	SSP SSO SBT	DPB1*105:01, DPB1*126:01
4337	Kim , Tai-Gyu	*14:06	*16:02					*03:01	*03:01			*04:01	*04:02	SBT	
278	Lee , Jar-How	*14:06	*16:02	3*01:01	5*02:02	*05:03	*05:05	*03:01	*03:01	*01:03	*01:03	*04:01	*04:02		DRB5*02:06, DQA1*05:07, DQA1*05:09, DQA1*05:11, DQB1*03:10, DPA1*01:13
2400	Liu , Chang	*14:06	*16:02			*05:03	*05:05	*03:01				*04:01:01G	*04:02:01G		
731	Loewenthal , Ron	*14:06:01	*16:02:01					*03:01:01						SSO SBT	DQB1*03:27
8042	Muncher , Liora	*14:06	*16:02	3*01:01	5*02:02	NT	NT	*03:01	*03:01	NT	NT	NT	NT	SSP SSO	
54	Pancoska , Carol									*01:03		*04:01	*04:02	SSO	
3966	Permpikul , Vejbae	*14:06	*16:02	3*01:01	5*02:02			*03:01	*03:01					SSP	
8001	Rao , Prakash	*14:06	*16:02	3*01:01	5*02:02			*03:01				*04:01	*04:02	SSP SSO	DRB5*02:06
3753	Reed , Elaine F.	*14:06:01	*16:02:01	3*01:01	5*02:02	*05:03	*05:05	*03:01:01:01	*03:01:01:01	*01:03	*01:03	*04:01:01	*04:02:01:02	SSO NGS	DPB1*105:01, DPB1*126:01, DRB3*01:04, DRB5*02:06, DQA1*05:01, DQA1*05:09, DQA1*05:11, DQA1*05:07, DPA1*01:13
3519	Renac , Virginie	*14:06	*16:02	3*01:01	5*02:02	*05:03	*05:05	*03:01				*04:01	*04:02	SSP SBT	DPB1*126:01, DPB1*105:01
1160	Rosen-Bronson , S											*04:01	*04:02	SSO	
793	Rubocki , Ronald					*05:01:01G	*05:01:01G					*04:01:01G	*04:02:01G	SSP	
4251	Schiller , Jennifer	*14:06	*16:02					*03:01	*03:01			*04:01:01G	*04:02:01G	SSO SBT	
747	Tiercy , Jean-Mari	*14:06:01	*16:02:01	3*01:01	5*02:02	*05:03	*05:05	*03:01:01				*04:01	*04:02:01	SSP SSO SBT	DQA1*05:07, DQA1*05:09, DQA1*05:11
5451	Tilanus , Marcel G	*14:06:01	*16:02:01											SSO SBT	

Table 3b: Individual laboratory results for B-cell #525-Class II															
		High resolution													
Center	Investigator	DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles
5642	Varnavidou-Nicola	*14:06	*16:02					*03:01						SSP	
3511	Zeevi , Adriana	*14:06	*16:02	3*01:01	5*02:02	*05:03	*05:05	*03:01				*04:01	*04:02	SSP SSO	

Table 4: Individual laboratory results for B-cell #525-Class II									
Serology									
CTR	DIRNAME	DR6	DR2	DR52	DR51	DQ7		OTH1	OTH2
910	Hahn,Amy B.		DR15	+	+	+		DR3, DR12	DR18,DR4
4908	Kvam,Vonnet	NT							

