

DRB1*13 SSP subtyping

Amplification patterns of the DRB1*13:01 to *13:103 alleles

[illegible]

Length of spec.	175	200	200	170	220	215	200	190	270	260	205	215	145	150	85	150	220	110	110	180	175	110	115	145
PCR product(s)															235		255	230	205	205	220	175	235	180
																		260	225			255		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
*13:01:01-13:01:02, 13:01:04-13:01:08	1	2				6		8		10		12				16								
*13:01:03	1	2				6		8		10		12				16							23	
*13:02:01, 13:02:03- 13:02:04	1	2				6	7		9			12				16								
*13:02:02	1	2				6	7		9			12					17							
*13:03:01-13:03:06	1	2		4	5				9			12	13											
*13:04	1	2		4		6				10		12		14										
*13:05:01-13:05:02	1		3		5		7		9															
*13:06	1	2			5			8		10														
*13:07:01-13:07:02	1		3		5				9				13											
*13:08	1	2				6				10		12	13	14		16								
*13:09	1	2				6		8		10	11													
*13:10	1	2			5			8		10		12												
*13:11:01-13:11:02	1		3		5					10														
*13:12	1	2		4	5				9				13											
*13:13	1	2		4	5				9				13					18						
*13:14:01-13:14:03	1		3		5				9															
*13:15	1	2				6		8		10		12			15	16								
*13:16	1	2				6						12				16			19					
*13:17														14					20					
*13:18	1		3		5			8		10								18						
*13:19	1	2				6				10		12	13	14	15	16								
*13:20	1					6		8		10	11	12				16								
*13:21:01-13:21:02	1		3	4	5				9															
*13:22	1	2				6				10		12		14										
*13:23	1	2				6			9			12		14										
*13:24	1		3			6				10		12		14										
*13:25	1				5				9		11													
*13:26	1		3		5		7		9			12	13		15		17							
*13:27	1	2				6		8		10		12				16					21			
*13:28	1	2				6		8		10		12				16	17						23	
*13:29	1					6	7		9		11	12				16								
*13:30	1	2		4	5				9															
*13:31	1	2				6	7		9			12				16						22		
*13:32	1	2		4		6		8		10		12	13			16								
*13:33:01	1	2		4	5				9			12	13		15									
*13:33:02-13:33:03	1	2		4	5				9			12	13					18						
*13:34	1	2				6	7		9			12				16							23	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Length of spec.	175	200	200	170	220	215	200	190	270	260	205	215	145	150	85	150	220	110	110	180	175	110	115	145
PCR product(s)															235		255	230	205	205	220	175	235	180
																		260	225			255		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
*13:35	1	2				6		8		10		12				16								24
*13:36	1	2				6	7		9			12	13			16								
*13:37	1	2			5				9			12	13											
*13:38	1	2		4		6			9			12	13	14										
*13:39	1	2				6	7		9			12				16								24
*13:40	1	2				6		8		10		12	13			16								
*13:41	1	2				6	7		9			12				16					21			
*13:42	1		3		5			8		10														
*13:43						6		8		10	11	12				16								
*13:44	1				5					10														
*13:45		2				6			9			12		14										
*13:46	1		3		5				9													22		
*13:47	1		3		5				9				13					18						
*13:48	1	2		4		6				10		12	13	14										
*13:49	1		3	4	5				9				13											
*13:50:01-13:50:02	1		3		5		7		9															
*13:51	1	2				6		8		10		12				16								
*13:52	1	2				6				10		12				16								
*13:53	1	2				6		8		10		12	13		15	16								
*13:54	1		3			6				10		12		14								22		24
*13:55	1		3	4	5				9				13					18						
*13:56	1				5		7		9		11													
*13:57	1	2				6				10		12		14	15	16								
*13:58	1	2		4	5					10			13											
*13:59	1	2				6		8		10		12				16								
*13:60	1				5				9		11	12	13				17							
*13:61	1	2				6		8		10		12				16		18						
*13:62	1		3		5				9															
*13:63	1		3			6	7		9			12				16								
*13:64	1	2				6				10		12		14		16							23	
*13:65	1	2		4		6	7		9			12	13			16								
*13:66:01-13:66:02	1	2		4	5				9			12												
*13:67							7									16			20					
*13:68	1	2				6				10		12				16						22		
*13:69	1	2				6		8		10		12		14		16								
*13:70	1	2				6				10		12	13	14										
*13:71	1					6		8		10	11	12				16					21			
*13:72	1	2				6				10		12	13	14		16								
*13:73	1	2				6	7		9			12				16			20					
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Length of spec.	175	200	200	170	220	215	200	190	270	260	205	215	145	150	85	150	220	110	110	180	175	110	115	145
PCR product(s)															235		255	230	205	205	220	175	235	180
																		260	225			255		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
*13:74	1	w				6	7		9			12				16			19					
*13:75	1		3	4		6				10		12		14										
*13:76	1	2				6				10		12	13	14		16							23	
*13:77	1	2			5			8		10		12					17					22		24
*13:78	1					6		8		10	11	12				16								24
*13:79	1	2				6		8		10		12				16								24
*13:80	1	2				6		8		10		12				16								
*13:81	1	2		4	5					10		12	13											
*13:82	1	2			5				9															
*13:83	1	2				6				10		12		14		16								
*13:84	1	2				6				10		12	13			16								
*13:85	1	2			5		7		9			12	13		15									
*13:86	1				5				9						15									
*13:87	1	2				6		8		10		12				16		18	19					
*13:88	1			4	5				9		11	12	13											
*13:89	1	2		4	5					10		12	13											
*13:90	1	2		4	5				9			12	13											
*13:91	1	2				6		8		10		12				16								
*13:92, 13:98 ⁴	1	2				6		8		10		12				16								
*13:93	1	2		4		6		8		10		12				16								
*13:94	1	2		4	5					10		12	13		15									
*13:95	1	2		4	5				9			12	13											
*13:96	1	2				6	7		9			12			15	16								
*13:97	1	2				6			9			12				16								
*13:99	1	2				6	7		9			12				16								
*13:100	1		3		5				9													22		24
*13:101	1	2		4	5				9			12	13											
*13:102	1	2				6		8		10		12				16								
*13:103							7									16					21			
*03:01:01:01- 03:01:01:02, 03:01:03- 03:01:05, 03:01:07- 03:01:08, 03:07, 03:11:01, 03:18, 03:22- 03:23, 03:28, 03:32- 03:34, 03:36-03:37, 03:39, 03:45, 03:47- 03:48, 03:50-03:51, 03:54-03:56, 03:58	1							8		10					15									
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