Table 5: Individual laboratory results for B-cell #525-Class I

Center	Investigator	Low resolution						High resolution						METHOD	Other Alleles
		HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
5488	Adams , Sharon					*04	*07	*02:01:01	*31:01:02	*35:16	*39:02:02			SSP SSO SBT	
5462	Arnold , Paula	NT												SSP SSO SBT RT-PCR	
5133	Askar , Medhat	*02	*31	*35	*39	*04	*07	*02:01:01	*31:01:02	*35:16	*39:02:02	*04:01:01	*07:02:01	SSO SBT NGS	
4492	Caillat-Zucman , Sc							*02:01:01:01	*31:01:02	*35:16	*39:02:02	*04:01:01:01	*07:02:01:01	SSO NGS	
774	Cecka , J. Michael	*02	*31	*35	*39	*04	*07			*35:16	*39:02			SSP SSO	B*39:13/*39:23
8070	Chang , Uckjin													SBT	
9916	Charlton , Ronald K	*02	*31	*35	*39	*04	*07	*02:01:01:01	*31:01:02	*35:16	*39:02:02	*04:01:01	*07:02:01	SSP SBT	
3224	Chen , Dong-Feng	*02	*31	*35	*39	*04	*07	*02:01:01	*31:01	*35:16	*39:02	*04:01:01G	*07:02:01G	SBT RT-PCR	
8021	Clark , Brendan	*02	*31	*35	*39	*04	*07							SSO	
5130	Costeas , Paul A.	*02	*31	*35	*39	*04	*07	*02:01	*31:01	*35:16	*39:02	*04:01	*07:02	SSP SSO	
779	Daniel , Claude	*02	*31	*35	*39	*04	*07			*35:16	*39:02				
5219	Daniel , Dolly	*02	*31	*35	*39	*04	*07								
1108	DeConinck , Martha	*02	*31	*35	*39	*04	*07							SSO	
87	Di Paola , Nicholas	*02	*31	*35	*39	*04	*07							SSP	
5214	Eckels/CPMC ,	*02	*31	*35	*39	*04	*07			*35:16				SSO	
3135	Enczmann , J							*02:01	*31:01	*35:16	*39:02	*04:01	*07:02		A*02:01L, C*04:09N
792	Gandhi , Manish	*02	*31	*35	*39	*04	*07	*02:01	*31:01	*35:16	*39:02	*04:01	*07:02	SSP SSO SBT	
8087	Guerra , Q.F.B. Elb	*02	*31	*35	*39	*04	*07							SSO	
810	Hamdi , Nuha							*02:01	*31:01	*35:16	*39:02	*04:01	*07:02	SSO	
1694	Hesse , Nicole	*02	*31	*35	*39	*04	*07							SSP	
2344	Hurley , Hartzman&							*02:01:01:01	*31:01:02	*35:16	*39:02:02	*04:01:01:01	*07:02:01:01	NGS	
794	Jaatinen , Taina	*02	*31	*35	*39	*04	*07	*02:01	*31:01	*35:16	*39:02	*04:01	*07:02	SSP SSO SBT RT-PCR	A*31:01N, C*04:30/*04:82, C*07:50/*07:349
8086	Keming , Du							*02:01	*31:01	*35:16	*39:02	*04:01	*07:02	SSP SSO SBT	
4337	Kim , Tai-Gyu							*02:01	*31:01	*35:16	*39:02:02	*04:01	*07:02	SBT	
278	Lee , Jar-How	*02	*31	*35	*39	*04	*07	*02:01	*31:01	*35:16	*39:02	*04:01	*07:02		
2400	Liu , Chang	*02	*31	*35	*39	*04	*07	*02:01	*31:01	*35:16	*39:02	*04:01	*07:02:01G		
731	Loewenthal , Ron													SSO SBT	
206	McAlack , Robert	*02	*31	*35	*39	*04	*07								
8042	Muncher , Liora	*02	*31	*35	*39	*04	*07	*02:01	*31:01	*35:16	*39:02	*04:01	*07:02	SSP SSO	
2847	Murase , Junko	*02	*31	*35	*39	*04	*07							SSO	
54	Pancoska , Carol	*02	*31	*35	*39	*04	*07							SSO	
3966	Permpikul , Vejbaes	*02	*31	*35	*39	*04	*07							SSP	
3753	Reed , Elaine F.							*02:01:01:01	*31:01:02	*35:16	*39:02:02	*04:01:01:01	*07:02:01:01	SSO NGS	
3519	Renac , Virginie	*02	*31	*35	*39	*04	*07	*02:01	*31:01	*35:16	*39:02	*04:01	*07:02	SSP SBT	
4251	Schiller , Jennifer	*02	*31	*35	*39	*04	*07	*02:01	*31:01:02G	*35:16	*39:02	*04:01P	*07:02	SSO SBT	
8068	Shanmugam , Hem	*02	*31	*35	*39	*04	*07							SSO	
8029	Tarigopula , Anil	*02	*31	*35	*39	*04	*07							SSO	
8052	Yanina Marcos , Cir	*02	*31	*35	*39	*04	*07							SSO	