Length of spec.	175	200	200	170	220	215	200	190	270	260	205	215	145	150	85	150	220	110	110	180	175	110	115	145
PCR product(s)															235		255	230	205	205	220	175	235	180
																			260	225			255	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
*03:01:02, 03:11:02, 03:24	1							8		10								18						
*03:01:06, 03:01:09, 03:08, 03:46								8		10					15									
*03:02:01	1						7		9				13		15									
*03:02:02, 03:27	1						7		9				13		15			18						
*03:03, 03:06, 03:26	1							8		10			13		15									
*03:04, 03:21, 03:25, 03:30, 03:49	1									10					15									
*03:05:01-03:05:02, 03:09, 03:29	1						7		9						15									
*03:05:03	1						7		9									18						
*03:10								8		10					15									
*03:12	1			4				8		10					15									
*03:13:01	1							8		10					15									24
*03:13:02	1							8		10								18						24
*03:14	1						7		9															
*03:15	1							8		10														
*03:16, 03:20	1							8		10					15									
*03:17, 03:35	1								9				13					18						
*03:19	1							8		10					15									
*03:31	1									10			13		15									
*03:38	1						7		9				13		15						22			24
*03:40	1								9						15									
*03:41	1								9				13		15									
*03:42, 15:32								8																
*03:43	1									10					15							23		
*03:44, 03:52	1									10					15									
*03:53	1						7		9						15									
*03:57	1														15									
*04:02, 04:37														14										
*04:14														14										
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

[illegible]