Table 6a: Individual laboratory results for B-cell #526-Class II

Center	Investigator	Low resolution											METHOD	Other Alleles		
		DRB1		DRB3/4/5		DQA1		DQB1		DPA1		DPB1				
5488	Adams , Sharon			3*01											SSP SSO SBT	
5462	Arnold , Paula	*03	*08	3*01	NP	*01	*05	*02	*06	*01	*02	*04(DP401)	*11		SSP SSO SBT	
5133	Askar , Medhat	*03	*08	3*01		*01	*05	*02	*06	*01	*02	*04(DP401)	*11		RT-PCR	
774	Cecka , J. Michael	*03	*08	3*01		*01	*05	*02	*06			*04(DP401)	*11		SSO SBT NGS	
9916	Charlton , Ronald K	*03	*08	3*PRESENT				*02	*06						SSP SSO	
3224	Chen , Dong-Feng	*03	*08	3*PRESENT		*01	*05	*02	*06	*01	*02	*04(DP401)	*11		SSP SBT	
3632	Colombe , Beth W.	*03	*08	3*01		*01	*05	*02	*06	*01	*02	*04	*11		SBT RT-PCR	
5130	Costeas , Paul A.	*03	*08					*02	*06						SSP SSO	
779	Daniel , Claude	*03	*08	3*01	3*01	*01	*05	*02	*06	*01	*02	*04(DP401)	*11		SSP SSO	
5219	Daniel , Dolly	*03	*08					*02	*06							
1108	DeConinck , Martha	*03	*08	3*01	3*01	*01	*05	*02	*06	*01	*02				SSO	
87	Di Paola , Nicholas	*03(DR17)	*08	3*01		*01	*05	*02	*06	*01	*02	*04(DP401)	*11		SSP	
5214	Eckels/CPMC ,	*03(DR17)	*08	3*01		*01	*05	*02	*06	*01	*02	*04(DP401)	*11		SSO	
4079	Fort , Marylise	*03	*08					*02	*06						SSP SSO	
792	Gandhi , Manish	*03	*08	3*01		*01	*05	*02	*06	*01	*02	*04	*11		SSP SSO SBT	
8087	Guerra , Q.F.B. Elb	*03	*08			*01	*05	*02	*06						SSO	
1694	Hesse , Nicole	*03	*08	3*PRESENT				*02	*06						SSP	
8043	Hod , Reut	*03	*08			*01	*05	*02	*06						SSP SSO	
771	Israel , Shoshana	*03	*08					*02	*06						SSP SSO	
794	Jaatinen , Taina	*03	*08	3*01		*01	*05	*02	*06	*01	*02	*04	*11		SSP SSO SBT	
725	Lardy , N.M.	*03	*08	3*PRESENT		*01	*05	*02	*06						RT-PCR	
278	Lee , Jar-How	*03	*08	3*01	NT	*01	*05	*02	*06	*01	*02	*04(DP401)	*11		SSP SSO	
6649	Lim , Young Ae	*03	*08	3*PRESENT												
2400	Liu , Chang	*03	*08	3*01		*01	*05	*02	*06			*04	*11		SSP	
731	Loewenthal , Ron	*03	*08					*02	*06						SSP SBT	
206	McAlack , Robert	*03	*08	3*01		*01	*05	*02	*06	*01	*02	*04	*11			
8042	Muncher , Liora	*03	*08	3*01	NP	NT	NT	*02	*06	NT	NT	NT	NT		SSP SSO	
2847	Murase , Junko	*03	*08												SSO	
54	Pancoska , Carol	*03(DR17)	*08	3*01		*01	*05	*02	*06	*01	*02	*04(DP401)	*11		SSO	
8001	Rao , Prakash					*01	*05								SSP SSO	
3519	Renac , Virginie	*03	*08					*02	*06			*04(DP401)	*11		SSP SBT	
1160	Rosen-Bronson , Sa	*03	*08	3*01		*01	*05	*02	*06	*01	*02				SSO	
793	Rubocki , Ronald	*03	*08	3*01		*01	*05	*02	*06			*04(DP401)	*11		SSP	
4251	Schiller , Jennifer	*03	*08	3*01		*01	*05	*02	*06	*01	*02	*04(DP401)	*11		SSO SBT	
8068	Shanmugam , Hem	*03	*08	3*01	3*01	*01	*05	*02	*06						SSO	
8029	Tarigopula , Anil	*03	*08			*01	*05	*02	*06						SSO	
747	Tiercy , Jean-Marie	*03	*08	3*01		*01	*05	*02	*06			*04(DP401)	*11		SSP SSO SBT	
5451	Tilanus , Marcel G.	*03	*08	3*01		*01	*05	*02	*06						SSO SBT	
5642	Varnavidou-Nicolaïd	*03	*08	3*PRESENT				*02	*06						SSP	
8052	Yanina Marcos , Cir	*03	*08			*01	*05	*02	*06						SSO	