*11:37, 14:25			3		5				9				13													
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Length of spec.	175	200	200	170	220	215	200	190	270	260	205	215	145	150	85	150	220	110	110	180	175	110	115	145		
PCR product(s)															235		255	230	205	205	220	175	235	180		
																			260	225			255			
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
*11:40			3			6		8		10		12				16										
*11:41			3			6				10		12	13	14												
*11:42					5					10	11															
*11:44, 11:58:02			3		5					10																
*11:45		2			5				9								18									
*11:46			3		5					10																
*11:48		2				6				10		12	13	14												
*11:50			3		5					10			13													
*11:51			3						9																	
*11:53									9																	
*11:55			3		5	6				10							18									
*11:56			3		5					10			13													
*11:57					5					10	11															
*11:58:01			3		5			8		10																
*11:59			3			6		8		10		12				16					21					
*11:64					5				9		11						18									
*11:68						6			9		11	12		14												
*11:69						6			9		11															
*11:73		2			5				9			12														
*11:76			3			6				10		12		14									23			
*11:79					5				9			12														
*11:82		2				6			9		11															
*11:83			3		5			8		10			13													
*11:85			3			6				10		12		14												
*11:86		2				6						12		14				19								
*11:88			3		5					10																
*11:93			3		5				9			12														
*11:96, 14:53			3		5				9																	
*11:98		2								10																
*12:01:01-12:01:03, 12:03:02-12:06, 12:08- 12:10, 12:14, 12:17, 12:24N-12:25																										
*14:01:02, 14:32:01, 14:75					5					10			13													
*14:02, 14:51	1				5		7		9				13		15											
*14:03:01	1				5		7		9		11		13		15		18									
*14:03:02	1				5		7		9		11				15		18									

Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Length of spec.	175	200	200	170	220	215	200	190	270	260	205	215	145	150	85	150	220	110	110	180	220	175	110	115	145
PCR product(s)															235		255	230	205	205	220	175	235	180	
																			260	225			255		
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
*14:05:01-14:05:02, 14:23:01, 14:23:03, 14:43, 14:45, 14:91, 14:96, 14:100	1				5					10			13										23		
*14:05:03	1				5					10			13												
*14:06:01-14:06:02, 14:81, 14:83	1				5			8		10			13		15										
*14:07:01-14:07:02					5				9				13										23		
*14:09	1				5		7		9				13												
*14:12:01-14:12:02	1				5			8		10	11		13		15			18							
*14:13	1			4	5		7		9				13		15										
*14:14, 14:36, 14:44:01	1				5				9				13										23		
*14:16		2				6				10		12	13	14		16									
*14:17, 14:33	1				5			8		10															
*14:18	1				5			8		10			13		15								23		
*14:19	1				5		7		9			12	13		15										
*14:20	1				5					10			13		15										
*14:21	1				5			8		10		12													
*14:22			3		5				9				13												
*14:23:02	w				5					10			13										23		
*14:24	1	2				6	7		9		11		13		15										
*14:26					5					10			13										23		
*14:27	1		3		5		7		9				13		15			18							
*14:29	1				5			8		10			13		15										
*14:30	1				5		7		9																
*14:35, 14:72					5					10													23		
*14:37	1	2				6				10	11		13												
*14:38					5					10			13					18							
*14:40	1				5				9		11		13		15			18							
*14:41	1				5				9				13		15								23		
*14:42	1				5				9														23		
*14:44:02	1				5				9				13												
*14:47, 14:89	1				5		7		9				13		15			18							
*14:48	1				5		7		9				13		15							22		24	
*14:49					5				9				13		15										
*14:52								8																	
*14:55					5					10			13					18					23		
*14:56	1									10			13										23		

Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Length of spec.	175	200	200	170	220	215	200	190	270	260	205	215	145	150	85	150	220	110	110	180	175	110	115	145
PCR product(s)															235		255	230	205	205	220	175	235	180
																			260	225			255	
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
*14:57														14		16								
*14:59	1				5			8		10			13										23	
*14:63	1	2		4	5		7		9				13		15			18						
*14:64	1				5			8		10													23	24
*14:65	1			4	5					10													23	
*14:67	1	2			5		7		9				13		15			18						
*14:69					5				9		11		13											
*14:74					5					10	11		13											
*14:77	1				5				9		11		13		15			18					23	
*14:78	1	2		4	5			8		10			13		15			18						
*14:80	1				5			8		10			13											
*14:84	1				5					10	11		13					18						
*14:85	1			4	5		7		9		11		13		15			18						
*14:87										10			13										23	
*14:94	1				5				9				13		15									
*14:95	1				5			8		10													23	
*14:97					5					10			13										23	
*14:98	1						7		9		11		13		15			18						
*14:99					5					10			13										23	
*15:10														14		16								
*15:37																								
DRB3*01:14	1								9				13					18				22	23	24
Well No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24