Table 6b: Individual laboratory results for B-cell #526-Class II

		High resolution/Intermediate												
Center	Investigator	DRB1	DRB3/4/5	DQA1		DQB1		DPA1		DPB1		METHOD	Other Alleles	
5488	Adams , Sharon	*03:01:01	*08:06		*01:02	*05:01	*02:01:01	*06:02:01			*04:01:01	*11:01:01	SSP SSO SBT	
5462	Arnold , Paula	*03:01	*08:06	3*01:01	*01:02P	*05:01	*02:01	*06:02	*01:03	*02:01	*04:01	*11:01	SSP SSO SBT RT-PCR	DPA1*01:13, DRB3*01:16, DQA1*01:01:03/*01:08/*01:09/*01:11
5133	Askar , Medhat	*03:01:01	*08:06	3*01:01:02	*01:02:01	*05:01:01	*02:01:01	*06:02:01	*01:03:01	*02:01:01	*04:01:01	*11:01:01	SSO SBT NGS	
4492	Caillat-Zucman , S	*03:01:01	*08:06	3*01:01	*01:01/ *01:02	*05:01	*02:01:01	*06:02:01	*01:03	*02:01	*04:01:01	*11:01:01	SSO NGS	DQA1*01:08/*01:09/*01:11, DPA1*01:13
774	Cecka , J. Michael	*03:01	*08:06	3*01:01			*02:01	*06:02			*04:01	*11:01	SSP SSO	DRB1*03:68N/*03:83/*03:100/*03:104/*03:112, DRB3*01:16, DQB1*02:07/*02:14/*02:27, DQB1*06:84/*06:109/*06:111/*06:113/*06:114/*06:116/*06:117/*06:127
8070	Chang , Uckjin	*03:01	*08:08										SBT	
9916	Charlton , Ronald	*03:01:01	*08:06	3*01:01			*02:01:01	*06:02:01			*04:01:01	*11:01:01	SSP SBT	
3224	Chen , Dong-Feng	*03:01	*08:06	3*01:01		*05:01:01G	*02:01	*06:02			*04:01	*11:01	SBT RT-PCR	
8021	Clark , Brendan	*03:01	*08:06	3*01:01	*01:02	*05:01	*02:01	*06:02	*01:03	*02:01	*04:01	*11:01	SSO	
3632	Colombe , Beth W	*03:01	*08:06	3*01:01	*01:02	*05:01	*02:01	*06:02	*01:03	*02:01	*04:01	*11:01	SSP SSO	
5130	Costeas , Paul A.	*03:01	*08:06	3*01:01	*01:02	*05:01	*02:01	*06:02					SSP SSO	DRB1*03:28
779	Daniel , Claude	*03:01	*08:06		*01:02	*05:01			*01:03	*02:01	*04:01	*11:01		
5214	Eckels/CPMC					*05:01				*02:01	*04:01:01G	*11:01	SSO	
3135	Enczmann , J	*03:01	*08:06	3*01:01			*02:01	*06:02			*04:01	*11:01		
762	Fischer , Gottfried	*03:01	*08:06	3*01:01	*01:02	*05:01	*02:01	*06:02			*04:01	*11:01	SSP SSO SBT	DRB3*01:04/*01:16, DQB1*02:09/*02:59, DQB1*06:47, DQB1*06:109
4079	Fort , Marylise										*04:01	*11:01	SSP SSO	
792	Gandhi , Manish	*03:01	*08:06		*01:02	*05:01	*02:01	*06:02			*04:01	*11:01	SSP SSO SBT	
810	Hamdi , Nuha	*03:01	*08:04	3*01:01	*01:02	*05:01	*02:01	*06:02					SSO	
8043	Hod , Reut	*03:01	*08:06		*01:02	*05:01	*02:01	*06:02	*01:03	*02:01	*04:01	*11:01	SSP SSO	
2344	Hurley , Hartzman	*03:01:01:01	*08:06		*01:02:01	*05:01:01:01	*02:01:01	*06:02:01	*01:03:01:04	*02:01:01	*04:01:01:01	*11:01:01	NGS	DPB1*04:01:01:02, DQA1*05:01:01:02
771	Israel , Shoshana	*03:01	*08:06				*02:01	*06:02					SSP SSO	
794	Jaatinen , Taina	*03:01	*08:06	3*01:01	*01:02	*05:01	*02:01	*06:02	*01:03	*02:01	*04:01	*11:01	SSP SSO SBT RT-PCR	DRB1*03:68N/*03:83/*03:104, DQA1*01:08/*01:09/*01:11, DPB1*350:01, DPB1*415:01/*459:01/*464:01
8086	Keming , Du	*03:01	*08:06		*01:02	*05:01	*02:01	*06:02	*01:03	*02:01	*04:01	*11:01	SSP SSO SBT	DPA1*01:06, DPA1*02:03