INTERPRETATION TABLE																			
DRB1*13 SSP subtyping																			
Amplification patterns of the DRB1*13:01 to *13:103 alleles																			
Well ⁵																			
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				
110	145	145	160	155	85	175	220	80	145	150	75	100	70	80	90	Length of spec.			
						205			255		170			130	120	PCR product(s)			
430	430	515	430	430	515	430	430	430	430	430	430	515	430	430	430	Length of int. pos. control ¹			
5' -gTC 3' 13(125)	5' -TCC 3' 32(181)	5' -gTC 3' 13(125)	5' -gTT 3' 47(227)	5' -gAg 3' 28(171)	5' -CgA 3' 71(299)	5' -CAA 3' 16(135)	5' -gTC 3' 13(125)	5' -gTT 3' 47(227)	5' -gTC 3' 13(125)	5' -gTC 3' 13(125)	5' -gTC 3' 13(125)	5' -AgA 3' 37(196)	5' -ACA 3' 67(286)	5' -gTC 3' 13(125)	5' -gTC 3' 13(125)	5'-primer(s) ²			
				5' -gAg 3' 28(171)		5' -CCA 3' 27(167)													
5' -gAA 3' 37(196)	5' -gAA 3' 67(286)	5' -ggA 3' 47(227)	5' -CCA 3' 86(344)	5' -gAT 3' 67(286)	5' -CCA 3' 86(344)	5' -gCT 3' 71(299)	5' -CTT 3' 71(298)	5' -gTg 3' 60(265)	5' -CCA 3' 48(229)	5' -CAA 3' 50(235)	5' -ACT 3' 25(161)	5' -gCT 3' 57(256)	5' -AgT 3' 77(317)	5' -ggg 3' 26(164)	5' -Agg 3' 30(176)	3'-primer(s) ³			
5' -gTA 3' 37(196)	5' -gAA 3' 67(286)	5' -CCA 3' 48(229)		5' -gAT 3' 67(286)			5' -gCg 3' 72(303)		5' -CAG 3' 85(341)		5' -TAA 3' 56(254)			5' -gTA 3' 43(214)	5' -gCA 3' 39(202)				
5' -ggA 3' 37(196)											5' -CAT 3' 86(343)				5' -CCT 3' 51(239)				
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Well No.			
																DRB1 allele			

110	145	145	160	155	85	175	220	80	145	150	75	100	70	80	90	Length of spec.
						205			255		260			130	120	PCR product(s)
															155	
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Well No.
		27	28		30											*13:01:01-13:01:02, 13:01:04-13:01:08
		27	28		30											*13:01:03
		27														*13:02:01, 13:02:03- 13:02:04
		27					32									*13:02:02
25							32									*13:03:01-13:03:06
25		27	28		30											*13:04
	26	27														*13:05:01-13:05:02
		27	28													*13:06
25																*13:07:01-13:07:02
25					30											*13:08
		27	28													*13:09
		27	28		30		32									*13:10
25		27	28													*13:11:01-13:11:02
25																*13:12
25																*13:13
25		27														*13:14:01-13:14:03
		27	28	29	30											*13:15
		27														*13:16
			28		30											*13:17
	26	27	28													*13:18
25				29	30											*13:19
		27	28		30											*13:20
25		27														*13:21:01-13:21:02
25		27	28		30											*13:22
25		27														*13:23
25		27	28		30											*13:24
25		27														*13:25
							32									*13:26
		27	28		30											*13:27
		27	28		30											*13:28
		27														*13:29
25		27														*13:30
		27														*13:31
					30							37				*13:32
25							32						38			*13:33:01
25							32									*13:33:02-13:33:03
		27														*13:34
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Well No.