Table 6b: Individual laboratory results for B-cell #526-Class II															
Center	Investigator	High resolution/Intermediate										METHOD	Other Alleles		
		DRB1		DRB3/4/5	DQA1		DQB1		DPA1		DPB1				
4337	Kim , Tai-Gyu	*03:01	*08:06					*02:01	*06:02			*04:01	*11:01	SBT	
278	Lee , Jar-How	*03:01	*08:06	3*01:01	*01:02	*05:01		*02:01	*06:02	*01:03	*02:01	*04:01	*11:01		
2400	Liu , Chang	*03:01	*08:06		*01:02	*05:01		*02:01	*06:02			*04:01:01G	*11:01		
731	Loewenthal , Ron	*03:01:01G	*08:06					*02:01:01	*06:02:01					SSO SBT	
8042	Muncher , Liora	*03:01	*08:06	3*01:01	NT	NT		*02:01	*06:02	NT	NT	NT	NT	SSP SSO	
54	Pancoska,Carol					*05:01				*01:03	*02:01	*04:01	*11:01	SSO	
3966	Perpikul , Vejbae	*03:01	*08:06	3*01:01				*02:01	*06:02					SSP	
8001	Rao , Prakash	*03:01	*08:06	3*01:01				*02:01	*06:02			*04:01	*11:01	SSP SSO	
3753	Reed , Elaine F.	*03:01:01:01	*08:06	3*01:01	*01:02	*05:01		*02:01:01	*06:02:01	*01:03	*02:01	*04:01:01	*11:01:01	SSO NGS	DRB3*01:04, DQA1*01:08/*01:09/ *01:11/*01:13
3519	Renac , Virginie	*03:01	*08:06	3*01:01	*01:02	*05:01		*02:01	*06:02			*04:01	*11:01	SSP SBT	DPB1*350:01
1160	Rosen-Bronson , S											*04:01	*11:01	SSO	
793	Rubocki , Ronald				*01:02	*05:01						*04:01	*11:01	SSP	
4251	Schiller , Jennifer	*03:01	*08:06					*02:01	*06:02			*04:01:01G	*11:01	SSO SBT	
747	Tiercy , Jean-Marie	*03:01	*08:06	3*01:01	*01:01/ *01:02	*05:01		*02:01:01	*06:02:01			*04:01	*11:01:01	SSP SSO SBT	DQA1*01:08/*01:09, DQA1*01:11
5451	Tilanus , Marcel G	*03:01:01	*08:06											SSO SBT	
5642	Varnavidou-Nicola	*03:01	*08:06					*02:01	*06:02					SSP	
3511	Zeevi , Adriana	*03:01	*08:06	3*01:01	*01:02	*05:01		*02:01	*06:02			*04:01	*11:01	SSP SSO	

Table 7: Individual laboratory results for B-cell #526-Class II

Serology									
CTR	DIRNAME	DR17	DR8	DR52	DQ2	DQ1		OTH1	OTH2
910	Hahn,Amy B.	+		+	+	+		DR14	
4908	Kvam,Vonnet	+	+	+	+	+			