110	145	145	160	155	85	175	220	80	145	150	75	100	70	80	90	Length of spec.
						205			255		260			130	120	PCR product(s)
															155	
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Well No.
			28		30											*13:35
																*13:36
25							32									*13:37
25																*13:38
		27														*13:39
					30											*13:40
		27														*13:41
	26	27	28													*13:42
		27	28		30			33								*13:43
25		27	28													*13:44
25		27						33								*13:45
25		27														*13:46
25																*13:47
25					30											*13:48
25																*13:49
		27														*13:50:01-13:50:02
		27	28		30				35							*13:51
25		27	28		30											*13:52
				29	30											*13:53
25		27	28		30											*13:54
25																*13:55
		27														*13:56
25		27	28	29	30											*13:57
25								34								*13:58
		27	28		30	31										*13:59
25							32									*13:60
		27	28		30											*13:61
		27														*13:62
	26	27														*13:63
		27	28		30											*13:64
												37				*13:65
25		27					32									*13:66:01-13:66:02
																*13:67
		27	28		30											*13:68
		27	28		30											*13:69
25					30											*13:70
		27	28		30											*13:71
25					30	31										*13:72
		27														*13:73
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Well No.

110	145	145	160	155	85	175	220	80	145	150	75	100	70	80	90	Length of spec.
						205			255		260			130	120	PCR product(s)
															155	
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Well No.
		27														*13:74
25		27	28		30											*13:75
25					30											*13:76
		27	28				32									*13:77
		27	28		30											*13:78
		27	28		30											*13:79
		27	28		30				34							*13:80
25					30		32		34							*13:81
25		27														*13:82
25		27	28		30											*13:83
25					30											*13:84
				29			32									*13:85
25		27														*13:86
		27	28		30											*13:87
25							32									*13:88
25					30		32									*13:89
25							32				36					*13:90
		27	28		30										40	*13:91
		27	28		30						36					*13:92, 13:98 ⁴
		27	28		30							37				*13:93
25					30		32						38			*13:94
25							32							39		*13:95
		27											38			*13:96
25		27														*13:97
		27													40	*13:99
25		27														*13:100
25							32								40	*13:101
		27	28		30									39		*13:102
																*13:103
																*03:01:01:01- 03:01:01:02, 03:01:03- 03:01:05, 03:01:07- 03:01:08, 03:07, 03:11:01, 03:18, 03:22- 03:23, 03:28, 03:32- 03:34, 03:36-03:37, 03:39, 03:45, 03:47- 03:48, 03:50-03:51, 03:54-03:56, 03:58
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Well No.

110	145	145	160	155	85	175	220	80	145	150	75	100	70	80	90	Length of spec.
						205			255		260			130	120	PCR product(s)
															155	
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Well No.
		27	28													*03:01:02, 03:11:02, 03:24
		27	28													*03:01:06, 03:01:09, 03:08, 03:46
																*03:02:01
																*03:02:02, 03:27
																*03:03, 03:06, 03:26
25		27	28													*03:04, 03:21, 03:25, 03:30, 03:49
		27														*03:05:01-03:05:02, 03:09, 03:29
		27														*03:05:03
		27	28					33								*03:10
		27	28									37				*03:12
		27	28													*03:13:01
		27	28													*03:13:02
		27														*03:14
		27	28													*03:15
		27	28					34								*03:16, 03:20
25																*03:17, 03:35
		27	28									38				*03:19
25																*03:31
																*03:38
25		27														*03:40
25																*03:41
			28													*03:42, 15:32
		27	28													*03:43
		27	28													*03:44, 03:52
		27														*03:53
																*03:57
				30												*04:02, 04:37
																*04:14
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Well No.

[illegible]

[illegible]

[illegible]

25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Well No.
110	145	145	160	155	85	175	220	80	145	150	75	100	70	80	90	Length of spec.
						205			255		170			130	120	PCR product(s)
											260				155	
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Well No.
					30											*14:57
																*14:59
				29								37				*14:63
		27	28													*14:64
25		27	28													*14:65
				29												*14:67
25																*14:69
25																*14:74
																*14:77
				29								37				*14:78
																*14:80
25																*14:84
												37				*14:85
25																*14:87
25																*14:94
		27	28													*14:95
																*14:97
																*14:98
25									34							*14:99
			28		30											*15:10
			28										38			*15:37
																DRB3*01:14
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	Well No.