Table 8: Individual laboratory results for B-cell #526-Class I

Center	Investigator	Low Resolution						High resolution						METHOD	Other Alleles
		HLA-A		HLA-B		HLA-C		HLA-A		HLA-B		HLA-C			
5488	Adams , Sharon	*24	*26			*04	*12			*35:02:01	*38:01:01			SSP SSO SBT	
5462	Arnold , Paula	NT												SSP SSO SBT RT-PCR	
5133	Askar , Medhat	*24	*26	*35	*38	*04	*12	*24:02:01	*26:01:01	*35:02:01	*38:01:01	*04:01:01	*12:03:01	SSO SBT NGS	
4492	Caillat-Zucman , Sc							*24:02:01:01	*26:01:01	*35:02:01	*38:01:01	*04:01:01	*12:03:01:01	SSO NGS	
774	Cecka , J. Michael	*24	*26	*35	*38	*04	*12			*35:02				SSP SSO	B*35:129N/*35:182/*35:183/*35:211/*35:220
9916	Charlton , Ronald K	*24	*26	*35	*38	*04	*12	*24:02	*26:01:01	*35:02:01	*38:01:01	*04:01:01	*12:03:01:01	SSP SBT	
3224	Chen , Dong-Feng	*24	*26	*35	*38	*04	*12	*24:02:01	*26:01	*35:02	*38:01	*04:01:01G	*12:03:01G	SBT RT-PCR	
8021	Clark , Brendan	*24	*26	*35	*38	*04	*12							SSO	
3632	Colombe , Beth W.													SSP SSO	
5130	Costeas , Paul A.	*24	*26	*35	*38	*04	*12	*24:02	*26:01	*35:02	*38:01	*04:01	*12:03	SSP SSO	A*26:58
779	Daniel , Claude	*24	*26	*35	*38	*04	*12								
5219	Daniel , Dolly	*24	*26	*35	*38	*04	*12								
1108	DeConinck , Martha	*24	*26	*35	*38	*04	*12							SSO	
87	Di Paola , Nicholas	*24	*26	*35	*38	*04	*12							SSP	
5214	Eckels/CPMC ,	*24	*26	*35	*38	*04	*12							SSO	
3135	Enczmann , J							*24:02	*26:01	*35:02	*38:01	*04:01	*12:03		C*04:09N
792	Gandhi , Manish	*24	*26	*35	*38	*04	*12	*24:02	*26:01	*35:02	*38:01	*04:01	*12:03	SSP SSO SBT	
8087	Guerra , Q.F.B. Elb	*24	*26	*35	*38	*04	*12							SSO	
810	Hamdi , Nuha							*24:02	*26:01	*35:02	*38:01:02	*04:01	*12:03	SSO	
1694	Hesse , Nicole	*24	*26	*35	*38	*04	*12							SSP	
2344	Hurley , Hartzman&							*24:02:01:01	*26:01:01	*35:02:01	*38:01:01	*04:01:01	*12:03:01	NGS	
794	Jaatinen , Taina	*24	*26	*35	*38	*04	*12	*24:02	*26:01	*35:02	*38:01	*04:01	*12:03	SSP SSO SBT RT-PCR	C*04:30/*04:82M, C*12:143
8086	Keming , Du							*24:02	*26:01	*35:02	*38:01	*04:01	*12:03	SSP SSO SBT	
4337	Kim , Tai-Gyu							*24:02	*26:01	*35:02	*38:01	*04:01	*12:03	SBT	
278	Lee , Jar-How	*24	*26	*35	*38	*04	*12	*24:02	*26:01	*35:02	*38:01	*04:01	*12:03		
6649	Lim , Young Ae													SSP	
2400	Liu , Chang	*24	*26	*35	*38	*04	*12	*24:02	*26:01	*35:02	*38:01	*04:01	*12:03		
206	McAlack , Robert	*24	*26	*35	*38	*04	*12								
8042	Muncher , Liora	*24	*26	*35	*38	*04	*12	*24:02	*26:01	*35:02	*38:01	*04:01	*12:03	SSP SSO	
2847	Murase , Junko	*24	*26	*35	*38	*04	*12							SSO	
54	Pancoska , Carol	*24	*26	*35	*38	*04	*12							SSO	
3966	Permpikul , Vejbaes	*24	*26	*35	*38	*04	*12							SSP	
3753	Reed , Elaine F.							*24:02:01:01	*26:01:01	*35:02:01	*38:01:01	*04:01:01:01	*12:03:01:01	SSO NGS	
3519	Renac , Virginie	*24	*26	*35	*38	*04	*12	*24:02	*26:01	*35:02	*38:01	*04:01	*12:03	SSP SBT	
4251	Schiller , Jennifer	*24	*26	*35	*38	*04	*12	*24:02	*26:01	*35:02	*38:01	*04:01P	*12:03:01G	SSO SBT	
8068	Shanmugam , Hem	*24	*26	*35	*38	*04	*12							SSO	
8029	Tarigopula , Anil	*24	*26	*35	*38	*04	*12							SSO	
8052	Yanina Marcos , Cir	*24	*26	*35	*38	*04	*12							SSO	